UNDERSTANDING THE LIVED EXPERIENCE OF STUDENTS WHO SELF-INJURE DURING AN EDUCATIONAL INTERVENTION BASED ON NEUROSCIENTIFIC AND FUNCTIONAL BEHAVIOURAL PERSPECTIVES

A Thesis submitted by

Esmé Carl, BA (Ed), M.Ed

For the award of

Doctor of Philosophy

2018

Abstract

Self-injury among adolescents is a problem that many school guidance officers and other professionals face every day. These professionals often express their desire to better understand this phenomenon in order to be better equipped to reduce or eliminate the incidence of self-injury and to prevent a possible fatal outcome in the form of suicide. Despite being a well-researched topic, there is a relative paucity of research that explains self-injury as a lived experience. Hermeneutic phenomenology provided an opportunity to the researcher to gain a qualitative understanding of the 'in-the-moment' experience of adolescents during self-injury incidents.

Numerous treatment options for self-injury are available, such as face-to-face cognitive behaviour therapeutic approaches and online interventions. A number of these approaches hold the promise of being successful in treating self-injury, but more so in relation to treating the underlying symptoms of other comorbid conditions such as depression or eating disorders. These approaches were considered to be too expensive and require a commitment over a long period, which make them less feasible for use with adolescents.

This thesis incorporates an understanding of self-injury from a number of perspectives. The information about the three adolescents who participated in this research was generated by means of instruments specifically developed for this study. These instruments were embedded in a brief, online educational intervention and focused on determining the reasons for the onset and continuation of self-injury from a functional behavioural viewpoint in terms of setting events, antecedents and the role of self-injury in maintaining consequences. Instruments included an initial questionnaire, quizzes, checklists, and an ecological momentary assessment instrument where the participants recorded their thoughts, feelings, and other circumstances at the time of self-injury.

A website called 'Help for Harm' was developed for the purpose of both information (data) gathering and containing the intervention which provided the adolescents with knowledge and information about self-injury from both functional behavioural and neurobiological perspectives. Topics included behaviour basics, how the brain works, mindfulness, as well as explanations of how what had happened in the past

led to problems encountered in the present, to the extent of leading to employing self-injury as coping mechanism. This was followed by alternatives to self-injury while still meeting the functions of self-injury, namely to relieve high negative affect, among other functions.

This thesis also includes a presentation of the adolescents' lived experiences in the form of narratives, and the identification of themes in the hermeneutic phenomenological tradition. The study confirmed, as setting events, the findings of numerous previous studies regarding trauma, insecure attachment and the quality of the family context, as well as several difficulties the adolescents experience as a result. The study also confirmed that self-injury continues to be a feasible, albeit maladaptive, coping strategy to alleviate high levels of negative emotions, and that the functions that self-injury have for the individual serve to maintain self-injury over time. Underlying these findings is the neuroscientific understanding of the various aspects of self-injury.

The findings of this research expanded on the existing understanding of self-injury in a number of significant ways. This study provided an opportunity to assess the various thoughts and feelings that adolescents experience at the time of a self-injury incident, the strength of the various thoughts and feelings, other conditions that may influence the urge to self-injure, as well as the experiences immediately after an incident. Additional understanding regarding the lived experience of being involved in an online intervention also contributed to the existing understanding of self-injury. The adolescents reported that by being involved in the study they reduced the incidence of self-injury, and that further gaining an understanding of the maintaining consequences of self-injury enabled them to apply alternative behavioural choices to replace self-injury.

We can only truly understand what the 'in-the-moment' experiences of those who self-injure are by approaching such experiences from a combined functional behavioural assessment and neurobiological viewpoint, which this study has successfully accomplished. Future research endeavours should seek to replicate this study among younger adolescents as well as diverse cohorts such as immigrants, those from mixed ethnic backgrounds, and persons of sexual orientations other than heterosexuality.

Certification of Thesis

This thesis is entirely the work of Esmé Carl except where otherwise acknowledged. The work is original and has not previously been submitted for any other award, except where acknowledged.

Principal Supervisor: Associate Professor Lindy-Anne Abawi

Associate Supervisor: Dr Stephen Hughes

Student and supervisors' signatures of endorsement are held at the University.

Acknowledgements

At the end of this long research journey it is with deep appreciation that I acknowledge the many people who have contributed to this end-product in some way, but also those who cheered me on and supported me in various ways to get to this point.

Firstly I want to acknowledge the three adolescents who made this study possible by participating until the end of the research. You opened up your lives for me to 'look in' and 'see' your lived experience of this very complex phenomenon of self-injury. Thank you for persevering despite many frustrating moments with a slow Internet connection and many other practical problems you all encountered. You provided me with the opportunity to learn so much from you, to become co-author of the narratives that resulted, and enabled me to share insights with others by means of this thesis. Your narratives can help others better understand where you have come from, what you have been through, and that, despite it all, you are facing the future with hope. You filled me with admiration for your will to live.

To my family and friends, thank you for being there for me, for enquiring about my progress, patiently listening to all my woes, rejoicing with me when I successfully achieved the milestones, and for faithfully cheering me on along this journey. Enrico, Yanike, and Chrisanne, my fabulous children, thank you for being patient with me and forgiving me for not always being available as a mum, as much as I would have liked to be. Chrisanne, my beautiful daughter, thank you for all the encouragement and emotional support you have given me. You cheered me on and you cheered me up with your bright and bubbly personality so that the laughs we had together chased the blues away.

To my wonderful husband, Mike, who tolerated laptop chargers, cushions in various configurations to provide comfort during hours of writing, and endless piles of paper left wherever I was working. Thank you for picking up the slack of domestic duties and surprising me with special treats and flowers when I needed encouragement. We have survived a bumpy journey which, at times, felt like driving a four-wheel drive vehicle through 'wombat holes' and up and down gullies with

boggy mud-holes here and there for extra excitement. I look forward to our future together, spending more time camping, touring and doing the off-road driving we both enjoy, but without the company of my faithful companion of many years, my laptop.

It is with deep admiration and gratitude that I acknowledge my son Enrico's ability and knowledge in developing the website 'Help for Harm'. Your patience with me while you translated my ideas into a practical and functional application, thereby making the research possible, is admirable. Without you, my dream of using an online intervention in this study would have remained a dream.

I also gratefully acknowledge the tremendous work that Naómi, my sister, has put into making this thesis possible. For years you waited patiently for the first piece of writing to finally arrive, only to be flooded with several chapters at once, and to be met with endless frustrations while copy-editing my writing. Thank you for not giving up on me, for persevering throughout dealing with unfamiliar terminology and jargon and accepting my word for the correctness thereof. Without your help, I would not have been able to present this thesis.

To Marlene Barron, thank you for your part in making this thesis possible. Great was the relief, after many frustrating attempts to correctly format my document, to be able to pass it all on to you.

I wish to express my most sincere gratitude and appreciation to my very understanding and tolerant supervisors. To my first supervisor, Dr Patrick O'Brien, whom I always jokingly refer to as the person responsible for 'pushing' me into undertaking my PhD studies, thank you for seeing some qualities in me that I was not quite able to identify myself at the time and for expressing your belief that I would be successful in completing such a mammoth endeavour. I thank you for all the meetings, the deliberations, your guidance, as well as support to get me out of the starting blocks and on track towards reaching this point. You guided me and supported me through the first nerve-wrecking experience, namely the presentation of my research proposal, and you helped me jump through the hoops to get ethical clearance for this study. It was with much sadness and a sinking feeling bordering on

despair that I had to see you exiting from my journey when you retired. You left me in good hands, though.

To Associate Professor, Dr Lindy-Anne Abawi, my principal supervisor in whose very capable hands I was placed for the remainder of my studies, I will forever be grateful for your commitment to me. No doubt my numerous attempts at getting to this point in my research journey have caused you as much frustration as they have caused me, yet you were always there to encourage me when everything possible seemed to go wrong, when it appeared to be too dark to continue, and through all the times when I had to ask for guidance. With your professionalism you helped me navigate around the many stumbling blocks along the way. Nothing ever appeared to be too much trouble for you, and I admire you for the extra effort you have always put into reading through draft after draft. I appreciate all the precious and helpful feedback and creative suggestions. To say a mere 'thank-you' does not adequately convey my deep and sincere gratitude.

Dr Stephen Hughes, my associate supervisor, I want to thank you for your valuable feedback and for challenging my thinking at times. You questioned my 'insanity' for wanting to combine positivistic behaviourism with relativistic phenomenology and thereby made me realise that the 'logic' I could see was not necessarily clear to everybody. I appreciate your input into my effort and the encouragement you provided as you also have first-hand experience of the challenges and frustrations I regularly encounter in my job as guidance officer.

I thank the Australian Commonwealth Government contribution through the Research Training Program (RTP) Fees Offset scheme during my research.

Lastly, but most importantly, I want to thank my Creator, for having endowed me with the abilities that enabled me to successfully complete my studies. In many instances my prayers were answered with nothing less than miracles and the unmistakable moves from the hand of a loving and caring God. At times when I felt overwhelmed and tired, or that it had all become too much, you gave me strength and insight, and provided what I needed to continue. All the glory and honour belong to you, my Heavenly Father.

Dedication

I wish to dedicate this thesis to my late mother, Anna Catherina Kuipers, better known in my family as Ouma Annie, who instilled in me a love for books and reading from an early age by at first diligently reading to me many stories, including my favourites from the illustrated Children's Bible of the day. She did that with so much love and dedication, and never became angry with me for prodding her when she happened to become drowsy or dosed off while reading to a still very wide awake little girl who wanted to hear the full story. I am sure that it was with relief that Mum could step away from that duty when I became an avid and competent reader myself.

I wish to also dedicate this thesis to my late father, Christian Hendrik Hermanus Kuipers, who would have been so proud of me for reaching this milestone. How I wish that I could share this moment with him today. My dad, dearly loved and known by everyone in my family as Oupa Chris, had inspired me with the way he applied himself when he took up studying Theology at a rather mature age, which included studying Hebrew and Greek, and passing all of his exams and assignments with a mark of between 95% and 100%. My dad surely was a man of great intellect and dignity. Yet he was so humble, and always an example of complete dedication and commitment to us, his family, his job, and his hobbies of gardening and woodworking. The beautiful and cleverly crafted products that still fill my life with enjoyment are examples of the high level of perfection he attempted to achieve in everything he did in life. My dad always encouraged me to be inquisitive, to have an enquiring mind, and to not merely accept everything I read as the full and only truth, and to do everything I do as unto the Lord and therefore never to give up. It was with these qualities instilled in me that I undertook my PhD journey.

Table of Contents

List of Figures

Inception

"The researcher you are is the person you are" (Gale, 1998, p. 2). I was introduced to this statement in the title of an assignment I had to complete a few years ago. At the time, I was challenged to reflect on the truth of this statement as it applied to me, to justify the research methodology that appealed to me and that resonated with the core of who I was. I had to stop and think about the person I was in order to determine my research or 'methodological personality' (Gale, 1998, p. 4). Ever since, those words have stayed with me and have caused me to reflect on how our personal history and interests, training, attributes and experiences not only contribute to developing our world-view and the person we become, but also influence our theoretical perspective in terms of forming our ontological and epistemological views that we apply in research.

From an early age I had an interest in human behaviour and its causes. My second long-standing interest was in mental health or the absence of it. In addition, an interest in the brain and its role in how we change and behave developed in relation to my interest in mental health. In particular, the growing body of knowledge regarding the plasticity of the brain and the impact of neurochemicals on it offers much potential for application in the helping professions. In a sense, these interests, although seemingly diverse, all tie in well together. I have always wanted to acquire the necessary information that would lead to a deeper understanding of why things are the way they are, therefore I did not doubt that I would major in psychology in my undergraduate degree in education.

While Freud's reasoning fascinated me, it was really the simplicity of Skinner's behaviourist theory that made so much more sense as to what causes people to behave the way they do. Subconsciously, this interest influenced me years later when I left the classroom to work intensively with students who exhibit chronic and complex challenging behaviour. Postgraduate studies in educational guidance and counselling, further study in applied behaviour analysis (ABA) as taught by Gary LaVigna, and the practical application of Functional Behaviour Assessment (FBA) followed as a result of this inclination towards an interest in human development, learning and behaviour within a student's social context.

In this study I was the sole researcher, therefore I was personally involved in, and responsible for, each step of the data collection and analysis. My personal interactions with the participants included electronic conversations (emails), interviews, and observations during interviews. Conducting interviews and gathering information by means of interaction forms part of my daily duties, and are therefore well-practised skills that I was able to apply in the research process. Approaching each student I work with as a guidance officer from a case study perspective, has provided me with practical knowledge to apply to this study.

Now, at the end of this long research journey I have travelled towards presenting this thesis, I again reflect on the statement mentioned above. Without a doubt in my mind, I can declare that research as a completed process had a profound effect on me as a person. I have 'lived through' the experience. New meaning and understanding of what it means to be a researcher have taken shape in my writing. My lived experience is presented as a reflection to conclude the thesis. In between the 'inception' and the final reflection, I will endeavour to explain the relevant aspects of the research process. I invite my reader to engage with the phenomenon of self-injury through my writing as I present the various chapters in this thesis.

CHAPTER 1: TURNING TO THE PHENOMENON

My head racing, can't stop
My heart so broken and hurt
It stings, the first cut
It hurts so good.
I watch as the blade rips my pale skin. (18 Feb 2013, http://pro-si.livejournal.com/)

1.1. Introduction to the Phenomenon

This hermeneutic phenomenological multiple-case study sought to explore and explicate the phenomenon of self-injury among adolescents, and in particular from the adolescents studied perspective of their lived experience. Applying a phenomenological stance (van Manen, 1990), I turn the attention of the reader to this phenomenon in which I have such a deep interest. By providing a brief overview of self-injury, my hope is that the reader will become as deeply interested as I am, and that the information will add to the reader's pre-understanding, as it did for me. I invite the reader to follow this journey of discovery towards a deeper understanding of this complex phenomenon.

For the purpose of this study, self-injury is considered to be the deliberate or intentional destruction of body tissue via various means in the absence of suicidal intent (Klonsky & Muehlenkamp, 2007; Nock, 2009), that is typically repetitive in nature (Favazza, 2012) and results in mild to moderate harm only (Suyemoto, 1998).

The phenomenon of self-injury has been recognised for centuries and many examples of these acts exist in historical writings and the visual arts (Levekron, 1998; Messer & Fremouw, 2008). Favazza (2012) explains that non-pathological self-injury includes those acts associated with religious rituals and spiritual goals, for instance Hindu skin-piercing, as well as culturally significant and sanctioned acts such as initiation rites, and rites of passage from childhood to adulthood. Included in this category are also body piercings related to wearing jewellery, tattoos and other forms of body adornment that are considered socially acceptable (Favazza, 2012).

Pathological acts of self-injury, on the other hand, are socially aversive and can be divided into four descriptive types of acts, namely (1) major, (2) stereotypical, (3) compulsive, and (4) impulsive acts (Favazza, 2012). The first three of these largely constitute the general public's knowledge of self-injury. Favazza explains that major pathological acts are severe, and that infrequent forms of mutilation such as auto-enucleation (removal of one's eye) are typically associated with psychotic states, such as are experienced in schizophrenia. Stereotypical acts of self-injury include repetitive head banging and face slapping or self-biting, and are often associated with profound cognitive impairment (Borrero, Vollmer, Wright, Lerman, & Kelley, 2002; Favazza, 2012; Horner & Day, 1991), autism (Iwata, Dorsey, Slifer, Bauman, & Richman, 1994; Weiss, 2002) and the presence of multiple impairments (Dunlap, Kern-Dunlap, Clarke, & Robbins, 1991). Compulsive acts are repetitive in nature and include hair-pulling, nail-biting, and delusional parasitosis or skin digging (Favazza, 2012). These acts are not widely socially acceptable and constitute a maladaptive way of coping with a variety of stressors.

In recent decades, the fourth type, namely the impulsive, episodic acts of self-injury (Whitlock, Lader, & Conterio, 2007), has increasingly come to the attention of teachers, youth support workers, chaplains, parents, and the wider community. Unfortunately, this awareness is accompanied by a lack of understanding and often with thoughts of alarm and revulsion (Best, 2006; Simm, Roen, & Daiches, 2010) when incidences of self-injury in mainstream schools become apparent among students with, or without, co-existing mental health issues (White Kress, Drouhard, & Costin, 2006; White Kress, Gibson, & Reynolds, 2004). Frequently, this type of reaction by the community and others is followed by the conclusion that these behaviours are sensation- or attention-seeking attempts (Long & Jenkins, 2010) rather than an acknowledgement of the function that acts of self-injury have for individuals.

The onset of self-injury is typically during adolescence, which is a period of rapid physical, emotional, cognitive and social change to which many young people struggle to adjust, and do so in an adaptive manner. While self-injury often ceases when young adulthood is reached, it could continue well into adulthood. Once

started, self-injury can develop addictive qualities, which then makes it very difficult for the adolescent to stop (Blasco-Fontecilla et al., 2016).

Complexities in determining prevalence rates include the use of several different terms to define self-injury, as well as the controversy with regard to whether suicidal intent is included in this definition (Muehlenkamp, Claes, Havertape, & Plener, 2012). Another key obstacle to determining the prevalence of self-injury is the fact that various researchers focus on different investigable aspects, such as the form of self-injury, therefore the results from different studies sometimes result in contradictory findings. The most common form of self-injury is cutting (De Leo & Heller, 2004; Messer & Fremouw, 2008). Many other forms are found in the literature such as burning with cigarettes (Messer & Fremouw, 2008) and ingesting toxic substances (Whitlock, Eckenrode & Silverman, 2006) among others.

Determining the prevalence rates of self-injury is further complicated by the use of different approaches to research, namely sampling methods, instrument types used, time frames of incidents, for example life-time history versus last 12 months, and whether self-injury is viewed as a symptom of another psychiatric disorder (Messer & Fremouw, 2008). De Leo and Heller (2004) explain that investigations have traditionally been based on medical treatment such as hospital presentations.

Additionally, help-seeking behaviour among adolescents who self-injure, has mostly been researched from a medical perspective. This has contributed to contradicting statistics. Recent research has focused more on population samples, and it was found that adolescents usually do not seek help from health providers (Hawton, Rodham, Evans, & Harriss, 2009; Whitlock, Eckenrode & Silverman, 2006). Those who do are more likely to have taken an overdose of a substance, rather than applying any other form of self-injury (Hawton et al., 2009).

Important barriers to help-seeking are complex emotions (Fortune, Sinclair, & Hawton, 2008; Glasheen & Campbell, 2009) and the belief that self-injuring individuals can cope on their own and therefore do not need help. There is evidence, however, that adolescents increasingly access the Internet for information about self-injury and support from others who self-injure (Glasheen & Campbell, 2009).

Despite contextual factors related to participants causing difficulties in determining the prevalence rate, it was previously established that between 12 to 23% of adolescents indicated they had injured themselves (Washburn et al., 2012). In their recent review, Brown and Plener (2017) found lifetime prevalence rates of between 17% among adolescents in the community, and rising to 60% in clinical settings.

Although there is a correlation between self-injury and suicide (Gask & Morriss, 2006; Hill, Castellanos, & Pettit, 2011; Kapur & Gask, 2006; Robinson, Gook, Yen, McGorry, & Yung, 2008), it is necessary to make a clear distinction between the two phenomena, based on the intended outcome **(**Whitlock, Eckenrode, & Silverman, 2006). While suicide has the intent to end a life, self-injury is an attempt to relieve high negative affect**.**

Various risk factors or predictors have been identified for the onset and continuation of self-injury. An important predictor is insecure attachment, often of the disorganised type, due to a history of early childhood maltreatment, and more specifically physical and sexual abuse (Swannell et al., 2012). Being female, coming from a single-parent household, having had to endure adverse socio-economic circumstances, and possibly having another mental health condition such as borderline personality disorder, anxiety, or depression, are other major predictors (Laghi et al., 2016). From a social point of view, predictors often include having had victimisation experiences (Heilbron & Prinstein, 2010) such as bullying, being exposed to friends who self-injure (Hasking, Andrews, & Martin, 2013), being socially isolated, and having chronic difficulty with interpersonal relationships and communication (Andrews, Martin, Hasking, & Page, 2013).

Characteristics found among adolescents who self-injure include: impaired executive functions (Kirke-Smith, Henry, & Messer, 2014) and cognitive distortions (D'Andrea, Ford, Stolbach, Spinazzola, & van der Kolk, 2012; Weismoore & Esposito-Smythers, 2010); experiencing high negative affect and emotional dysregulation (Jenkins & Schmitz, 2012); having low self-esteem and negative body image (Duggan, Toste, & Heath, 2013; Muehlenkamp & Brausch, 2012); impulsivity (Hamza, Willoughby, & Heffer, 2015; Janis & Nock, 2009); and, disturbed sleep patterns (Hysing, Sivertsen, Stormark, & O'Connor, 2015; Liu,

Chen, Bo, Fan, & Jia, 2017). Of importance are the reinforcing qualities of self-injury.

It is clear that self-injury is a well-researched, complex phenomenon that has elicited much attention, from a variety of perspectives, to which a wide range of research methodologies has been applied. Nevertheless, a new nonsuicidal self-injury disorder has been included in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013, p. 803) as a condition requiring further study.

1.2. Background to the Study

Having been asked the question why I chose to engage in an investigation into a sensitive topic such as self-injury among adolescents, required a deep reflection and honest appraisal of my motivation. Fellow doctoral candidates and colleagues expressed their opinion that they questioned the wisdom of the decision. None-the-less, I decided to embark on this journey called 'research', knowing full well that there would be a myriad of factors that could impact on the successful completion of the study. I could have chosen any other topic, but my reflection brought enlightenment, which I passionately shared with those who questioned my sanity.

The reason was quite simple.

As a school-based guidance officer I was confronted with an increasing number of adolescents who engaged in self-injury by various means and to various degrees of severity. While it is usually performed in private, I knew about such acts being carried out at school. I have listened to numerous stories of horrendous and unimaginable trauma experienced, and how it led to a state of hopelessness, resulting in decisions to apply maladaptive coping strategies such as self-injury. Sometimes the enormity and complexity of these students' situations left me feeling helpless, despite helping them to the best of my ability. I was sure that other professionals felt the same and the various professions involved would benefit from such a study.

Many students interviewed reported that coping strategies or alternatives to cutting suggested by others, such as flicking a rubber band at themselves to substitute the pain, or drawing on their arms in red ink to represent blood, really did not work for them. Many times, students told me that these commonly suggested strategies were not only useless, but often led to more intense frustration and an unwillingness to further communicate with the adults who had suggested these strategies, thereby limiting help-seeking opportunities. My attempts to help these troubled young people were not always in vain or without success, though.

The behaviourist perspective allowed me to think logically about how it happens that self-injury, as a behaviour, occurs over and over again, as if in a cycle. Something must 'trigger' the behaviour under certain circumstances, but something must also happen as a result that reinforces it so that self-injury becomes the behaviour of choice to deal with the circumstances that lead to it. I approached self-injury as a behaviour, as it was presented in my office, from this logical perspective. I started to use a graphic organiser, which I call the "Behaviour Cycle Graphic Organiser" (Appendix A). I adapted this tool from the model widely used in Positive Behavioural Interventions and Supports (PBIS) to manage escalated behaviour in classrooms (Colvin & Sugai, 1989; Sugai, 2015).

Graphic organisers and visual representations are often more useful than words in psychological treatment (Dansereau & Simpson, 2009), therefore the visual representation of self-injury as a behaviour cycle helped the students to better understand their behaviour and its origins. To that, I added a simple explanation of what happens in their brains during the various stages of the self-injury cycle. That not only fascinated them, but also led to understanding, which I believe led to empowerment and a willingness to change their ways of coping. It was, however, very difficult to determine the triggers for them at the time of a self-injury incident, as such triggers were based on retrospective recollections, which can be inaccurate, distorted, or incomplete, especially where adolescents are concerned (Hamza & Willloughby, 2013; Hargus, Hawton, & Rodham, 2009; Nock, Prinstein, & Sterba, 2010). I also found that these young people were often not very skilled in verbal expression.

For me, the decision to apply for a doctoral candidature was therefore strongly motivated by a desire to better understand what was happening at the time these adolescents wanted to harm themselves. My reasoning was that if I could better understand what it was really like for them, I would be better able to address the underlying problems that had caused the self-injury in the first place and help them overcome the need to self-injure.

Only an increased understanding could help me dispel the myths regarding this phenomenon. I wanted to be able to give a voice to these often marginalised and branded young people. I wanted to better understand what it really is like for them so that I could respond more appropriately to uninformed people who would ask me "Why on earth would anyone in their right mind want to hurt themselves and then claim that it makes them feel better?"

The analogy of an incomplete artwork was what immediately came to mind when, right at the beginning of my research, I was required to develop a visual representation of how I anticipated the research process developing. Being a visual learner with some artistic talent, and often being able to visualise a solution to a problem, a process, or cause and effect in a situation, I started visualising my proposed research study. I had a very sketchy knowledge of self-injury after having done the basic literature review required for my research proposal, combined with knowledge gained through the experiences shared with me in my office by students who were self-injuring. In my imagination, reflecting on how little I really knew then, a line drawing as point of departure for my inquiry seemed an appropriate analogy. I could visualise that, through engaging in qualitative research, I would be able to add layer upon layer of deep and rich understanding and meaning, similar to an artist adding colour to the line drawing, until a competed artwork would result. In this instance it would mean a deeper understanding of the phenomenon of self-injury. This analogy or visual representation is in Appendix B.

Why did I choose hermeneutic phenomenology, when at the heart of it is the act of writing (van Manen, 1990), and while I knew from experience that adolescents who had experienced complex trauma in their lives often struggled with expressing their thoughts, feelings, and experiences linguistically? A hermeneutic phenomenological approach appeared to offer the possibility of finding out what it

was really like for these adolescents who engaged in self-injury. I was willing to face the challenge and work around the limitations that could prevent me from accurately presenting the accounts of their lived experiences. Reflecting on the statement made by Gale (1998) referred to earlier, I then had an "aha" moment when I realised that all along I had a phenomenological point of view, namely to question the meaning and significance of what we find in life (phenomena). With my analogy in mind, I could relate to van Manen's (1997) statement that phenomenological inquiry resembles an artistic endeavour.

1.3. Research Problem

From my interaction with students who self-injure it became clear to me that there were certain common elements or themes in their stories; however, every story was also intensely unique. Many questions arose that begged to be explored and researched. The divergent findings in the existing literature confirmed that no clear explanation can be found to answer what I wanted to know. There was still a fragmented and unclear understanding of the phenomenon in terms of what exactly it is that these adolescents experience, and what else is happening for them at the time when they injure themselves. This factor presented itself as a clear research problem.

1.4. Research Questions and Purpose

My attention to the research problem as outlined above logically led to the formulation of the research questions. The overarching question addressed in this study is: *What are the lived experiences of adolescents who self-injure both before and after engaging with an intervention strategy based on neuro-science and functional behaviour perspectives*? More specifically, the study also investigated the following sub-questions:

1. How do adolescents describe their 'in the moment' experiences of self-injury and the reasons underpinning their actions?
2. In what ways did engagement with the intervention strategy affect the 'in the moment' and subsequent lived experiences of self-injury?

3. What implications arise from these findings - for the adolescents themselves, for support professionals, and for future research directions?

The impetus for this study therefore contains a number of strands. Essentially, I argued that it is crucial to gain a better understanding of how adolescents experience self-injury while they are engaging in such an act, as it is lived, instead of relying on retrospective recollections of what they thought and felt at a particular time, as well as the motivation for continuing to do it. Furthermore, investigating how they experience participating in an educational intervention in respect of self-injury could potentially lead to an even deeper understanding of the phenomenon and could possibly inform future intervention and support approaches. From this train of thought, the idea was born of establishing a website which could host not only the information included in the educational intervention, but also the gathering of 'in the moment' evidence as recorded by participants.

1.5. Research Design Overview

The research questions, with the focus on lived experiences, could not be answered other than through a qualitative approach, which is in essence inductive in nature, and therefore promises the discovery of new meanings. Within the qualitative paradigm, a hermeneutic phenomenological methodology appeared to be the best way of gaining new insights by uncovering the lived experience of a self-injury episode, and to also interpret it, so that the appearance (ontic) and essence (ontology) of this complex phenomenon could be better understood. Hermeneutic phenomenology denotes the narrative or linguistic interpretation (hermeneutic) and description (phenomenology) of human experiences as they are 'lived' (van Manen, 1990), as they make sense to that specific individual.

Van Manen (1990) explains that in the hermeneutic phenomenological approach there is no prescribed or set method in the traditional scientific sense. He suggests that research is the dynamic interplay of six research activities, namely turning to a phenomenon, investigating lived experience, reflecting on essential themes, describing through writing and rewriting, maintaining orientation, and balancing the research context. What is important is that pathways (procedures and

techniques) should be invented to arrive at the best possible understanding of the phenomenon and to suit a particular study as determined by the research questions.

Based on that statement, I reflected on the research questions. What exactly was it that I wanted to know? Why did I want to know it? What was going to be the best way to get the information I needed? What should the intervention look like in order to incorporate a teaching aspect, as well as a way of investigating self-injury as it is experienced by the participants at that exact time, and that would overcome the problem of retrospective reporting? These and other questions led to the development of the intervention as well as each of the instruments used in the study. Chapter 5 provides a detailed explanation and description of the intervention and instruments which establish the context of the study.

After receiving departmental (Queensland Department of Education) approval to conduct the research (after an extensive process that lasted for over a year) purposeful sampling was used to select participants who were engaged in self-injury at the time. This was for the purpose of investigating their lived experience, thereby ensuring that rich descriptions would be the outcome. Participants were also chosen based on their ability and willingness to verbally, whether in written or oral format, engage with the research process. Guidance officers from participating schools identified students from their caseloads who were self-injuring at the commencement of the study. The students were precluded if their parents were not aware of the self-injury, or if the students were considered to have a suicidal ideation.

In hermeneutic phenomenological research, data collection and data analysis are not separate activities and do not occur in a linear or sequential fashion. In designing this study, it was therefore planned to generate information (data) by means of the students' completion of tasks using online instruments that were incorporated in the intervention, on a secure website called 'Help for Harm'. As information became available, case conceptualisation could begin (Flick, 2014) that would provide an original text that could be explored for deeper meaning (van Manen, 1990). The information obtained from the intervention instruments was intended to subsequently be used to develop semi-structured interview questions that were unique for each participant, in order to extract the meaning each of the students

attached to the phenomenon. Together, the participants and I would enter the hermeneutic spiral (circle) of giving attention to the whole of the phenomenon to understand its parts, in order to understand the parts so as to come to a deeper understanding of the whole phenomenon.

In practice it meant that as the researcher, I had to interpret the information and present it to the participants, who would then be required to clarify, expand upon, or edit the written accounts. This process was to be repeated until the participants confirmed that their narratives presented true accounts of their lived experiences of self-injury, both at the time of an incident, and during completion of the intervention. It would also include the identification of essential themes within each narrative, and across the cases, against the background of the existing literature.

1.6. Assumptions and Limitations

I entered this study with the following assumptions:

- As researcher I am the facilitator for the interpretation of meaning and the participants are co-creators of the narratives describing their lived experience
- As researcher I am not free from my values, thus I had to prevent these values from standing in the way of exploring 'meaning' to the full
- Interpretations would generate an understanding that is unique and individual to each participant. Although comparisons of essential themes of the lived experiences would also contribute to deeper understanding, generalisability would not be the aim, as phenomenology is a theory of the unique (van Manen, 1990).
- Self-injury as a behaviour influenced by its functions can be described in terms of a lived experience in the hermeneutic phenomenological tradition.

A number of limitations were identified and will be discussed in detail in Chapter 8.

- An unplanned limitation pertaining to this study was the fact that the planned synchronous online sessions did not eventuate. Surprisingly, the participants were resistant to meeting in this manner. This limitation did

not have a negative effect on the trustworthiness and strength or outcome of the study, as alternative measures were taken to arrive at the intended outcome.

- A second limitation that arose from the previous point is that the usability of the graphic organiser in an online setting could not be assessed. This limitation also did not have a negative effect on the trustworthiness and strength or outcome of the study. The instrument was applied in a face-to-face meeting instead and its usability in relation to the research questions was confirmed.
- It was planned that the participants would be able to complete more sessions online to record their experiences during an episode of self-injury. A limited number of sessions were completed by each participant, due to slow Internet connections or the unavailability thereof. Sufficient information was, however, provided to produce accurate accounts of the lived experiences.

These identified limitations did not reduce trustworthiness and strength of the study when answering the research questions or solving the research problem relevantly because the 'work-around' changes were effective. In addition, the limitations did not have a negative impact on the presentation of trustworthy narratives or the identification of the main essence of the lived experience of self-injury because participants ultimately agreed on the accuracy of the final representations of their lived experiences.

1.7. Outcomes and Significance of the Study

Detailed explanations of the outcomes and significance of this study, and how these outcomes contribute to the existing knowledge base can be found in Chapter 8. In brief, the outcomes of this study are considered to be in the first place that they addressed an identified gap in the literature, namely to investigate self-injury at the time of an incident. It also provides an initial evaluation of a brief online intervention for self-injury that includes functional-behavioural as well as neuroscientific information, thus providing insights into the lived experience of self-injury before, during and post-intervention.

During the intervention, instruments that were specifically developed for this study made it possible to gather information (data) electronically. The instruments could potentially be used in future research. Furthermore, the usability was confirmed of a graphic organiser as an instrument for the interpretation of meaning and presentation of lived experience. Lastly, it was found that incidents of self-injury decreased as a result of the participants developing a better understanding of the neurobiological and functional-behavioural information provided to them. Similar to the findings of other studies (Jaffe, DiLillo, Hoffmann, Haikalis, & Dykstra, 2015, McClain & Amar, 2013; Muehlenkamp, Swenson, Batejan, & Jarvi, 2015; Smith, Poindexter, & Cukrowicz, 2010), having participated in the research actually led to a positive outcome, in this case, a reduction in self-injury. Self-injury was replaced by what could be considered as socially more acceptable behaviours, which ultimately provided the participants with behavioural options unknown to them previously.

1.8. Organisation of the Chapters

This thesis is presented in eight chapters, followed by a final reflection of my lived experience as researcher**.**

Chapter 1: **Turning to the Phenomenon**, forms part of the "*turning towards the phenomenon*" research activity and identifies the background to the study, the research questions, the chosen research design, as well as the significance of the study. It also explains my pre-understanding of the phenomenon.

Chapter 2: **Self-injury, the Phenomenon** also forms part of the *"turning towards the phenomenon"* research activity and explores the existing literature specifically pertaining to all aspects related to the phenomenon of self-injury, such as form, prevalence, and risk factors, as well as models and means of assessment and intervention. In addition, it explores literature regarding the functional-behavioural perspective, and the neurobiology of the phenomenon, complex trauma, effects of the trauma leading to self-injury, and of interventions.

Chapter 3: **Conceptual Framework** presents the overall blueprint for this study in a diagram and explains its parts.

Chapter 4: **Methodology** describes the philosophical foundations of the study. It demonstrates how the second research activity, that is *"investigating the experience as it is lived",* was practically applied in this study. Also included are the actions of the sixth research activity, namely *"balancing the research context by considering the parts and whole"*, which considers ethical issues and the context of the study such as the procedures and approaches that are unique to the study, and the working and reworking of the narratives.

Chapter 5: **Deconstructing the Research Setting** explores and explains the online intervention as the setting for the second research activity, namely *"investigating the experience as it is lived".* It explains the rationale for using the unusual combination of a functional-behavioural and neuroscientific approach, traditionally viewed as being positivistic, in a hermeneutic phenomenological research design, viewed as being deconstructivist/constructivist/interpretivist.

Chapter 6: **Narratives of Lived Experience** presents the culmination of the fourth research activity, namely that of *"describing the phenomenon through writing and re-writing"* to arrive at the unique stories of the participants' lived experience.

Chapter 7: **Units of Meaning** explains the application of the third research activity which is *"reflecting on the essential themes characteristic of the phenomenon".* It presents the fusion of pre-understanding and subsequent deeper understanding where themes, or units of meaning, are identified in each case, and compared across the cases.

Chapter 8: **Discussion** contains discussions of how the study's findings relate to research literature, this study's contribution to knowledge, limitations of the study, and implications for future research.

1.9. Summary

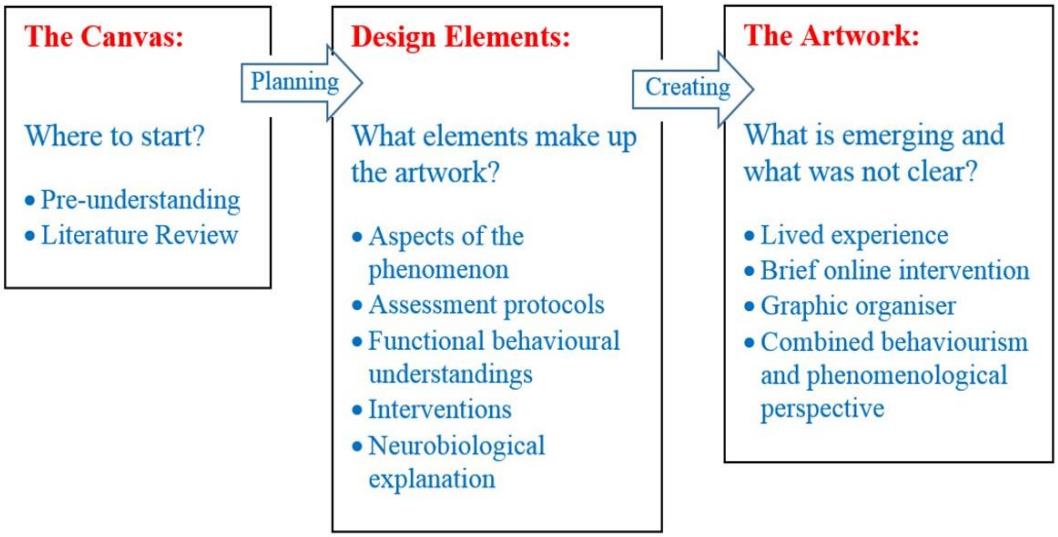
In the Inception I introduced myself as researcher. In this chapter I explained how this study came about by sketching the situation I found myself in as a person and a professional in a helping profession. A brief introduction to self-injury explained the reason why additional research was necessary and laid the foundations

for the rest of the thesis, as well as provided the reader with a pre-understanding of self-injury. I then presented the problem I had identified and wanted to address. From this problem, specific research questions were formulated. With those questions in mind, the research design and development were briefly explained. I posited that by having used a specific graphic organiser in dealing with challenging behaviour, I found that such an instrument could have the same positive effect in a research study, especially when combined with an online educational intervention. Prior assumptions were mentioned and limitations of the study explored. This chapter also illustrated the organisation of the remaining chapters as a road map for the reader. Built on these foundations, I can now proceed with a detailed description of the research process which revealed the deeper understanding of self-injury as a lived experience.

CHAPTER 2: SELF-INJURY, THE PHENOMENON

2.1. Introduction

As the creator of the final artwork – the complex picture of the lived experiences of teenagers who self-injure prior to, during, and post an online intervention strategy – three quite distinctive patterns of thinking helped to guide the creative process. This thinking is captured at the beginning of key chapters under the headings of the 'The Canvas', 'Design Elements' and 'The Artwork' as can be seen above. These considerations will then be expanded on within some chapters where applicable to explain the development of a deeper understanding of the phenomenon.



The purpose of this chapter is to prepare the canvas of existing knowledge by reviewing the literature related to the multifaceted and intriguing phenomenon of self-injury, in order to add to existing pre-understandings when creating the artwork. Added to the already existing complexities related to the fundamental questions usually asked is the multidimensionality of the phenomenon, which prompted the systematic review of the literature. This review identified various elements that needed consideration before moving forward with the research design. The remainder of the chapter is consequently organised into categories to reflect these elements to include available assessment protocols, understanding a functional behavioural approach, possible intervention approaches, as well as providing a neurobiological explanation to the aspects of self-injury. The chapter concludes with

evidence of the possible contribution this study can make to the existing body of knowledge.

2.2. A Complex Phenomenon

Self-injury is the deliberate or intentional harm done to the self in the absence of suicidal intent (Klonsky & Muehlenkamp, 2007; Nock, 2009). This phenomenon has been recognised for centuries and historical writings and the visual arts offer many examples of self-injury (Levekron, 1998; Messer & Fremouw, 2008). Historically, mental illness and evil influences were often mentioned as the reason for self-injury (Adler & Adler, 2007; Laghi et al., 2016). Recorded instances of self-injury, for instance, date back to Biblical days. In Mark 5:5 (New International Version) it is recorded that Jesus cured a man by exorcising the demon that had caused him to dwell among the tombs, to cry out, and to cut himself with stones.

According to Adler and Adler (2007), public knowledge of self-injury began to rise in the late 1990s when depictions of it increasingly appeared in books, films, television shows, newspapers and magazines, as well as other media. Appearances in movies about self-injury, and interviews with famous people who self-injured, such as Johnny Depp, Princess Diana, Angelina Jolie and Drew Barrymore, are considered to romanticise the behaviour and encourage copycat behaviour (Adler & Adler, 2007; Purington & Whitlock, 2010). Then, the 2000s brought Internet sites, chat rooms, and social media where self-injurers could interact and learn more about the behaviour (Adler & Adler, 2007), share their experiences, and elicit social support and reinforcement (Moreno, Ton, Selkie, & Evans, 2016). In addition, the increased post-2001 awareness of self-injury can be accredited to the increase in music lyrics containing reference to self-injury (Purington & Whitlock, 2010).

In the 1950s, self-injury became recognised as a symptom of borderline personality disorder (Gilman, 2013). This view of self-injury, however, has developed to acknowledge that self-injury should rather be seen as co-morbid with other psychiatric conditions, as not all people who have been diagnosed will self-injure, and only a small number of those who self-injure also have another condition (Gilman, 2013; Laghi et al., 2016; Wilkinson, 2013).

The impulsive, episodic acts of self-injury (Favazza, 2012) have become the focus of rigorous research (Whitlock et al., 2007), which is carried out from a variety of viewpoints, theoretical orientations, and with various hypotheses in mind. Results from these studies can, as a result, rarely be compared or correlated, due to the many discrepancies between the findings. Confusion is therefore rampant about the aetiology, prevalence, forms, and functions of self-harm, not only among the public, but also among professionals such as guidance officers and psychologists who are responsible for supporting self-injurers. Clinicians report that they find it disturbing having to deal with self-injury, as they see the death-dealing aspects (Straker, 2006), compared to those who practice it who report that they cut to live (Brown & Kimball, 2013). Whitlock and Rodham (2013) caution those involved not to dismiss self-injury as attention-seeking.

This section of the review will now summarise findings regarding the terminology used to describe these acts, the forms of self-injury, prevalence or incidence, self-injury's relation to suicide, help-seeking tendencies among adolescents, factors impacting on the onset, continuation and cessation of self-injury, as well as risk and protective factors considered to be associated with self-injury.

2.2.1. Terminology.

Non-suicidal self-injury (NSSI) is also known as deliberate self-harm (Angelkovska, Houghton, & Hopkins, 2012; Hawton, Harriss, & Rodham, 2010), self-injurious behaviour (Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006; Orlando, Broman-Fulks, Whitlock, Curtin, & Michael, 2015; Trepal, 2010; Yates, 2004; Yates, Carlson, & Egeland, 2008), self-inflicted injury that includes suicide attempts and NSSI (Brown, Linehan, Comtois, Murray, & Chapman, 2009; Crowell et al., 2013), self-mutilating behaviour/self-mutilation (Briere & Gil, 1998; Nock & Prinstein, 2005), self-wounding, and parasuicide (Brown, Comtois, & Lineham, 2002).

Self-injurious behaviour is a broad class of behaviours that includes NSSI, suicide attempts (Nock et al., 2006; Yates, 2004) as well as self-injurious and suicidal thoughts (Glenn et al., 2017; Nock et al., 2010; Whitlock, Eckenrode, & Silverman, 2006). Bloom, Holly and Miller (2012) state that self-injurious behaviour

traditionally occurs among individuals with cognitive and developmental disabilities (stereotypic and repetitive to serve a self-stimulating function), while NSSI describe the actions of the normative population, and that the two conditions present in very different ways. Gordon et al. (2010) refer to self-injury with and without intent to die as deliberate self-harm. It is therefore clear why it is difficult to compare research findings when there are so many different interpretations of what self-injury is supposed to be called. For the purpose of this study, the term 'self-injury' will be used.

2.2.2. Forms and classification.

St. Germain and Hooley (2012) broadly distinguish between direct forms and indirect forms of self-injury. Substance abuse, risky or reckless behaviour, and eating-disordered behaviour are considered to be indirect forms. It is widely reported and acknowledged that the most common form of direct self-injury is cutting (Messer & Fremouw, 2008). De Leo and Heller (2004), in their Australian study, found that 52.9% of participants used cutting as a method, and 29.6% overdosed on medication.

Other forms mentioned in the literature include self-hitting, pinching, scratching and biting, burning with cigarettes, interference with wound healing, and sticking sharp objects such as pins, needles, and staples into the skin (Messer & Fremouw, 2008). Whitlock, Eckenrode and Silverman (2006) also include hitting, banging or punching walls and other objects to induce pain, ingesting toxic substances, breaking bones, and dripping acid onto the skin, as forms of self-injury. More recently, in a study by Fredlund, Svedin, Priebe, Jonsson and Wadsby (2017), using sex as self-injury was reported by 3.2% of girls and 0.8% of the boys. This form of self-injury involves the recurrent exposure to sexual and physical abuse, humiliation and violation, and in some instances has replaced cutting, as it is less obvious.

Self-injury can further be classified according to the number of times a person has performed self-injurious acts. A minimum number of five events of self-injury, regardless of the form or combination of forms, is considered to be repetitive self-injury (Howe-Martin, Murrell, & Guarnaccia, 2012; Klonsky & Olino, 2008), in

contrast to occasional engagement with self-injury (Manca, Presaghi, & Cerutti, 2014). Frequency can be distinguished as between 1-9 acts, compared to 10 or more, in which case more functions were reported (Muehlenkamp & Brausch, 2016). More than 10 incidents in one's lifetime are classified as a high incidence (Gratz & Roemer, 2008). Self-injury can further be conceptualised as being episodic or stable (chronic) engagement (Barrocas, Giletta, Hankin, Prinstein, & Abela, 2015).

An additional distinction can be made between compulsive self-injury, which is often ritualistic and may occur multiple times per day, and impulsive acts, which are considered to be more aggressive (Manca et al., 2014). Self-injury can be further categorised as mild, moderate or severe, based on the lethality of the injury (Laghi et al., 2016). Mild self-injury is considered to be of low frequency and severity, moderate self-injury occurs more frequently, while severe self-injury happens at high frequency, with severe injury that may result in impairment (Manca et al., 2014; Nock, 2010). Hamza, Stewart and Willoughby (2012) classify hair-pulling and biting as moderate forms, compared to cutting and burning as severe forms of self-injury. Severe, and also moderate forms of self-injury, may at times require medical attention (Manca et al., 2014).

2.2.3. Prevalence and incidence rates.

Determining the prevalence of self-injury is a difficult task, due to the focus of researchers on different variables related to self-injury, the use of different terms to define self-injury, the use of different approaches to research, namely sampling methods, instruments used, time frames of incidents (for instance life-time history versus last 12 months), and whether self-injury is viewed as a symptom of another disorder such as borderline, histrionic, multiple and antisocial personality disorders, eating disorders, schizophrenia and major depression (Fox et al., 2015; Messer & Fremouw, 2008).

One such focus of research influencing the recorded prevalence of self-injury is which form it is presented in and whether suicidal intent is included in the definition (Muehlenkamp et al., 2012). Baroccas, Hankin, Young, and Abela (2012) posit that the form of self-injury reported may again be influenced by the age and gender of

participants in a study. Due to these factors, findings are contradictory more often than not, and may not accurately portray the true prevalence of self-injury.

Investigations were traditionally based on medically treated (hospital presentations) or institutionalised in-patients (De Leo & Heller, 2004; Ferrara, Terrinoni, & Williams, 2012). The contextual factors related to participants in a study therefore also influence the prevalence rate in studies and differ widely for general community population samples, estimated at 15% of adolescents, with the number rising to 60% in residential or institutionalised populations. Moran et al. (2012) found in their longitudinal study (August, 1992 to January, 2008) of self-injury among the general public that 8% of Australian adolescents self-injure. Many studies reported that females are more likely to engage in self-injury (Bresin & Schoenleber, 2015; Moran et al., 2012; Prinstein et al., 2010).

Swannell, Martin, Page, Hasking, and St John (2014) reported in their meta-analysis that overall prevalence was 17.2% among adolescents, 13.4% among young adults, and 5.5% among adults. Hasking and Rose again (2016) found self-injury among 17% of adolescents and 13% of young adults. Whitlock and Rodham (2013) summarised findings of lifetime rates of between 12% and 25% were reported. In Australia, around one in ten adolescents aged 12-17 years (10.9%) reported ever having self-injured, and lifetime rates are estimated to be between 15% and 30% (Lawrence et al., 2015). There is also an approximate 14% of adolescents who think about engaging in self-injury but who do not necessarily act on those thoughts (O'Connor, Rasmussen, Miles, & Hawton, 2009).

When adolescents are asked to complete self-report surveys at school, prevalence rates may not be accurate, as chronic absenteeism by those who self-injure is a common characteristic, therefore those targeted may be absent on the day of the survey (O'Connor et al., 2009). Somer et al. (2015) consider that variability in rates could, in part, be due to studies that used single-items measures produced lower estimates (12.5%) than those that used behaviour checklists or inventories with multiple items (23.6%). Prevalence numbers could fluctuate (Selby, Kranzler, Fehling, & Panza, 2015) and be close to double in studies where checklists were used, compared to single-item measures (Muehlenkamp et al., 2012). Baroccas et al.,

(2012) found in their study that about 1.5% of adolescents met some of the new DSM-5 criteria, although 8% reported having injured themselves.

Heilbron and Prinstein (2010) suggest that self-injury rates are rising. Similarly, Yen et al. (2016) posit that the occurrence of self-injury is increasing and, due to its association with suicide, poses an increased risk in high-risk populations. In contrast, Swannell et al. (2014) reported that there has been no increase in prevalence over time. Brown and Plener (2017) found that after controlling for methodological differences, prevalence rates among adolescence have since 2002 been stable at about 14% over 15 years. Muehlenkamp et al. (2012) assert that assessment bias and sample size may be responsible for the perception that the incidence of self-injury is on the rise.

2.2.4. Onset, continuation, and cessation.

The typical time of onset of self-injury is during adolescence, which is a critical stage of rapid and complex development in terms of neurological and cognitive functioning and emotional regulation (Carvalho et al., 2015; Whitlock & Rodham, 2013). During this phase there are increased demands socially, emotionally, physically, behaviourally, as well as cognitively that can be experienced as stressors and that often pave the way for becoming involved in risky behaviours such as self-injury (Voon, Hasking, & Martin, 2014). Girls in particular exhibit a stronger relational orientation as well as a need for belonging and are therefore more vulnerable to the change in frequency and quality of peer relationships in adolescence (Heilbron & Prinstein, 2010). Association with subcultures such as the Goths may provide social motivation for self-injury (Whitlock & Rodham, 2013). Hill and Dallos (2011) suggest that the increase in stressors may be due to adolescents not being able to reflect upon and make sense of all the life events, and as a result, intense emotional states become difficult to tolerate so that adolescents find ways of expression through self-injury, for instance.

Adler and Adler (2007) posit, based on their research, that people who started to self-injure before 1996, most likely ‘discovered’ it on their own, while people who started after the 1990s were probably introduced to it by someone known to the individual. Deliberto and Nock (2008) found that 38.3% of self-injurers obtained the

idea from peers and 13.3% from the media, while another study (Heath, Ross, Toste, Charlebois, & Nedecheva, 2009) found that 22% knew someone from whom they learned about self-injury, and 21.6% learned as a result of exposure to self-injury in the media. Radovic and Hasking (2013) found that 34.38% of self-injurers were influenced by movies through destigmatising and a strong identification with the character. It was also reported that 65% of those who self-injure talks to their friends about it, and 74% had at least one friend who self-injures. In adolescence, peer behaviour is important and forms the basis for identity formation and acceptance into a social group, therefore, in the presence of negative life events and psychological distress, having a peer or someone who is respected and with whom the person identifies, increases the risk (Hasking et al., 2013; Yates, Carlson, & Egeland, 2008).

Howe-Martin et al. (2012) state that there is still little understanding of repetitive self-injury. Interpersonal events are considered to be more strongly associated with the onset of self-injury than with maintaining it (Taliaferro & Muehlenkamp, 2014; Tatnell, Kelada, Hasking, & Martin, 2014), while intrapersonal reasons such as regulating emotions seem to play a role in maintaining self-injury over time (Glenn & Klonsky, 2011a; Saraff & Pepper, 2014; Tatnell et al., 2014). Anxiety and loneliness were found to be associated with repetitive but not with occasional self-injury (Klomek et al., 2016). Insufficient parental care leads to feelings of rejection and abandonment, which were found to lead to earlier onset but also longer duration of self-injury (Saldias, Power, Gillanders, Campbell, & Blake, 2013). Alcohol use, anxiety, personality disorders, low emotional support and negative cognitive appraisal were found to maintain self-injury (Yen et al., 2016).

Once started, self-injury can last for many years and can be cyclical, with weeks, months, or even years in-between events (Whitlock, Prussien, & Pietrusza, 2015). Adler and Adler (2007) report that relief gained from self-injury lasts from only a few hours to several days or weeks, and therefore the act has to be repeated again and again. Fearlessness, as a result of having been exposed to repetitive painful and provocative events, is suspected to have an impact on whether a person will continue to self-injure (Selby, Connell, & Joiner, 2009). Muehlenkamp et al. (2012) reported a 15% life-time engagement with self-injury internationally.

Regarding continuous self-injury, the notion of it having addictive qualities has been reported in a number of studies. Martin et al. (2016) posit that the addictive features contribute to it being conceptualised as a process addiction that will impact on the continuation of self-injury. Claes, Klonsky, Muehlenkamp, Kuppens, and Vandereycken (2010) posit that the more functions the self-injury has for an individual, the higher the increase in positive affect it will have, which in turn will reinforce the use of self-injury under the same conditions in the future. The possible addictive properties of self-injury differ from those associated with substance addiction (Victor, Glenn, & Klonsky, 2012). The repetitiveness and pre-occupation with self-injury may contribute to the addictive qualities (Buser, Buser, & Rutt, 2017a; Yates, 2004). The possible addictive properties of self-injury differ from those associated with substance addiction (Victor et al., 2012).

Addictive features are associated with prolonged engagement with self-injury, especially among individuals who demonstrate greater deficits regarding psychological functioning (Glenn & Klonsky, 2011a) in the presence of exposure to adverse family circumstances (Martin et al., 2016) such as harsh and persecutory criticism (Xavier, Pinto-Gouveia, Cunha, & Dinis, 2017). Adolescents reported that they feel unsupported by their parents after their self-injury was discovered (Kelada, Hasking, & Melvin, 2016a) and therefore self-injury continues as coping mechanism.

Further, those reporting repeat NSSI also were more likely to report injuring multiple body locations (Whitlock, Eckenrode, & Silverman, 2006), using a number of methods (Glenn & Klonsky, 2011a; Whitlock, Eckenrode & Silverman, 2006), or engaging in more serious and more frequent acts (Andrews et al., 2013). Associated with multiple body parts being injured is the tendency to be more withdrawn in the presence of more depressive symptoms, dissociative experiences, somatic complaints and other internalising problems (Laukkanen, Rissanen, Tolmunen, Kylma, & Hintikka, 2013). Also associated with repeated self-injury is the difficulty of changing their thinking about stressful situations (cognitive reappraisal) to reduce stress, as well as difficulty expressing their emotions (Andrews et al., 2013).

With regard to cessation of self-injury, participants in studies identified several reasons for stopping to self-injure, such as having received successful therapy or counselling, having had support from a significant other person, finding hope or

meaning in life, having a problem resolved, or having learned new ways of coping (Rotolone & Martin, 2012; Turner, Chapman, & Gratz, 2014). Anderson and Crowther (2012) postulate that cessation occurs when a greater tolerance of emotional responses and better impulse control ability develop. Deliberto and Nock (2008) and Turner, Chapman, and Gratz, (2014) found that reasons to stop included viewing self-injury as an unhealthy behaviour, getting unwanted social attention, feeling shame, not wanting to upset family and friends or disappoint them in their expectations, and not wanting the scarring. Longitudinal studies such as that of Moran et al. (2012) found that as maturity in young adulthood sets in, most forms of self-injury resolves spontaneously. Likewise, Carvalho et al. (2015) support this hypothesis that the changes in brain development during puberty may lead to a developmental imbalance and difficulty with emotional control that will be resolved when the prefrontal cortex eventually matures.

From a functional behavioural perspective, any event or factor that reduces the reinforcing properties of self-injury, is likely to diminish it (Turner, Chapman, & Gratz, 2014). If self-injury was triggered by emotional distress it will most likely stop when the emotional distress stops. If it was maintained by means of alcohol abuse, self-injury may stop if the alcohol abuse stops. Reasons for males and females to stop to self-injure are likely to be different, due to the different functions self-injury has for them (Turner, Chapman, & Gratz, 2014).

Kool, van Meijel, and Bosman (2009) posit that there are six phases related to cessation: (1) setting limits and connecting to others, (2) increasing self-esteem, (3) increasing control through understanding oneself, (4) gaining autonomy to make active choices, (5) applying strategies other than self-injury, and (6) working on preventing a relapse.

2.2.5. Help-seeking.

Traditionally, help-seeking tendencies among adolescents who self-injure have been researched from a medical perspective. Recent research has focused more on population samples, and it was found that adolescents typically do not seek help from health providers or mental health professionals (Hasking, Rees, Martin, & Quigley, 2015; Hawton et al., 2009). Those who do are more likely to have taken an overdose

of a substance, rather than applying any other form of self-injury (Hawton et al., 2009). Combined findings from different studies indicate that if they do seek help, teenagers mostly go to their friends (40% - 80%), followed by about 10% - 30% who seek help from their families (De Leo & Heller, 2004; Fortune et al., 2008; Hasking, Rees et al., 2015), 13% from teachers, 6.6% from mental health professionals, and 2.6% from a general practitioner (Hasking, Rees et al., 2015).

Kelada et al. (2016a) allude to the fact that if parents know about the self-injury, the adolescents are more likely to seek professional help, but they found that more than half of self-injurers do not disclose the self-injury to their parents. Important barriers to help-seeking are the beliefs that they can cope on their own and that they do not need help, that no one can really help, and that people might want to stop them if they found out (Fortune et al., 2008).

Complex emotions such as feeling stupid, ashamed, alone and scared about their self-injury were found especially among boys (Fortune et al., 2008; Glasheen & Campbell, 2009). Adolescents also report not feeling comfortable with self-disclosure, due to the stigma, and the possible responses from friends and family born from fear and confusion and misinterpreting self-injury as suicide attempts (Hasking, Rees et al., 2015).

Reasons that adolescents mention for not seeking help are what people will think of them (crazy, weird, attention-seeking), that they do not want to hurt the people closest to them, and that no one really listens (Fortune et al., 2008). Parental criticism (negative attitude) can contribute to the development negative views of other people, which may influence help-seeking (Yates, Tracy, & Luthar, 2008). However, Heath, Baxter, Toste and McLouth (2010) report that in their study, 13.8% of females and 12.5% of males who self-injured indicated that they would access a support group if offered at school.

There is evidence, however, that adolescents increasingly access the Internet for information about self-injury and support from others who self-injure (Adler & Adler, 2007; Glasheen & Campbell, 2009). Kids Help Line reported an increase of 403% between 2009 and 2016 of young people accessing the Web services (yourtown, 2016). Older adolescents are less likely to seek parental support, due to

an increased desire for autonomy and independence. Social Media Statistics (December 2017) report that for the age group of 13 – 17-year olds, 940 000 in Australia are daily social media users. Social media are often used to disclose self-injury (Berger, Hasking & Martin, 2017).

2.2.6. Relation to suicide.

Although there is a relation between the prevalence of self-injury and suicide (Gask & Morriss, 2006; Hill et al., 2011; Kapur & Gask, 2006; Robinson et al., 2008), it is necessary to make a clear distinction between the two phenomena, based on the intended outcome (Whitlock, Eckenrode, & Silverman, 2006). While the intention of suicide attempts is to end a life, self-injury's intent is to change life situations (Muehlenkamp & Kerr, 2010).

Hamza and Willoughby (2013) found that frequent self-injurers are likely to also have current suicide ideation. Even in the absence of suicide ideation, there is always the possibility that more severe injury than intended could result, due to the method used. This is also applicable where concurrent alcohol and drug use is prevalent (Buser et al., 2017a). Victor, Styer, and Washburn (2015) posit that when self-injury has a strong intrapersonal function, the correlation with recent suicide ideation becomes more robust. It is also possible that over time, factors such as the act of cutting become less frightening, due to desensitising (Hamza & Willoughby, 2013; Muehlenkamp & Gutierrez, 2007). Assavedo and Anestis (2016) posit that suicide desire, which they describe as thwarted belongingness and perceived burdensomeness, is a prerequisite, together with the capability to suicide.

The problems initiating a perceived need for increased severity of self-injury could lead to an increase in the likelihood of a suicide attempt (Joiner, Ribeiro, & Silva, 2012) and provide the capability for doing it (Victor & Klonsky, 2014a). The frequency of self-injury is also associated with suicidal behaviour (Hamza et al., 2012), especially where individuals become more comfortable with the idea of damaging their own bodies, and applying a broader selection of self-injury methods (Anestis, Khazem, & Law, 2015; Victor & Klonsky, 2014a).

Self-injury and suicide share certain risk factors, such as being female and having an affective disorder (Groschwitz et al., 2015). It is considered that self-injury and suicide can be conceptualised as being on a continuum of self-harmful behaviour, with suicide being the end point (Brausch & Gutierrez, 2010; Mars et al., 2014; Orlando et al., 2015). The combination of self-injury and suicide ideation significantly increases the probability of suicide (Nock et al., 2006; Scott, Pilkonis, Hipwell, Keenan, & Stepp, 2015; Whitlock et al., 2013).

Suicide is more likely among individuals who engage in severe, rather than moderate, forms of self-injury, such as cutting (Hamza et al., 2012; Klonsky & Olino, 2008). This co-occurrence increases in the presence of a diagnosable psychiatric condition (Muehlenkamp & Guterriez, 2007; Victor & Klonsky, 2014a; Whitlock, Eckenrode, & Silverman, 2006), more adverse life events, and fewer protective factors (Hasking et al., 2013). However, Muehlenkamp and Kerr (2010) allude to the fact that only about 1.4% of suicides are the result of cutting, while gunshots, hanging, and overdosing and self-poisoning or jumping from lethal heights cause more deaths. Self-injury may act as a gateway to suicidal behaviour (Whitlock et al., 2013).

2.2.7. Risk and protective factors.

It stands to reason then that there is a close relationship between risk and protective factors and that where a risk factor can possibly be replaced by the opposite condition, self-injury will be less likely to continue. A number of protective factors is discussed next.

2.2.7.1. Protective factors.

Positive beliefs about the future, consisting of optimism, self-efficacy and self-esteem are related to proactive coping strategies and can be a protective factor when a person faces life stressors (Tanner, Hasking, & Martin, 2014). The presence of social support and connectedness was found to be an important protective factor (Baiden, Stewart & Fallon, 2017; Rotolone & Martin, 2012). It also plays a role in the cessation of self-injury (Tatnell et al., 2014). Perceived peer support is important (Rotolone & Martin, 2012; Wolff et al., 2013), as is support from teachers (Wolff et al., 2013). Parental support and family connectedness, however, were identified as

the most important protective factors (Brausch & Gutierrez, 2010; Klomek et al., 2016; Taliaferro, Muehlenkamp, Borowsky, McMorriss, & Kugler, 2012; Wolff et al., 2013). In this regard, Buser, Buser, and Kearney (2012) explain that within the family milieu, the individual's confidence in their ability to develop relationships and handle social situations is developed. Cognitive outcomes are highly associated with the family environment, which may also include the neighbourhood (Washbrook, Gregg, & Propper, 2014). Having hopefulness is considered to contribute to resilience as protective factor (Turner, Chapman & Gratz, 2014).

2.2.7.2. Risk factors or predictors.

Risk factors or exposure variables (Mars et al., 2014) can be viewed as potential predictors for the onset of self-injury. Risk factors can be manipulated, may change considerably under different conditions and may be different for the onset and continuation of self-injury may be different (Fox et al., 2015). When there is a combination of risk factors, their combined magnitude increases their predictive power (Fox et al., 2015).

A number of risk factors or predictors were identified in literature, of which perceived quality of family life and relationships with parents were the most important. Poor family functioning and an invalidating family life have been found to increase the risk for emotional dysregulation (Quirk, Wier, Martin, & Christian, 2015; You & Leung, 2012) through the intermittent reinforcement of negative affect and therefore for the use of self-injury to reduce the distress (Crowell et al., 2013; Kelada, Hasking, & Melvin, 2016b). Family invalidation was also found to have an effect on impulsivity as related to self-injury (Quirk et al., 2015; You & Leung, 2012). Less positive affect in the presence of low connectedness and family dysfunction impacts on self-injury (Crowell et al., 2008). A lack of social support, together with negative social interactions, were identified as proximal risk factors (Hankin & Abela, 2011).

The mother-child relationship was found to have a substantial influence on the prevalence of self-injury (Crowell et al., 2013). In the presence of physical abuse it was reported that while paternal control was not as significant, unresolved attachment and maternal control impacted on the prevalence of self-injury (Martin,

Bureau, Cloutier, & La Fontaine, 2011). Overprotection was weakly related to motivation for self-injury (Quirk et al., 2015). Parental criticism and perceived lack of emotional support highly correlate with self-injury (Baetens et al., 2015; Claes, Soenens, Vansteenkiste, & Vandereycken, 2012; Hoff & Muehlenkamp, 2009). Upon disclosure of self-injury, mothers reported high negative affect, as they were uncertain of how to understand the phenomenon (McDonald, O'Brien, & Jackson, 2007).

It was established that having grown up living with no parent but with a sibling (Fredlund et al., 2017), in a single-parent household or with one biological parent and a stepparent, increased the risk of self-injury (Laye-Gindhu & Schonert-Reichl, 2005; O'Connor et al., 2009), especially for girls (Landstedt & Gillander Gådin, 2011). Low income is considered to be a distal risk factor due to the impact it has on developmental outcomes (Fredlund et al., 2017; Mars et al., 2014; Page et al., 2014; Taliaferro et al., 2012).

Self-injurers score higher on temperament traits (Rothbart's temperament dimensions) such as Negative Affectivity and Neuroticism, and lower on Effortful Control (Baetens, Claes, Willem, Muehlenkamp, & Bijttebier, 2011). Specific personality traits associated with self-injury include perfectionism (Claes et al., 2012) and introversion that are linked to a high vulnerability to negative affect (Hankin & Abela, 2011). Impulsivity specifically is widely associated with self-injury (Deliberto & Nock, 2008; Mars et al., 2014; O'Connor, Rasmussen, & Hawton, 2012; Tschan, Peter-Ruf, Schmid, & In-Albon, 2017) as it is seen as seeking immediate reinforcement in the presence of low self-directedness and emotion-regulation difficulties (Lüdtke et al., 2017). Self-injurers lack the confidence to solve a difficult situation and are unable to pursue long-term goals.

Martin, Thomas, Andrews, Hasking, and Scott (2014) found that psychotic episodes in combination with psychological distress are a strong predictor of current and future self-injury. The age at the onset of self-injury coincides with an increased risk of being diagnosed with other psychiatric disorders (Glenn et al., 2017; Whitlock & Rodham, 2013).

Having been bullied was found to directly increase the risk of self-injury (Jutengrun, Kerr, & Stattin, 2011; Lereya et al., 2013; van Geel, Goemans, & Vedder, 2015) and is also predictive of greater depression severity (Stewart, Valeri, Esposito, & Auerbach, 2017). Heilbron and Prinstein (2010) differentiate between forms of victimisation such as physical, psychological and verbal bullying, and relational victimisation. Relational victimisation is described as social exclusion, threats to withdraw friendship, as well as lying and spreading rumours aimed at inflicting harm on the victim's relationships. This was found to have a bigger impact on girls than on boys (Heilbron & Prinstein, 2010) and to be predictive of the life-time prevalence of self-injury (Klomek et al., 2016). Physical bullying is especially damaging to boys due to the focus on dominance among males within the social hierarchy (Heilbron & Prinstein, 2010) and results in internalising difficulties for both boys and girls. Maladaptive home and family circumstances, with especially the exposure to domestic violence, increase the likelihood of being bullied (Lereya et al., 2013) but where high parental support is reported, the impact of peer victimisation is less pronounced (Claes, Luyckx, Baetens, Van de Ven, & Witteman, 2015).

The use of alcohol and drugs was identified as a risk factor for self-injury (Laye-Gindhu & Schonert-Reichl, 2005; Williams & Hasking, 2010), especially among those self-injurers who use multiple forms of self-injury (Bracken-Minor, McDevitt-Murphy, & Parra, 2012). Physical risk is considered to be aggravated when sef-injury is combined with alcohol use (Bracken-Minor et al., 2012). Bakken and Gunter (2012) posit that common forms of drugs and marijuana were found to be used by boys, whereas hard-core drugs such as cocaine were used by girls.

Disordered eating behaviours and the relation to self-injury have been extensively researched and a high correlation was found between the two phenomena (Maclaren & Best, 2010). Engaging in risky behaviour such as sex, in combination with substance use, was found to be a risk factor (Bakken & Gunter, 2012). Laye-Gindhu and Schonert-Reichl (2005), also added having tattoos to this group of behaviours.

Andrews, Martin, Hasking, and Page (2014) identified that being born outside of Australia and therefore considered to be culturally and linguistically diverse, places individuals at a higher risk of self-injury due to the social, personal, and

economic disadvantage problems experienced. Being a member of a minority group could cause an uncertainty about oneself, a lack of direction and purpose in life (Muehlenkamp, Ertelt, Miller & Claes, 2011). Kuentzel, Arble, Boutros, Chugani, and Barnett (2012) postulate that where there is confusion about one's ethnic identity, a compromised sense of belonging could result, which is often complicated by religious affiliation as well. Ethnic identity and belongingness, understanding how one is seen and evaluated by a group, were found to be important protective factors, especially in minority groups (Wester & Trepal, 2015).

Acknowledgement of a sexual orientation other than being heterosexual increases the risk of engaging in self-injurious behaviour (Bakken & Gunter, 2012; Buser, et al., 2012; Fredlund et al., 2017; O'Connor et al., 2009; Whitlock et al., 2011; Young, Riordan, & Stark, 2011) especially among females (Walls, Laser, Nickels, & Wisneski, 2010). The rates and severity of self-injury are higher, due to diminished social support (Tsypes, Lane, Paul, & Whitlock, 2016). Deliberto and Nock (2008) found that 32.6% of sexual minority orientation reported self-injuring, while in another meta-analysis an average of 40.5% was found (Batejan, Jarvi, & Swenson, 2015). Sornberger, Smith, Toste, and Heath (2013) posit that these individuals are two to four times more likely to self-injure due to minority stress, which can be a consequence of a stigmatised identity. Wichstrøm (2009) found higher levels of impulsivity among this group of individuals, while Lucassen et al. (2011) identified higher rates of mental health disparities that are often associated with self-injury.

It is widely acknowledged that self-injury is more prevalent among females. It is possible that it could be because of traditional socially constructed views of gender, as well as the fact that mental illness is diagnosed more among females (Healey, Trepal, & Emelianchik-Key, 2010). Ekman (2016) posits that this is influenced by physiological and hormonal processes, as well as traditional social roles. The conclusion, however, is that females handle anxiety and depression differently. It is hypothesised that the higher importance of peer status and different peer sanctioned attitudes and behaviours may make females more vulnerable (Prinstein et al., 2010). Contagion is therefore more prevalent among females, as

they are reported to more likely have friends and also family members who self-injure (Hawton et al., 2010).

Once adolescents have been introduced to self-injury, the possibility exists that the phenomenon will spread (Deliberto & Nock, 2008; Mars et al., 2014). This tendency is especially prevalent in clinical settings (Hasking et al., 2013; Whitlock & Rodham, 2013), due to social modelling (Heilbron & Prinstein, 2008; Muehlenkamp, Hoff, Licht, Azure, & Hasenzahl, 2008). Self-injury may signify group membership or social benefits, therefore this interpersonal component may have a contagion effect (Heilbron & Prinstein, 2008; Whitlock & Rodham, 2013).

Certain psychological characteristics, values, attitudes, and dispositions, in the presence of adverse events and a lack of coping ability, may create a risk environment when exposed to self-injury. Reassurance-seeking and co-rumination may contribute to the contagion effect (Giletta, Burk, Scholte, Engels, & Prinstein, 2013). Many studies found that among those who self-injure they reported having a peer or close friend who also self-injures (Alfonso & Kaur, 2012; Hasking et al., 2013; Hasking, Rees et al., 2015; O'Connor et al., 2012), or a family member (O'Connor et al., 2012; O'Connor et al., 2009).

Other reported factors indicative of self-injury were found in the development of an individual. A history of in-utero complications and the baby having been delivered by caesarean section was found to be associated with adolescent psychopathy, which is often related to self-injury (Deliberto & Nock, 2008). Having displayed repetitive behaviour as a child was also identified as a possible risk factor (Deliberto & Nock, 2008).

Generally, religious affiliation is considered to be a protective factor as it may provide a sense of social support, community, and belonging (Andrews et al., 2014; Kuentzel et al., 2012). Prayer or meditation may provide life satisfaction and meaning in life, which may lead to a higher and stable sense of self-esteem, and decreased stress and anxiety (Kress, Newgent, Whitlock, & Mease, 2015). People with strong religious convictions are less likely to engage in self-injury (Longo, Walls, & Wisneski, 2013) as they have healthier methods for regulating strong

emotions (Abrams & Gordon, 2003; Good, Hamza, & Willougby, 2017), and they also have access to a spiritual counsellor (Kuentzel et al., 2012).

When people believe in God's love, help and forgiveness, or that a certain stressor has a purpose, they could intentionally surrender to God and trust in Him to handle the situation (Buser, Buser, & Rutt, 2017b). However, being religious could be a risk factor to an adolescent where guilt and condemnation are used to enforce compliance. Consequently, religion might be experienced as rigid, inflexible and unhealthy (Wagner & Rehfuss, 2008), when people doubt God's love, believing that they are being punished by God (Good et al., 2017), or when they feel abandoned or ignored by God during times of high stress (Buser et al., 2017b). Not being religious or spiritual is considered a risk factor (Andrews et al., 2014).

The complexity of the phenomenon of self-injury is evident in the difficulty establishing an accurate prevalence rate among adolescents and the many factors contributing to the problem. While the early experiences of adolescents related to parenting, some personality traits and high levels of complex emotions are instrumental in the onset of self-injury, many other factors may play a role in the continuation of it well into young adulthood. These factors include the addictive quality of self-injury, certain risk factors such as sexual orientation, and the presence of a range of comorbid mental health problem. The complexity of the phenomenon can also be seen in developing assessment instruments and interventions.

2.3. Assessment of Self-Injury

The assessment of self-injury presents with specific difficulties and limitations, such as that the variables related to this phenomenon cannot be directly manipulated or observed objectively without intervening, nor objectively measured while the act is occurring (Messer & Fremouw, 2008).

2.3.1. Theoretical models.

Self-injury's long assessment history depicts how researchers have attempted to explain the phenomenon by applying theoretical models to organise their clinical descriptions and guide their current and proposed future inquiries. Messer and Fremouw (2008) reviewed earlier models, such as the sexual, depersonalisation,

systemic, suicide (self-injury seen as micro-suicides) and affect-regulation models, some of which have fallen out of favour and popularity as understanding of self-injury increased. In some instances, more recent information has resulted in a change to some of those theories to better present different aspects of self-injury.

Other models such as the five-factor model (MacLaren & Best, 2010) and the UPPS model (Lynam, Miller, Miller, Bornovalova, & Lejuez, 2011; Peterson & Fischer, 2012) focus on how personality traits such as impulsivity, lack of perseverance and premeditation, and sensation seeking are associated with self-injury. Various other models were found, each focusing on a specific aspect of self-injury, such as impulsivity in the theory of planned behaviour (Lewis, Rosenrot, & Santor, 2011), dissociation in the quartile risk model (Karpel & Jerram, 2015), general predisposing factors in the longitudinal moderated mediation model (You et al., 2015), and social-cognitive deficits in the cognitive vulnerability stress model (Guerry & Prinstein, 2009).

A more popular model is the experiential avoidance model (Chapman, Gratz, & Brown, 2006; Howe-Martin et al., 2012) which proposes that repetitive self-injury is aimed at avoiding psychological distress, overwhelming emotions, and especially negative affect (Anderson & Crowther, 2012), similar to binge-eating, substance abuse, suicide ideation and dissociation (Howe-Martin, et al., 2012), thought suppression, drug or alcohol use, and avoidance of places and objects that cause negative affect (Chapman et al., 2006). Other models often found to direct the focus of research, are the emotional cascade model, which focuses on rumination as a cognitive emotion-regulation strategy (Arbuthnott, Lewis, & Bailey, 2015; Selby, Anestis, Bender, & Joiner, 2009; Selby, Anestis, & Joiner, 2008), and the cognitive-emotional model, which is derived from a combination of other models (Hasking, Whitlock, Voon, & Rose, 2016).

The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM–5*; American Psychiatric Association [APA], 2013) is the most widely accepted taxonomy used by clinicians and researchers alike for the classification of mental disorders. In earlier editions of the DSM, self-injury was viewed as a symptom of borderline personality disorder. In the DSM-5, self-injury is included as a separate disorder with proposed criteria needing more research for validation (APA, 2013, p.

803). Selby et al. (2015) posit that validating self-injury as a disorder will bring a clinical advantage for the assessment of self-injury in accordance with specific criteria.

Nock and Prinstein (2004) developed a four-function model to explain self-injury from a functional perspective, where it is acknowledged that the behaviour serves a purpose or function for the individual engaging in it. They propose using four primary functions of self-injury that differ along two dichotomous dimensions, namely automatic versus social contingencies that are then either automatically or socially reinforced.

2.3.2. Methods and instruments.

The methods and associated instruments used are as widely varied as the variables researched, based on the purpose of assessment. Objectives may include determining whether a person has engaged in self-injury, monitoring occurrence over time, or understanding the various factors, characteristics, risk factors and other aspects related to self-injury (Nock, 2010). Multiple assessment instruments emerged over the years, many of which were developed specifically for the purpose of a particular study. Instruments are often used in single studies (Lewis, Rosenrot, & Santor, 2011) but are therefore not rigorously tested for efficacy, validity and reliability (Craigen, Healey, Walley, Byrd, & Schuster, 2010; Walsh, 2007) and are of little clinical use (Briere & Elliot, 1997; Walsh, 2007). Buser and Buser (2013) posit that formal assessment instruments can be clinically useful, but cannot be used in isolation, due to their limitations, such as being too long, aimed at measuring a particular disorder, for instance, or do not account for other characteristics of a client. Results obtained from studies may not be comparable where diverse ethnic or racial groups are involved (Muehlenkamp, Cowles, & Gutierrez, 2010).

Assessment of the prevalence, form, function, and other features of self-injury is typically done by means of self-report inventories (surveys or questionnaires) specifically targeted to the research questions and hypotheses of a specific study (Gordon et al., 2010). Self-report surveys are also commonly used to determine the presence of self-injury among school children (O'Connor et al., 2012) and in online counselling (Nunes et al., 2010; Polk & Liss, 2009). These self-report instruments

are often used in combination with other rating scales and performance-based tests (Nock, 2010), surveys, symptom inventories, therapist questionnaires (Rizvi, Dimeff, Skutch, Carroll, & Linehan, 2011), as well as structured (Gratz, Dixon-Gordon, Chapman, & Tull, 2015; Nock, Holmberg, Photos, & Michel, 2007) or semi-structured interviews (Bjärehed, Pettersson, Wångby-Lundh, & Lundh, 2012; Briere & Elliot, 1997; Briere & Lanktree, 2008; Craigen et al., 2010; Nock, 2010). Some researchers make use of a combination of two or more instruments to measure various aspects of self-injury in the same study (Latimer, Meade, & Tennant, 2013; Young, Sproeber, Groschwitz, Preiss, & Plener, 2014) or use only a part of an instrument (Andrews et al., 2013).

It is argued that rather than giving participants a list containing a limited range of responses to choose from, participants should also be given the opportunity to describe life events in their own words (Hawton & Rodham, 2006). Authors widely agree that it is imperative to take the **function** of the self-injury into consideration during the assessment stage (Glenn & Klonsky, 2011b; Walsh, 2007). As the use of the Internet for mental health support is on the rise, a student's participation in self-harm discussions and chat-rooms should be included in initial case conceptualisations (Whitlock at al., 2007). Assessment should also include a screening for risk of suicide (Lloyd-Richardson, Lewis, Whitlock, Rodham, & Schatten, 2015).

Examples of assessment instruments often found in research literature include, but are not limited to, the Deliberate Self-Harm Inventory (Gratz, 2001), Self-Harm Inventory (Sansone, Wiedermann, & Sansone, 1998), The Functional Assessment of Self-Mutilation (Lloyd-Richardson, Perrine, Dierker, & Kelley, 2007) and The Self-Harm Behavior Questionnaire (Gutierrez, Osman, Barrios, & Kopper, 2001). Criticism against these commonly used types of assessment instruments is that the information obtained is often restricted to self-reporting of historical events and can therefore be inaccurate, distorted, or incomplete, especially where adolescents are concerned (Hamza & Willoughby, 2013; Hargus et al., 2009).

2.3.3. Ecological momentary assessment (EMA).

Despite a considerable wealth of research specifically regarding self-injury and affect regulation, which is considered to be the most important and prevalent motivation for self-injury (Klonsky & Glenn, 2009; Nock & Prinstein, 2004; Tatnell et al., 2014), researchers, until recently, mostly employed forced choice or open-ended retrospective self-report measures (Hamza & Willoughby, 2015). This deductive approach involved developing certain theories or hypotheses, which were then tested empirically (Nock et al., 2010).

Exploring retrospective accounts of self-injury poses challenges, as participants have difficulty constructing a coherent narrative. This may be due to general difficulties often associated with self-injury, namely expressing their feelings, having poor memory of events, and finding it difficult to talk about self-injury. Furthermore, the sense of dissociation often experienced may explain patchy recollections (Klineberg, Kelly, Stansfeld, & Bhui, 2013). The measures mentioned above have limitations, the most important being that they are retrospective and therefore subject to the ability of self-injurers to accurately recall highly escalated emotions associated with historical episodes (Muehlenkamp, Engel et al., 2009; Nock et al., 2010). This is even more applicable where adolescents are involved (Hargus et al., 2009).

Furthermore, self-injurers may find it challenging to report on the complex emotions underlying their behaviour (Gratz, 2006; Hamza & Willoughby, 2015; Polk & Liss, 2007). Where individuals have ceased to self-injure it becomes difficult to ascertain whether NSSI was responsible for a decrease in negative affect, or whether negative emotions had merely decreased over time and in their memories (Hamza & Willoughby, 2015; Weinberg & Klonsky, 2012). A further limitation is considered to be the lack of reported intra-subject variability from one episode to another over time, often due to the influence of specific experiences within their individual context (Runyan et al., 2013; Stone & Broderick, 2007).

To eliminate the above-mentioned limitations, researchers began to request participants in their studies to self-report changes in emotion experienced within a naturalistic setting at specific periods in real time (Nock et al., 2010). These approaches therefore, although still self-reports, limit the recall bias in that

participants provide information about recent events as they occur (Hamza & Willoughby, 2015). A variety of measures geared towards obtaining more accurate data are described in the literature.

Real-time ecological momentary assessment (EMA) is the recurring or repeated assessment of behaviours or experiences over time, within the everyday context. This method of assessment is also described by other terms such as 'real-time data capture' (Stone & Broderick, 2007), or 'experience sampling and ambulatory assessment' (Runyan et al., 2013).

Early EMA methods included the use of diaries or hand-written questionnaires, which also presented some limitations such as low compliance, due to a perceived burden to participants (Fernandez, Johnson, & Rodebaugh, 2013). In this regard, Fernandez et al. describe newer methods, which include the use of electronic devices such as telephones, personal digital assistant (PDA), or the Internet, where data can be stored automatically and securely. In order to capture true data, Silk et al. (2011) in one study used mobile phones to investigate the daily emotional dynamics such as intensity, timing, and variability in real-life contexts, of a group of adolescents diagnosed with a major depressive disorder.

EMA methods have been applied in research studies in respect of suicide ideation (Ben-Zeev, Young, & Depp, 2012), coping with urges to smoke (O' Connell et al., 1998), aspects of pain (Stone & Broderick, 2007), alcohol use (Cohn, Hunter-Reel, Hagman, & Mitchell, 2011), disordered eating such as bulimia/anorexia nervosa or binge/purge habits (Anestis et al., 2012; Lavender et al., 2013; Shingleton et al., 2013), mood states (Rusby, Westling, Crowley, & Light, 2013), tobacco use (Lanza, Piper, & Shiffman, 2014), affective forecasting in schizophrenia (Brenner & Ben-Zeev, 2014), sexually risky behaviour (Shrier, Shih, & Beardslee, 2005), body image (Heron, & Smyth, 2013), and many more phenomena.

More specific to self-injury, studies abound in respect of using EMA to assess various aspects associated with the phenomenon. Topographical characteristics (form, frequency, intensity and duration) and function were assessed through the use of PDAs in a study by Nock et al. (2010). Armey, Crowther, and Miller (2011) also employed PDAs to research the change of affect before, during, and after self-injury.

While most of the models described above contain valuable truths about the variables regarding self-injury, none was found to be usable or a best fit for the purpose of this study, with the exception of the four-function model (Nock & Prinstein, 2004). Despite the numerous assessment instruments, including online or electronic versions available, it was considered that none shared the focus and scope of the current study, and were therefore not deemed usable. The existing studies using EMA to assess self-injury likewise did not prove to be replicable in this study, due to the different focus and it being part of an online educational intervention.

2.4. A Functional Behavioural Approach

Early behaviourists such as Pavlov, Watson, Thorndike, and Keller already established that behaviours do not occur in a vacuum, but rather in a predictable manner that is related directly and functionally to the environment in which certain events occur (Dixon, Vogel, & Tarbox, 2012; Matson & Minshawi 2007; Sugai, Lewis-Palmer, & Hagan-Burke, 2000). Skinner (1953) approached behaviour from an even more functional perspective and argued in favour of a three-term contingency model of behaviour of stimulus-response-stimulus (S-R-S) or antecedent-behaviour-consequence. Where a behaviour does not have clear antecedents, or where the consequences are more prominent, it is reasoned that a behaviour is 'operant' because it is influenced by consequences that followed similar behaviours in the past (Dixon et al., 2012) and therefore it is more likely that the same behaviour will occur again in the future, as learning has now taken place (Skinner, 1953).

Applied behaviour analysis (ABA) applies operant principles to human behaviour (Dixon et al. 2012; Kearny, 2007; LaVigna & Willis, 1992). A functional behavioural assessment (FBA) approach and ABA are inextricably linked, as both build on the conceptual foundations of operant conditioning (Dixon et al., 2012). Behaviour analysts have been validating operant conditioning models of self-injury for over 30 years (Kamen, 2009), with early functional analysis of stereotypic and repetitive self-injurious behaviours usually performed in relation to developmental disabilities (Dixon et al., 2012; Lerman & Iwata, 1993; Lerman, Iwata, Zarcone, & Ringdahl, 1994; McCord, Thomson, & Iwata, 2001; Vollmer, Iwata, Zarcone, Smith & Mazaleski, 1993; Vollmer, Marcus, & Ringdahl, 1995).

2.4.1. Self-injury as behaviour.

Everything we do can be viewed as behaviour, whether it is observable or not. An instance of behaviour is termed ‘an event’ (Moore, 2011). Self-injury is an act of deliberately damaging one’s own body. It is something self-injurers do, and therefore, although it is viewed from a pathological perspective, can be understood as a behaviour. The following widely accepted basic behavioural principles are briefly described next and then applied to self-injury: (a) behaviour is functionally related to the environment in which it occurs, (b) behaviour is learned, (c) behaviour serves a purpose, or has a function, for the person performing the behaviour, (d) when the behaviour is continually reinforced, it continues to occur as if in a cycle, and (e) to bring about change, the cycle has to be broken.

2.4.2. A functional behavioural approach.

Behaviour is functionally related to the environment in which it occurs (Goh & Bambara, 2012; Lewis, Mitchell, Harvey, Green, & McKenzie, 2015). In other words, the behaviour operates within an environment where certain events occur or certain circumstances prevail (antecedents) to generate certain consequences that will maintain that behaviour in the future (operant conditioning or learning). All three components, namely the **a**ntecedent, **b**ehaviour, and **c**onsequence should be described in observable and measurable terms (Yoman, 2008) in order to fully understand the function of a behaviour.

2.4.2.1. Antecedents.

Any behaviour occurs in the presence of, or as a result of, certain immediate antecedents (Kearny, 2007) or discriminative stimuli (Yoman 2008), which are those events that are in effect just prior to a problematic behaviour (Iwata & Dozier, 2008; Yoman, 2008). Operant conditioning occurs when the probability of a behavioural response in the presence of an antecedent stimulus increases due to consequences previously present in response to that stimulus (Dixon et al. 2012; Moore, 2002).

2.4.2.2. Behaviour.

The problematic behavioural response is the target behaviour that has to change (Sugai et al., 2000). The target behaviour is followed by a consequence that

provides the reason for ongoing enactment of the behaviour. Ongoing behaviour is therefore purposeful and serves a function for the person performing it (Goh & Bambara, 2012), based on its history of reinforcement (Iwata & Dozier, 2008; Moore, 2011).

2.4.2.3. Maintaining consequences or functions.

Consequences describe what occurs immediately after a behaviour (Iwata & Dozier, 2008; Yoman, 2008) and are also called 'reinforcers' (Horner, 1994; Moore, 2011). These maintaining consequences are the functions (typically de-escalation) or purpose that the target behaviour has for the person (Gresham, Watson & Skinner, 2001; Horner, 1994).

Two broad functions of behaviour are positive reinforcement and negative reinforcement (Skinner, 1953). In the case of positive reinforcement, the function of the behaviour is to gain something, to bring the behaviour in contact with a stimulus or event that makes the behaviour more likely to occur in the future (Dixon et al. 2012; LaVigna & Willis, 2005). In contrast, when a behaviour is negatively reinforced, the function of the behaviour is to avoid or escape contact with a stimulus, for instance something the person finds aversive (Dixon et al. 2012; LaVigna & Willis, 2005; Lewis et al., 2015).

Different behaviours have different functions for different people, and individual behaviours can be maintained by more than one consequence or function in the same person (Dixon et al. 2012; Horner, 1994; Suyemoto, 1998), which can be a positive and/or a negative reinforcer (Horner, 1994). When a group of behaviours serves the same function, they are considered to be of the same response class (Horner). Automatic or inherent reinforcement is produced automatically when behaviour occurs that is not dependent on the behaviour of someone else (Dixon et al. 2012; Gresham et al., 2001).

2.4.2.4. Setting events.

It is necessary to also consider antecedent events that are removed in time and place, but are also functionally related to the behaviour, as it makes it more likely that the behaviour will occur than if the setting event is absent (Nosik & Carr, 2015).

Setting events can be viewed as stimuli that will impact consequent stimulus-response relations (Sugai et al., 2000) and can include a person's health, among other factors.

A functional behavioural assessment (FBA) is a formal and systematic process and refers to all the steps and methods used to identify and understand the target or problem behaviour, as well as the antecedents and consequences that contribute to the occurrence and maintenance of it (Horner, 1994; Iwata & Dozier, 2008; McCord et al., 2001; Sugai et al., 2000) before deciding on an intervention (Gable, Park, & Scott, 2014; Iwata & Dozier 2008; Matson & Minshawi, 2007). An effective FBA is done in naturalistic settings such as the school or home where the problem behaviour is most likely to occur (Gable et al., 2014; Goh & Bambara, 2012; Lewis et al., 2015).

2.4.3. Process of functional behaviour assessment.

The **first step** in conducting an FBA is to gather data regarding all the maintaining variables in the setting in which the behaviour occurs (Iwata & Dozier 2008; Lewis et al., 2015), using indirect measures such as interviews, which should include open-ended questions (Kozlowski & Matson, 2012), checklists, rating scales (Cage, Lewis, & Stichter, 2012; Kozlowski & Matson, 2012; Matson & Minshawi, 2007), and direct measures such as observations (Cage et al., 2012; Kozlowski & Matson, 2012; Lewis et al., 2015; Matson & Minshawi, 2007). Checklists can be subject to inaccurate perceptions if a rater or informant completes it (Matson & Minshawi, 2007).

The **second step** is to define the target behaviour in terms of its topographies, explain the relationship between the environmental antecedents, the behaviour, and the consequent events, and then to determine the function of the problem behaviour (Gresham et al., 2001; Newcomer & Lewis, 2004; O'Neill et al., 1997; Sugai et al., 2000). Also identified are the following: a desired replacement behaviour (long-term change), an alternative replacement behaviour that functions like the problem behaviour (short-term), as well as the consequences that are available to support the occurrence of the desired replacement behaviours (Gresham et al., 2001; Horner, 1994; Sugai et al., 2000). The final or **third step** in an FBA is to select an

intervention based on the above information (Gresham et al., 2001; O'Neill et al., 1997). This step is described in the section explaining behavioural change.

2.4.4. Behavioural cycle.

Behaviour, including self-injury, can also be conceptualised as following an escalation cycle (Colvin & Sugai, 1989) and is a visual representation of how behaviour is maintained over time (Figure 2.1).

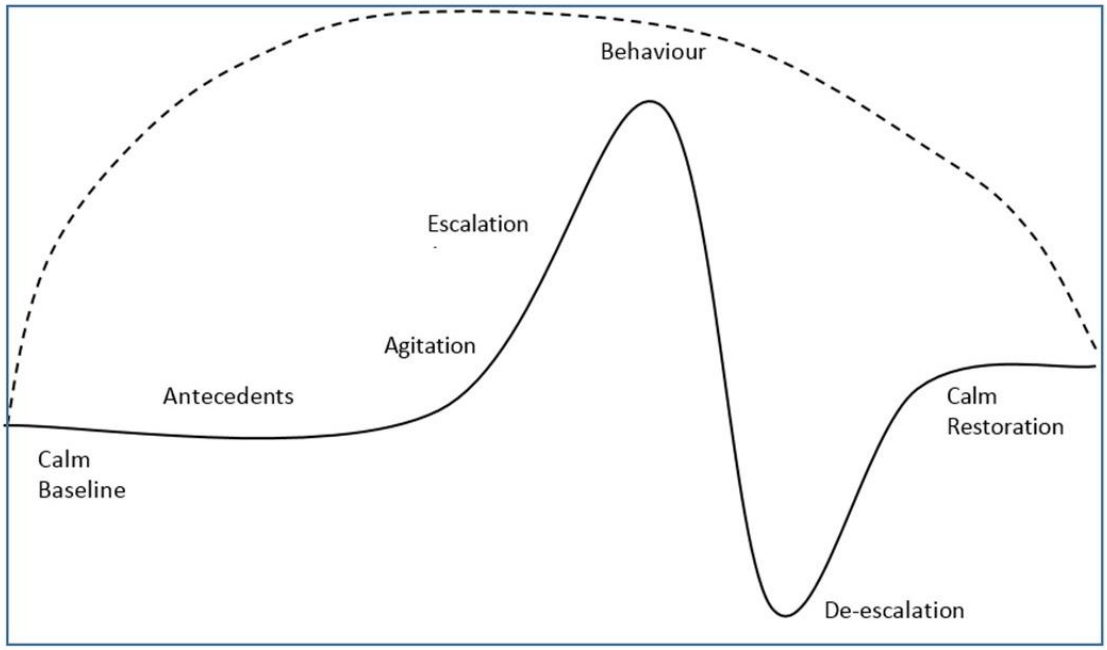


Figure 2.1. Model of escalated behaviour
Adapted from Colvin and Sugai, 1989

This model demonstrates how behaviours escalate following specific stages. It has been used extensively in positive classroom behaviour support (Sugai, 2015). Considering any behaviour, such as self-injury, it is assumed that under normal conditions a person will start the behaviour cycle by being calm at baseline. As behaviour is affected by antecedents, intrapersonal or interpersonal triggers may impact on the person to react in a certain manner in the presence of such antecedents. Certain processes taking place within the person as a result, for instance emotional arousal, may cause a situation that will lead to further escalation until the peak or crisis point is reached and the person then exhibits the problem or target behaviour.

After the peak of acting-out behaviour, for instance self-injury, the phase of de-escalation follows until the person moves into the recovery phase to get back to a

state of being calm at baseline. In the presence of maintaining consequences, the behaviour is reinforced, either by having escaped something aversive (negative reinforcement) or having accessed something desirable such as attention from another person (positive reinforcement). When the same trigger is present in the future, the person is likely to behave in the exact same manner due to the reinforcement qualities of the consequence, and so the behaviour cycle will continue unless intervention strategies are applied to break the cycle.

Because adolescents are reluctant to seek help, self-injurious behaviour often becomes a habitual cycle, which is best understood in terms of the other factors that are related to the phenomenon, such as the function that the self-injury has for an individual. An understanding of the functions of self-injury is therefore necessary to develop effective case conceptualisation and interventions, and to implement effective preventive strategies (Klonsky, 2007; Klonsky & Meuhlenkamp, 2007).

2.4.5. Behavioural change.

The final step in an FBA is to develop an intervention that will bring about change and thereby break the cycle by establishing a new behavioural response that can replace the problem or target behaviour (Iwata & Dozier, 2008). Yoman (2008) posits that the most important aspect of behaviour to take into consideration in behaviour therapy is its function, and not the topography. The assessment of the function facilitates the design of appropriate interventions (Goh & Bambara, 2012), as treatment effectiveness increases when the treatment matches the function of the target behaviour (Cage et al., 2012; Dunlap & Fox, 2011; Horner, 1994; Lewis et al., 2015; Newcomer & Lewis, 2004) by reducing the occurrence of the target behaviour, and by increasing the occurrence of a replacement behaviour that will result in the same outcome (Cage et al., 2012).

Environmental stimuli can be changed by means of changing the antecedents, strengthening the relationship between the alternative behaviour and its reinforcer, and weakening the maintaining reinforcer for the target behaviour (Cage et al., 2012). When data indicate that a specific behaviour is maintaining the problem, functionally equivalent behaviours as alternatives to the problem behaviour can be taught (Colvin & Sugai, 1989; Gresham et al., 2001; Horner & Day, 1991;

Newcomer & Lewis, 2004; Sugai et al., 2000). The alternative behavioural response will be from the same response class as the problem behaviour and will be controlled by the same antecedents and consequences as the problem behaviour (Horner, 1994; Horner & Day, 1991). Consequences following the new behaviour must neutralise or compete with those that used to maintain the problem behaviour (Iwata & Dozier, 2008). The information from an FBA can also be used to educate the client regarding the function of the behaviour, its antecedents, as well as its consequences (functions), and so prepare them and their environments for future challenges (Yoman, 2008).

2.5. A Functional Behavioural Approach Applied to Self-Injury

Self-injury can be viewed as learned responses that are reinforced in the context of specific environmental and psychobiological events (Kamen, 2009). Nock (2008) posits that self-injury is a high-intensity social signal used when verbal communication fails. Behaviour, and therefore self-injury also, is an honest communication of a person's true thoughts and feelings, seen to be "idioms of distress" (Nock, 2008, p. 162).

2.5.1. Setting events.

Setting events in a functional approach to self-injury include the predictors identified in the literature. Fliege, Lee, Grimm, and Klapp (2009) call these predictors 'distal factors' that may predispose the child to self-injure later. Setting events, for the purpose of this study, are considered to include the prevalence of insecure attachment patterns due to multiple traumatic events such as physical, emotional, and/or sexual abuse, or neglect, termed 'complex trauma' (Cook et al., 2005; Kinniburgh, Blaustein, Spinazzola, & van der Kolk, 2005; Schore & Schore, 2008), as well as factors related to parents or parenting, all of which have been identified as directly related to self-injury.

2.5.1.1. Attachment.

Bowlby (1969) posited that within the first reciprocal relationship with a caregiver (an attachment), a child develops internal working models of self, others, and how relationships with others work (Cook, Blaustein, Spinazzola, & van der Kolk, 2003). Attachment is expected to be an experience of co-regulation of the

infant's emotion by the caregiver, which will develop the ability for self-regulation in the child (Tatnell, Hasking, & Newman, 2018). Attachment, whether secure or insecure, will determine the child's resilience, self-esteem, self-confidence, ability to express emotions, and the relationship with peers (Rossouw, 2011a; Tatnell et al., 2014).

Insecure attachment causes the adolescent to trust less in the availability of the attachment figure and to communicate less, resulting in an enhanced risk of lifetime self-injury (Claes, De Raedt, Van de Walle, & Bosmans, 2016). Avoidant attachment is associated with suppressing emotional expression, resistant attachment leads to heightened emotional expression, while a disorganised attachment style results in either extreme response or freezing (Tatnell et al., 2018). Children fail to experience their own behaviour as having their goals and needs met, and they fail to develop adequate social repertoires or positive expectancies (Rossouw, 2011a). The adolescent comes to rely on external ways to reduce tension, such as substance abuse, binging, purging, and self-injury (Briere & Spinazzola, 2005).

2.5.1.2. Complex trauma.

Complex trauma is the multiple experiences of maltreatment over a period of time within a system of care and that occur during critical developmental periods (Cook et al., 2005). The number of trauma types experienced before the age of 18 leads to symptom complexity, greater distress and a generalised effect of cumulative trauma (Briere, Kaltman, & Green, 2008), which is often compounded by a dysfunctional family life (Fortune, Cottrell, & Fife, 2016).

The impact of the trauma is most notable in impaired language development, and a lack of affect and behaviour regulation skills (Cook et al., 2003; D'Andrea et al., 2012; van der Kolk, 2003),and an impaired capacity to self-regulate and self-soothe (Cook et al., 2005. There is a clearly established relationship between a history of trauma and self-injury as without these skills, adolescents often engage in self-injury in an attempt to regulate the negative emotions that result from trauma experienced within an insecure attachment relationship and dysfunctional environment (Brown, Williams, & Collins, 2007; Courtois, n.d.; Cyr, McDuff, Wright, Thériault, & Cinq-Mars, 2005; Hallab & Covic, 2010; Klonsky &

Meuhlenkamp, 2007; Nock, 2009; Nock & Mendes, 2008; Oldershaw et al., 2009; Swannell et al., 2012; Tatnell, Hasking, Newman, Taffe, & Martin, 2017; Yates, 2004; Zetterqvist, Lundh, & Svedin, 2013)**.** Also included in traumatic incidents having an association with self-injury are bullying and relational victimisation **(**Alfonso & Kaur, 2012; Heilbron & Prinstein, 2010). The behaviour can persist long after the neglectful environment has changed (Stirling & Amaya-Jackson, 2008).

While there are differences among the results of studies in terms of statistical significance of the various forms of maltreatment, the overwhelming general agreement is that young people who self-injure are more likely to report adverse life experiences than their peers without such history (Bakken & Gunter, 2012; Boxer, 2010; Fredland et al., 2017; Manca et al., 2014; Mars et al., 2014; O'Connor et al., 2009). Ystgaard, Hestetun, Loeb, and Mehlum (2004) found that 35% of the self-injuring participants in their study reported sexual abuse, 31% was exposed to family violence, 27% reported neglect, with 18% reporting severe physical abuse. Yates (2004) found that 79% of self-injurers had a history of maltreatment.

Sexual abuse has the strongest association with self-injury (Briere & Gil, 1998), causing disturbance in all areas of the self (Briere & Rickards, 2007). Sexual abuse may increase the likelihood that male self-injurers may attempt suicide (Taliaferro et al., 2012), create a higher risk for those who use sex as self-injury (Fredlund et al., 2017), and was associated with recurrent (Yates, Carlson, & Egeland, 2008) and more frequent self-injury (Di Pierro, Sarno, Perego, Gallucci, & Madeddu, 2012).

Physical abuse is associated with intermittent self-injury (Yates, Carlson, & Egeland, 2008). Having witnessed domestic violence is considered to be associated with increased self-directed aggressive behaviour (Armiento, Hamza, Stewart, & Leschied, 2016). Neglect often causes ongoing challenges that become more severe with age in regard to memory, attention, executive functions such as planning, problem-solving, memory and attention, but also lower IQ, language difficulties, lower academic achievements, and the inability to learn (De Bellis, 2005; De Bellis, Hooper, Spratt, & Woolley, 2009; De Bellis & Zisk, 2014). Neglect was also found to be strongly associated with depression, dysthymia and social phobia (Spinhoven et al., 2010).

2.5.1.3. Parental factors.

While parents can be a protective factor against self-injury (Whitlock et al., 2013), various factors related to parents and family life have been identified as having a relation to, or influence on, the development but also maintenance of self-injury over time. Compared to those who do not self-injure, adolescents who do are more likely to report feeling alienated from their parents, with less open communication (Bureau et al., 2010; Bylund Grenklo et al., 2014; Kelada et al., 2016a; Martin et al., 2011) and poor family cohesion (Bylund Grenklo et al., 2014). They often report discord in the family (Bifulco et al., 2014) and feel that their parents do not treat them with the dignity and respect they deserve, and that their parents do not explain decisions affecting them, the adolescents (Buser et al., 2012).

Self-injurers' perceived functioning of their family life is more negative (Kelada et al., 2016a) and report that it is being dysfunctional (Baetens et al., 2014; Bylund Grenklo et al., 2014). Continued dysfunction results in an increase in the stress response by young people (Rossouw, 2011a). Self-injuring adolescents report a high level of parental criticism (Baetens et al., 2015; Buser et al., 2012; Claes et al., 2012). Parental criticism results in the adolescent's self-criticism, which then leads to the development of an avoidant interpersonal orientation and the anticipation that others will respond aversively when emotional support is needed (Claes et al., 2012).

They also report high parental control and low support (Baetens et al., 2014; Fortune et al., 2016) or insensitive and inconsistent parenting (Teisl & Cichetti, 2008). Low family support is especially an important factor of self-injury among girls and it was found to lead to hopelessness, depression, and suicide ideation (Fortune et al., 2016) and may serve to increase the risk of self-injury (Young et al., 2011). Where the parents are likely to have affect regulation difficulties themselves, children are more likely to self-injure to rectify their own self-regulation difficulties (Bifulco et al., 2014). Role reversal was also identified as related to self-injury (Bifulco et al., 2014).

As distal risk factors, parental illness (Baetens et al., 2014) or disability was found to be associated with the traumatic experiences related to self-injury (Baetens et al., 2014; Laye-Gindhu & Schonert-Reichl, 2005) as was a family history of

psychiatric illness (Deliberto & Nock, 2008; Fliege et al., 2009; Hankin & Abela, 2011). In the presence of parental depression, it was found that young people will experience increased depressive symptoms, which they then seek to regulate through self-injury (Hankin & Abela, 2011). Depressed parents are less able to provide the necessary support to their children (Hankin & Abela, 2011) or act as good attachment figures (Rossouw, 2011a).

Parental loss or deprivation, chronic illness, major surgery, sexual and physical abuse, and emotional neglect are directly related to the prevalence of self-injury (Yates, 2004). Prolonged separation from a parent and separation between parents or divorce are also associated with self-injury (Baetens et al., 2014; Fliege et al., 2009; Fortune et al., 2016). Growing up with single parents (Baetens et al., 2014; Bifulco et al., 2014), or having lost a parent through death, are additional circumstances providing a pathway to self-injury (Baetens et al., 2014). It was also found that a parent's sexual orientation or a multi-racial family make-up could contribute to self-injury (Fortune et al., 2016).

Socio-economic adversity is related to self-injury (Baetens et al, 2014; DePrince, Weinzierl, & Combs, 2009; Fortune et al., 2016; Zetterqvist, Lundh, & Svedin, 2013) as is frequently moving house while growing up, as it is associated with more victimisation, social isolation, and lower rates of school attachment (Fortune et al., 2016). Parental influences regarding traits and disorders characterised by self-regulatory difficulties and lack of support, as well as parental substance abuse were also indicated as being associated with self-injury (Gromatsky et al., 2017).

2.5.2. Effects of setting events.

I wish to distinguish between (a) the events that had happened to adolescents who self-injure during periods of critical development and identify those as setting events, and (b) the difficulties self-injuring adolescents present with as a result of the setting events, which may include the presence of a range of other psychological disorders. These problems are considered to be the contributing factors and possible antecedents that trigger self-injury closer to the time of an incident and are evaluated next in this section.

2.5.2.1. Impaired executive functions.

Executive functions are the cognitive processes that are needed to control behaviours towards attaining goals, and include skills such as inhibitory control, planning ability, organisational skills, working memory, attentional control, the ability to shift between tasks, self-control and cognitive flexibility, which is the ability to change how we think about something (Diamond, 2013; Webster, Hackett, & Joubert, 2009). Numerous studies have found that self-injurers present with impaired executive functions, which may be the result of frontal lobe lesions (D'Andrea et al., 2012) or exposure to trauma such as chronic stress in the family that impacts on the development of regions in the brain such as the medial prefrontal cortex responsible for executive functions (De Bellis & Zisk, 2014; DePrince et al., 2009). It is considered that different regions in the brain's prefrontal cortex may be involved in different aspects of executive functions (Elliot, 2003). In this regard, for instance, it is indicated that the executive attentional network underlies self-regulation (Bifulco et al., 2014; Gabowitz, Zucker, & Cook, 2008; Teisl & Cicchetti, 2008), which is required in emotion regulation (Dixon-Gordon, Gratz, McDermott, & Tull, 2014). Self-injurers are found to be less flexible in their thinking and have difficulty with problem-solving (Cook et al., 2005; D'Andrea et al., 2012; Prinstein, 2008).

Impulsivity appears to be a multi-faceted construct (McCloskey, Look, Chen, Pajoumand, & Berman, 2012) that is associated with the presence of trait negative urgency (Bresin, Carter, & Gordon, 2013; Hamza et al., 2015) aggressive traits (Deliberto & Nock, 2008), sensation-seeking, as well as a lack of premeditation and a lack of perseverance (Peterson & Fischer, 2012). Allen and Hooley (2015) state that self-injurers display **poor inhibition** when shown pictures depicting self-injury. They do not view self-injury as aversive, which may indicate that through conditioning they have come to associate self-injury with relief and reward. Higher levels of impulsivity were found among self-injurers, compared to those who do not self-injure (Di Pierro et al., 2012; Dougherty et al., 2009). In one study it was reported that half of self-injury incidents occurred impulsively (Rawlings, Shevlin, Corcoran, Morriss, & Taylor, 2015). Impulsivity has also been associated with more severe injury than was intended, due to less behavioural control (Buser et al., 2017a).

Many self-injurers present with overall **impaired cognitive functioning** and specific deficits on standardised measures such as in language development (De Bellis et al., 2009; Gabowitz et al., 2008; Di Pierro et al., 2012; Cook et al., 2005) with self-injurers reporting that they have difficulty using language to express themselves. They present with idiosyncratic use of language and also lack the ability to differentiate between reality and the symbolic (Gregory & Mustata, 2012). Overall impaired learning ability and lower academic achievement were also found (Gabowitz et al., 2008).

In addition, **other executive functions** are also impaired, such as working memory (Gabowitz et al., 2008; Webster et al., 2009), and self-direction (Ballard, Bosk, & Pao, 2010), which manifests in having difficulty with starting and completing activities, planning and prioritising ability, choice-making, organisational skills, concentration ability (Gabowitz et al., 2008), problem-solving ability (D'Andrea et al., 2012; De Bellis & Zisk, 2014; Fliege et al., 2009; Nock & Mendes, 2008) and being able to plan for the future (Ballard et al., 2010).

2.5.2.2. Cognitive distortions.

'Cognitive distortions' is a term used in cognitive behavioural therapy and denotes faulty or unhelpful thought patterns that also lead to a cognitive vulnerability to stress (Kerr & Muehlenkamp, 2010), since there is a bias towards only recognising negative information and a negativistic interpretation of events. Faulty or negative perceptual and attributional styles often lead to emotional disturbances (Weems, Berman, Silverman, & Saavedra, 2001) and have been identified as associated with self-injury (D'Andrea et al., 2012; Wolff et al., 2013).

A higher level of cognitive vulnerabilities or maladaptive schemata (Briere and Spinazzola (2005) has been linked to higher levels of self-injury (Baroccas et al., 2015). These schemata are activated by certain stimuli and the result is that self-injury becomes a maladaptive way of coping with these problems. Repeated self-injury in turn strengthens the cognitive distortions and the outcomes are a negative view of the future and a sense of helplessness, hopelessness and expectations of rejection and loss (Briere & Spinazzola, 2005; Wolff et al., 2013).

A **negative cognitive style** is considered to be a distal risk factor (Hankin & Abela, 2011) that includes rumination, negative self-statements (Ammerman & Brown, 2016; Baiden et al., 2017; Wolff et al., 2013; Wolff et al., 2014), self-blame (Briere & Spinazzola, 2005), self-criticism and being pessimistic (Cohen et al., 2015; Weismoore & Esposito-Smythers, 2010), and is a trauma-related symptom (Smith, Kouros, & Meuret, 2014). When there is a punitive parent and an angry child, it may lead to the development of these maladaptive schemas (Saldias et al., 2013). Parentally expressed emotion (Ammerman & Brown, 2016) and parental criticism have been found to indirectly impact on self-injury and through self-criticism lead to distress and depressive feelings (Baetens et al., 2015). Cognitive distortions lead to anxiety and depression, which are associated with the development and maintenance of self-injury (Weismoore, & Esposito-Smythers, 2010).

A **negative self-view** is seen in self-criticism, for instance, in negative self-statements (Wolff et al., 2013) and leads to negative emotions, which is a strong indicator of self-injury (Claes et al., 2012; Gromatsky et al., 2017; Kerr & Muehlenkamp, 2010; Wolff et al., 2013). Concerns over mistakes cause excessive rumination and confirmation of the adolescent's negative traits and mistakes (Hoff & Muehlenkamp, 2009), which lead to self-hatred (St Germain & Hooley, 2012). Self-criticism and having a critical cognitive style were found to be the mediator between emotional abuse and self-injury (Glassman, Weierich, Hooley, Deliberto & Nock, 2007) and are associated with sadness, shame, having disgust for the self, self-hate, and self-denigration (Brown et al., 2009; Cohen et al., 2015; Smith, Steele, Weitzman, Trueba, & Meuret, 2015).

Self-injury is often applied as self-punishment as a result, because they perceive themselves as so bad (Brown et al., 2009; Claes et al., 2012; Hooley & St. Germain, 2014; Wester & McKibben, 2016; Xavier et al., 2017). Increased pain endurance results, due to the individual being highly self-critical, which stems from low self-worth and self-hatred (Hooley & St. Germain, 2014). Escape from negative self-appraisal through self-injury consists of both cognitive and emotional components (Armey & Crowther, 2008). Cognitive developmental changes that happen in adolescence lead to increased self-focus, and concerns about being negatively viewed by others lead to hatred or disgust towards the self.

Body image is the perception and subjective emotions about body size and physical appearance. A **negative body regard** leads to emotional dysregulation (Muehlenkamp, Bagge, Tull, & Gratz, 2013; Muehlenkamp & Brausch, 2012), which results in more frequent self-injury (Manca et al., 2014). Emotions lead to cognitions (attitudes, feelings, thoughts) that give rise to behaviour, for instance eating disorders, to control or influence the shape and appearance of the body (Duggan et al., 2013). The self-objectification is associated with shame, which leads to self-injury (Turner at al., 2015).

Adolescents who self-injure often have a **negative world-view** and see the world as a hostile environment full of dangers (Briere & Jordan, 2009; Briere & Spinazzola, 2005) and that everyone is against them (D'Andrea et al., 2012; Kerr & Muehlenkamp, 2010; Wolff et al., 2013). An overall low meaning of life is associated with more frequent self-injury (Marco et al., 2015).

Parental rejection often leads to the development of higher levels of maladaptive schemas, which include **rumination** (Quirk et al., 2015). Ruminating on negative affect leads to an emotional cascade of sadness (Selby, Franklin, Carson-Wong, & Rizvi, 2013), among other emotions, where the negative affect is amplified to the point where self-injury is applied to end the cycle, as a distraction from rumination (Selby et al., 2013; Tanner et al., 2014). Rumination was found to lead to greater severity, recency, and a variety of self-injury methods used (Quirk et al., 2015). Rumination also moderates the association between a traumatic past and self-injury (Tanner et al., 2014). It prolongs depressive symptoms, as it leads to brooding (reflection), giving rise to more maladaptive thoughts, so that depression develops and persists over time (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008; Polanco-Roman, Jurska, Quiñones, & Miranda, 2015).

Other forms of cognitive distortions are seen in overgeneralisation where a single negative outcome is believed to be representative of what will happen in all future situations (Weems et al., 2001). Emotional abuse was found to lead to a pessimistic explanatory style, viewing negative events as generalised in all areas of their lives (Buser & Hackney, 2012). Weems et al., (2001) also explain that catastrophising is evident in expecting the worst possible outcome of a situation, that personalising occurs when a person attributes the outcome of a negative event to the

self, and that by applying selective abstraction in any given situation, the person chooses to focus only on the negative aspects.

2.5.2.3. Identity disturbance.

Disturbed identity formation is the reduced identity synthesis and increased identity confusion that leads to the formation of a pseudo-identity as, for instance, a 'self-injurer' (Breen, Lewis, & Sutherland, 2013; Glenn, Kleiman, Cha, Nock, & Prinstein, 2016; Nock, 2009; Nock & Banaji, 2007; Wester & McKibben, 2016). Disturbed identity formation leads to self-injury in order to cope with challenges of developing the self and identity in adolescence (Claes, Luyckx, & Bijttebier, 2014). Females have higher levels of distress in the identity domain (Gandhi, Luyckx, Maitra, & Claes, 2015). Engagement in self-injury again leads to further identity disturbance (Gandhi et al., 2017). If there is good attachment to peers, it will promote identity synthesis and a reduction in confusion (Gandhi, Luyckx, Goossens, Maitra, & Claes, 2016).

2.5.2.4. Low self-esteem.

Several studies have found a direct association between low self-esteem, self-worth, self-image, and self-injury (Brausch & Gutierrez, 2010; Claes et al., 2010; Marshall, Faaborg-Andersen, Tilton-Weaver, & Stattin, 2013; O'Connor et al., 2009; Rotolone & Martin, 2012). One characteristic that is considered to be a proximal risk factor for self-injury is excessive reassurance seeking (Hankin & Abela, 2011). Low self-esteem also includes poor self-efficacy (Di Pierro et al., 2012; Nock, 2009; Tatnell et al., 2014) and limited belief in possibilities (Alfonso & Kaur, 2012). A low self-esteem, together with poor problem-solving abilities, will lead to a lower belief in self-efficacy, and a higher tendency towards self-blaming and self-derogation as coping style (Fliege et al., 2009). Self-criticism is considered to be conceptually similar to a low self-esteem (Tatnell et al., 2014).

2.5.2.5. Chronic interpersonal difficulties.

Having difficulties in relationships with their family and peers is often reported by those who self-injure (Gregory & Mustata, 2012; Ford & Gómez, 2015; Hankin & Abela, 2011; Kerr & Muehlenkamp, 2010; Preyde et al., 2014) and is in part due to

poor social problem-solving skills (Marshall, Faaborg-Anderson et al., 2013; Nock & Mendes, 2008) and excessive reassurance-seeking (Liu et al., 2014). While family relational problems have a direct effect self-injury through emotional dysregulation, poor friendship quality and peer relationship problems have an indirect effect (Adrian, Zeman, Erdley, Lisa, & Sim, 2011). They often report unstable and intense relationships with others (Maclaren & Best, 2010; Teisl & Cichetti, 2008), combined with low parental support (Brausch & Gutierrez, 2010).

Self-injurers expect to be rejected and despised (Briere & Spinazzola, 2005; Cook et al., 2005), and may display low levels of cooperation, destructive conflict behaviours and being critical and socially intolerant of others (Tschan et al., 2017). Serious problems with a boyfriend or girlfriend (O'Connor et al., 2009) are reported, together with not getting on well with others at school, and reporting that teachers are consistently not fair in addressing the misbehaviour of others (Kidger et al., 2015). Interpersonal difficulties are considered to be related to features of a person's interpersonal style, and not being equipped to manage these effectively (Kerr & Muehlenkamp, 2010). Peer victimisation is often associated with self-injury as it entails repeated negative direct and indirect confrontations.

Laghi et al. (2016) posit that an impaired theory of mind ability may contribute to interpersonal difficulties. Theory of mind (ToM) or what Preyde et al. (2014) refer to as mentalisation, is the ability to correctly identify intentions, emotions, desires and beliefs to oneself but also to others. This ability is necessary in order to explain and predict behaviour and understand social interactions. Impaired ToM leads to more difficulties with being aware of their own and other's mental states, to adapt to these, and to adopt effective strategies to achieve a desired state, such as reducing psychological trouble (Laghi et al., 2016).

2.5.2.6. Poor communication skills.

Self-injurers present with delays in language development when there is a history of complex trauma (De Bellis & Zisk, 2014, Hilt, Nock, Lloyd-Richardson, & Prinstein, 2008; Nock & Mendes, 2008). They also find it difficult to communicate their feelings. They explain that talking takes too much time, speaking is threatening,

and they often feel what they have to say will not be relevant (Straker, 2006). This results in them feeling alienated from others (Hilt et al., 2008).

2.5.2.7. Emotional disturbances.

Self-injury is widely associated with reported **high negative affect**, which tends to peak just before an episode of self-harm. In that sense, self-injury is seen as a maladaptive strategy to regulate the negative emotions. High levels of negative emotions lead to emotional distress and dysregulation (Kerr & Muehlenkamp, 2010). Self-injurers report higher mean levels of emotion, within person variation (valence and arousal) and lower emotional differentiation of negative affect (Bresin, 2014). Self-injury is reported to relieve the distress (Gregory & Mustata, 2012; Taylor, Peterson, & Fischer, 2012).

Alexithymia, which is the inability to identify, label, and verbally express one's emotions, has been widely associated with self-injury. Numerous studies have confirmed this characteristic (Gregory & Mustata, 2012), which is considered to develop in invalidating or abusive environments where children learn that the expression of emotions is not acceptable (Lüdtke, In-Albon, Michel, & Schmid, 2016; Thomassin, Shaffer, Madden, & Londino, 2016).

The inability to **regulate one's emotions** has the strongest relation to self-injury and therefore self-injurers are more likely to make rash decisions when faced with negative emotions and to use self-injury to regulate affect (Glenn & Klonsky, 2010a). Several factors contribute to this tendency, such as frequently experiencing negative emotions, for example anxiety, depression, resentment, and aggression, in the presence of poor coping skills (Tang et al., 2013), a negative attributional style (Baroccas et al., 2015) and cognitive rumination (Hilt et al., 2008).

A low **tolerance for emotional distress and arousal** is indicated as potentially leading to a breakdown of the cognitive processing systems that enable an individual to control behavioural choices (Chapman et al., 2006; Hamza et al., 2015; Larkin, Di Blasi, & Arensman, 2013). Lower distress tolerance has been associated with greater self-injury (Anestis, Pennings, Lavender, Tull, & Gratz, 2013), combined with substance abuse and with bulimic symptoms that are often found among self-injurers (Peterson, Davis-Becker, & Fischer, 2014). Low distress tolerance in combination

with negative urgency causes the individual to act rashly in the face of high negative affect as self-injurers can tolerate physical pain but not emotional pain (Peterson et al., 2014). This provides the pathway to impulsive maladaptive behaviour such as binge eating, substance use, and self-injury (Peterson et al., 2014). Those who self-injure report an underdeveloped **ability to self-soothe** (Xavier et al., 2017). This is considered to be a result of an insecure attachment system (Cook et al., 2005).

2.5.2.8. Avoidance behaviour.

Self-injurers report effortful avoidance of places, thoughts, feelings, and people associated with trauma (Gold, 2005; Shenk, Noll, & Cassarly, 2010). Weierich & Nock, 2008). Howe-Martin et al. (2012) see these avoidant behaviours, such as disordered eating, substance abuse, and suicide ideation, as functionally equivalent behaviours in the presence of self-injury and that increase as self-injury increases in frequency. They explain these behaviours in terms of the experiential avoidance model, where the behaviours serve the purpose of escaping or avoiding distressing emotions, thoughts, memories, and somatic sensations.

A strong association between self-injury and **dissociation** or dissociative experiences is widely reported (Karpel & Jerram, 2015; Laukkanen et al., 2013), especially in the presence of a history of maltreatment (Briere, Hodges, & Godbout, 2010; Briere & Spinazzola, 2005; Zetterqvist, Lundh, & Svedin, 2013), and in particular sexual abuse (Chaplo, Kerig, Bennett, & Modrowski, 2015; Yates, Carlson, & Egeland, 2008). Dissociation is linked to the lifetime prevalence of self-in jury (Calati, Bensassi, & Courtet, 2017). Dissociation is associated with alterations in the brain, such as the cerebrospinal fluid levels of some neurotransmitters (Cook et al., 2005) and is seen as an inability to integrate thoughts, memories, emotions, perception of the environment and personal identity into an integrated whole, and one's sense of self (Armey & Crowther, 2008), or a cognitive detachment from one's emotional and physical state in order to escape the emotions and pain when there is a cognitive awareness of abuse (Lang & Sharma-Patel, 2011). It can be seen in dissociative experiences, numbing, dysphoria, and avoidance of emotional states (Cook et al., 2005; Franzke, Wabnitz, & Catani, 2015). Self-injury is often used to stop or interrupt dissociation (Yates, 2004).

A high correlation between **substance abuse** and self-injury was indicated in a number of studies (Alfonso & Kaur, 2012; MacLaren & Best, 2010). It is considered that heavier use of substances such as alcohol and drugs is associated with the poor coping skills found among those who self-injure (Andrews, Martin, & Hasking, 2012; Hasking et al., 2013). An increased use of alcohol and cigarettes was reported by adolescents who self-injure (O'Connor et al., 2009). Maladaptive coping skills such as substance abuse (Cook et al., 2005) are applied to relieve the numbness (Briere & Spinazzola, 2005).

2.5.2.9. Somatisation.

In somatisation the self is experienced in primarily physical forms and expressed through somatic symptoms such as illness-related worry and a pre-occupation with the body (Yates, Carlson, & Egeland, 2008). Somatisation is associated with self-injury (Cook et al., 2005) and is more prevalent among those who cut on body parts other than only on their arms (Laukkanen et al., 2013). This bodily distress or dysfunction is believed to be a result of psychological phenomena (Briere & Spinazzola, 2005).

2.5.2.10. Comorbid disorders.

Although not all people with other psychiatric conditions or disorders self-injure, and not all self-injurers have a diagnosed disorder, self-injury is more often than not found in the presence of at least one (Jacobson, Muehlenkamp, Miller & Turner, 2008; Nock et al., 2006), and sometimes more than one, other comorbid condition (Auerbach et al., 2014). Klonsky and Olino (2008) reported that about one in five self-injurers has severe psychiatric problems, associated with early onset of self-injury and multiple functions the self-injury has for them. Emotional disorders are especially associated with self-injury due to a frequent experience of negative emotions (Bentley, Cassiello-Robbins, Vittorio, Sauer-Zavala, & Barlow, 2015; Spinhoven et al., 2010).

In the past, self-injury was considered to be a symptom of **borderline personality disorder** (BPD), therefore many studies have focused on and confirmed the comorbidity (Brickman, Ammerman, Look, Berman, & McClosky, 2014; Kaplan et al., 2016; Lang & Sharma-Patel, 2011). Regarding comorbidity with BPD, it was

posited that the two conditions share the central feature of emotion dysregulation, which can be seen in dissociation, alexithymia, and less awareness of emotions (MacLaren & Best, 2010).

Depression is seen as having difficulty coping with an inability to regulate emotions (Baiden et al., 2017) and often develops as a result of early physical and sexual abuse (Cicchetti, Rogosch, Gunnar, & Toth, 2010). Depression is widely associated with self-injury (Auerbach et al., 2014; Dougherty et al., 2009; Fredlund et al, 2017; Hankin & Abela, 2011; Jacobson et al., 2008; Lang & Sharma-Patell, 2011; Liu, Cheek, & Nestor, 2016; Muehlenkamp, Williams, Gutierrez, & Claes, 2009; Ross, Heath, & Toste, 2009). Rumination is often found among female self-injurers in the presence of depression, while males tend to turn to alcohol to get relief (Baiden et al., 2017). Depression is often found in combination with anxiety (Radovic & Hasking, 2013). In terms of comorbidity with self-injury, depression is the most frequent diagnosis (Swannell, Martin, Scott, Gibbons, & Gifford, 2008). In females, self-injury has a more severe presentation, lower mean age, lower age of onset, and more frequent episodes in the presence of depression (Swannell et al., 2008). Symptoms of depression are a strong predictor of self-injury (Koenig et al., 2017), especially over time (Baroccas et al., 2015).

Anxiety is associated with even the mildest forms of self-injury (Auerbach et al., 2014; Lang & Sharma-Patell, 2011; Radovic & Hasking, 2013; Ross et al., 2009). Anxiety is often the result of experiencing early childhood neglect (De Bellis, 2005). Due to the strong relationship between early childhood trauma and self-injury, **post-traumatic stress disorder (PTSD)** is also related to self-injury, which is applied to stop many of the symptoms of PTSD (Auerbach et al., 2014; Briere & Eadie, 2016; Ford & Gómez, 2015; Zetterqvist, Lundh, & Svedin, 2013).

There are many studies that have found a strong association between self-injury and the various forms of **disordered eating** (Engel & Joiner, 2012; Lang & Sharma-Patel, 2011; Klonsky, 2007; Ross et al., 2009). The two conditions have a high comorbidity and can sometimes replace each other. When one is under control, the other one may reappear (Muehlenkamp, Engel et al., 2009). Involvement in either eating disorders or self-injury increases the risk for engaging in the other (Riley, Davis, Combs, Jordan, & Smith, 2016). For instance, Claes et al. (2010) found that

38.9% of individuals with eating disorders also reported self-injury. The common denominator is considered to possibly be the presence of impulsiveness, which causes the instant alleviation of high negative affect (Petersen & Fischer, 2012).

Self-injury predicts greater engagement in purging, but in return, purging predicts more frequent self-injury (Turner, Yiu et al., 2015) in order to find relief or distraction from subjective distress (Riley et al., 2016). Self-injury is considered to be of the same response class (Howe-Martin et al., 2012) and commonly co-occurs (Kingston, Clarke, & Remington, 2010). Bakken and Gunter (2012) posit that purging is the strongest predictor of self-injury.

2.5.3. Antecedents.

Several contributing factors have been identified that are considered to be possible antecedents for self-harm, closer to the time of an incident. Fliege et al. (2009) identify these factors as being more proximal, with a more direct effect on self-injury as outcome. Included in this group of factors impacting on the decision to engage in self-harming acts are: specific thoughts, high levels of negative emotions, the use of drugs and alcohol at the time of self-harm, listening to music with lyrics depicting suicidal and self-injurious acts, being alone, and experiencing negative affect. Additional to these antecedents are conflict with others, and questioning a sexual orientation.

2.5.3.1. Thoughts.

Underlying the thoughts that lead to experiencing high levels of negative affect are the overall distorted thought patterns explained earlier and the tendency to ruminate (Selby et al., 2013). Thoughts that are associated with self-injury are related to the function self-injury has for the person and include thinking that the person is bad and therefore has to be punished (Briere & Gil, 1989; Klonsky, Glenn, Styer, Olino, & Washburn, 2015; Swannell et al., 2008; Young et al., 2014), worrying or thinking about problems in general (Nock et al., 2010; Paul, Tsypes, Eidlitz, Ernhout, & Whitlock, 2015) and about schoolwork in particular (Adler & Adler, 2007), as well as wishing that someone would see the cuts and care about them (Paul et al., 2015; Rodav, Levy & Hamdan, 2014; Young et al., 2014).

Further thoughts that are reported include thinking about current upsetting problems (Selby et al., 2013), thinking that they cannot cope (Polk & Liss, 2009) and wanting the emotional pain to stop (Rodav et al., 2014). Other thoughts associated with an event of self-injury are thinking that they want to see blood (Gregory & Mustata, 2012), feel pain (Rodav et al., 2014), that they do not want to die (Adler & Adler, 2005; Swannell et al., 2008), or to stop suicidal thoughts (Klonsky 2009). In addition, upsetting memories (Selby et al., 2013) and having flashbacks (Briere & Gil, 1989; Klonsky, 2009; Nock et al., 2010) were also identified.

2.5.3.2. Feelings.

Suppressing these aversive thoughts is a strategy often used, but was found to lead to experiencing high negative affect instead (Najmi, Wegner, & Nock, 2007). The strongest feelings were reported to be sadness and feeling depressed (Bakken & Gunter, 2012; Bresin et al., 2013; Victor & Klonsky, 2014b). Hopelessness is also strongly associated with self-injury (Auerbach et al., 2014; Baiden et al., 2017; Dougherty et al., 2009; Hankin & Abela, 2011; Nickels, Walls, Laser, & Wisneski, 2012; Taliaferro et al., 2012). Loneliness (Klomek et al., 2016; Victor & Klonsky, 2014b), due to social isolation is regularly reported, especially in sexual minority groups (Nickels et al., 2012). Self-hatred (Nickels et al., 2012) feeling disgusted and dissatisfied with self (Victor & Klonsky, 2014b). Other feelings experienced immediately before a self-injury events include anxiety or nervousness (Jutengren et al., 2011; Klomek et al., 2016; Victor & Klonsky, 2014b), shame and guilt (Baiden et al., 2017; Victor & Klonsky, 2014b), anger (Abrams & Gordon, 2003), aggression (Jutengren et al., 2011) and feeling distressed (Abrams & Gordon, 2003).

Numbing is described as having a restricted range of affect and is associated with episodic self-injury (Weierich & Nock 2008) or feelings of emptiness and anhedonia (Lang & Sharma-Patel, 2011). Feelings of numbness lead to self-injury in order to evoke feelings (Joiner et al., 2012; Lang & Sharma-Patel, 2011; Polk & Liss, 2009), which was reported by 51.9% of sexual minority group members, while 31.3% indicated that they self-injure because they needed stimulation (Nickels et al., 2012).

2.5.3.3. Other Influences.

At the time of self-injury, a number of factors or influences may be present that may increase the likelihood that self-injury will occur.

Seeing blood is often mentioned as reason for self-injury (Gregory & Mustata, 2012), since it serves the purpose of providing a sense of relief (Abrams & Gordon, 2003). In a study by Glenn and Klonsky (2010b), 61.6% of participants rated it as important, while 84.8% reported multiple functions of seeing blood, such as that it relieves tension, it makes them calm, makes them feel real, helps them focus, and that they did it just right (deep enough). Seeing blood is a confirmation of existence (Straker, 2006).

To cut oneself to **feel physical pain** is associated with reducing the numb feeling often expressed (Gregory & Mustata, 2012) and to generate feeling (Hamza & Willoughby, 2013). Cutting therefore serves the purpose of assuring oneself of being alive. The role of feeling physical pain is believed to be an externalisation of emotional pain into a physical sensation (Kirtley, O'Carroll, & O'Connor, 2016). Among those who mention this as important there is an increased pain tolerance indicated (Kirtley et al., 2016). Reduced pain perception is reported to be further reduced during distress and a form of analgesia is experienced (Bohus et al., 2000; Glenn, Michel, Franklin, Hooley & Nock., 2014). The desensitisation to pain during self-injury has as an effect more frequent and more different methods of self-injury to increase painful experiences. It was also found that people with high emotional reactivity, especially females, report a greater decrease of negative affect after experiencing physical pain (Bresin, Gordon, Bender, Gordon, & Joiner, 2010).

A benefit of **looking at scars** has been reported for as long as they remain (Adler & Adler, 2007). Scars are important to look at as they remain and are a sign of being real (Straker, 2006) and a reminder of what they have been through (Adler & Adler, 2005).

The message often presented by the **media and Internet** such as online blogs and posts regarding self-injury is that it is a viable coping response, with little hope for recovery, and it may discourage help-seeking (Lewis & Baker, 2011). It was also found that images and pictures of self-injury cause higher arousal and excitement for

self-injurers (Plener, Bubalo, Fladung, Ludolph, & Lulé, 2012), may trigger an episode (Lewis & Michal, 2014) and are thought to maintain self-injury (Lewis, Heath, Sornberger, & Arbuthnoth, 2012). Diminished aversion to self-cutting stimuli is associated with more recent and life-time incidences of self-injury (Franklin, Lee, Puzia, & Prinstein, 2014). Looking at videos depicting self-injury creates a normalisation of the act (Purington & Whitlock, 2010; Radovic & Hasking, 2013; Whitlock, Powers, & Eckenrode, 2006) and provides reinforcement for self-injury through regular viewing. Often, a melancholic message (Lewis & Baker, 2011) of hopelessness is conveyed (Lewis & Baker, 2011) that may contribute to the prevalence of self-injury when a person already has the urge to self-injure (Lewis, Heath, St Denis, & Noble, 2011).

Websites portray self-injury as an effective coping mechanism, not always painful, as being addictive and difficult to stop doing it (Lewis & Baker, 2011). Looking at pictures of fresh and bloody wounds may trigger self-injury or contribute to it. However, looking at pictures of old scar tissue may discourage the self-injurer (Baker & Lewis, 2013). Youths who access websites were seven times more likely to say that they have thought of killing themselves (Mitchell, Wells, Priebe, &Ybarra, 2014). Baker & Lewis, 2013; Lewis & Michal, 2014)

The correlation between listening to **music** containing lyrics related to self-injury and suicide and the incidence of self-injury has been debated. Genres such as heavy metal and rap are perceived to be less likely to inspire pro-social behaviour (Ballard, Dodson, & Bazzini, 1999) and are associated with self-destructive traits (Fried, 2003) and an increase in risk-taking behaviour (Selfhout, Delsing, ter Bogt, & Meeus, 2008). Music plays an important part in adolescent development and it can therefore have an impact on their mood and sense of hopelessness (Miranda, 2013; Rustard, Small, Jobes, Safer, & Peterson, 2003) and their ability to regulate their emotions (Miranda, 2013). The impact of these genres can also be considered as providing a sense of relief to self-injurers by realising that there are others who have the same experiences (Baker & Brown, 2016). While there is a strong indication that music can cause self-injurious thoughts, the correlation is considered to be mediated by other indices of vulnerability such as family background, low self-esteem and depression (North & Hargreaves; 2006, 2009) as well as the typical search of identity

in adolescence (Fried, 2003), social developmental issues, and personality issues (Schwartz & Fouts, 2003).

Short **sleep** duration, insomnia, poor quality sleep, unrefreshed sleep, fatigue, and nightmares were identified as causing an increased risk of self-injury (Liu et al., 2017; Lundh, Bjärehed, & Wångby-Lundh, 2013). More sleep problems were associated with a higher frequency of self-injury (Hysing et al., 2015).

Social factors such as conflict, current relational concerns and parental issues (Abrams & Gordon, 2003) were reported as being causes of self-injury. Interpersonal conflict does not decrease after self-injury, regardless of whether acts were disclosed or not (Turner, Cobb, Gratz, & Chapman, 2016). Having a fight with someone (Nock et al., 2010) is associated with self-injury events, due to the high negative affect that results.

When there is the additional impact of **drugs and alcohol** at the time of self-injury, it becomes very likely that the person may inflict a more serious injury than intended (Bracken-Minor et al., 2012; Buser et al., 2017a). Whitlock et al. (2011) found that 21.3% of participants reported that the use of drugs and alcohol at the time of self-injury caused them to hurt themselves more severely than intended. Using drugs or alcohol was reported during 4.8% of episodes in another study (Nock et al., 2010). Substance use leads to a higher risk for engaging in self-injury that persists over time (Selby, Nock, & Kranzler, 2014; Yen et al., 2016). Alcohol dependency therefore is a risk factor for self-injury, as the two phenomena commonly co-occur (Bracken-Minor et al., 2012; Tuisku et al., 2014), due to both being associated with risk-taking and maladaptive attempts to divert painful emotions (Stewart, Baiden, & Theall-Honey, 2014). Nock et al., 2010; Whitlock et al., 2011).

Being alone and feeling lonely as reason for self-injury was reported (Brier & Gil, 1989; Laye-Gindhu & Schonert-Reichl, 2005; Klomek et al., 2016; Klonsky, 2009; Nock et al., 2010; Swannell et al., 2008). Self-injurers reported that they may experience thinking to self-injure while they are with friends and peers a substantial part of the time, but that they injure when they are alone (Nock et al., 2010).

2.5.4. Maintaining consequences or functions of self-injury.

Self-injury as behaviour, based on Skinner's (1953) operant conditioning theory, can be viewed as being reinforced when followed by certain consequences, which can only be positive reinforcing if something is gained, or negatively reinforcing when something is taken away or avoided. The negative reinforcement hypothesis applied to self-injury implies that it is a behaviour that is learned and reinforced by escaping or avoiding an aversive stimulus or situation (Dixon et al., 2012). Self-injury can serve several functions at once, especially amidst clinically significant levels of self-injury (Brausch, Muehlenkamp, & Washburn, 2016). While Hoffman and Kress (2010) posit that there may be a variety of functions that may change over time or in response to experience, Victor, Styer, and Washburn (2016) found that functions of self-injury remain stable over time, but would decrease in response to treatment.

The model that most closely fits the aim of this study was found to be a **four-function model** developed by Nock and Prinstein (2004) for evaluating the functions of self-harm that differ along two dichotomous dimensions. The functions of self-injury can be automatic versus social, and positive versus negative reinforcing. Therefore, functions of self-injury can be: (a) automatic-negatively reinforced (ANR), for instance to stop negative feelings, (b) automatic-positively reinforced (APR), for instance to feel something, (c) social-negatively reinforced (SNR), such as to avoid a negative social demand or (d) social-positively reinforced (SPR), for instance to get a reaction from someone. A functional relation is demonstrated only when the probability of the behaviour, such as self-injury, increases following a consequence (Nock, 2008). Many researchers have approached self-injury from a functional behavioural perspective and many have developed checklists or other measures to assess the maintaining functions that self-injury may have. Based on the findings of numerous studies, a compilation of possible functions was developed (Appendix C) to fit in with Nock and Prinstein's (2004) model.

2.5.4.1. Negative reinforcement.

Negative reinforcement implies that by engaging in self-injury, the adolescent will avoid or escape something that is aversive. Negative reinforcement can either be

provided by someone else (**social**/interpersonal) or by the self-injurer himself, without involvement from someone else (**automatic**/intrapersonal).

Escape/avoid negative intrapersonal (ANR). It is widely accepted that emotional dysregulation is one of the biggest problems with which adolescents have difficulty. The reason most mentioned for engaging in self-injury is therefore to escape this high negative affect or to get relief from it, for instance through affect regulation (Nock, 2009; Prinstein, 2008).

Escape/avoid negative interpersonal (SNR). An example of this function is to avoid social demands (Zetterqvist, Lundh, Dahlström, & Svedin, 2014).

2.5.4.2. Positive reinforcement.

Positive reinforcement implies that by engaging in self-injury, the adolescent will gain or access something that has positive value. Positive reinforcement can either be provided by someone else (social/interpersonal) or by the self-injurer himself, without involvement from someone else (automatic/intrapersonal).

Access positive intrapersonal reinforcement (APR). Automatic reinforcement is considered to produce its own reinforcement such as sensations arising from self-injury that reinforce and promote the behaviour (Selby et al., 2014). Automatic positive reinforcement predicts persistent self-injury that is elevated and longer in duration (Yen at al., 2016). An example of this function is self-punishment (Nock & Prinstein, 2004).

Access positive interpersonal reinforcement (SPR). An example of this form of reinforcement is to seek help (Nock, 2009) or to feel part of a group (Nock & Prinstein, 2004).

2.5.5. Behavioural change.

As in all instances of aberrant behaviour, the aim is to ultimately effect a change in behaviour. Based on Skinner's operant learning theory, when the reinforcement is no longer effective, the behaviour no longer has a function and can therefore be changed or extinguished. Interventions for self-injury therefore have to take into consideration the function that the self-injury has for those who self-injure.

At times, the function may be closely related to underlying skills that are not part of the adolescent's repertoire, and in those instances behavioural change will be closely related to teaching the necessary skills as part of an intervention.

From the exploration and evaluation of the literature discussed in the previous sections it is clear that self-injury is a complex phenomenon in terms of its predictors, topography, prevalence, as well as the function or purpose it has for an individual. This complexity has resulted in the development of numerous explanatory models, associated assessment approaches, as well as treatment or intervention approaches, which will be evaluated next.

2.6. Therapeutic Interventions and Treatment

Treatment and intervention approaches for self-injury are as diverse as the factors underlying the phenomenon. In this section I critically evaluate the options for therapeutic interventions and strategies regarding self-injury found in the research literature. The broad category of psychotherapy will be presented in two sections, namely cognitive behavioural approaches and neuro-psychotherapy. Some general guidelines and strategies found in the literature are also evaluated, followed by mindfulness, school counselling, and technology-based approaches. Creative therapies and pharmacotherapy, which are often used in combination with psychotherapy, were not explored, as those fields fall outside the parameters of this study.

2.6.1. Psychotherapeutic approaches.

Psychotherapy could be instrumental in reducing self-injury through a validating and resonant attachment relationship that is aimed at rehabilitating neuro-biological dysregulation (De Stefano & Atkins, 2017). The therapeutic relationship is more important than the approach itself (Trepal, 2010). Preconditions for success in therapy are considered to be a supportive and collaborative therapeutic relationship and having a motivation for treatment (Turner, Austin, & Chapman, 2014). Being open to therapy and viewing it positively enhances the success of therapy through improved emotional and social awareness, connections with others, and learning to process difficult experiences (Whitlock et al., 2015). However, in one study nearly

half of self-injurers believed that self-injury was not a problem in their lives. This may impact on their willingness to engage in therapy, and it helps explain why therapists often find that treating individuals who self-injure can be a difficult task (Whitlock, Muehlenkamp, & Eckenrode, 2008).

The greatest number of evidence-based psychotherapeutic approaches used in face-to-face therapy commonly found in literature is based on behavioural principles.

2.6.1.1. Cognitive behavioural approaches.

The 'first wave' of behavioural therapies (Harris, 2006) utilised operant and classic conditioning techniques in behavioural change. The 'second wave' of therapies, such as cognitive behavioural therapy (CBT) added cognitive interventions to behavioural strategies followed (Harris, 2006). Guerdjikova, Gwizdowski, McElroy, McCullumsmith, and Suppes (2014) claim that CBT was found to be highly effective in the treatment of self-injury. In contrast, Brausch and Girresch (2012) posit that CBT is overall effective only for addressing the underlying problems related to self-injury.

The 'third wave' of behaviour therapies (Öst, 2008) is considered to be potentially useful in addressing a range of clinical conditions (Harris, 2006; Hayes, Masuda, Bissett, Luoma, & Guerrero, 2004). The mindfulness-based behavioural therapies are also included in this group. Acceptance and commitment therapy claims to have been successful in a number of clinical situations such as depression, anxiety and psychosis (Harris, 2006; Hayes, Boyd, & Sewell, 2011; Hayes, Pistorello, & Levin, 2012) and is therefore considered as potentially beneficial in addressing some aspects of self-injury. Cognitive analytic therapy has been proven somewhat successful in treating personality disorders (Calvert & Kellett, 2014; Denman, 2001; Marriot and Kellett, 2009; Shine & Westacott, 2010) but the evidence base as potentially beneficial to treat self-injury is limited.

The therapy sessions of functional analytic psychotherapy are structured to make the occurrence of the target behaviour more likely (Hayes et al., 2004; Kohlenberg & Tsai, 1994). Although it has foundations in radical behaviourism, due to the nature of self-injury, it appears that it would have limited usefulness as such. Turner, Austin, and Chapman (2014) claim that through their review, the

intervention that holds the most promise of being effective appears to be dynamic deconstructive psychotherapy, which requires weekly sessions of at least 45 minutes for a duration of 12-18 months (Gregory & Remen, 2008). There is not extensive evidence of its success in treating self-injury, though.

Dialectical behaviour therapy (DBT) was originally developed by Linehan in the early 1980s for treatment of chronically suicidal and self-injurious individuals but has been adapted for other behavioural disorders that are difficult to treat (Dimeff & Linehan, 2001; Muehlenkamp et al., 2011; Neacsiu, Ward-Ciesielski, & Linehan, 2012), and is considered to be effective in the treatment of self-injury (Nock, Teper, & Hollander, 2007; Pasieczny & Connor, 2011) when combined with mindfulness (Howe-Martin et al., 2012); however, Brausch and Girresch (2012) did not find enough evidence to declare DBT effective in the treatment of self-injury.

While many of these approaches are well-researched in the context of a range of psychological disorders and conditions, outcomes of studies offer mixed results in terms of efficiently reducing the prevalence or severity of self-injury as such. In their review, Brausch and Girresch (2012) concluded that there is no strong evidence for efficacy of any specific treatment. According to Selby et al. (2015), no reviews found any well-established treatment for self-injury. Treatments often rather address the underlying and concurrent factors and comorbid disorders such as depression, anxiety, hopelessness, lack of problem-solving skills, and dissatisfaction with life (Brausch & Girresch, 2012). The effectiveness of interventions is more often than not in the context of BPD (Selby et al., 2015).

From reviewing the literature it appears that many approaches hold a promise of reducing self-injury in as far as the comorbid conditions are treated. These therapeutic approaches, unfortunately, are very lengthy and time-consuming (Miller & Smith, 2008; Öst, 2008; Miller & Smith, 2008; Turner, Austin, & Chapman, 2014; Wilkinson, 2013), and can also be fairly costly (Guerdjikova et al., 2014). A further drawback is that none of the approaches have been developed specifically to address self-injury and none was found to have been a research-validated approach to reduce self-injury. Many authors suggest that certain underlying aspects of self-injury should be targeted in intervention.

2.6.1.2. Neuro-psychotherapy.

Mental disorders typically develop as a result of compromised environments (Rossouw, 2014). Memories, as explained by Allison and Rossouw (2013), are sequences of thoughts, feelings, and perceptions formed within a network of neurons that fire together. Good or bad experiences change the patterns of neural firing and therefore also of activation (Rossouw, 2013). Thoughts and memories that influence emotions define the self (Allison & Rossouw, 2013). In terms of self-injury, the self is negatively affected by circumstances such as complex trauma of the past.

In neuro-psychotherapy the therapist approaches mental disorders from within a framework that integrates social, biological and psychological elements of the disorder so that the focus and attention are on the client's brain, whilst providing them with a safe and enriched environment (Allison & Rossouw, 2013). Good and bad experiences change the patterns of neural firing and could lead to new patterns of activation. Therapy is aimed at developing new pathways of neural firing (Centonze, Siracusano, Calabresi, & Bernardi, 2005) via the creation of a safe experience and a corrective emotional experience (Allison & Rossouw, 2013). Rossouw (2014) explains that psychotherapy permanently changes the brain function, brain structure, and/or the cortical blood flow through interventions such as talking therapies. Research has found that talking therapies facilitate neuro-chemical changes in neural networks through facilitating a safe and enriched environment (Rossouw, 2013).

2.6.2. Function-based strategies.

Of importance to this study is the taking of the function of self-injury into consideration when planning interventions. A functional assessment of the factors precipitating and maintaining self-injury would provide the information needed for determining successful intervention (Trepal, 2010; Turner, Chapman, & Gratz, 2014). Specific to viewing self-injury from a functional behavioural perspective, Nock and Prinstein (2004) posit that, seeing that different learning experiences are involved in the development of self-injury, diverse treatment approaches based on the function of self-injury should be considered to effectively replace self-injury with functionally equivalent behaviours.

Providing psycho-education regarding the antecedents and functions of self-injury, as well as the identification of alternative behaviours, is suggested in order for the adolescent to understand the behaviour and its related factors (Claes et al., 2010). This is to help adolescents understand the nature of maladaptive behaviour and the function it serves, so that they learn to replace it with socially acceptable behaviour (Singh et al., 2006).

Similarly, Bentley, Nock, and Barlow (2014) explain that, even though some of their suggestions still need research to prove validation, specific interventions based on the function of behaviour should be considered in treating self-injury. Although some authors do not specifically mention a functional approach, they suggest strategies that align with those suggested by Bentley et al. (2014).

When self-injury is maintained by means of automatic negative reinforcement, and the function is to avoid experiencing negative emotions, functionally informed strategies in treatment could be to teach mindfulness and distress-tolerance training. Skill acquisition in emotion regulation is widely suggested, seeing that emotion dysregulation is a major underlying cause of self-injury (Klonsky & Olino, 2008; Trepal, 2010). Teaching cognitive reappraisal could serve as a strategy for those who self-injure to escape from negative thoughts (Bentley et al., 2014).

Some people experience numb or depersonalised emotional states, and by engaging in self-injury they attempt to experience feeling something (automatic positive reinforcement), often having dysfunctional thoughts associated with the behaviour. Those thoughts have to be identified and strategies applied, as intervention could include mindfulness training and cognitive restructuring (Bentley et al., 2014; Kerr & Muehlenkamp, 2010; Trepal, 2010) to provide alternative attributions to those triggers. According to Bentley et al. (2014), alternative strategies to address these reasons for self-injury are to actively get involved in other healthy behaviours instead of self-injury (behavioural activation), consciously attending to daily activities, as well as replaying past positive events and anticipating those in the future (savouring).

In both social negative and positive reinforcement functions, a person attempts to control the social environment. Deficits in social skills and communication skills

to express wants and needs are at the core of these functions and have to be addressed by means of intervention strategies such as learning social skills and problem-solving skills (Bentley et al., 2014; Trepal, 2010). Distress tolerance-teaching could be useful where self-injury is intended to provide a means of escaping aversive social situations (Bentley et al., 2014). General strategies related to all functions include identifying and rehearsing functionally equivalent, adaptive behaviours (Bentley et al., 2014).

2.6.3. General guidelines, strategies, and other approaches.

The suggestions mentioned here are a compilation of various authors' unrelated suggestions to address a number of the underlying characteristics or risk factors of self-injury. The purpose of treatment and intervention is to adopt a problem-solving orientation to life's distress that could lead to developing alternate coping strategies (De Stefano & Atkins, 2017).

The role of physical exercise in improving mental health conditions has received considerable attention in research as an adjunct intervention in disorders such as depression, anxiety and eating disorders (Danielson, Papoulias, Petersson, Carlsson, & Waern, 2014; Legrand & Neff, 2016; Stathopoulou, Powers, Berry, Smits, & Otto, 2006), especially from a neurobiological perspective, when taking the role of neurotransmitters into consideration (Schuch et al., 2016). Not only should exercise have an indirect effect on self-injury through treatment of other comorbid disorders, but it was also identified as having the potential to reduce the urge to self-injure (Jarvi, Hearon, Batejan, Gironde, & Björgvinsson, 2017; Klonski & Glen, 2008).

Recovery from mental illness underlying self-injury involves the self-injurers' increasing control over the condition while taking back responsibility for their own lives. Renewing hope, redefining the self, becoming involved in meaningful activities, managing symptoms, and overcoming stigma should be focused upon (Singh et al., 2006).

Determining the origins and functions of self-criticism and then addressing the hostile and harmful intent of internal self-criticism and associated feelings of shame,

anger, and hatred should form part of an intervention. Therapy should promote the development of inner warmth and self-compassion as found in compassion-focussed therapy (Xavier et al., 2017).

Klonsky and Glenn (2008) investigated a number of strategies that may help to resist the urge to self-injure. They found that the strategies that participants considered to be most helpful included keeping busy, being around friends, writing about how they feel, talking to someone about how they feel, talking to friends, doing sports or exercise recreationally, interacting with someone who is nice to them, finding someone who understands, and thinking of someone who cares about them. Strategies suggested to self-injurers were often indicated as not being very helpful. Those strategies include relaxing, removing the means used to self-injure, taking anti-depressants, closing eyes and having calming thoughts, and setting limits in respect of the frequency of self-injury. Hoffman and Kress (2010) warn against a popular approach to self-injury, namely to develop a contract to stop cutting, as it actually has more negative consequences than positives.

2.6.4. Mindfulness.

Mindfulness has its origin in the Eastern religions and is usually practised in combination with Buddhist meditation (Thompson, Arnkoff, & Glass, 2011). It is often associated with therapeutic approaches (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). Mindfulness consists of two components: (a) the self-regulation of sustained attention to focus on the immediate mental experiences such as thoughts, feelings and sensations as one becomes aware of them without elaboration or rumination, and (b) a particular orientation towards those experiences that is characterised by curiosity, openness, but especially acceptance thereof (Baer et al., 2006; Bishop et al., 2004; Coffey, Hartman, & Frederickson, 2010) which could lead to a change in their subjective meaning (Bishop et al., 2004).

In relation to mental health, mindfulness leads to the ability to regulate negative affect, decreases rumination, and diminishes the reliance on external circumstances for one's happiness (Coffey et al., 2010). Being able to practice mindfulness is considered to be a potential protective factor against self-injury (Baer et al., 2006; Thompson et al., 2011). There are indications that practicing

mindfulness could be beneficial in addressing some of the underlying issues related to early trauma such as high negative affect, dissociation and avoidance (Thompson et al., 2011).The inclusion of mindfulness exercises, combined with other strategies in a therapeutic approach, appears to hold promise as potentially successful to reduce the incidence of self-injury.

2.6.5. School counselling and support.

Schools are considered to be well-positioned to address self-injury through awareness raising, early identification of those adolescents and assessing them for hopelessness and suicidality, but also by equipping adolescents with coping skills and by facilitating connections to adults who are considered to be prosocial role models (Taliaferro et al., 2012; Whitlock & Rodham, 2013). Despite concerns often encountered, it was found that screening for psychological distress and self-injury does not cause significant distress (Robinson et al., 2011). Glasheen and Campbell (2009) state that while guidance counsellors are available in secondary schools at no cost to parents there are many students who do not make use of such a service, even though adolescents can self-refer without parental consent. They suggest that guidance counsellors could extend their services to include online counselling.

2.6.6. Technology-based approaches.

Of great interest to this study are technology-based interventions, as there is an increasing number of online counselling options available. The use of smartphone technology in mental health care is a promising addition to these approaches (Luxton, McCann, Bush, Mishkind, & Reger, 2011). Most of the technology-supported approaches are based on cognitive behavioural principles due to their proven success (Andersson, 2009; Barak & Grohol, 2011: Glasheen & Campbell, 2009; Hopps, Pépin, & Boisvert, 2003). These principles are also applicable to any good teaching where the ingrained thinking of students is challenged and they are taught alternative ways of thinking.

Barak, Klein, and Proudfoot (2009) categorise Internet-supported interventions into four categories: (a) web-based interventions; (b) online counselling and therapy; (c) Internet-operated software; and (d) other online activities. Some web-based interventions mainly provide education about a subject, while others are self-guided

or human-guided therapeutic interventions that have as goal a measurable change in behaviour (Barak & Grohol, 2011). Online counselling can be synchronous (accessed at the same time by both parties), asynchronous (accessed at different times), individual, or based on group communication (Barak & Grohol, 2011; Barak et al., 2009). Other applications associated with online counselling include personal blogs and social media such as Twitter and Facebook, chat rooms, and email lists.

With the growing internet use, online or distance counselling makes service provision to rural and diverse communities more accessible (Barak & Grohol, 2011). There is an increase in practitioners using computer technology to interface with their clients (Witt, Oliver, & McNicols, (2016). New computer-mediated electronic bulletin boards, video conferencing (Witt et al. 2016) as well as email therapy, e-therapy, and synchronous or asynchronous chats can be used effectively in addressing a range of issues such as depression and anxiety (Mallen, Jenkins, Vogel, & Day, 2011; Witt et al. 2016). Synchronous chats involve the typing back and forth of messages in real time, as both people involved are online at the same time.

Distance counselling has been proved to be successful and has some distinct advantages (Barak & Grohol, 2011; Witt et al., 2016). Clients have access to interventions without the burden of travelling, there is flexibility with scheduling, and it is convenient even across time zones (Witt et al., 2016). There are no time restraints, or overhead costs for the counsellor, the client experiences greater autonomy, and there is a reduction in the stigma associated with therapy since it is private and confidential, and can be relatively anonymous (Barak & Grohol, 2011; Witt et al., 2016). Those who are averse to seeking help, or who have had poor face-to-face experiences with therapy can be reached. Both client and clinician have more time to structure their responses in asynchronous applications (Witt et al., 2016).

While many of the same counselling skills that are used in face-to-face therapy can be used in online counselling, one drawback appears to be the lack of non-verbal communication that is associated with it (Barak & Grohol, 2011: Mallen et al., 2011; Witt et al., 2016), and that could influence the counselling dynamic and result in the emotional content being misunderstood. Another disadvantage is when a client is illiterate (Witt et al., 2016). While record-keeping of sessions is made easy by electronically saving the transcripts of the synchronous chats or copies of emails, the

records are also easier to be retrieved by other people (Mallen, Vogel, & Rochlen, 2005). Difficulty with technology such as computer lag and crashes could hinder the counselling process (Witt et al., 2016).

The inclusion of a variety of multi-media formats was found to make online interventions more dynamic, engaging, and personalised, and facilitates ownership and connectedness (Barak et al., 2009). In this regard, Lisetti and Wagner (2007) posit that artificial social characters or companion software systems that produce avatars are now widely used. Avatars can be used to complement human interaction in brief motivational interventions for mental health. Special attention can be given to the appearance of the avatar, which is not possible with a human psychotherapist (Lisetti & Wagner, 2007), and the client and clinician can have representations or avatars of themselves, or the representations can also be in the form of an animal or mythical creature (Witt et al., 2016). When this technology is used for adolescents, ideally the latter should be able to choose an avatar according to their preferences, for instance ethnicity, so that the social companion can have maximum positive impact on behaviour change (Lisetti & Wagner, 2007).

Access to face-to face CBT treatment is often not feasible due to cost and availability factors (Hilvert-Bruce, Rossouw, Wong, Sunderland, & Andrews, 2012). Hilvert-Bruce and colleagues (2012) posit that internet-delivered CBT (iCBT) may overcome these barriers, provided that adherence to a program can be increased. In their review of Internet-based anxiety treatment programs, Bernoff and Rossouw (2014) found that human-supported web-based treatments are just as successful as traditional face-to-face psychotherapeutic interventions. In this approach, occasional face-to-face interaction between client and therapist has proved to contribute to the effectiveness (Bernoff & Rossouw, 2014) Personalised clinician contact during the course via telephone and email reminders may provide the necessary motivation to persevere, while any concerns or problems clients may have, can be addressed to improve outcomes.

2.6.7. Summary.

In reviewing the therapeutic approaches to self-injury it can be concluded that while several approaches hold the promise of being successful in reducing the

occurrence of self-injury, the heterogeneity of associated factors and complexity of this phenomenon prevent a firm conclusion about effectiveness. As such, there is no intervention that addresses self-injury in its entirety, and many strategies may be successful if used together in an eclectic manner. Traditional approaches, while seemingly effective in addressing comorbid conditions and maybe resulting in a reduction of self-injury, have been proved to be too long in duration and too costly, which may place therapy out of reach of many who self-injure. None could be found that approaches self-injury from both a functional behavioural perspective and neurobiological perspective, and is provided online in a user-friendly format to be used by a school counsellor or other therapist within a limited timeframe.

Therapists may also not have had the necessary thorough training in providing a therapeutic approach to ensure positive outcomes. These approaches are usually provided face-to-face which, while advantageous because of the importance of the therapeutic alliance between therapist and client, may also prevent many from accessing therapy, especially in rural areas without access to therapists on an ongoing basis. School counsellors are in an ideal position to provide support, but are limited due to their role descriptions and a variety of other tasks demanding their attention. Adolescents are frequently online, accessing the Internet for a wide variety of reasons, including seeking help for mental disorders, therefore it appears to be logical to tap into the potential that Internet-based therapy may provide. In view of the worldwide focus on the importance of neuroscientific knowledge applied to all areas of human life, understanding self-injury from such a perspective and applying those principles in interventions, especially the notion of neuroplasticity, appear to be important but not considered in many therapeutic approaches.

2.7. Neurobiological Insights

Of special relevance to this study is the growing body of neuroscientific research that explains the neurobiological basis of self-injury and its associated factors. In this section I present a basic understanding of the brain, its development and functioning in order to understand the neurobiological basis of important aspects of self-injury and how it pertains to this study. More detailed information regarding brain development and functioning as well as the neurobiology of attachment, trauma, and interventions appears in Appendix D.

2.7.1. Brain development and basic functioning.

The hippocampus is the memory centre of our brains where episodic memory is formed and stored (QLD Brain Institute, n.d.; Stirling & Amaya-Jackson, 2008). The amygdala is necessary for emotional regulation (Stirling & Amaya-Jackson, 2008), plays a role in forming and storing classic fear-conditioned responses, and relays emotionally-charged memories to the hippocampus (Gold, 2005). It attaches emotional content to memories. New neurons are made in the amygdalae (QLD Brain Institute, n.d.).

The cerebrum, and especially the frontal lobes, is responsible for the most important executive functions such as thinking, planning, reasoning, language processing, and the interpretation and processing of sensory input (QLD Brain Institute, n.d.) as well as the ability to regulate emotional states and inhibit impulsive behaviour, for instance self-injury (Fikke, Melinder, & Landrø, 2011).

The brain develops in a sequential and hierarchical fashion, from the least complex (brainstem and diencephalon) to the most complex (limbic and cortical). The process of development is influenced by a multitude of neurotransmitters, neuro-hormones, and neuro-modulator signals that help cells migrate, differentiate, and form dendritic trees and synaptic connections (Perry, 2002, 2009). The signals that come from the mono-amine neural systems originate in the brain stem and diencephalon, and they project to every other area in the brain (Perry, 2009). Impairment in the organisation and functioning in these systems could result in a cascade of dysfunction throughout the brain (Perry, 2009).

Rather than a single organ, the brain is now viewed as a complex of specialised and interactive organs that are constantly developing through interaction with each other as well as with the environment (Stirling & Amaya-Johnson, 2008). Patterns of interpersonal communication can have a powerful effect on how neural circuits develop and grow (Siegel, 2001). The undifferentiated neural systems in the developing brain are therefore dependent on environmental cues and micro-environmental cues such as transmitters and hormones that are in part dependent on the experiences of the child (Perry, 2009). The brain adapts structurally to become

the best brain for a child's given surroundings through learning (Stirling & Amaya-Jackson, 2008).

2.7.1.1. Neurotransmitters.

Neurotransmitters transmit messages between neurons in the nervous system in the synaptic cleft between synapses of neurons (QLD Brain Institute, n.d.). The most important neurotransmitters related to self-injurious events are considered to be the neuromodulators: (a) **dopamine,** which is considered to be a stress hormone that is involved in motor control, reward and reinforcement, as well as motivation, (b) **noradrenaline** (norepinephrine), which works in organs to control blood pressure, heart rate, and liver function among others, (c) **serotonin,** which is involved in sleep, memory, appetite, and mood, (d) **oxytocin,** which plays a role in social bonding and parental behaviour, the management of stressful experiences, has effects on immune and cardiovascular functions, and on regulation of both the central and autonomic nervous systems (Carter et al., 2007; Grillon et al., 2013; Grippo, Trahanas, Zimmerman, Porges, & Carter, 2009), (d) the **endogenous opioids** are anti-stress mediators that are involved in controlling pain, reinforcement and reward, the release of neurotransmitters, and addictive behaviours.

The receptors mu, delta, and kappa are activated by endogenous peptides such as enkephalins, dynorphins, and endorphin (Drolet et al., 2001), and (e) the stress hormones **cortisol** and **adrenalin**. These are produced by the adrenal glands that are part of the HPA-axis. Too much cortisol can have a negative effect on the hippocampus. It interferes with neurotransmitter activities and impairs the creation of new memories, but also restricts access to existing ones. Excess cortisol can lead to memory problems, sleep problems, heart disease, and depression.

2.7.2. Neurobiological understandings.

Secure attachment is a critical mediator of successful development (Stirling & Amaya-Jackson, 2008). Suboptimal attachment causes the mind of the infant to not function as a well-integrated system and will lead to emotional rigidity, difficulty in social relationships, impairments in attention, difficulty understanding the minds of others, and the risk in stressful situations (Siegel, 2001). This will cause a psychological vulnerability that alters the brain's neuroendocrine response to stress.

In the case of a disorganised attachment, a predisposition toward dissociation is created (Siegel, 2001). Insecure attachment is widely associated with self-injury.

When adverse experiences occur, disruptions in the neurodevelopment take place, which lead to compromised structure and functioning of the brain in the serotonergic, dopaminergic, and norepinephrine systems (Perry, 2009; Teicher et al., 2003). The impact of severe trauma and stress, such as childhood abuse, leaves neurobiological effects on the developing brain's structure and function that could be semi-permanent (Perry, 2009; Teicher, 2000). This eventuates because childhood abuse occurs during the critical periods when the brain is more sensitive to outside environmental experiences (Glaser, 2000; Heim, Shugart, Craighead, & Nemeroff, 2010; Perry, 2009; Teicher, et al., 2003).

Outcomes generally associated with trauma include problems with attention, concentration, executive functions, learning, memory, abstract reasoning, verbal memory, visual spatial ability, and self-regulation (De Bellis & Zisk, 2014; Gabowitz et al., 2008), all of which have been found to be associated with self-injury. It was also found that many children exposed to trauma displayed distractibility and impulsivity, and attained lower academic achievement, as well as specific deficits on standardised measures of intelligence such as verbal reasoning and full-scale IQ (De Bellis, 2005; De Bellis et al., 2009; De Bellis & Zisk, 2014; Gabowitz et al., 2008).

The results of a compromised interpersonal environment while growing up have been identified as a smaller hippocampus, over-reactivity in the amygdala, higher levels of cortisol, and an underdeveloped frontal cortex. These results lead to a compromised ability to respond and manage internal arousal, which is implicated in clinical conditions such as depression (De Stefano & Atkins, 2017; Heim & Nemeroff, 2001) and therefore closely related to self-injury.

Studies investigating the neurobiology of self-injury from various perspectives and research objectives abound. Enhanced activation of the limbic region, and especially the amygdala, was reported in a number of studies (e.g. Niedtfeld et al., 2010). Numerous studies have found that self-injurers have chronically low levels of endogenous opioids (Bresin & Gordon, 2013; Stanley et al., 2010; Valentino & Van Bockstaele, 2015; Whitlock & Rodham, 2013; Yates, 2004), which may be the result

of abuse, neglect or other trauma (Stanley et al., 2010; Whitlock & Rodham, 2013). It was established that chronic stress blunts the endogenous opioid levels (Stanley et al., 2010; Valentino & Van Bockstaele, 2015).

As endogenous opioids are involved in modulating reward, as well as in the regulation of pain and affect, they are released during self-injury in response to tissue damage (Bresin & Gordon, 2013; Selby et al., 2014; Stanley et al., 2010). Physical pain as well as the emotional pain experienced by self-injurers are both regulated by the right ventral prefrontal cortex and therefore endocrine responses are the same in both instances (Bresin & Gordon, 2013). Self-injury is therefore considered to be an act performed to regulate emotion and pain by restoring the levels of the opioids to return to a state of homeostasis (Bresin & Gordon, 2013; Stanley et al., 2010; Whitlock & Rodham, 2013).

Self-injurers report feelings of euphoria after self-injury that are considered to be the effect of the release of endogenous opioids, due to the fact that the results act as analgesic against the pain (Selby et al., 2014). These addictive properties of, or 'craving' for, self-injury in the context of negative emotions that play a role in maintaining self-injury over time, are thought to be related to artificial stimulation of the endogenous opioid system in the brain (Claes et al., 2010; Victor et al., 2012).

Some people, however, present with higher levels of endogenous opioids that result in increased pain tolerance in self-injury and are also considered to be associated with feelings of dissociation, which may lead to an increase in severity of self-injury in order to end the dissociation (Bresin & Gordon, 2013). Endogenous opioids are also involved in social bonding, to which self-injury can be related, as it elicits social support from others (Bresin & Gordon, 2013).

Serotonin levels are closely linked to the system that controls the endogenous opioid system (Whitlock & Rodham, 2013). Low serotonin levels were also found to be associated with self-injury, especially in adolescent females when they are in emotional distress. Those who self-injure present with a sensitivity to dysregulation in the serotonin system, which makes them vulnerable to impaired cognitive control of emotions and behaviour, and they react with more impulsivity in the face of high negative affect (Fikke, Melinder, & Landrø, 2013). Reduced secretion of cortisol

levels was found to create a vulnerability in self-injurers to acute stress and a maladaptive stress response (Kaess et al., 2012). It is posited that the lower levels of cortisol could be a result of multiple childhood adversities (Plener et al., 2017).

Psychological interventions have the potential to modify the brain function, regardless of the approach followed (Barsaglini, Sartori, Benetti, Pettersson-Yeo, & Mechelli, 2014). As pathology usually develops because of a compromised environment, creating a safe and enriching therapeutic environment is important. In the process of therapy, the plasticity of the brain has to be activated. Kandel (1998) posits that if successful, psychotherapy produces long-term changes in the behaviour that is characteristic of psychiatric illness due to disturbances in brain function. The learning that results produces alterations in gene expression and changes in neuronal connections.

2.8. Conclusion

This chapter is in line with van Manen's (1990) suggested research activities, and in particular the *"turning towards the phenomenon"* aspect in the form of a comprehensive literature review of all the features related to the phenomenon of self-injury. Focused attention was applied with intentionality (van Manen, 1990) to investigate and critically evaluate the existing literature and to identify possible opportunities for this study to contribute to the existing knowledge base.

It was established that although self-injury is a well-researched topic from a wide range of theoretical perspectives and viewpoints or hypotheses, little is known about what it is that an adolescent really experiences at the time of an incident of self-injury. Despite a growing number of studies with the aim to assess self-injury by means of ecological momentary assessment methods, there is still a limited understanding of self-injury as a lived experience at the time of the self-injury. Measuring the strength of thoughts and feelings at the time of self-injury, combined with other circumstances at play at that time, does not occur regularly. No other study was found that was based on the ecological momentary assessment approach, but with the added explanation of the lived experiences in narrative format as provided by the participants.

It was found that treatment or intervention approaches differ as widely as every other aspect related to self-injury. While most approaches hold some promise of possibly being successful in reducing self-injury, most of them were considered to require lengthy time commitments and associated costs, which make them less attractive for impulsive adolescents having to deal with high emotional distress. Numerous online therapeutic options, as a possible solution, are already available, but none was found to be brief enough to be implemented by school guidance officers and other therapists who serve rural or hard-to-reach populations. There were also no structured online interventions found to include neuroscientific information in combination with a functional behavioural approach.

Furthermore, although numerous assessment instruments exist, no study researched, was found to use the assessment instruments integrated with the intervention, which is usually a separate phase of a study. No evidence was found that the graphic organiser proposed for use in this study, which is based on a functional behavioural approach, has ever been used as an instrument in a research study regarding self-injury from a hermeneutic phenomenological perspective.

As a result of this chapter, my readers and I were able to expand our understanding of all the complexities of this phenomenon. We can now engage with an explanation of the development and execution of the rest of the study to follow in the remainder of this thesis in order to answer the questions that have become apparent.

CHAPTER 3: CONCEPTUAL FRAMEWORK

3.1. Introduction

In Chapter 1, I explained how I developed an intense interest in this phenomenon and that the research questions developed as a result of this interest as suggested by Moustakas (1994). In the previous chapter I turned the attention of the reader to the phenomenon of self-injury and provided a background to this study. The aim of this chapter is to present the conceptual framework that provided a logical structure to the research process in order to address the research questions.

3.2. Conceptual Framework

The conceptual framework for this study is presented in a detailed process chart in Figure 3.1 to provide a visual overview of the study, that is, from its origin to the outcomes. The process chart contains all the key concepts, constructs, actions and activities, as well as the relationship between these, as indicated by arrows linking the concepts and research activities mentioned within the text boxes.

As all the various components of the research design are discussed in detail elsewhere, only a brief overview is offered here, while reference is made to other chapters throughout. Embedded in the process chart, reference is made to the six numbered research activities for hermeneutic phenomenological studies, as suggested by van Manen (1990) and applied in this study. The six research activities proposed by van Manen are: turning to a phenomenon, investigating the lived experience, reflecting on essential themes, describing through writing and re-writing, maintaining orientation throughout the process, and balancing the parts and the whole of the research context. These activities will be further discussed in Chapter 4: Methodology. For the purpose of embedding the activities in the visual representation of the conceptual framework, the research activities are summarised in the bottom right-hand corner of the process chart and are colour-coded.

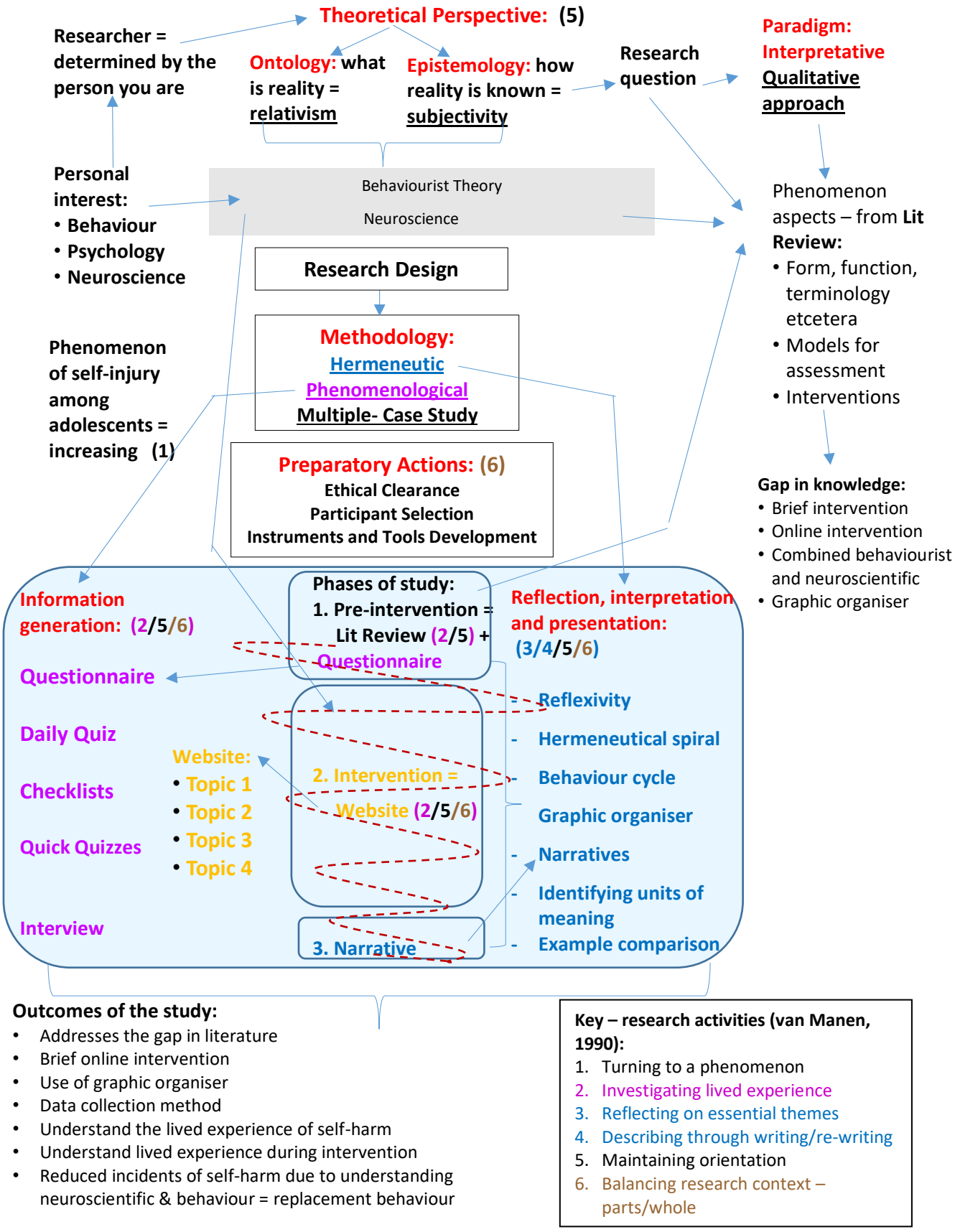


Figure 3.1. Conceptual framework

"The researcher you are is the person you are" (Gale, 1998, p. 2). This statement was clarified and explained in the Prelude, where I introduced myself as the researcher. To summarise, my personal interests, experience, and background influenced me to become the person I am, and therefore determined how I approached this study. In Chapter 1, I explained that my interest in psychology, behaviour, and neuroscience had shaped the way in which I came to view the phenomenon of self-injury. As a guidance officer I became aware of the increased number of adolescents who presented with self-injury. These concepts were the point of departure of the research and are located on the left-hand side of the chart.

The concepts that form the point of departure are located on the left-hand side of the chart. From the identified starting point, an arrow directs the attention to the section at the top of the chart. Who I am as a person determines how I see reality (ontology) and how I believe reality can be known (epistemology). Together, ontology and epistemology form the theoretical framework from which the investigation was approached. My ontological beliefs are founded in relativism which asserts that there is not only one ultimate reality (truth) but various realities that are relative to a specific person. Knowledge is created internally and the knower cannot be separated from what there is to be known, therefore knowledge is subjective in nature. We get to know those realities by entering the life-world or context of others. These concepts will be discussed and explained further in Chapters 4 and 5.

The research questions required investigation from an interpretive paradigm within the qualitative approach as my objective was not to arrive at a generalizable truth, but to rather uncover the unique experiences of each participant. My theoretical perspective, as informed by behaviourist theory and neuroscience, also contributed to the research design in the form of the intervention, determining some of the aspects of self-injury to be researched as captured in the literature review (Chapter 2), and forming the knowledge base for developing the intervention contained on the website. This will be further explained in Chapter 5: Deconstructing the Research Setting.

A number of arrows point to the literature review. The development of the intervention was based on current literature about research-validated therapeutic approaches, but also using neuroscientific insights. From the review of the existing literature, certain limitations or gaps were identified. Many options based on cognitive behaviour therapeutical approaches, if at all combined in any way with an online intervention, were often projected as self-help approaches. Traditionally, cognitive behaviour therapeutical approaches provided in person, may take many weeks to complete, while an online intervention could be delivered in a shorter period of time.

The graphic organiser I adapted, has never before been used to explain self-injury to those who self-injure. No evidence was found in literature that this graphic organiser has been used in the manner intended in this study. Research of the literature also determined that some psychotherapeutic approaches are highly successful for changing challenging behaviour (Rossouw, 2013). Therefore explaining behaviour and neuroscience to students by using the behaviour-cycle graphic organiser, hypothetically had the potential to not only reduce self-injury and to replace it with more socially accepted behaviours, but also to address some of the origins of the self-injury. While exploring the available research literature, it was found that separately, behaviourist and neuroscientific approaches as applied to self-injury have been researched extensively; however, the combined approach was not readily evident.

The centre of Figure 3.1 explains how the theoretical framework influenced the choice of research design in order to obtain answers to the research questions. Investigating a lived experience requires a hermeneutic phenomenological research methodology. It was considered that the case-study format would best capture the full account of the person's early social and relational experiences that led to self-injury, as well as their current situation within a variety of social contexts such as home, school and peer friendships.

The research design determined specific actions to be taken before research could start. Aspects such as ethical clearance and participant selection are explained in Chapter 4: Methodology. The development of the tools and instruments planned to

be used during the investigation is described in Chapter 5: Deconstructing the Research Setting.

It made sense to design the study to be completed in phases in order to apply van Manen's (1990) suggested hermeneutical phenomenological research activities. I approached the study with a limited pre-understanding of the phenomenon, and that knowledge had been obtained as a result of my interaction with self-injuring adolescents as well as limited training in the subject as part of my previous studies. In Figure 2.1 the phases of the study are enclosed by the pale blue shape. The first phase included reviewing the literature, as well as obtaining historical data about the participants' self-injuring experiences. For this purpose, a pre-intervention questionnaire was developed for participants to complete online via a secure website. Together, these actions resulted in increased understandings that were then added to my prior professional knowledge.

The second phase of the study comprised the gathering of information (data) and the fine-tuning of the online intervention. All research takes place within a specific setting where information is gathered. The setting is usually a physical location, for instance a school. In this study, the online intervention was considered to be the setting in which most of the research took place, as the questionnaires, checklists, and quizzes were embedded in the intervention and were accessed via the website called 'Help for Harm'. They formed part of the four topics of the intervention from a combined behaviourist and neuroscientific approach. Arrows indicate the connection between the centre text box and the list of instruments on the right. The concept of the intervention as research setting, the content of the instruments, as well as the content of the online intervention are explained in Chapter 5: Deconstructing the Research Setting.

In hermeneutic phenomenological research the gathering of information and the interpretation thereof are not two separate steps occurring in a specific sequential order. Rather, a researcher moves between the two activities by interpreting information as it becomes available. To the right of the centre text box regarding the second phase, are the activities or actions employed for reflection on, interpretation of, and presentation of the information. During the entire research, but more so

during the interpretation of information activity, the principle of reflexivity is applied, whereby the researcher continually reflects upon the interpretation of information so that pre-understandings and biases do not influence the meaning of the lived experience arrived at (Dowling, 2007; Finlay, 2009, 2013).

The participants also become co-creators of their own lived experiences by engaging in the interpretation phase. They entered the hermeneutic cycle to consider the phenomenon as a whole in order to understand the parts, and in turn consider the parts to better understand the whole. I am of the opinion that the process more accurately resembles a spiral, with the wide end starting with a broad pre-understanding of the phenomenon until, through the implementation of the phases of the study and research activities, a deep understanding is reached of the phenomenon as it is lived. The final representation of the lived experience is then co-created between the researcher and each participant. Although the final phase of the study is identified as the completion of each participant's lived experience in the form of a narrative, the writing and re-writing of the narratives and the identification of essential themes or 'units of meaning' (see Chapter 7) are part of the process described above, and do not stand separate.

3.3. Conclusion

As a person with a long-standing interest and extensive experience in behaviour support in schools, it was natural for me to view the phenomenon of self-injury from a behaviourist point of view. For some, to combine my interest in neuroscience with behaviour may not be viewed as natural, however, these two interests have undoubtedly influenced the way in which I have approached this study. This influence can be seen throughout the conceptual framework presented in Figure 3.1. The rationale for combining behaviour and neuroscience within a hermeneutic phenomenological study is further clarified in Chapter 4, where the methodology is discussed in detail.

CHAPTER 4: METHODOLOGY

4.1. Introduction

This chapter articulates how I came to understand and choose hermeneutic phenomenology as my methodology. It also describes the way in which I was led to finding the meaning in the lived experiences captured. Some aspects of the study that one could expect to find in this chapter, which discusses methodology, such as the theoretical framework, the research setting, as well as the steps and procedures employed to generate information, are included in the next chapter. Because components typically associated with methodology are divided between two different chapters, some explanations and discussions will necessarily overlap to link important concepts, as well as the practical implementation of the research activities and process. Therefore, numerous cross-references will provide the reader with the orientation and understanding necessary to evaluate this study and appreciate the complexity of this endeavour.

4.2. Research Design

Chapter 5 provides a detailed discussion of the theoretical framework, therefore in this section I will provide only a brief summary to link that discussion with other aspects of the research design. I will then justify the use of a hermeneutic phenomenological approach in this multiple-case study. The conceptual framework as described in Chapter 3 will be referred to throughout.

4.2.1. Theoretical framework.

The theoretical perspective of the researcher determines the research approach, methodology, and the choice of methods and processes that would best lead to an answer to the research questions. One's theoretical perspective, or philosophical stance, is formed by ontology, together with epistemology (Bogdan & Biklen, 2007). Crotty (1989) describes ontology as the study of being, of what exists, of what is thinkable, what the real nature of entities is, how they come into being, and why. Guba and Lincoln (1994) see ontology as the assumptions we have about the nature

of reality. In other words, ontology defines our personal assumptions about how reality is made up and how we understand the nature of what there is to know. Epistemology refers to our personal beliefs about how we might go about gaining knowledge (Guba & Lincoln, 1994) about reality.

As the "why" and "how" questions related to self-injury as lived experience emerged, it was clear that those questions could be answered only by employing a qualitative approach to the research. Qualitative research or inquiry is an overarching term used to include a variety of research methodologies and methods, each with its own assumptions and procedures (Staller, 2012) but with some common characteristics. The most mutual characteristic is that rich descriptions or accounts of the participants and their social world are outcomes of the research (Haverkamp & Young, 2007). Another important shared characteristic is that the researcher is not removed from the research process, but is instead an instrument in the process (Staller, 2012) and inextricably linked with it (Yeh & Inman, 2007).

It is argued that the researcher's values (axiology) influence the process of knowledge creation (Kafle, 2011) or the co-construction of meaning (Haverkamp & Young, 2007). The researcher is seen as an interpreter, rather than a reporter of findings (Haverkamp & Young, 2007). Denzin and Lincoln (1994) view the qualitative researcher as a *bricoleur*; someone who produces a bricolage that is complex, dense, and a reflexive representation of the researcher's images, understandings, and interpretations of a phenomenon.

Another common characteristic is the importance of the participants' perspectives needing to be discovered (Kuckartz, 2014) and the meaning they give to their unique experiences (Haverkamp & Young, 2007), which provide information that cannot be learned elsewhere. Qualitative studies often take place in the setting of the participants' natural environment, such as schools, social interactions, neighbourhoods, and homes (Willis, 2007). Today, the setting also includes cyberspace and online social networks (Staller, 2012). The presentation of information is mostly in the form of texts (Kuckartz, 2014) that Haverkamp and Young (2007) call rich, elaborate descriptions.

Within qualitative research, core directions lead to methodological variations in regard to data collection and data analysis methods, as well as the instruments and processes used in order to best answer the research question. Yeh and Inman (2007) describe qualitative research as a circular, fluid, and ongoing process where data gathering and analysis are not necessarily sequential activities (Flick, 2014). Qualitative designs are flexible and adjustable to the realities encountered (Staller, 2012). The aim of increased understanding of the lived experience of self-injury called for an approach that would do it justice. It is therefore clear that the research questions regarding the lived experience of self-injury could be addressed only from a qualitative paradigm. It is with the above in mind that the next section describes the rationale for the research methodology for this study.

4.2.2. Research methodology.

Methodology is the theory behind the method (van Manen, 1990) and includes all the actions the researcher takes to access reality, and to report what was learned about reality (Guba & Lincoln, 1994). This section therefore provides the theoretical basis and justification for methods used in generating and analysing the information obtained through the study, as well as for presenting the lived experiences of the participants as their stories or narratives.

4.2.2.1. Case study.

According to Yin's (2009) definition, a case study is an in-depth investigation of a phenomenon within its real-life context in order to retain its meaningful characteristics in a holistic manner. The aim is to arrive at a deepened understanding and insight of what is distinctive and unique about a specific case or issue (Creswell, Hanson, Plano Clark, & Morales, 2007; Petty, Thomson, & Stew, 2012b; Yeh & Inman, 2007) as created and understood by those involved (Stark & Torrance, 2010). As such, case study is closely aligned with phenomenology where the aim is to achieve a rich description and interpretation of a phenomenon from the participant's perspective. Due to the smaller numbers of participants involved, complex aspects of cases can be identified and analysed, something that is not possible in other research methods involving large numbers (McLeod & Elliott, 2011).

Multiple-case studies are selected with the purpose of creating a deeper understanding of a certain issue or phenomenon that these cases represent (Creswell et al., 2007) within a specific context (Flyvbjerg, 2006). Change that occurs over time can be described in detail, and the impact of contextual factors can be examined (McLeod & Elliott, 2011). A case-study story offers a form of knowledge that readers can easily assimilate into their pre-existing understanding.

Methods of data collection associated with case studies include interviews, observations, documents, and audio-visual materials (Petty et al., 2012b; Stark & Torrance, 2010; Yeh & Inman, 2007) as well as conversations, and the analysis of personal texts (Lester, 1999). Yin (2009) suggests that surveys and emails can also be used. Interviews, according to Yin, should be in the form of guided conversations, rather than structured queries. These methods also correlate well with phenomenological inquiry.

Petty et al. (2012b) posit that there is no particular method of data analysis associated with this form of research. This provides the researcher with the opportunity to be guided by the focus and the research questions of the study to choose from a broad range of methods. According to Creswell et al. (2007), the analytic approach associated with case studies involves a detailed description of the case within a bounded system (context). Therefore, generalisation from one case to another is not sought, as the contexts are different and pertinent for understanding the phenomenon. Case-based themes, however, can still be reported upon (Creswell et al., 2007). In this study, case notes became a product of the research represented in the form of the narratives.

4.2.2.2. Hermeneutic phenomenology.

This section provides a brief account of the background and development of phenomenological research. A discussion follows with the focus on three major contributors. In this discussion, distinctive and associated key concepts and issues in information generation and analysis are explained. Lastly, I conclude this section with the rationale for choosing hermeneutic phenomenology applied using case study as the methodology for this particular study.

Phenomenology is the overarching term used for the movement that started at the beginning of the 20th Century, and that has its roots in Psychology and Philosophy (Petty et al., 2012b). It is also used in relation to a range of research approaches (Finlay, 2009; van Manen, 2014). Edmund Husserl (1859-1938) is widely considered to be the father of phenomenology (Kafle, 2011; Titchen & Hobson, 2010; van Manen, 2014). There are many styles of phenomenology, and a number of schools of phenomenology exist (van Manen, 2014), with some commonalities, and distinctions (Dowling, 2007). Due to the rapid growth in the use of phenomenology across the world, the Organisation of Phenomenological Organisations originated (Petty et al., 2012b). Some well-known phenomenologists include, Martin Heidegger, Maurice Merleau-Ponty, Hans-Georg Gadamer, Paul Ricouer, Jonathan Smith, and Max van Manen, to name a few. The following discussion will focus only on Husserl, Heidegger, and van Manen as their interpretations formed my understanding of phenomenology.

Husserl viewed phenomenology as having the purpose of describing a phenomenon (van Manen, 2014). His version is called 'transcendental phenomenology' (Kafle, 2011), because in the Husserlian tradition, a researcher transcends any personal preconceptions, biases, or presuppositions about a phenomenon in order to see it clearly (Laverty, 2003). To get to this position, Husserl employs the process of bracketing, where one suspends one's judgement or particular beliefs about the phenomenon being studied, in order to get to its true essences (van Manen, 2014). The assumption that researchers can separate themselves from what is in the world is considered to have an epistemological basis (Titchen & Hobson, 2010) and has a tone of objectivity within post-positivism (Petty et al., 2012b).

In contrast, Heidegger (1888-1976), with his ontological, phenomenological view (Dowling, 2007; Titchen & Hobson, 2010), asserted that the researcher is immersed in the world, and not separate from it. In this sense, he refuted the idea of bracketing, and posited that nothing can be encountered without a person's own background, understanding and experiences being an integral part of researching a phenomenon, a view that is also supported by Gadamer and Ricoeur (as cited in Laverty, 2003). Heidegger viewed interpretation, and not only description, as critical

to the process of understanding a phenomenon (Dowling & Cooney, 2012; Laverty, 2003). Being interpretive, according to Heidegger (as cited in Dowling, 2007, p. 133), is the basic characteristic of human beings who interact with the world they are in ("being-in-the-world") and makes sense of it.

Hermeneutics had its origins in the exegesis of the Bible (Kuckartz, 2014) and, when applied to phenomenology, is a process of interpretation that seeks to understand a phenomenon through the use of language (Laverty, 2003) in written texts (Kuckartz, 2014). Hermeneutic phenomenology therefore denotes the narrative or linguistic interpretation (hermeneutic) and description (phenomenology) of human experiences as they are 'lived' (van Manen, 1990) and that make sense for that individual. Van Manen (2014) explains that much of phenomenology has hermeneutic or interpretive elements, although not all hermeneutics are phenomenological. The development of this form of phenomenology was also influenced by the work of Gadamer and Ricoeur (Finlay, 2009).

When ontology is applied to hermeneutic phenomenological research, reality is a subjective, individual construct (Kafle, 2011) conceptualised within the consciousness of an individual (Yeh & Inman, 2007), and therefore fluid and relative to that individual (Armour, Rivaux, & Bell, 2009). The epistemology of hermeneutic phenomenological research is centred on the belief that acquiring knowledge is possible through subjective experience and insights (Kafle, 2011) gained from understanding and interpretation as co-created by researcher and participants (Armour et al., 2009). Axiology, or the values and opinions of the researcher, is present in the process of knowledge-generation and provides the standard for the evaluation of ontological and epistemological claims (Kafle, 2011).

4.2.2.3. Methodology and methods.

Regarding methodology and methods to follow in research, Crotty (1998) views hermeneutic phenomenology as being both a theoretical perspective and a methodology, rather than a method of research. It provides a strategy for methods used in a study. According to Laverty (2003), this methodology is not a specific method that must be followed correctly, but rather a creative approach to

understanding, using whatever processes or procedures are most responsive to particular questions, while van Manen (2014) posits that it is something to be invented anew, depending on the lived experience being researched. Similarly, Finlay (2014) states that the method we used should be responsive to the phenomenon. Van Manen (1997) explains the necessary ability to be reflective, insightful, sensitive to language, but also open to experience. Method, according to van Manen (2014), refers to an attitude, or way of approaching a phenomenon.

Van Manen (2007) further postulates that the aim of phenomenological research is not to create models that will prescribe what to do or how to do it. Phenomenological research is formative, in that it opens up possibilities for relations between being who we are, and how we act through the reflective methods of writing. To follow a step-by-step procedure would undermine the integrity of a study that aims to encourage the co-creation of new insights through the act of interpretation (Vis, 2008). The methodology of phenomenological research is geared towards warding off any tendency to construct a predetermined set of fixed procedures and techniques that would provide rules to follow in the research study (van Manen, 1990). Van Manen refers to Gadamer (1975) and Rorty (1979) when he states that "the method of phenomenology and hermeneutics is that there is no method" (p. 30).

For van Manen (1990), hermeneutic phenomenological research is a dynamic interplay among six research activities namely: (a) turning to the phenomenon; (b) investigating the lived experience; (c) reflecting on essential themes; (d) describing through writing and re-writing; (e) maintaining the orientation; and (f) balancing the research context by considering the parts and whole of the phenomenon.

These activities will be referred to in the topics discussed below. While these activities are mentioned in a specific order, the researcher works on various aspects intermittently or simultaneously and does not complete one step or activity at a time. The **first activity** is the turning to a phenomenon we are seriously interested in, or when, as researchers, we have an experience that makes us pause and reflect (van Manen, 2014) on that experience as it is lived. Moustakas (1994) posits that questions grow out of an intense interest in a specific problem or topic.

According to van Manen (1990), the lived experience of a person becomes a phenomenon only when someone turns focussed attention towards those experiences through what he calls 'intentionality'. Regarding the principle of intentionality, van Manen (1990), explains that questioning the way we experience the world is an intentional act of attaching ourselves to the world and becoming more fully part of it, or in the case of research, to the lived experience we are investigating.

The **second activity** entails investigating the experience as it is lived, and not as we conceptualise it. The intent is to explore directly the pre-reflective, or *originary* dimensions of the lived experience (van Manen, 1997). The German word *erlebnis* is used in this regard as it already contains the word *leben*, which can be translated with "life" or "to live" (Van Manen, 2004, 2014). *Erleben* is the associated verb, which means to live through something, and therefore is used to explain "lived experience". Husserl used the word *erlebnis* alongside *erfahrung*, which means experience. All knowledge begins with experience (van Manen, 1997, 2014), and therefore *erfahrungen* (experiences) are seen as meaningful lived experiences, the topic of interest in phenomenology.

Phenomenology therefore is a method of questioning to reach a deeper understanding, rather than to answer questions. Data collection and analysis should rather be seen as "gathering" information or material about lived experiences (van Manen, 1990, p. 63) and working with that material. These actions cannot be separate processes. Polkinghorne (2005) posits that qualitative data are not simply lying around, ready to be gathered, but that the researcher has to reach deep below the surface to uncover accounts of experiences by asking the right questions. In order for this to occur, it is necessary for the researcher to have good insight into the phenomenon.

The information about lived experiences is obtained from interviews, descriptions of behaviour, or symbolic representations. The aim of the hermeneutic interview is to keep the question of the meaning of the phenomenon open and deep (Englander, 2012; Sloan & Bowe, 2014; van Manen, 1990). The interview is used not only to gather material regarding the lived experience of the participant, but also

to reflect, in conjunction with the participant, to find meaning (hermeneutic) so that the participants become collaborators in the process (van Manen, 1990).

More recently, van Manen (2017) stated that as phenomenological research is concerned with meaning and meaningfulness and not factual data or informational content as such, it is regarded that using the term 'data analysis' is incompatible with phenomenological research. Van Manen refers to Giorgi's (1970/2009) term of identifying "meaning units" as being more appropriate than 'coding', 'sorting', 'categorising', and the like. He further explains that when referring to data in phenomenological research, the term "examples" should be used. Examples are taken from lived experiences and presented in the format of written texts, such as narratives, which is in contrast to the use of examples as illustrations to clarify abstract data in the natural sciences. Examples examine and express the meaningful or *inceptual* insights of unique, individual instances of lived experiences. These insights are reached through reflection, deep questioning, attentive reminiscing, and sensitive interpretation (van Manen, 2017).

The **third research activity** van Manen (1990) suggests is reflecting on the essential units of meaning which lead to the themes that come to light, through reading and examining the unfolding texts, as being characteristic of the phenomenon. Themes that are revealed by means of hermeneutic phenomenological reflection are also incepts, and not concepts, that reveal the primal and essential meaning and significance of the lived experience, of that which is essentially not replaceable in the life of the person, against the background of the social context (van Manen, 1990). By isolating themes, the meaning of the lived experience is interpreted and leads to the discovery of something meaningful (Sloan & Bowe, 2014). These themes are then rewritten while the meaning of the lived experience is being interpreted. The use of themes provides structure and shape to the lived experience and helps to order the research.

The researcher and participant work together to bring the lived experience to life in van Manen's **fourth research activity**. They are engaged in a process of systematically co-constructing or re-working the information obtained from interviews, descriptions of behaviour, or symbolic representations into reconstructed

life-stories (Crowther, Ironside, Spence, & Smythe, 2017), while engaging in the hermeneutic circle of understanding through writing and re-writing (Laverty, 2003; Wertz, 2005). Van Manen (1990) describes this action as generating original texts on which the researcher can work.

Van Manen further posits that the researcher interprets, and not only describes, a phenomenon, and that it is an act of "mediation" (1990, p. 26) between meanings co-created by the researcher and participants by means of the understanding that results from engaging in this process (Haverkamp & Young, 2007), where one moves from the parts of experience, to understanding the whole. The back and forth process of interpreting between parts and whole reaches an ever-increasing depth of understanding (Laverty, 2003). Finlay (2014) describes this process as mining meanings and shaping layered themes through successive iterations. Pre-understanding and deeper understanding become fused in this process (Dowling, 2007).

Throughout the research, van Manen (1990) urges the researcher to apply the **fifth research activity,** namely of maintaining a strong and oriented relation to the phenomenon from a certain interest or orientation. Van Manen refers to the orientation as 'educator', which I took the liberty to apply to my orientation as counsellor. The researcher is called upon to engage in self-reflection about biases and assumptions, and these are not bracketed or set aside, but are considered to be essential to, and to become embedded in, the interpretive process (Laverty, 2003). The researcher's background understanding cannot be removed from the process, and the pre-reflective understanding of the researcher is already part of the interpretation (Polkinghorne, 2005).

In addition, in hermeneutic phenomenological studies, researchers might use their own background, prior knowledge, and experience of the subject to influence processes for data-gathering and analysis, but do so in a reflexive way (Sloan & Bowe, 2014). Reflexivity implies critical self-awareness (Dowling, 2007; Finlay, 2013) and is a process of continually reflecting upon our interpretations so that our pre-understanding does not impose partiality on the phenomenon we study (Finlay, 2009, 2014).

The **sixth activity** is considered to balance the research context by further considering the parts and whole of the phenomenon. This implies considering ethical issues, the context of the study such as the procedures and approaches that are unique to the study, and working with the text. The interpretive reading, writing, and rewriting processes of the hermeneutic circle between researcher and participant continues until such time that contradiction-free meanings of the lived experience have been reached (Laverty, 2003) and the phenomenon is understood more deeply (Allen & Jensen, 1990; Finlay, 2014). Lived experiences therefore only gather hermeneutic significance as we "reflectively gather them by giving meaning to them" (van Manen, 1990, p. 37) so that we accomplish an "in-seeing" (insight) in those moments when meaning is given to something (van Manen, 2007, p. 12). The aim of phenomenological research is thus to transform the lived experience into a written or textual expression of the essence thereof in order to "bring into nearness that which tends to be obscure" (van Manen, 1990, p. 32).

4.2.3. Rationale for a hermeneutic phenomenological multiple-case study.

Having researched and considered the various approaches in phenomenological research, it was van Manen's view of hermeneutic phenomenology that resonated most with my interest in self-injury, and generally influenced my approach to choosing a methodology for this study. The latter sought to reveal more fully the essences and meaning (Moustakas, 1994) of the phenomenon of self-injury among adolescents. This calls for not only a description of the phenomenon, but also for an interpretation of the meaning each of the participants gave to this act of self-injury.

Although van Manen's writing refers to education and pedagogy, I was convinced that his principles could be applied to my specific circumstances and orientation. Throughout the process I approached the study from the orientation and interest of someone in a helping profession (van Manen, 1990). I followed van Manen's (1990) advice that it is important that the method one chooses should be in harmony with the deep interest that makes one a counsellor. The rationale for

choosing this study to be a hermeneutic phenomenological multiple-case study is explained next.

Some authors, such as Creswell et al. (2007), who clarify qualitative research designs, distinguish between the use of case studies and phenomenological research as such. For me, however, these two approaches are not mutually exclusive, but can be combined in the same study, since the same procedures of information-gathering were used. Furthermore, in counselling research, the case study is the preferred choice (Creswell et al., 2007). Because of the professional practice of a counsellor to obtain, record, and evaluate detailed client experiences, phenomenological research is highly congruent with counselling practice (Hays & Wood, 2011). In this sense, based on the research questions that dictate the choice of methodology and method, a rich description of each participant's unique lived experience can only come to its full potential in a case study when hermeneutical phenomenological processes are applied to each case.

Phenomenology can be applied to single or multiple, deliberately selected cases (Lester, 1999), as in this study. It is furthermore an ideal approach for reaching an understanding of individuals' common experiences of a phenomenon such as self-injury, although generalising the results from this study was not attempted, as it would take away from the rich narratives each of the participants provided. Phenomenology is also highly compatible with Skinner's view of behaviourism (Perez-Alvarez & Sass, 2008) as demonstrated in the next chapter, and therefore fits in with my approach to self-injury as behaviour.

4.3. Research Process

In this section, I provide a clear description of each step that was taken when I was conducting this study. After briefly explaining the preliminary processes and fulfilling the requirements such as ethical clearance and permission to perform research, participant selection is explained. This is followed by a brief reference to the phases of the study and the online intervention that will be discussed and explained in the next chapter. The instruments used will only be mentioned briefly, as a detailed explanation will be provided in Chapter 5. This section concludes with

an explanation of the practical application of the methods and procedures used in generating information (data gathering), and the presentation of meaning and understanding arrived upon (data analysis and data presentation). Reference will be made to the theoretical principles explained in the previous section and it will be explained how they were applied in each part of the research.

4.3.1. Permission to perform research.

After having satisfied the requirements of the University of Southern Queensland's Ethics Committee, as discussed in Ethical Considerations, an application was lodged with Education Queensland to perform research in state schools. Standard protocols and procedures, as required by Education Queensland, were followed and resulted in written permission from the Director, Research Services, Strategic Policy and Portfolio Relations of Education Queensland. Requirements as stipulated by Education Queensland regarding managing and storing student data were complied with.

4.3.2. Participant selection.

In qualitative research, such as phenomenological studies, purposeful selection (Polkinghorne, 2005) is often preferred in order to include participants from whom the richest information can be gained (Haverkamp & Young, 2007; Suzuki, Ahluwalia, Arora, & Mattis, 2007). Participants should also be diverse enough to increase possibilities to discover rich and unique lived experiences of the phenomenon (Laverty, 2003; Polkinghorne, 2005; van Manen, 1997). As the purpose of this study was to learn more about what adolescents experience at the exact time that they feel the urge to self-injure, to be included in this study, I as guidance officer, as well as guidance officers at other schools who agreed to participate, had to identify students from their existing cases who were known to have been actively self-injuring.

Polkinghorne (2005) advises that participants who are willing and able to talk about their experiences should be chosen. In this regard, students attending mainstream schools were approached, as it was assumed that they would have the

opportunity and ability to engage in the planned linguistic activities included in the intervention, as well as in the interview and construction of their narratives.

The students had to be between 14 and 18 years old in order to meet ethical clearance requirements. It was also a requirement that their parents should be aware of the self-injury in order to minimise the potential risk associated with reliving the trauma experienced. Having had suicide ideation would exclude them from participating in the study, due to the strong association between self-injury and potential suicide attempts.

Protocols as required by Education Queensland were followed and consequently invitations to participate in the study, together with the relevant documentation required, were sent to 18 schools. It was envisaged, due to the reported increase in the number of adolescent students who are self-injuring (Yen et al., 2016), as well as the growing concern among school staff, that finding participants would be quite simple. This proved not to be the case but in the end four students agreed to participate.

One participant resided in a small, inland, rural town in Queensland and was a 16-year old female student in Year 11 at the time of the study. The three other participants were from the same school. There was a 17-year old female student in Year 12, a 16-year old female in Year 11, and a 16-year old male student in Year 12. This school is situated in a relatively small seaside town. In total, three participants completed the study. The fourth participant completed some of the required activities of the study before dropping out. Numerous attempts were made to get in contact with this participant to determine the reason for dropping out, but no email correspondence was responded to, and no phone call to any of the available contact numbers was answered. The guidance officer at the school also attempted to encourage ongoing participation and to establish the reasons for dropping out, but with no success. Therefore, the total number of participants in this multiple-case study was limited to three complete cases. Although a small number of participants were included in the study, they were considered to be adequate, as in phenomenological research depth, and not quantity, is required.

4.3.3. Phases of the study.

A detailed explanation of the intervention as setting for this study, and how each phase of the study was practically applied will be provided in the next chapter, therefore it will suffice to identify where each phase fits in with the processes of generating the information needed, and with those implemented to interpret the information.

Phase 1: Pre-intervention. This phase consisted of the literature review, preparation for the study that included developing the necessary instruments and website, as well as participant selection. The literature review contributed to my pre-understanding of the phenomenon. Through the review it was identified that this study could potentially address some of the limitations in the existing literature and contribute to knowledge regarding self-injury. The second part of the pre-intervention phase was to collect historical information regarding self-injury in the form of the Initial Questionnaire (Appendix E).

Phase 2: Online educational intervention. The intervention contained on the website became the research setting for this study and comprised activities that would generate information, as well as enable the interpretation of that information.

Phase 3: Post-intervention. This phase consisted of completing the narratives, as well as identifying essential themes within each individual narrative, but also across narratives, as compared to existing literature.

4.3.4. Instruments, methods, and procedures for collecting lived experience material (data).

Van Manen (1990) suggests that it is important to invent pathways (procedures and techniques) to suit a particular study in order to arrive at the best possible understanding of the phenomenon under investigation. My Conceptual Framework provided a rationale for the development of each of the instruments, methods and procedures I followed, based on the research questions, to find the information I required to bring together the neuroscientific and behaviourist principles within a hermeneutic phenomenological approach. In Chapter 5 I will describe each one of

the instruments in detail and indicate where each helps to set the scene for the study's actions and processes. Within the procedures implemented, the second research activity as described by van Manen (1990) was the main focus, namely to investigate the lived experience.

In conjunction with these procedures to gather the information, the actions described below were implemented to use the information in a hermeneutic phenomenological style. Even though the two processes are discussed separately, they were not performed in sequential order. As researcher, I moved between gathering more information, and reflecting upon and interpreting the information as it became available.

4.3.5. Reflection, interpretation and presentation of the phenomenon.

Van Manen (2017) posits that instead of referring to data analysis, which implies dealing with objective data that have to be presented in graphs, figures, and concepts, actions such as identifying the meaning units and using examples in the presentation of the lived experience, should be carried out instead. Although the specific research actions are mentioned in a specific order, they were not performed in sequential order. Four of van Manen's (1990) research activities can be identified specifically in this part of the research process, namely reflecting on essential themes, describing through writing and rewriting, maintaining a strong orientation to the phenomenon, and balancing the research context by considering the whole and parts of the phenomenon.

4.3.5.1. Reflexivity.

As advised in hermeneutic phenomenological literature, reflexive reconstruction of my own presuppositions, values, beliefs and social context (Armour et al., 2009; Ben-Ari & Enosh, 2010; Kögler, 2011; Morrow, 2005) was revealed and made explicit. Reflexivity, as suggested by Morrow (2005), is carried out by keeping a self-reflective journal, as well as engaging in critical and sustained discussion with knowledgeable members of the community of practice, whom I considered to be my supervisors.

My pre-understanding consisted of my indirect experience of self-injury through the accounts of students I endeavoured to help in counselling. This understanding influenced the search process when I was reviewing the literature. Knowledge discovered while engaging with research literature on the phenomenon expanded my pre-understanding. As I had questions that arose from the limitations evident in the literature to date, this first layer of meaning was quite sketchy, very much like the initial line drawing an artist would produce, as explained elsewhere. Interpretation of the phenomenon starts with the acknowledgment of pre-reflective understanding (Polkinghorne, 2005). This pre-understanding informed the development of the questionnaire, as well as the other instruments used.

Despite this influence, the instruments were used in a way that did not obstruct the creation of new knowledge and insights. Open-ended questions were developed based on the information obtained from completed instruments, this allowed for new knowledge and interpretation. As the participants were aware of the fact that I was a guidance officer, this may have given me an advantage in relation to participants trusting me and being willing to share their information and engage in research.

4.3.5.2. Hermeneutic spiral.

In hermeneutic phenomenological research the hermeneutic cycle or circle is widely applied as a method of meaning-making of the lived experience. It is a metaphor for explaining the process of understanding and interpretation, where there is a constant and iterative movement between the parts (data/information) and the whole of the phenomenon. I share the view of Kuckartz (2014), however, who suggests that a spiral would provide a more suitable illustration of what happens in the process, since one does not follow a circle back to the starting point of understanding.

In this study, meaning-making started with a broad understanding of the phenomenon as informed by the accounts of self-injury provided by the adolescents I supported in a counselling role, as well as with orienting myself by engaging in a review of the existing literature. As information became available during the research when participants completed the required quizzes and checklists, a deepened

understanding developed, taking me and the participants down the spiral towards an ever-increasing narrowing down of the meaning that the lived experience had for each of the participants. The narrow end of the spiral represents the deep understanding of the phenomenon, as presented in each of the narratives of the participants (Figure 4.1).

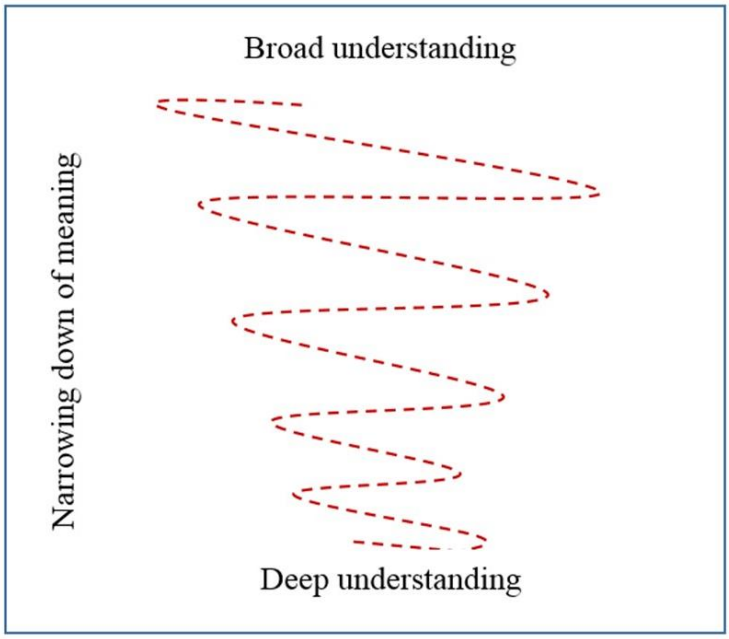


Figure 4.1. Hermeneutic spiral

As Laverty (2003) explains, in a hermeneutic phenomenological study such as this, the participants engage with the researcher in the hermeneutic spiral of interpretation and meaning-making to identify the unique meaning of each of their lived experiences. It meant that we engaged in dialogue as suggested by Dowling (2007) to discuss and interpret the content of the completed instruments in order to clarify our understanding of the lived experiences of self-injury within their context (Dowling & Cooney, 2012).

The information that was obtained from the Initial Questionnaire was used to start case conceptualisation. As additional information became available, it was added to the case descriptions. The information was generated by means of written statements provided in the checklists and quizzes, which the participants could choose to select or not, as applicable to their experience. This format was chosen instead of asking them to provide written accounts in order to accommodate the

difficulty with linguistic expression that is often found among adolescents who self-injure.

Despite having to choose from pre-formulated statements, they were also able to provide written notes as well, should they wish to. The act of reading the statements, followed by reflection on the content of each statement, implies a level of interpretation by the participants. Diaries are often used to provide written accounts of lived experiences (van Manen, 1990). In this study, however, a physical diary was replaced by the daily quiz, which investigated the lived experience online. The use of this ecological momentary assessment as applied in this study is considered to be helpful in gaining insight into the lived experience by the researcher and participants alike.

During the first meeting with each participant, open-ended questions, based on their unique information, were asked during a semi-structured interview. This interview, although being semi-structured, was conducted in the phenomenological tradition, with the main research question constantly kept in mind (van Manen, 2014). Interviews were not recorded at every session as it was not deemed necessary as I used a printed copy of their online responses to which I added written notes. Participants had the opportunity to further reflect on, expand, and explain their responses to all the instruments in a hermeneutical manner (van Manen, 2014). Open-ended questions were asked in this regard in order to stay as close to the lived experience as possible (Laverty, 2003). As the participants expanded on the information in response to the questions, their responses were written down next to each statement.

During the second interview, the information obtained from Topic 4 was discussed. The participants were presented with their stories as they unfolded through my interpretation of their information. All their information was further clarified in conjunction with the participants to determine the truthfulness of my understanding and interpretation of their stories. Substantiation and confirmation once again occurred and any discrepancies were addressed and new information was integrated with the existing understanding (Laverty, 2003). Where necessary, further

clarification was sought via email correspondence, the information was updated, and the stories were rewritten once again.

4.3.5.3. Behaviour cycle graphic organiser.

The second interview also provided the opportunity to check the participants' understanding of the content of the intervention. At this time, the graphic organiser, called the 'behaviour cycle' (Appendix A), was completed in conjunction with them to represent their information in a visual format. Below is an example of a blank organiser in Figure 4.2.

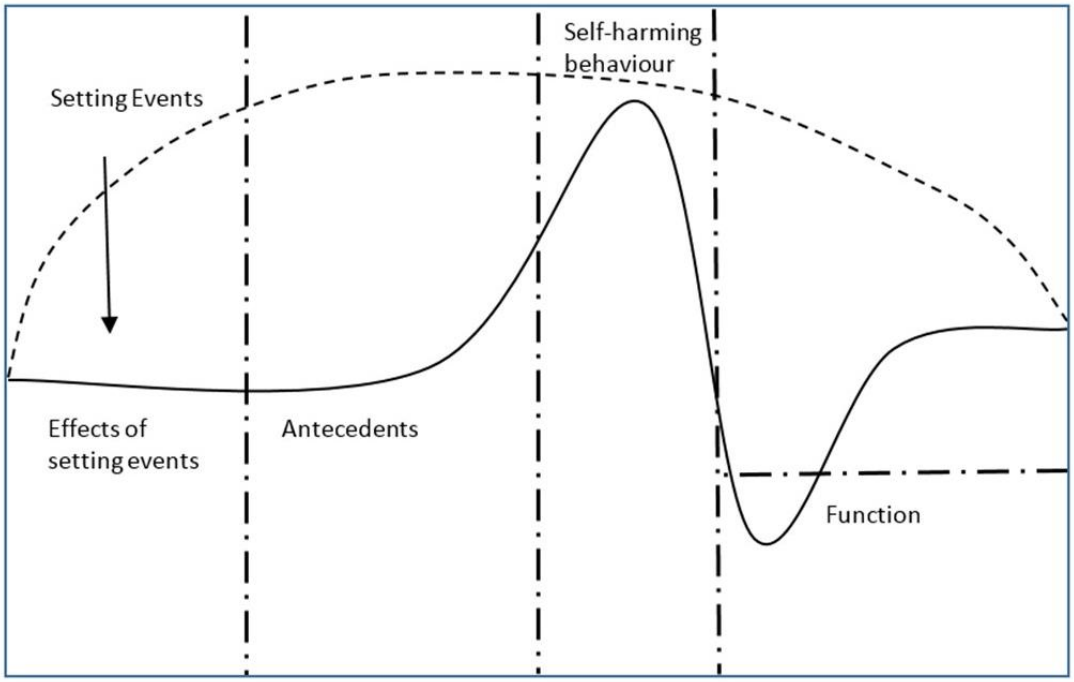


Figure 4.2. Behaviour cycle graphic organiser

4.3.5.4. Lived experience narratives.

A third individual meeting was arranged with two of the participants, as their narratives were nearing completion after further interpretation and rewriting of the stories. During this meeting they had the opportunity to read through their stories, and they were encouraged, if they wished, to further elaborate on some points they felt strongly about, or edit information that may have been incorrectly represented or interpreted, until they were satisfied that their stories were a true reflection of their lived experience. The participants therefore became co-creators of meaning and deep

understanding (Haverkamp & Young, 2007) of their own lived experiences. The case studies in the form of the narratives, were illustrated by rich textual descriptors (Yeh & Inman, 2007) against their individual contexts. I enquired from the participants how well my interpretations reflected their individual meanings of their lived experiences (Morrow, 2005). Their responses were included in the narratives.

The participants were also requested to answer questions in regards to their experience of accessing the website and of the intervention. This was also added to their narratives to further contribute to answering the second sub-research question, namely "In what ways did engagement with the intervention strategy affect the 'in the moment' and subsequent lived experiences of self-injury?" As it was impractical to have a third meeting in person with the third participant, these steps were completed via emails.

4.3.5.5. Identifying units of meaning.

The narratives or reworked information (van Manen, 1990) was read and reread a number of times to identify broad themes. Once those themes were identified, the narratives were read again, and subthemes were identified. Some of the themes and subthemes consisted of specific features that contributed to the character of those themes. This process was repeated for each participant, and therefore some individual subthemes emerged. Together, the key subthemes, subthemes, and features identified, gave shape and order to the lived experiences. Through this process it was possible to consider the whole as well as the parts of the lived experiences to reach a deeper understanding of this complex phenomenon.

4.4. Ethical Considerations

Ethical requirements as mandated by the University of Southern Queensland's Human Research Ethics Committee (University of Southern Queensland, n.d.) had to be complied with. Ethics approval H13REA018 was granted. This study was subject to the guidelines set out by the National Health and Medical Research Council's (NHMRC: 2007) *National Statement on Ethical Conduct Involving Humans* in order to protect the rights of all participants. Ethical considerations entail more than the

common principles that usually apply to research, such as confidentiality, anonymity, and informed consent. These widely acknowledged standard considerations will be discussed as they were applied to this study, followed by additional special considerations such as data storage and sharing, minimising risk in vulnerable populations, and safeguarding participants against harm during implementation of an intervention.

Clarifying the purpose and procedures of the research before commencement of the study (Kafle, 2011; Kellet, 2011; Sanjari, Bahramnezhad, Fomani, Shoghi, & Cheraghi, 2014) ensured that participants were fully aware of every step in the research process. Detailed explanations were provided of exact procedures to follow, for instance regarding website access, and a full explanation of the rationale for the study was provided. This information was read to the participants by their school guidance officer, who also ensured that they understood the process before they were required to sign the informed consent forms. Informed consent was also obtained from their parents.

Protecting participants' privacy through anonymity is important (Kafle, 2011; Sanjari et al., 2014; Suzuki et al., 2007; Vandermause & Fleming, 2011). The participants were able to choose a pseudonym or alias to ensure anonymity. Their family members' names were changed to names frequently found among the Australian population. Their demographic information was also protected in the description of their home towns, which could apply to any of a number of similar towns in Queensland.

Issues and requirements regarding confidentiality were explained to the participants (Kellet, 2011; Lloyd-Richardson et al., 2015; Sanjari, et al., 2014). It was made clear that all information and disclosures would be kept confidential, except where disclosures involved risk, harm, or potential risk or harm to the participant or someone else, in which case mandatory reporting requirements by law would override confidentiality.

An important consideration is how data will be stored, and how the results will be published and used (Kafle, 2011; Sanjari, et al., 2014). Participants were provided

with a unique password used to log on to the secure website, using their pseudonym. This information was known only to me and the individual participants, and I was the only person able to access the responses to each of the instruments used. Once the information was submitted, the completed instruments were stored as Word documents on a password-protected private computer. This format was used to generate the semi-structured interviews. Each participant's information was marked with their pseudonym only. In this hermeneutic phenomenological study, the participants were able to engage in co-writing their narratives. At the end of the study, after each participant had indicated that the account was true and valid, a copy of their story was sent to each of them individually.

4.5. Considerations Regarding Trustworthiness

Trustworthiness or validation criteria (van Manen, 2014) include whether the study is based on a valid phenomenological question. This study's research question was "*What are the lived experiences of adolescents who self-injure both before and after engaging with an intervention strategy based on neuro-science and functional behaviour perspectives*?" and therefore this study meets the first criterion for trustworthiness. Trustworthiness is also achieved by suspension of my own bias and by providing originality of insight as presented in the unique narratives of lived experience. Generalisation was not sought, as that would take away the uniqueness of the individual lived experiences. Instead in-depth insights and thick descriptions were gained through this study (Armour et al., 2009). Participants were co-creators of their narratives, and the accuracy of these narratives were confirmed by each participant (Armour et al., 2009). Trustworthiness or validity in the phenomenological tradition is also achieved when certain stages were followed (van Manen, 1990). In this regard this study was based on and applied van Manen's suggested research activities. The provision of an audit trail of analytical decisions (Armour et al., 2009) further contributed to the validity of this study. Throughout the study I have maintained a strong orientation to the fundamental question. In addition, prolonged engagement with respondents also contributed to the validity of this study (Armour et al., 2009). Therefore it can be concluded that trustworthiness was achieved in this study.

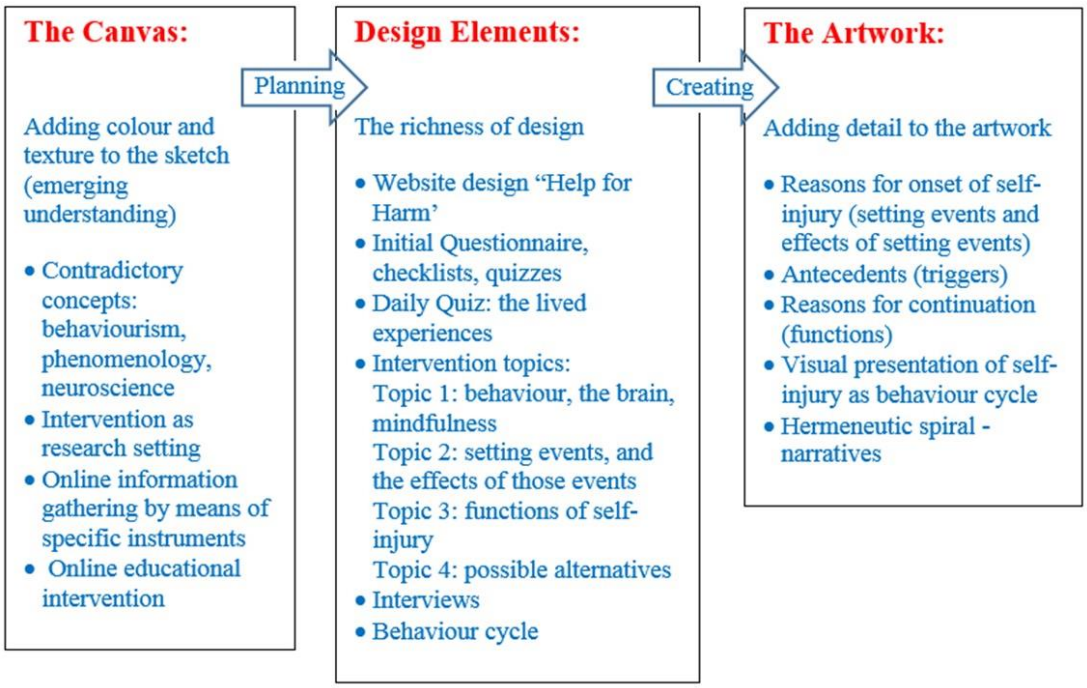
4.6. Conclusion

The research design and methods presented in this chapter have been selected as a means of determining what it is like to self-injure, as well as what it is like during an educational intervention. The methodology used confirms the applicability of hermeneutic phenomenology as an appropriate avenue to bring "into nearness that which tends to be obscure" (van Manen, 1990, p. 57). This study was a shared endeavour by me and the participants. Therefore the interpretation is not mine alone, but one reached by means of interaction with the participants. Throughout the process I, as researcher, was present 'in the data' ,so to speak, which means that my interpretation may well be different from that of another researcher who may investigate self-injury as a lived experience. In the next chapter I seek to give clarity to the research setting that I helped to construct.

CHAPTER 5: DECONSTRUCTING THE RESEARCH SETTING

5.1. Introduction

This chapter follows the outline of the Methodology which explained the reasoning behind using Hermeneutic Phenomenological case studies to explore the lived experience of self-injury engaged in by students prior to and while completing an online educational intervention. Furthermore, results from the literature review indicated that the development of a brief online intervention, the use of a specific artefact or graphic organiser, as well as the possibility of the intervention being used by others in a helping profession for a range of other phenomena could be considered distinctive and helpful to participants. Further development of the artwork analogy is seen below as it applies to this chapter.



The reason for including this chapter which is devoted to clarifying the setting within which the research occurred is to bring together some seemingly contradictory concepts. By now, considerable attention has been given to the reasoning behind my methodological decision. Without repeating all of the

explanations, I would like to discuss the main ideas behind my choices in order to set the scene for understanding why I bring these concepts together.

5.2. Theoretical Background of the Study

The question that might be raised about bringing together contradictory concepts, essentially has to do with the theoretical perspectives associated with those concepts. Crotty (1989) stated, "Justification of our choice and particular use of methodology and methods is something that reaches into the assumptions about reality that we bring to our work. To ask about these assumptions is to ask about our theoretical perspective" (p. 2) which is formed by our ontological and epistemological views as explained in the previous chapter. Both ontological and epistemological views are in turn formed and influenced by our personal experiences, values, education, and interests and are therefore subjective and individual to the researcher. "The researcher you are is the person you are" (Gale, 1998, p. 2). It is widely suggested that theoretical perspectives based on ontology and epistemology can be placed on a continuum with objectivity on the one end, and subjectivity on the other end (Crotty, 1989).

Neuroscience is generally associated with an objective approach. Likewise, a behaviourist viewpoint is also typically associated with positivism. Guba and Lincoln (1994) call this 'naïve realism', which states that an apprehendable reality is assumed to exist and is driven by natural laws and mechanisms. Generalizable findings are highly valued by positivists. Psychology, including counselling psychology, has a long-standing association with quantitative research methods anchored in the positivist paradigms and nomothetic perspectives aimed at arriving at general laws and universal statements (Ponterotto, 2005). Much of the privileged research in psychology today is still positivist, quantitative and experimental (S. Hughes, personal communication, October, 2017). Petty, Thomson and Stew (2012a) explain that ontologically, positivism claims that there is one objective reality, and that social reality is ordered in such a way that these uniformities can be observed and explained. Social action and interaction are therefore viewed as products of external forces on social actors.

Epistemologically, knowledge is derived from controlled observations and verified hypotheses that can then be accepted as facts. The researcher and the object of research are two independent entities (Laverty, 2003), and the scientist is an objective observer of reality (Mack, 2010). A positivist view values this objective stance where researcher theories, values and biases are avoided so as not to influence research results (Guba & Lincoln, 1994; Petty et al., 2012a). Laverty (2003, p. 12) refers to Denzin and Lincoln's (2000) view that positivist ontology views reality as something 'out there' which is to be apprehended. Methodology associated with this paradigm is experiential, carefully controlled, and uses manipulated methods, such as surveys, observations and experiments (Mertler & Charles, 2010). Processes follow a prescribed order, and data are quantitative in nature.

A variety of schools of thought or theoretical perspectives, however, believe that reality is socially constructed, and the idea that there may be multiple, but equally valid, mental perspectives of reality, is a binding element (Guba & Lincoln, 1994; Haverkamp & Young, 2007; Petty et al., 2012a; Staller, 2012). These constructions of reality can be altered by the one whose reality it is (Laverty, 2003). Constructionism, according to Crotty (1989), is situated on the opposing end of the continuum.

The ontology associated with the qualitative paradigm is therefore relativism (Guba & Lincoln, 1994; Haverkamp & Young, 2007), which claims that reality is relative and that arriving at ultimate truths is an impossibility (Petty et al, 2012a). The researcher becomes immersed in the participants' social context through interaction, consequently the knowledge gained is value-laden (Guba & Lincoln, 1994; Petty et al., 2012a; Ponterotto, 2005). Observation cannot be objective, but requires interpretation so that the end-result can be a 'thick' linguistic description that conveys the different perspectives of those involved (Petty et al., 2012a; Ponterotto, 2005; Ponterotto & Grieger, 2007). The researcher examines, describes and interprets the participants' experiences to generate knowledge. The results of such research cannot be generalised (Staller, 2012). Hermeneutic phenomenology is situated within this subjective paradigm.

Moving towards a logical explanation for using these seemingly contradictory research traditions together in a single study, the other aspect associated with theoretical perspectives, namely axiology, has to be taken into account. Hiles (2008) suggests that the perspectives described above should be seen as alternative world-views to be regarded as pluralistic, rather than competing or opposing. Hiles reasons that for any field of inquiry, several paradigms might be held as plausible. The explanation for this point of view lies in the fact that our world-views are also determined by axiology.

Axiology, as explained, by Hiles, offers the basis for making explicit the assumptions and value judgements underlying the different paradigms of research. It also provides the foundation for understanding the process involved in scientific inquiry, which allows us to acquire knowledge. In viewing opposing paradigms together, as Hiles suggests, is an example of "value-in-action" (2008; p. 54) and it brings the seemingly contradictory approaches closer in alignment with each other.

With this explanation as a starting point, various other aspects of my reasoning will be explained. For practical reasons, these aspects are discussed separately; however, they should not be viewed as detached or loose-standing, but as forming part of the larger debate, supporting my perspective that behaviour, neuroscience, and hermeneutic phenomenology can successfully be incorporated within the same study.

5.3. Self-Injury as Behaviour, Tinged with Neuroscientific Insights

Extensive support for viewing self-injury from a behaviourist perspective was provided in Chapter 2. In summary, the main points will be reviewed to provide a basis for the argument presented below. Everything we do, including self-injury, can be viewed as a behaviour and also includes thinking, feeling, or perceiving. Behaviour is functionally related to the environment in which it occurs (Skinner, 1953) as it follows certain antecedents and is the either positively or negatively reinforced in the presence of setting events that make it more likely for self-injury to occur. Nock and Prinstein (2004) developed a model for evaluating the functions of self-injury that differ along two dichotomous dimensions. When reinforcement is no

longer effective, the behaviour no longer has a function and can therefore be changed or extinguished.

Neuroscientific research has provided an explanation of what happens in the child's brain when complex trauma is prevalent (Teicher, 2000; van der Kolk, 2003). Brain development, especially in the frontal lobes, is compromised, and the long-term imbalance in brain chemicals adds to the complexity (Kirke-Smith et al., 2014) of the problems that result such as impaired language development, and a lack of affect and behavioural regulation skills. Without these skills, adolescents often engage in self-injury in an attempt to regulate the negative emotions that result from trauma experienced within an insecure attachment.

5.4. Self-Injury as Phenomenon

A phenomenon is considered to be something remarkable that grabs the attention of people. Self-injury has come to the attention of many people who wonder about the reasons why some adolescents in particular, would hurt themselves to feel better. Phenomenology is interested in lived experiences of whatever phenomenon comes to our attention, in this instance, self-injury. Phenomenology is the study of lived meanings and the search for what it means to be human; what it means to be in the world as a specific person (van Manen, 1990), for instance, and adolescent who self-injures.

5.5. Rationale for Combining Contradictory Approaches

Psychology was pictured earlier as greatly applying a nomothetic approach in order to arrive at a generalisation of findings. However, ideographic approaches are not excluded from psychological research. Behaviourism, which is traditionally viewed as belonging to a positivistic paradigm, was actually described in an idiographic manner by Skinner (1966, as cited in Barlow & Nock, 2009) when he remarked that a scientist is more likely to observe a single rat for a thousand hours, rather than studying a thousand rats for an hour each, or a hundred rats for ten hours each. I therefore assert that behaviourist principles can be applied to individual cases

of a specific behavioural phenomenon such as self-injury, to understand the uniqueness of what it means to the individual performing the act.

In addition, in defence of the use of seemingly contradictory concepts is the fact that hermeneutic phenomenology is a philosophy and human science method that has been applied in many disciplines such as psychology, education, nursing, pedagogy, and medicine (van Manen, 1990). Therefore, I argue that hermeneutic phenomenological methods can be applied to the study of self-injury as behaviour, as a unique lived experience.

I further argue that, in order to successfully fuse seemingly contradictory concepts such as behaviourism and hermeneutic phenomenology, a change in the terminology used could contribute to understanding this fusion. In radical behaviourism, terms such as variables are frequently used. These terms are directly associated with the positivistic, scientific approach where variables are carefully controlled in experiments. I am of the view that the aspects of behaviour and behavioural analysis do not have to be described in terms of variables, while the basic principles thereof could still be used not only in a combination of describing and interpreting self-injury as a behaviour, but also as a lived experience.

In contrast to the popular opinions regarding radical behaviourism that a priori logical assumptions about an orderly universe, in a mechanical sense, are what scientific work should be based on, the behaviourist rather attempts to look at functional relationships (Day, 1969). Another misunderstood concept regarding behaviourism that stands in the way of reconciling contradictory approaches lies in the concept of control. Day (1969) posits that the concept of control reflects a belief that if knowledge gained can be believed or trusted, it is often likely to result in effective action. In this regard, my interpretation is that identifying the functional relationship between the components of a behaviour, namely of antecedent-behaviour-consequence, could guide the researcher, and also the therapist, to successfully guide the participant or client towards effective action and change in behaviour (Day, 1969). I apply this concept to my belief that an understanding of the functional relationship, not only by the researcher, but also by the participant or

client, could lead to behaviour control or change by the participant, rather than by the researcher, who I believe is merely the facilitator in the process.

When Day (1969) explains that in radical behaviourism the observers (researchers) should be encouraged to talk interpretatively about what was observed without restricting themselves to the identification and description of controlling variables, it seems logical to associate this interpretative action with what is implied in phenomenology. Radical behaviourists, according to Day (1969), also observe and respond to their own reactions and recognise that a particular interpretation that is arrived at will be influenced by their own special history. This appears to align with what is called for in qualitative research in general, but most specifically in phenomenology where the researcher is encouraged to identify personal pre-understandings.

Albert Ellis (2001), founder of rational emotive behaviour therapy, remarked that cognitive behaviour therapies can be at least partially integrated with methods derived from other schools of therapy, and that integration of methods has always been experientially tried by many therapists. His words "Whatever works" (p. 363) most definitely resounds with the approach I have followed in my attempts to help young adolescents.

I am of the opinion that as the setting of this study was an educational intervention, a psychotherapeutic approach contributed to a successful fusion of the respective approaches. During traditional therapy or counselling, the therapist or counsellor addresses the problem by facilitating an understanding on the part of the client in order to replace the underlying faulty beliefs of the client as is the case in cognitive behavioural therapy (Leahy & Rego, 2012). In this study, information (data) was gathered with a behaviourist perspective in mind to determine the setting events, the effects of setting events, and maintaining consequences. The intervention was loosely based on cognitive behavioural therapeutic approaches, namely providing information (psycho-education) aimed at developing an understanding and a change of perspective. The interpretation of the information gathered was then used during interviews which could be seen as an extension of the traditional

counselling sessions in face-to-face interventions, as a basis for applying hermeneutic phenomenological analytic approaches.

5.6. Intervention as Research Setting

In a typical research study the actions carried out to obtain data that can be used towards answering the research question take place within a specific setting. Traditional scientific research is carried out in laboratories or clinical settings in the form of carefully controlled experiments. Research in the social sciences for instance, endeavours to study phenomena within the natural setting in which they occur, for instance the community, a business, school, home, or any element of life world.

In this study, the online intervention is considered to be the setting in which most of the research occurred. Within this setting, the participants engaged with the instruments that were developed specifically for this study. The completion of these instruments provided the information that was required to be able to compile the lived experience narratives as case studies from a behaviourist perspective. In order to obtain the information required to answer the sub-research questions, the participants had to engage with the intervention and work through the various topics. By acquiring knowledge and understanding not only of their self-injury as behaviour, but also of the neurobiological processes that happen in the brain as applied to the self-injury as a cycle of behaviour, their lived experience of self-injury was anticipated to change, therefore these experiences during the intervention had to be studied. This required careful consideration and developing lines of inquiry that, would be best suited to obtaining the information needed.

5.6.1. Instruments, methods, and procedures for generating information.

Van Manen (2017) postulates that the term “data” in the traditional and objective, scientific sense is incompatible with phenomenological research, which is concerned with meaning and meaningfulness. Van Manen (1990) explains that in the hermeneutic phenomenological approach there is no prescribed or set method in the

traditional scientific sense. What is important is that pathways (procedures and techniques) should be invented to arrive at the best possible understanding of the phenomenon and to suit a particular study. The research questions dictated the information needed and how that information was going to be acquired. This section discusses the methods and instruments used, as well as procedures specific to this study, to investigate the meaning of the participants' lived experience.

The methods and instruments were chosen from a phenomenological and case study perspective, and comprised the completion of an initial questionnaire, daily quizzes, checklists, quizzes at the end of each topic, as well as information obtained from later interviews. All the instruments used were developed specifically for this study, therefore, none of the instruments were norm-referenced or standardised. The following are explanations of each of the instruments as they form an intrinsic part of the research setting. It is also indicated in which phase of the study each instrument was used.

5.6.2. Rationale for an online intervention.

There is compelling evidence that adolescents are increasingly using the Internet for a variety of reasons, including accessing information about mental health issues, or actively participating in online counselling (Whitlock et al., 2007). National services such as Kids Help Line cannot provide online help to all adolescents who contact them, therefore Glasheen and Campbell (2009) suggest that school counsellors could provide a valuable online counselling service as an alternative pathway to professional help. As the guidance officer is usually known to the students, being able to communicate online with a familiar person, yet being able to safeguard anonymity if necessary, is an important consideration, especially for boys who resist seeking help.

Evidence of controlled trials of online support in schools (Glasheen & Campbell, 2009; O'Kearney, Kang, Christensen, & Griffiths, 2009; Stallard, Richardson, Velleman, & Attwood, 2011) is limited and more research is necessary (Hadjistavropoulos et al., 2011). These trials were aimed at depression or anxiety, but not specifically to self-injury. It was envisaged that such an online service might

provide a valuable tool for other guidance officers in their support of students with mental health problems resulting in challenging or risk-taking behaviours.

In addition, ideally all learning, and therefore also intervention approaches, should follow the principles that Prensky asserts as being appealing to adolescents as 'digital native' users (Prensky, 2001a, 2004) of technology. Prensky (2004) explains that brain structures and thought processes are impacted upon by sharply focusing on sensory input and devoting focussed attention to the developmental experiences in the environment that children are exposed to throughout life. From a young age, children and adolescents are exposed to video games, with which they are often engaged for several hours per day. Their brains therefore, become programmed to the speed, multi-tasking, random-access and interactivity of those games that provide them with fun, fantasy and quick pay-off (Prensky, 2001b). A search of the literature yielded only a small number of interventions that would comply with Prensky's (2004) suggestions regarding how adolescents use technology.

5.6.3. Rationale for a cognitive behaviour therapeutic approach.

The majority of the technology-supported approaches are based on cognitive behavioural principles, due to their proven success with a range of psychological problems (Andersson, 2009; Glasheen & Campbell, 2009; Hopps et al., 2003). In essence, these principles are also applicable to any good teaching where the ingrained thinking of students is challenged and they are taught alternative ways of thinking (P. O'Brien, personal communication, 2013). The intervention for this study was developed to loosely resemble brief behavioural therapy sessions delivered online. In cognitive behaviour therapy, one of the objectives is to facilitate cognitive restructuring by identifying underlying personal schemas about self and others that are often established during early childhood, and which become the lens through which information is filtered, valued, and believed (Leahy & Rego, 2102). In therapy, the content of the schemas is examined and modified by challenging and ultimately changing the dysfunctional cognitive structures.

The intervention in this study was aimed at helping the participants to understand how the events of their past have impacted on them, how these events

have led to the onset of self-injury, what emotions and feelings they experience during an incident of self-injury, as well as the function that self-injury has for them personally. In many instances, self-injuring adolescents develop dysfunctional or distorted views about the past and the choice to self-injure, for instance. Examples include believing that they have caused what had happened to them, believing others' spoken opinions of them, for instance that they were losers, believing that there was no alternative to self-injury, or that they had no hope for a better future. By educating the participants regarding the truth about the past events, and themselves, and providing alternative behaviours or strategies to change the function of self-injury, the dysfunctional and distorted beliefs can be challenged and cognitive restructuring can occur.

5.6.4. Rationale for including neuroscientific information.

Willis (2009, 2010) posited that adolescents are curious about how their brains work and found that students experienced more success in learning and behavioural change when helped to understand the neurobiological working of their brains. Similarly, the work of John Joseph and his colleagues (Focus Education, n.d.) with adolescents regarding brain and neuroscientific research has proved to be successful in providing insight to students into brain processes, how they learn, and how emotions and thoughts interact.

Furthermore, based on the advice of van der Kolk (2003), and Klonsky (2007), that is, that adolescent understanding of the association between their childhood experiences, their emotions, their thoughts, and the functions of their behaviour, as explained through neuroscientific research, should form the central focus of an intervention, basic neuroscientific information was incorporated into the intervention topics. This understanding provides adolescents who self-injure with a sense of control (Klonsky & Meuhlenkamp, 2007) and may also foster a willingness to replace the self-injury with a functionally equivalent behaviour (short-term, socially more acceptable replacement behaviour, maintained by the same consequence) and functionally related behaviour (long-term desirable skills based on knowledge and understanding) that could be maintained by a different consequence.

5.6.5. The intervention website.

The website was developed and programmed specifically for this study. It was called 'Help for Harm' and was designed to provide a platform for the intervention component but also had the functionality of gathering and storing information (data) obtained from the Initial Questionnaire, Daily Quizzes, Checklists, Quick Quizzes (at the end of each topic), as well as choices made regarding the function of self-harm, and replacement behaviours. It was envisioned that the website would eventually be expanded to a self-help hub for people of all ages to find resources regarding self-injury. For the purposes of this study, only participants were given access to the website.

The website provided step-by-step guidance through the phases of the study. The participants were able to work through the topics at their own pace, but with the understanding that at certain points they would be required to participate in synchronous online sessions to discuss the data gathered up to that point. Once the unique pseudonyms for each participant were received, they were provided with a personal password and detailed instructions on how to access the website. They were then able to log on to the website and access only the Initial Questionnaire (Appendix E). Upon completion of this questionnaire, the participants were able to access the Daily Quiz (Appendix F) as well as the four topics that were part of the teaching intervention under the Info Zone tab, one at a time.

For each of the four topics, participants were able to either read through the information, or listen to an animated avatar created by using voki which "is a free collection of customizable speaking avatars for teachers and students that enhances classroom instruction, class engagement, and lesson comprehension" (http://www.voki.com/). Every paragraph had an animated figure and when clicked on, the spoken text became available. Figure 5.1 is a screen shot and provides an example of the webpages. The rationale behind providing this option was based on research literature that found that adolescents who have been exposed to trauma early in life, often suffer from compromised brain development, especially the frontal lobes as the centre of executive functions affects the ability to learn to read for instance (Teicher, 2000; van der Kolk, 2006).

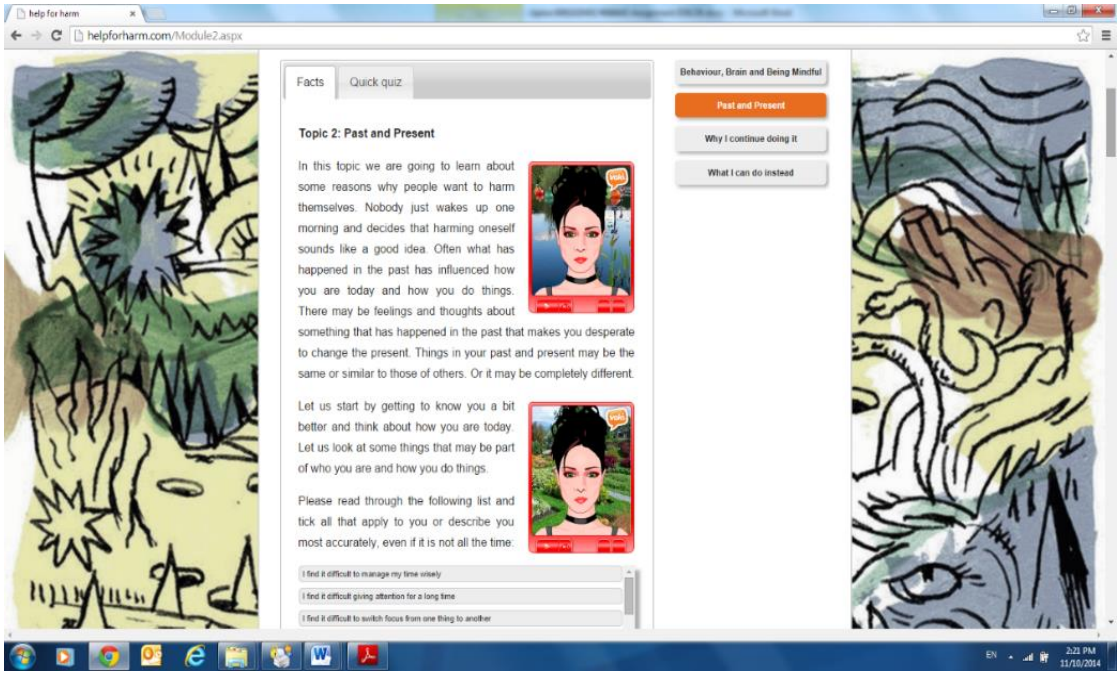


Figure 5.1. Example of webpage and animated avatar

5.6.6. Phases of the study.

The study was planned to consist of three phases.

5.6.6.1. Phase 1: Pre-intervention.

This phase consisted of the literature review, which contributed to my pre-understanding of the phenomenon in preparation for the study. It also included developing the necessary instruments and website, participant selection, as well as completion of the Initial Questionnaire (Appendix E). As participants agreed to participate in the study, they were given access to the website. Each participant had a unique log-on and they could access only certain materials on the website at a time. The Initial Questionnaire was developed to obtain historical information from each participant regarding their engagement with self-injury. Information obtained was then immediately used in compiling case notes for each participant, as well as for developing questions that were to be asked during interviews in the form of synchronous online chats in edStudio (https://staff.learningplace.eq.edu.au/EdStudio/pages/default.aspx). Upon successful submission of the completed questionnaire, the participant was granted access to the first topic of the intervention.

5.6.6.2. Phase 2: Online educational intervention.

The participants were allowed access to only one topic at a time in order to ensure that all information provided could be read, or alternatively listened to, and that all the required actions had been completed before the next topic could be accessed. During this phase, the other instruments, as explained later, were used to generate more information about the participants' experience with self-injury as a behaviour, but also about self-injury as a lived experience.

5.6.6.3. Phase 3: Post-intervention.

This phase consisted of completing the narratives. At various times the participants' narratives were presented to them, upon which they commented, added to, changed and clarified the meaning via a process of writing and re-writing.

5.6.7. Intervention content.

The intervention itself comprised four topics. The information included in the four topics that were chosen was based on functional behavioural principles and neuroscientific insights.

5.6.7.1. Topic 1.

The first topic that participants had to work through explained behavioural principles in the form of basic facts. The rationale behind this section was that if participants were to understand self-harm, they had to understand that it is also a behaviour and therefore subject to behavioural principles. Participants learned that everything humans do is considered to be behaviour, including thinking and feeling; that behaviour often happens as a response to what happens in a person's environment or social context; that all behaviour is communicative and tells a story; that all deliberate behaviour has a purpose; that behaviour is learned, and that as behaviour is learned, it can also change or be replaced by another behaviour. It was explained in a cognitive behavioural therapeutic style how thoughts and feelings work together to cause a behaviour to occur.

Also included in the first topic was information about the importance of the brain as control system for everything that happens in our bodies. It was deemed important for participants to know basic information about the brain as the intervention was based on neuroscientific research with the envisioned outcome of acquiring enough understanding to enable them to choose the implementation of strategies that would alleviate or eliminate the need for self-injury. An interactive model of the brain was provided where participants could click on a name of part of the brain to learn more about that particular area of the brain and its function. Areas explained in this manner were the pre-frontal cortex, cerebrum, cerebral cortex, cerebellum, hippocampus, amygdala, thalamus, hypothalamus, pituitary gland, brain stem, and spinal cord.

Other information included an explanation of neurons and circuits, as well as some of the most important neurotransmitters such as serotonin, dopamine, glutamate, cortisol, and the opioids. This information was included so that participants could, at the end of the study, draw upon that information to choose strategies that could potentially reduce the release of chemicals with negative effects, and also choose those that could increase the release of positive effects.

An introduction to the notion of mindfulness was included in Topic 1. Participants were requested to work through two exercises. The first exercise explained how to become aware of what is happening and merely accept it. The second exercise was to become mindfully aware in everything they did. The participants were encouraged to become mindfully aware of what happened to them while they self-injured. It was envisioned that this skill would assist them when completing the Daily Quiz (Appendix F) where they had to record their actual lived experience of what happens at the time of self-injury in terms of thoughts, feelings, anything else that is happening while they engage in self-injury, as well as what happens immediately after the episode.

At the end of this topic, Kids Helpline contact information was provided as a precautionary measure in the event of any of the participants experiencing extreme distress working through the topics or recording their experiences while completing the Daily Quiz. This number was also visible on every page of the website. When the

participants reached the end of the first topic they were required to complete a Quick Quiz (Appendix G which contains all four quizzes) asking them about their experience while working through this topic. Only once the participants have completed this quiz were they able to get access to Topic 2.

5.6.7.2. Topic 2.

The aim of the second topic was to explain to participants that what they experience in the present can be linked to what has happened to them in their past. Behavioural terminology such as 'setting events' was explained to the participants. This was in preparation for the planned synchronous online sessions during which the visually presented 'behaviour cycle' would be used to explain self-injury from a functional behavioural perspective. It was explained that what has happened to them in the past were the setting events, about which nothing can be changed, except their understanding and reaction to those events. The problems they were experiencing at that moment, described as the effects of the setting events, were linked to the setting events. It was also explained what has happened in their brains having lived through the events of the past in terms of brain development and the ability to use their frontal cortex, for instance. Furthermore, the participants were provided with an explanation of the chemicals in the brain, the role the chemicals played when the negative events happened to the participants, and the role the chemicals are still playing when they relive those memories.

Approaching this study from a functional behavioural perspective, it was imperative to obtain information about the events that had happened in the lives of the participants that had contributed to their turning to self-injury as a coping mechanism. Also important to know was how those events of the past had caused certain of the current problems in their lives. These events, in the behaviourist tradition, are referred to as setting events, while the problems they experience as adolescents can be seen as the effects of those setting events on their development. This information was gathered in the form of two checklists. At the start of this topic, the participants were requested to complete a 96-item checklist (Checklist 1 – Effects of Setting Events) of statements that best described the presenting difficulties at that moment (Appendix H). More information regarding the contents is provided

in the discussion of the various instruments. In terms of a functional behavioural analysis approach, the information would fit into the Effects of Setting Events part of a behavioural cycle (Figure 5.2).

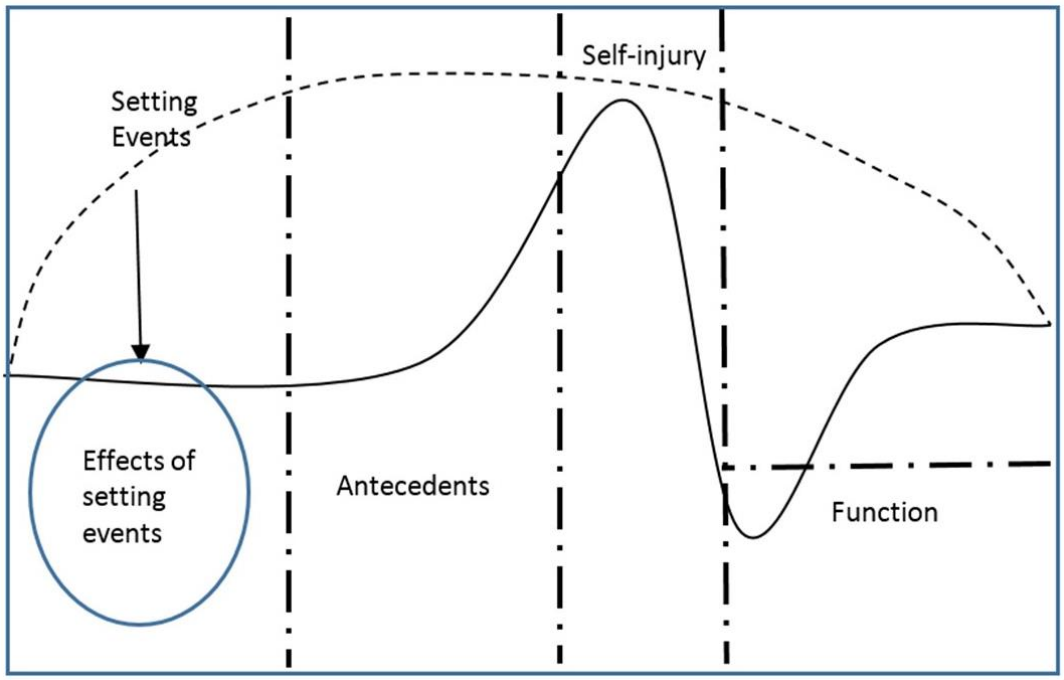


Figure 5.2. Behaviour cycle – Effects of setting events

The participants were then required to complete a second checklist consisting of 36 items (Checklist 2 - Setting Events) that essentially could be described as setting events (Appendix I) from a behavioural perspective (Figure 5.3). More information about this checklist is provided in the section describing the instruments.

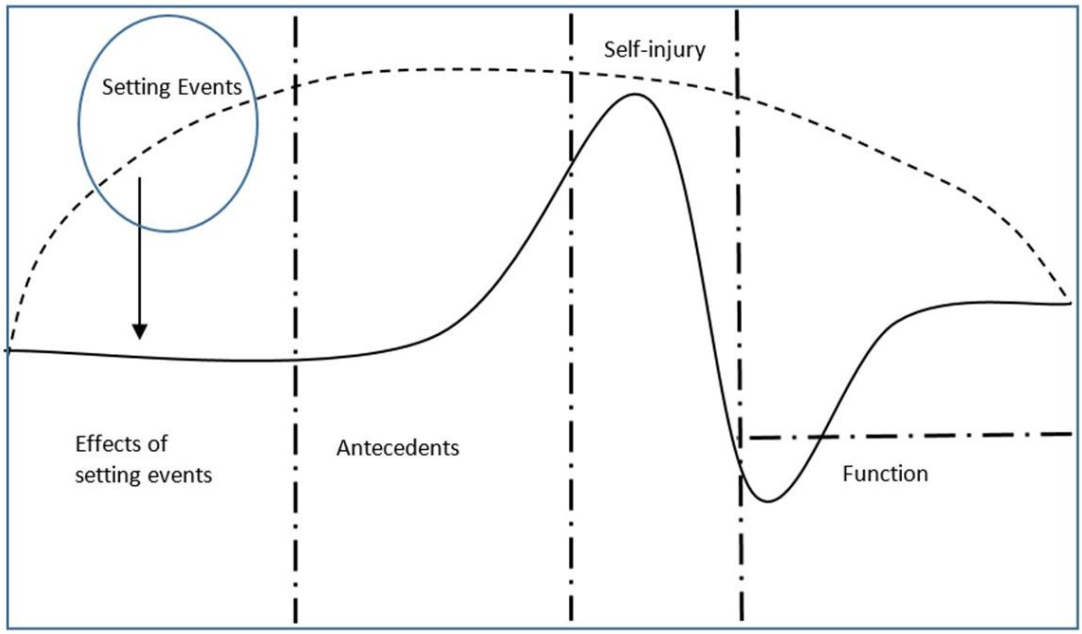


Figure 5.3. Behaviour cycle – Setting events

The participants were encouraged to apply the mindfulness principles to the experience of remembering the effects of traumatic events on their thoughts and feelings, as it was acknowledged that some of those suppressed memories might surface while they were working through the checklists. Upon completion of the mandatory Quick Quiz (Appendix G) at the end of Topic 2, participants were given access to Topic 3.

5.6.7.3. Topic 3.

The purpose of the third topic was to explain to the participants why they continue to self-injure. At the start of this topic, information was revisited about how the brain, and specifically some chemicals, can influence thoughts, and emotions, and the resulting behaviour. It was explained how remembering and reliving those traumatic events have led to applying self-injury to relieve the high-negative affect. It was further explained that what they were required to identify and record in the Daily Quiz while they feel the urge to self-injure, were called ‘antecedents’ in functional behavioural terms, with an antecedent meaning something that happens just before an action, or in their situation, the act of self-injury (Figure 5.4).

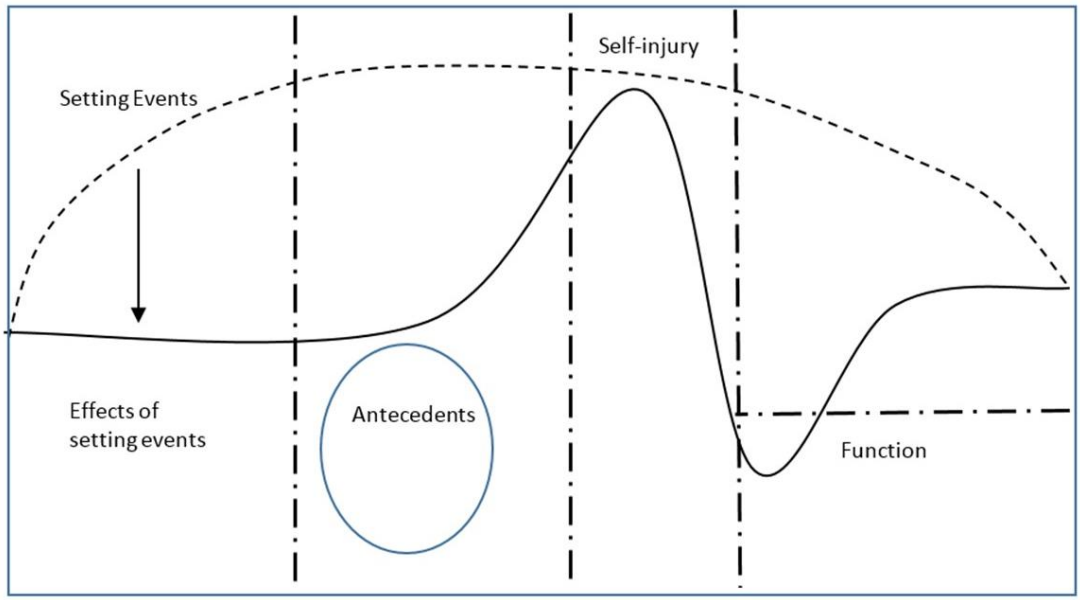


Figure 5.4. Behaviour cycle – Antecedents

Reference was also made to what was learned about behaviour in the first topic, namely that for a behaviour to be repeated, whatever follows the behaviour must serve a function for the person engaging in the behaviour (Figure 5.5). Participants were reminded about the two possible functions of behaviour, namely to escape or avoid something (negative reinforcement), or to access or gain something (positive reinforcement). Everyday examples such as doing something over and over to gain the attention of friends over and over again, or to escape negative consequences of not being able to do schoolwork, were used to explain these behavioural principles.

The link was again made to the role of chemicals in the brain pertaining to these functions. Self-injury was then explained in terms of the release of chemicals such as endorphins that are released in response to pain so that for a moment, they feel good after having injured themselves. This remembered effect becomes desirable in the future, which then causes them to self-injure again and again. The 'feel good' experience serves as the function or consequence that maintains the self-injury as behaviour. A more comprehensive list of functions was provided (Appendix C), on which the possible functions were divided into four categories based on Prinstein and Nock's (2004) four factor model. The four factors are (1) to avoid or escape something internal (automatic); (2) to avoid or escape a social

situation; (3) to gain or access something (automatic); or (4) to gain or access social rewards. The list was compiled from functions identified in literature by various researchers and applied to a basic model. The participants were required to identify which of those functions were applicable to them, in preparation for a second synchronous online session.

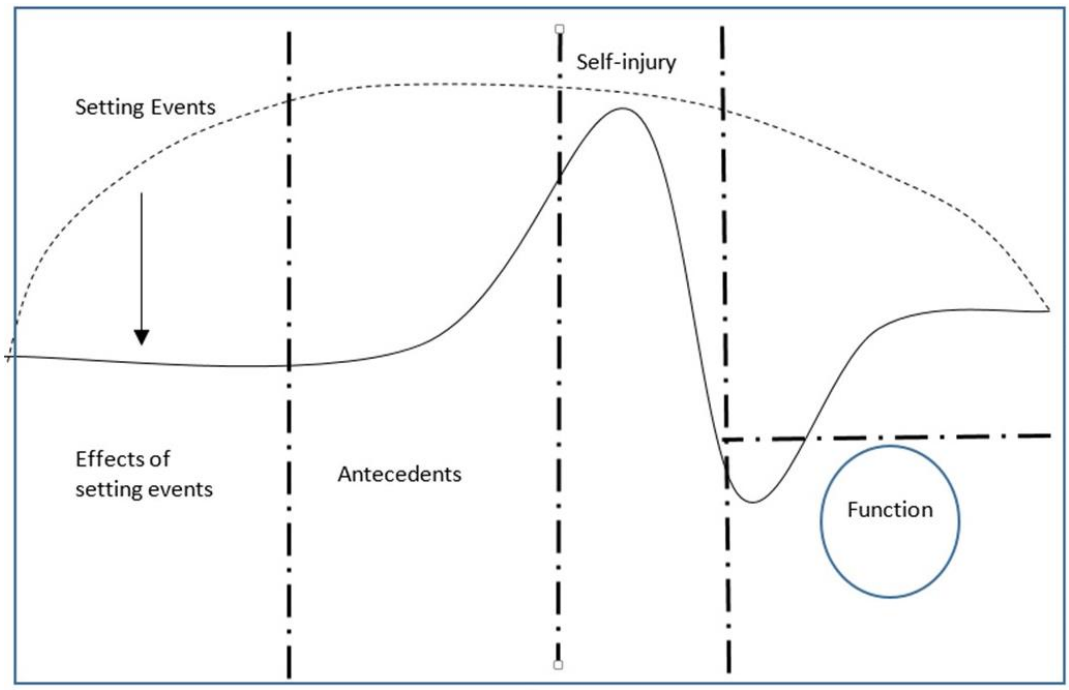


Figure 5.5. Behaviour cycle – Function

The participants were required to complete a Quick Quiz (Appendix G) in order to gain access to the fourth topic.

5.6.7.4. Topic 4.

The purpose of Topic 4 was to offer suggestions to break the behavioural cycle and reduce the occurrence of self-injury episodes. Strategies were suggested in regards to dealing with setting events, the effects of the setting events or current difficulties, and antecedents, in order to eliminate the stimulus for the behaviour. Further explanation of how the strategies were used is provided in the section describing the instruments used in the study. An important aspect of Topic 4 was to choose behaviours or actions to replace self-injury, based on its function. The four possible functions of self-harm with examples (Figure 5.6) were provided for their consideration of the participants in preparation for the third synchronous online

session. A final Quick Quiz (Appendix G) was expected to be completed in order to also gain access to the Helping Tools webpage explained next.

AVOID /ESCAPE something internal (automatic)	**AVOID/ESCAPE a social situation**
* Escape negative emotions through emotional release * Escape negative emotions by feeling numb afterwards * Escape from numbness when pain is experienced and blood can be seen * Avoid committing suicide * Avoid or suppress sexual feelings that make a person feel guilty * Escape memories of painful and negative past events	* Avoid or escape unwanted social attention and interaction. The signs of self-harm serve the purpose of a protective boundary around the person * Avoid something unpleasant you don't want to do
GAIN/ACCESS something internal (automatic)	**GAIN/ACCESS social rewards**
* Gain control over your own body and life where you feel it has been controlled by other people in the past * Gain control over feelings * Access the feel-good sensation afterwards that has become an addiction or strong habit * Access or feel good because it is intense, exciting, new, something different, and risk taking that makes a person feel important * Access the opportunity to care for yourself (wounds) when other people have failed to do so * Gain satisfaction that you have punished yourself because you feel guilty or to be blamed for something	* Gain attention because you did not received enough positive attention when you were younger * Gain someone's love and affection * Gain (feel) revenge to pay back someone for what they have done to you, usually by hoping to make them feel guilty * Access help to release the intense negative emotions and the reasons for the emotions * Gain closeness with friends or to become part of the 'in group' * Gain admiration of others as a strong person who can handle the pain

Figure 5.6. Functions of self-injury

5.6.7.5. Helping tools.

In addition to the information provided in the four topics as representing the teaching intervention, an additional section on the website provided more suggestions that participants could consider and implement. The first tab under the helping tools section provided links to self-help websites. These links were organised in accordance with the main topics or themes discussed (Figure 5.7). A second tab contained links to websites that parents of adolescents who self-harm may find helpful.

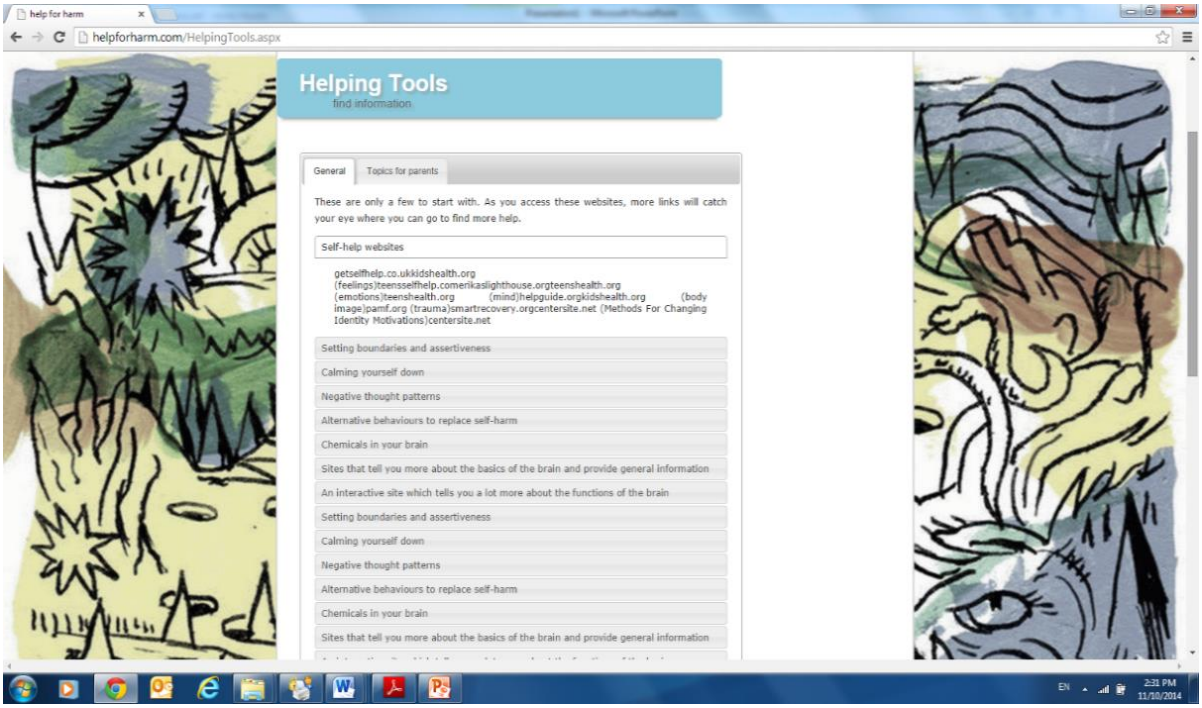


Figure 5.7. Example of webpage: Helping tools

5.6.8. Instruments.

This section provides additional information regarding the development of the various instruments used in this study.

The **Initial Questionnaire** (Appendix E) used as pre-intervention assessment was developed with the intention of providing a historical recollection of the self-harm experience of all potential participants identified by the participating guidance officers. The Initial Questionnaire was used for this purpose with the participating adolescents and formed the starting point for compiling case notes for each of them as the questionnaire provided historical information about each participant's involvement with self-injury. The information obtained also informed the development of questions that were unique to each participant, and that were used later in the study during semi-structured interviews.

The questionnaire contained 36 questions, of which the first 15 sought information such as the number of times self-injury has occurred, the age at which it started, the typical form of the self-injury, for instance cutting, as well as general

information regarding thoughts and feelings typically experienced during a self-injury episode. The other questions offered a choice between a false or true response. The contents of the questions were based on information found in literature regarding specific aspects of self-injury, such as the influence of friends who are also self-injuring, the reasons for continuous self-injury, the use of substances such as drugs and alcohol while self-injuring, listening to music about self-injury and suicide, and reports of help-seeking activity. The justification for inclusion of the content of the questionnaire can be found in Chapter 2.

Question 4 was included to identify those students who were self-injuring at the time as possible participants, as the study was interested in the lived experience while the urge to self-injury was occurring. Question 1 determined possible suicide ideation and was included to prompt the researcher and other guidance officers to investigate the possible risk of suicide, which would exclude a person from participating in the study, should it be found that the means to commit suicide was available. Question 12 served as an additional safeguard to ensure that the students' parents were aware of the self-injury.

The lived experience as a unit of phenomenological investigation in this study as formulated in the first sub-research question, namely, "*How do adolescents describe their 'in the moment' experiences of self-injury and the reasons underpinning their actions*?", logically includes obtaining first-hand, ecological momentary assessment information at the time of self-injury. In order to obtain this, the participants were requested to complete the **Daily Quiz** (Appendix F) online on the website every time they experienced the urge to self-injure. The importance of this information to facilitate understanding self-injury from a functional behavioural perspective entails understanding the antecedents or what happens just before an episode of self-injury, as well as what feelings and thoughts are experienced at the time. Also learned from this information is what form of self-injury was employed, as well as the seriousness of the episodes, namely how many cuts were made, for instance. Lastly, the maintaining consequence, or function the self-injury has for the participants, was also determined through completion of the Daily Quiz.

The name Daily Quiz was given to the questions the participants had to answer each time they felt the urge to self-injure. In order to complete the quiz they were required to log on to the website and access the quiz to complete the four steps. At the end of each step, by clicking the 'enter' button, they were able to proceed to the next step. At the end of the four steps, the data were saved to the data-collection component of the website which was accessible only by me, the researcher. The Daily Quiz was the only aspect of the online data-collection system that was continuously available to the participants.

Step 1 of the Daily Quiz required the participants to identify and check all the thoughts they had just before they decided to injure themselves or while they were performing the act. For each thought they identified, there was a sliding scale marked from 0 to 10 that appeared so that they could identify how strong each thought was at the time (see Figure 5.8). At the end of this step the participants were given the opportunity to mention any other thoughts they may have had at the time.

Step 2 required the participants to do the same as above applied to the feelings they had just before they decided to injure themselves or while they were performing the act. For each feeling they identified, there was a sliding scale marked from 0 to 10 that appeared so that they could identify how strong each feeling was at the time (Figure 5.8). At the end of this step the participants were given the opportunity to mention any other feelings they may have experienced at the time.

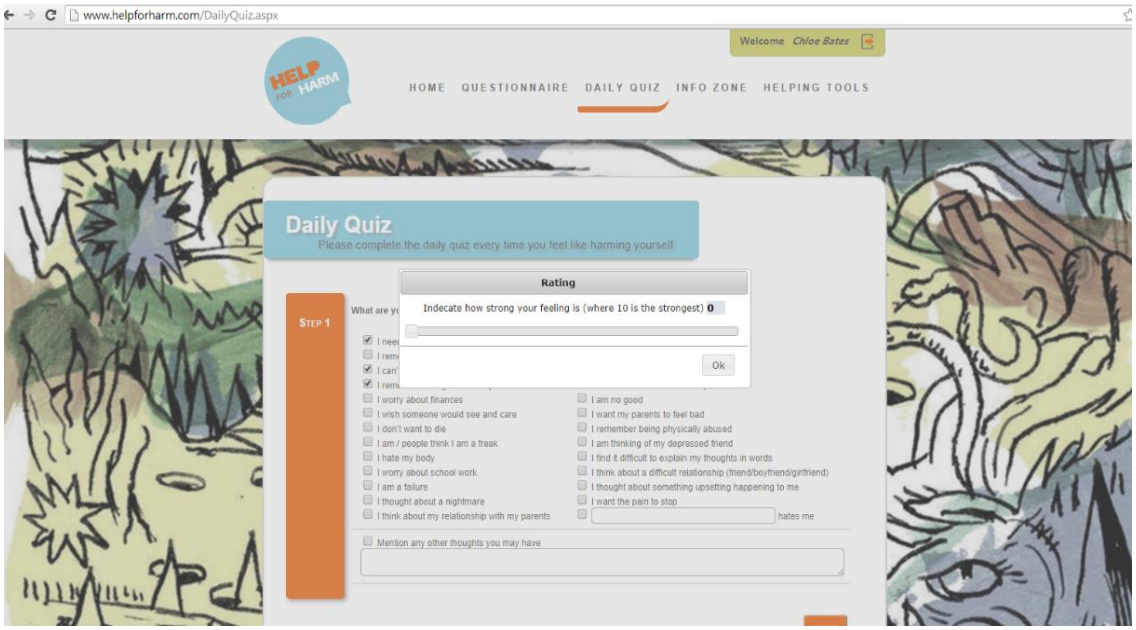


Figure 5.8. Example of webpage: Sliding scale

In **Step 3,** the participants were requested to identify anything else that was happening at the time that may have contributed to the urge to self-injure. If anything else not mentioned in the list was happening, they could identify it here. **Step 4** required the participants to describe what they felt, thought or experienced immediately afterwards. The opportunity was given to them to provide any other information they wanted to share. They were also requested to identify what method of self-injury they had used, and if they had cut, how many cuts they had made. The information obtained from completing the Daily Quiz provided a real-time ecological momentary assessment used towards recording the lived experience at the time when the urge to self-injure was prevalent.

The participants completed **Checklist 1 in Topic 2**, a 96-item checklist of statements that best described their current presenting problems (Appendix H). Although the items were included in random order on the website, the items could be clustered together in specific categories of characteristics or of problems indicated in the literature as prevalent among adolescents who self-injure. Broad categories targeted in this checklist were impaired executive functions that are noticeable in (i) a lack of organisation skills, (ii) difficulty with self-regulation, (iii) typical lack of inhibition or impulse control, (iv) cognitive distortions or unhelpful thought patterns,

(v) identity disturbance, (vi) low self-esteem issues, (vii) chronic interpersonal difficulties and poor communication, (viii) emotional disturbances, (ix) low distress and frustration tolerance, (x) the inability to self-soothe, (xi) avoidance behaviours, (xii) somatisation, as well as the (xii) identification of specific disorders such as depression or depressive disorder, post-traumatic stress disorder, and anxiety or anxiety disorder.

Checklist 2 in Topic 2 identified the past events such as traumatic or less positive childhood experiences such as abuse, neglect, and bullying. It also identified issues pertaining to parenting and familial circumstances such as parental substance abuse or mental health issues (Appendix I).

The second sub-research question was to determine the lived experience of the participants while engaged in an educational intervention. In order to gather information that could answer this question, the participants were requested to work through the four topics on the website and complete a quiz at the end of each topic to explain their lived experience while being involved with the educational intervention. The aim of the **Quick Quizzes** (Appendix G) was also to determine whether the participants needed clarification of the information presented, as well as to monitor their emotional wellbeing.

5.6.8.1. Function of behaviour.

In Topic 4 the function or maintaining consequence of self-injury was explained. The participants were asked to identify the functions that self-injury had for them, as listed in the table in Figure 5.6.

5.6.8.2. Behavioural change.

In behaviour therapy the objective is to identify an alternative, socially more acceptable behaviour to replace the target behaviour, in order to still access the same maintaining consequence or function of the target behaviour. To facilitate behaviour change, modifications can be made to the environment (setting events and antecedents) in which the behaviour occurs so that the stimulus for the behaviour is reduced or eliminated. Furthermore, any skill deficits that would prevent the

successful implementation of the replacement behaviour are addressed through teaching the required skills, for instance coping skills, relaxation skills, or affect-regulation skills.

In this study, the process for behaviour change was adjusted to incorporate the intervention which was modelled after a cognitive behaviour therapeutic approach. Therefore, strategies to deal with the setting events, the effects of setting events, and antecedents were provided, as those strategies would reduce the stimulus effect and in the process also minimise the need for self-injury. For each strategy, the participants were requested to identify whether they would consider implementing it or not, and to provide a reason for their decision.

Three general strategies were provided for dealing with setting events, as those events are historical and cannot be changed, but are reacted to differently in order to minimise the possible stimulus effect towards self-injury in the event of remembering or reliving those events. Firstly they could apply mindfulness, namely to mindfully consider what has happened in the past, to acknowledge that it has happened, to acknowledge the thoughts and feelings, and then to decide which of the list of strategies provided would produce the desired outcome instead of engaging in self-injury.

Another strategy suggested was to be mindful about what chemical is at work in their brains at any given moment, for instance when they were feeling depressed or anxious, and then to choose to do something that would release a counteracting chemical that is needed to feel better. Ideas were provided in respect of balancing the release of the chemicals. A third strategy was provided, namely to consider forgiving those who had hurt or traumatised them, so as to minimise the impact those people can have on them in the future and to support emotional healing.

Next, some suggestions were offered regarding ways of dealing with the effects of the trauma. It was suggested to make use of the services of the school guidance officer, and also to access some self-help websites to address issues related to their brains' ability to effectively function and control, such as time management, attention and concentration, developing self-control, reflecting upon and learning

from consequences, and how to set goals and reward themselves when reaching those goals. Similarly, strategies were suggested to change unhelpful thought patterns, to become more resilient and assertive, to increase their self-esteem, and to develop healthy relationships and increase communication abilities. In regards to somatisation and disorder-related difficulties it was recommended that the participants access the help of medical professionals. Mention was also made of brain chemicals and how to control emotions by increasing the release of some chemicals through, for example, exercise.

Regarding antecedents it was explained that the participants were in control of their choices to eliminate those things that would more likely convince them to engage in self-harm, such as listening to music with lyrics pertaining to self-injury and suicide, and looking at their old scars. Armed with understanding of self-injury from functional behavioural and neuroscientific perspectives, they could experience being in control of their lives.

5.7. Summary

This chapter firstly validated my approach in this study to combine seemingly contradictory concepts such as behaviourism and hermeneutic phenomenology. Included in the discussion the theoretical perspective that informed this study was explained. Secondly, this chapter provided an explanation of the use of an online intervention as the setting for the study. The setting was deconstructed to explicate key aspects or elements of the intervention in order to demonstrate that while the participants were engaged in the various aspects of the intervention, those elements became their natural environment in which they lived through episodes of self-injury, narrated in Chapter 6.

CHAPTER 6: NARRATIVES OF LIVED EXPERIENCE

6.1. Introduction

In this chapter, I present the information gathered by means of the research in the form of stories as told by the participants. It is hoped that the reader will approach these phenomenological accounts with the openness required (van Manen, 2014). In essence, each of these stories therefore represents the lived experience of one of the participants in order to answer the overarching research question, namely "What are the lived experiences of adolescents who self-injure, both before and after engaging with an intervention strategy based on neuro-science and functional behaviour perspectives?"

Overall, the lived experience of self-injury includes its historical trajectory across the dimensions of lived space (spatiality), lived body (corporeality), lived time (temporality), and lived human relations (relationality or communality) (van Manen, 1990) and describes how self-injury has become the participants' way of coping as a result. Each of the stories ends by answering the second sub-research question, namely whether an educational intervention based on neuro-scientific and functional behavioural perspectives would have an impact on the participants' lived experiences.

All four participants were between 16 and 17 years old at the time of data collection and they all lived in small, rural towns in Queensland, Australia. Three complete stories are presented. The first case study presented is that of Clare, a young girl who was seventeen years old at the time of data collection. She is an only child and grew up in a single-parent, low socio-economic household where significant physical illness was evident. The second case study is the story of Mick, the only male participant. He is the younger of two children. The effect of parental mental health, low socio-economic circumstances, and intellectual disability in the family was identified as having had a significant impact on him. The third case study presents the story of Barbie, who was sixteen years old when she participated in the

study. With both parents present, she is the middle child of five siblings who were exposed to severe alcohol abuse and domestic violence. The fourth case study was never completed, as the participant called Jaycee chose to withdraw, therefore only the data gathered are presented for the sake of later identification of units of meaning or essential themes in the next chapter.

The reason for including the narratives or stories of each of the participants was to construct stimulating, evocative, rich, and in-depth textual descriptions of their thoughts, feelings, human actions, behaviours, intentions, and experiences in the lifeworld (van Manen 1990, p. 19) in order for their stories to be compelling and insightful (van Manen, 1990).

6.2. Clare's Story

I am Clare, I am 17 years old, and live with my mum, Sandra. I was born in a capital city of another state. We moved around when I was growing up and therefore I attended two different primary and three high schools in two different states. I am currently attending the local Technical and Further Education (TAFE) facility where I am studying a beauty course. From Year 9 until last year I attended the local high school, and also completed some courses at TAFE in Year 11. I became part of this study when our school guidance officer approached me about it, as I met the criteria for inclusion, due to harming myself by cutting.

At the age of fourteen, I started deliberately injuring myself, as I needed some form of relief of the stress caused by lots of things in my past. I cannot remember exactly why I decided to cut myself and not do anything else instead, like burning, for instance, but on that particular day I felt very alone and rejected because one of my friends I was talking to online decided not to have anything to do with me as I was supposedly such a drama queen. I felt so alone and that I was not worth anything to anyone. I wanted to feel what it felt like to cut myself because people said it had helped them get relief when they went through the same experiences.

My parents had different reactions when they found out about the self-harm. My mum was very angry and shocked, and embarrassed me in front of other people

in a shop when she blurted out about me self-harming, which made me furious. My dad didn't find out until much later. He asked me how I wanted to manage it, and he just wanted to make sure that I was safe. My mum and dad both say they understand my point of view, but they don't really accept the fact that I am doing it to get relief from the emotions caused by my past.

Since that first time, I've cut myself a lot of times, usually by using a metal ruler, but I have also used other sharp objects at times. Sometimes I just use my nails as a blade and then I make more scars rather than cause bleeding. I cannot always remember, as my memory is not good at all; it never has been, but I have a self-harm photo album on my phone to keep track of it. When I feel the urge to cut building up, it is usually because I remember the many very bad experiences in my life, which then cause anger, anxiety, and depression. It becomes so bad that it then causes me to feel overwhelmed by it all. I saw a lot when I was younger; things I should never have been exposed to or have had to deal with at such a young age.

When I was a little girl I lived with my mum and dad as a family. I'm an only child. My dad left us when I was four years old. After Dad left, I lived in a split-custody arrangement. But to get to that arrangement I, as a little kid, had to go through the brainwashing by my mum, dad, and the counsellor because of the custody fights between my mum and dad. I was so confused and didn't know what to do. They expected me to make a decision as to who I wanted to live with, while all I wanted was to live with both Mum and Dad. What about it was so difficult for them to understand? I couldn't control what happened. It was a crazy arrangement and so confusing because I never knew where I was supposed to go, who would pick me up, or what was happening. What I do remember is that I only had one parent at a time, and it didn't matter which parent I was with, they were both too busy with other things to really give me enough attention.

I feel that I did not experience much warmth from other people growing up, and I was raised in different ways by my mum and dad and their partners, which was really very confusing. While dad had lots of money and I could have what I wanted; since I started living with Mum only, there has not been a lot of money, so I was never able to keep up with others. I couldn't have what others had, follow the latest

trends, or wear what other kids wore. That really made me depressed and it made me wonder what I was going to get out of life; what type of life I was going to have.

We also did not have contact with a lot of other people, such as family. That is why I often felt that I did not belong anywhere. My mum had cancer and had to go to hospital when I was about 12 years old. I wasn't allowed to go with her while she had to get chemotherapy. It made me feel so bad and helpless because I couldn't do anything to help her or to make it better for her. I couldn't buy her anything or just be with her while she got that poison pumped into her. It looked very bad, as if I didn't care about Mum, but I had to be at school while I should really have been with her.

School was not always a happy place either. I got bullied a lot by different people in all the schools I have attended over the last 10 years. I remember for instance that in reading groups in about Year 6, we were made to read out loud and that really got to me. The other kids would yell at me to read aloud and speak up, while I could not read properly. I was made to think that there was something wrong with me and I felt so scared and embarrassed. I had to figure out big words on my own. I was all alone in it and nobody really cared, except my one friend, James. I always went to him when I got bullied. People made me feel worthless and belittled my achievements, like getting the words right, or reading a book. That was a huge achievement for me, but other people didn't think so. Every time I tried to achieve something it either didn't work out, or I didn't get praised for it, even if I was successful. In Year 8, I got physically bullied, especially by one specific girl. The teachers did nothing to stop that.

People have treated me badly all through my life. Other kids teased me about my teeth, my smile, the way I laughed, the person I am, my personality, and the things I say. I started to believe that there must be something wrong with me because everybody picked on me for the same things. Part of the bullying was that other students would accuse me of something they knew I had not done. They blamed me for the things they did and then I got into trouble for it. When I became a bit older, my friends often blamed me for their problems and unhappiness, and for causing them hurt with the drama in my life.

I cannot stand up to people because I want them to accept me and like me. In Year 6 when I got bullied by people with lots of friends, all tough boys and girls, I could not do anything to stop it. To protect myself, I just allowed it to happen, because if I had tried to stop them, I would have made it worse; I would have been bashed. I did try to stop them at times, but that didn't go well at all. I also find it difficult standing up to adults treating me badly. When I try to tell adults to stop treating me badly, I do not know how to do that without being rude and disrespectful. I just go off on them and blame them for a situation. That doesn't help the situation either.

There were also people who did things to me that made me feel very uncomfortable, which should never have happened. When I was eight years old I was visiting other people with my dad. They had a large house and pool. While I was in the pool, the father of my dad's friend tried to touch me inappropriately. I told my dad but he did not believe me. According to him the man was old and half blind and could not have done to me what I said he did. But he still had hands, and I know what I felt on my body and where I felt his hands on me. Dad said that he believed me, but not what I was saying. To this day he keeps to his story, so I know he does not really believe me. Because of that incident on Christmas day, the old man's daughter said that I was not welcome there and to never go back there ever again. When we got back to Dad's house, he told me that I could no longer live with him. That absolutely killed me and I just shut down after that. I rang Mum and asked her to pick me up while tears were streaming down my face. Mum could hardly understand what I was saying so I kept repeating "Just come pick me up". I have lived with her ever since, and it is getting harder every year as I get older.

When I was fourteen years old, my friend Josh touched me in a way he shouldn't have. It made me feel very uncomfortable, but it also left a big impression on me. At the age of sixteen I was raped by a guy named Tim. We were trialling a relationship for two months, and then I said yes to going out with him. We were watching a TV program in his bedroom and were generally just chilling out. It was a really confusing experience and a bit of a blur, as at first I did not realise what was happening. When I realised what he was doing, I broke down crying. He tried to

comfort me. I did not know what to do and became panicky. I experienced a panic attack but tried to calm myself down before I went home. A few weeks later, I called Kids Helpline and told them about the situation. I was in tears and I told them that I was scared for my life because I was being threatened by his friends.

I wanted my friends to do something but they couldn't because I couldn't trust anyone with anything at that point, and almost a year went by and no one knew a thing. I really just wanted to let my friends, or anyone, know of my mental state. I couldn't tell them what had happened because I didn't know who I could trust. For a whole year I didn't tell anyone about it. I was afraid of going to school. He threatened to tell everyone what had happened, so he was blackmailing me. I have tried to block that memory out, so it is hard to remember what else happened. Anything bad that happens, I block out after a while.

My parents first realised that there was something wrong with me when I was attending Kindy. I struggled to learn things, even normal, everyday things I had to do. I have always had a poor memory, so remembering details and memorising information are very difficult for me. At one point I had to go to hospital for an operation. Ever since I can remember I have always had a lot of headaches, sometimes up to ten per day. When I was in about Year 3, I had an MRI and CAT scan done, and it was found that I was born with four holes (lesions) in my frontal lobe. There was a major one on the left, and three in the right back lobe. I have had a number of MRIs since, and recently it was established that the lesions were gone. I think that these holes had a lot to do with how my brain developed and my problems later on, though - especially with memory and in school generally. Having failed all my life, I was used to getting Ds all the time, but when I got my first C, I was ecstatic. When I was younger I got used to it, and when I got to high school I went through it again. When I was in Maths classes I couldn't understand much, but when we had open-book tests, my grades got higher and higher. I even got an A once and I celebrated. Then, when I got a B-, I got upset but also confused about what went wrong.

I find it difficult to switch focus from one thing to another, especially when I am tired, and I cannot give attention to more than one person or thing at a time.

Being organised is not one of my strengths, so my room is very messy and I often lose things. My mum always has to nag me to be ready on time. I need other people to help me do things, or remind me to do what I have to. At school I used to look at what my friends were doing so I could do what they did, as I often had no idea of what I was supposed to do. Little things can easily overwhelm me, and it is usually worse when I have PMS.

I tend to put off doing things because I feel so overwhelmed. I try to step back and see what I have to do when I have lots to do so that I do not feel so overwhelmed. I also get frustrated easily, and then I just give up with what I have to do, like homework. I often procrastinate, especially during school, or try to get out of doing things like assignments, or chores here at home. I do not even know what I want to do in the future; I still have to figure that out, and it does cause some anxiety because I do not know what will or should happen.

I do not really know how to behave when I am with other people because I do not know how to talk to them. I do not like looking people in the eye, even though I know I should. I just cannot do it; it is too uncomfortable, and I have never been able to do that in the first place. I keep my head down when there are other people around. If I do that, it is less likely that they will look at me or talk to me. Usually I do feel comfortable with some people, but then I can still not talk to them. What works for me is when I dress differently - then I take on that personality, and it becomes easier. I start to feel more relaxed, and my normal self, and more comfortable with who I really am.

I often say or do inappropriate things without thinking first, and then I act stupid. I just don't get Mum's point that I have to think before I do. It is really very difficult understanding that, and doing it is even more difficult. Controlling my behaviour is not easy, especially when people look at me differently. Then my thoughts get the better of me and trigger emotions that cause mood swings. Controlling my emotions is really difficult for me, and then I act without thinking.

My negative past and what has caused it are in my thoughts most of the time. I try to avoid thinking about bad things that have happened when I was younger, but

that is very difficult and it doesn't always work. Sometimes the memories just come back without warning. I tend to blame myself for everything that happens, and even for what has happened to me in the past. It has to do with me, so I should be at fault in some way. Not that I have caused any of that, but I was involved, so I feel that maybe some of it could have been avoided if I had done something sooner to stop what has happened. Everybody blames me, so I suppose I should take the blame for it, so I continue doing it.

I am stressed most of the time because I make myself think of the worst-case scenario and then believe all the negative things I imagine can happen. I tend to see a glass as half empty, or so I am told. How can it be half full if there is nothing in the top part? I worry about a lot of things and then those worrying thoughts lead to anxiety building up in me. I can feel the anxiety in my body when I have a panic attack. I was diagnosed with clinical depression and anxiety, for which I have seen a counsellor. When I feel stressed, angry, depressed or overwhelmed, I get to the point where I have to take it out on myself by cutting. Then I feel relieved afterwards.

I often feel as if I am invisible, as if I might just as well not be with other people. Nobody listens to me when I speak anyway; nobody pays attention. People make me feel like something bad or very low when they do not pay attention to me. Sometimes I want to explain something deep, but nobody is interested enough to listen to me. I have never been listened to throughout all of my life. This feeling of being invisible in social situations has been there ever since I was in about Year 4. I have always been the little girl in the background. Because of my height I was put in the back row with the boys, but I wanted to be with the girls. I was always different and bullied for that. I was called "giraffe", and other names I prefer not to mention. Mentally and emotionally I was also put in the background. You do not normally notice the people in the background, so I was just not noticed.

People never liked or loved me, so why would it change now? People have always made me feel like I am some sort of "thing", with no value, so I do not think I am worth much in any person's eyes. I do try very hard not to make mistakes, because if I do, people will just judge me again. I get rejected a lot, ever since I was a little girl. I invite my friends but then they don't accept my invitation and don't

come to me, so then I know that they don't like me and don't want to be with me. People do not accept me into their group and just leave me out. I do not even feel welcome in the group of students in my year level. I would suggest or ask people to walk with me at school, but nobody would bother to do it. People always choose other friends over me, so now I take myself out of society because I have been rejected by society. I tend to expect people to treat me badly; they always have, so why would it change now? Something bad can happen any time, so I am always aware of the world that is just not a very friendly place. There are a lot of bad people out there.

I feel people still easily reject me and do not want to accept me for who I am. Even now I get told to shut up because my laugh is weird. Laughter is the only thing that helps me through depression, but then people tell me to shut up because my laugh is weird. Or they just stare at me or tease me about my laugh or how I talk. It makes me feel so degraded. People always have a problem with how I talk. For a whole year I hardly ever spoke. I would be talking and people would interrupt me and start talking about something else. So obviously what I have to say is of no importance! I got rejected by my whole class and was moved to another class because of the bullying by one certain girl. And the bullying still goes on, only in other ways. People talk about me and my boyfriend and spread rumours about us, even in schools in a neighbouring town. When I meet new people and they have already heard these rumours about me, it leads to higher levels of anxiety. What chance do I have to make a different impression on people I have met just now?

I feel that I am not a normal teenager. There is something wrong with me but I do not know what it is. All through high school I have felt like this; that I am not like the other girls. I have never been very 'girly' and have always spoken much easier to boys, and therefore the girls rejected me. I am confused about who I am supposed to be. I am confused about life, I think. Nobody shows me what to do or what it is all about, but they expect me to just know. I always wanted to fit in; I wanted to be pretty, and to be accepted, but nobody ever wanted anything to do with me, especially since I started high school. All I got was bullying, which led to the depression.

I'm not good at making and keeping friends, I suppose. I have one friend who used to be my best friend, but we have not spoken for months. I have online friends, even from America, rather than friends in real life. It is more comfortable with them and you can easily get rid of people if you don't like them. If they bully me, I can get rid of them. I live with my phone by my side. It is my own private world where I have my friends and my music at hand when I need it.

I reckon my attitude and how I dress make me a freak, and that is why I do not fit in and why people reject me. I sense that other people think that I am a freak, because when I look up, I see people looking at me. I often feel that I do not belong anywhere. I do not fit into just one sort of style or personality. There is just no one category for me, or any one thing I fit into. I am very easily influenced and therefore I always want to be someone else. I feel that I have more than one personality, or I have a disorder that goes with that.

At times I really hate my body as well. Sometimes I feel that my body does not really belong to me, as if I am more than one person, really. And then there are times when it feels as if I do not know myself or who I am. One day I will feel like this; the next day I will feel like something else because I have a lot of different characters inside of me. How I feel on a certain day, for instance like an emo girl, will determine how I dress, and I will do my make-up accordingly and even talk that way. On another day I will be a tomboy, or on another I will be a 'girly' girl. The next day I can feel like a rich girl and be all happy and smiling. Other girls dress "normal" but I dress differently every day. I do not have just one single style. One day I can be really depressed, and the next I can be really happy. Every day I have a different kind of personality. My boyfriend likes it that I can be so creative, because he never knows what to expect next. I cannot stay the one person for a long time. I need change, but only if I can initiate and control it. If I am happy for too long, I start freaking out because something bad usually follows a time of happiness.

All the experiences of my past have had an effect on me. I do not want my mum to see the person I really am, as she has enough on her plate. In a sense, my boyfriend has also contributed to how I have changed. I have become meaner and I have turned into a person I do not really want to be. I insult people a lot more and I

do not care. It is too big an effort to help other people, but that makes me feel more depressed. When I am being mean to other people I feel bad, because I wasn't raised to be mean. I feel depressed because of who I am and who I have become. I used to be a really good person until I was about 13 years old. I helped a lot of people who suffered from depression and who had suicidal thoughts. I did not have any experience but I kept talking to them and I made sure that they were okay. I helped them and got them not to hurt themselves.

When I was about 13 or14 years old, I tried to help a young boy, but I was helpless when he tried to kill himself. I saw him stabbing the bed and stabbing himself. I saw him choking himself. I basically saw him wanting to die on Skype. He is okay now and enjoying life, but back then his suicide attempts had a huge impact on me. That made me feel helpless to change anything. I did not know who to talk to and it left me mentally drained because I had to deal with it on my own. Now I feel that I do not know what to do. I have tried all the time to be there for others, but it is taking its toll on me. I feel people who need help now have to find someone else. Mentally I feel drained, so do I really have to still deal with other people's problems? I just want to be simple, and creative and not so complicated. I do not care about other people any longer. I can't be bothered helping them, but I do not want to be like this. I am hard on myself, but I cannot help it.

My boyfriend also contributes to the stress in my life because he can be quite jealous and clingy, which is very annoying. He asks all sorts of questions and wants to know details, which I also find very annoying, such as what the other guys are doing with me. He is scared that I will get someone else. Mum does not like him, and she and her friend call him possessive and jealous because he follows me everywhere I go when we are at the markets, for instance. But then, I suppose I am doing the same with him. He does get aggressive very easily when I talk to another guy, but he is like that because of his dad's example. When they fight, they both let loose on each other. But I do want to see him and I want him to care about me; he is the only one who cares about me. The problem is that he has already been damaged by another girl. My boyfriend is so submissive, and so good. He will not do anything to me. When I am in a bad mood, I just go off at him because he annoys me. Recently

he started to snap back, and now he swears at me, and insults me. He picks it up from me, because we are very similar. I am worried about possible physical and verbal aggression from him, though. Mum is putting pressure on me to leave him, but it is easier to be with him than handling the depression that would result if I had to be alone again.

My mum is over-protective and does not want to allow me to do the things my friends do. She did not even trust me with having house keys until I was in Year 7! She doesn't want me to get a driver's licence either. My relationship with my mum is not good; it has never been good, and it is just getting harder to live with her. As soon as I walk into the house, I feel trapped and caged in, as if the walls are caving in. It makes me want to just run. Recently we had a fight when I felt really agitated, and all I wanted to do was to go for a walk, but Mum suggested that I should take a bath or draw. I started yelling that I just had to get away. I started cutting myself because of the intense agitation, and then my boyfriend came to pick me up. My dad called me, and I asked him to call my mum and talk to her because I cannot talk to her.

Mum is a real hypocrite. She will tell me not to do something but will do the same thing to me anyway. She wants to move and that causes a lot of uncertainty and anxiety in me. I need to know what is happening. I feel that I want to know about our finances, but mum does not want to tell me, and then I worry about it anyway. My mum always corrects me and I hate being corrected and told what to do. Although I am very creative, I am not very good academically, and have always had difficulty with memory and recalling what I have learned. I am psychic and can see other people's auras. My mum thinks I have a personality disorder, such as Histrionic Personality Disorder because I am excessively dramatic and emotional.

I feel that I cannot talk to my mum, even though she wants me to. When I am distressed I try to ignore her. And then she is also getting deaf, or she just zones out, and when she cannot hear what I say, I get angry. But I also do not talk to her because I cannot trust her and because she just doesn't understand me. She does not listen to me and does not hear what I am saying, and then it always leads to fighting because she judges me. Or Mum just starts talking about her day, so she is not really

interested in my problems and issues. She insults me by using descriptions that are not very favourable when she talks about me. I have been called a slut a lot by kids when I was in high school, therefore I do not need it from Mum as well. It distresses me, and so I try to ignore her.

My mum has such a wrong idea about me and always criticises me about everything, especially because I am usually friends with boys rather than with girls. Women and girls can irritate me very easily because they can be so bitchy, dramatic, and judgemental, so I enjoy it more to hang out with boys. I have done it for so long that it now feels awkward being with girls. Girls always have their favourites and usually I do not fall into that category, so I get bored and walk away from them. I have always been friendlier with boys than girls, and when I hug them, Mum makes me feel like a slut. She does not want me to be in a relationship but to be only friends. She always thinks that I am going to be sexual. She does not trust me because she is projecting her teenage years onto me. She fell pregnant when she was a teenager and later on again, when she had me, and now she thinks I will do it too. I cannot talk to her about sex, but I can talk to my dad about it.

People often judged me, the things I said or how I acted when I was younger. I used to say the weirdest things, as I pretended to be in a movie. I often pretend to be in the music I listen to, like a movie kind of world. I would rather be in that world of the music than in the real world. That world I can control, but I cannot control the real world. I am trying to get through life smiling. People do not smile a lot. I think that maybe I am not normal because I am not continually happy. But then, life is not happy all the time, so I want to escape to my music world often. I usually listen to "self-esteem songs". I listen to those songs at school to make me forget about the bullying, to take my mind off it, and to escape from the hurt of the real world. Music says what I cannot say, because I am definitely not good at using language to explain something to others. Sometimes I think that if I make things outrageous, people will probably understand me better. When I was a young girl and I tried to explain to my dad what had happened, my brain kept blocking the experience, so I just kept talking and talking. My brain does that, and then I find it difficult to remember everything, but other times I remember without wanting to.

My emotions are usually very up and down, and people tell me that I am very moody. I think what I experience is not really just moods. Schizophrenia; I have its cousin, namely mood swings. I often feel extremely angry; I have a short temper and lots of people or what they do and say can trigger it by irritating me really quickly. It is especially with Mum that I have a very short temper. In the first two seconds of being with her the guns will be blazing. I do get angry with my boyfriend also, because he is just who he is. I cannot deal with feeling so low and distressed. Frustration is something else I find difficult to manage and I just cannot tolerate it.

It is so difficult identifying and naming my emotions, so it is very hard for me to explain to other people what I feel. There are times that I think I am going crazy. Sometimes I do not feel anything, as if I have no emotions; like when I am a zombie. The other day I was like a zombie again. I couldn't think and I couldn't talk. I knew what I was doing and I knew it wasn't safe to just keep walking alongside the busy road close to cars. It was as if I was in a trance, but I just could not control it. I did not talk at all, but just kept walking next to my boyfriend.

I cannot relax. Whenever I try to, even more things pop up in my thoughts, to the point where I start getting a headache. I cannot control those thoughts, so they just become more and more. I try to block them, I say that to myself, but they just keep coming back again, so I have given up trying to relax. I sleep too little because I struggle with sleeplessness at times. I go to bed earlier to make up for it, but then I wake up a number of times during the night, mostly from dreams, and I always wake up early, like 2 am – 4 am. It is very stressful if I do not get enough sleep. Calming myself down is something else I do not know how to do. I just let my emotions run their course. There is other stuff in my system that has to come out, so I reckon why should I stop it? When my emotions run away with me like that, it often leads to me cutting. It is better to just let it come out.

I often have flashbacks about what has happened in the past. The flashbacks about the sexual assaults affect my body because it makes the anxiety worse, so much so that I get panic attacks. I try to avoid people and places that remind me of the horrible things that have happened to me, for instance some stores. I make very strong associations between events and the places where those events took place, so

it is better for me to avoid those places so that I do not have to experience the anxiety that goes with the flashbacks.

I believe that all I am good for is to be used by men. I have been used by men my whole life long, and always put down. It affects my relationship with my boyfriend. Even when we are just chilling and cuddling, I get these flashbacks. He can sense when I am having a flashback and tries to make sure that I am all right. When I have a reaction, he will stop, and before he does anything, he will ask whether I am okay with it. He is very caring and looks after me. He wants to cut back on the physical contact between us now that he knows about the sexual assault of the past and how I am having flashbacks.

The anxiety really started when I was still a very young girl of about four or five years old. It increased a lot when I reached late primary school. I can make myself freak out when I stress because I believe the most outrageous possibilities of what can happen in a situation. I think that is how I cause myself anxiety - something like the worst-case scenario. The anxiety comes and goes, but I am stressed pretty much most of the time. I worry about a lot of things, most things, actually. At times I cannot think straight; I feel like a vegetable. Then I feel as if I am going crazy. I get panic attacks, where I start trembling, my hands will be shaking and my fingers tingle. Then the trembling will continue from my one hand to the other arm, to the other arm and to the other hand. I will start crying uncontrollably and then I cannot control what I say or do.

The worst panic attacks are when my whole body goes numb. Once I really freaked out, because I could not breathe or even walk; I had to crawl, so I screamed out to Mum to come and help me. These attacks happen every now and then, and other people set it off, like my mum or my boyfriend. I was actually diagnosed with depression and anxiety, and I saw counsellors to help me with it. While the self-harm brings relief of the anxiety and depression, it also stresses me out. When I feel overwhelmed or angry, I take it out on myself and then I cut myself.

My friends and family are worried about me because I cut myself, and some even feel disgusted by it, but I still continue doing it. I suppose it has become a habit.

I once promised my late grandmother that I would stop cutting, and I did for a while, but my promise did not last long. On Valentine's Day I was working but then felt a strong urge to cut when I saw my ex and his new girlfriend, as it caused me to have a panic attack. I almost cut during that time at work and I just didn't care who saw or anything. I become anxious when people try to stop me or prevent me from doing it because I do not know what they will do to stop me, and also when my wounds start to heal. Most of my friends are depressed and also self-harm. But it makes me very sad that there can be so many teenagers who feel so desperate, just like I feel, and that they have to get relief in such a way.

The thoughts I have just before I cut myself differ in strength, but one of the strongest thoughts is that I do not want to die. I just want the emotional pain to stop, so I do not have thoughts of killing myself. Another strong thought I often have before I cut myself is that I have to punish myself because I feel guilty about things, either about what I have been involved in, or what I have done to other people by hurting them. I should really not get close to people. I am not good enough and I feel depressed because I am so worthless.

When I cut, I want my parents to feel bad because they do not care, even though they say they do. My relationship with them is often on my mind before I cut. My relationship with Mum is what it is, and my dad lives in another state. I suppose it is fate that I have to be without him in my life. I am like my dad and feel like he feels about my mum; I just cannot divorce her. I cannot get away from her like my dad could. I care about people, and I expect that back from people, but rarely get it, so I wish someone would see and care. When I cut, at least I have control over my life, not like when other people do horrible things to me and I cannot control it. Like the time when I was in a relationship with a boy called Jamie, and I got hurt by him when he broke up with me and did not even offer any explanation. At least I can control how many cuts I make.

Then there is, of course, remembering all the horrible things that have happened to me, things people say about and think of me; things like I am a freak, a failure, and no good. Before I cut, I get to the point where I feel that I cannot cope. I remember all the things that have happened in my past, and the way my life is at the

moment. Then I wonder whether it will always be that way. It makes me feel that there is no hope of change, and then I feel so overwhelmed that I think I can just not cope with it any longer.

I do find it difficult to explain my thoughts and feelings in words, though, especially the flashbacks I get of how I felt during a bad experience. When I have the flashback it is as if it is happening in the present. It is so real for me at that moment. After the flashback I often feel empty, as if it has been scooped out of me. But of course the flashbacks always return. The fact that I cannot explain my feelings does not contribute to the self-harm as such, but it does make me feel agitated because of my inability to express myself. I tend to over-think things, so combined with all the other things and events, if I cannot identify and explain my feelings, I get angry and depressed. It is so intense that it feels like having PMS 12 times in one night.

The strongest feelings I have when I cut myself are feeling angry at myself, but also guilty about how I treat people, feeling worthless and nothing special at all, and also desperate to talk to someone at that time. Another strong feeling is being misunderstood throughout my life by my mum and my friends, being judged about being me. I just can't get rid of that. With that I also feel confused and often ask myself the question "why, why, why; why do people judge me, why do they have to spread rumours about me, why do they have to treat me the way they did and still do?" During the times I feel like cutting, I also feel sad, lonely, worried, depressed, and sometimes scared and anxious. Sometimes I just feel so very tired.

I do listen to music while I cut, but it is music about depression, not with lyrics about suicide. I associate the things that have happened with the music that played at the time. I can relate to the song in a way that is how I cut myself. I do look at my old scars when I cut, but looking at them does not contribute to the urge to cut. At times I am on the Internet looking at pictures related to self-harm. When I cut and look at the Internet, it is really to de-sensitise myself so that I can control the shock I get when I see photos my friends send me, so that I do not freak out. I look at blogs, and YouTube to see what happens to other people. I see their stories and then, when my friends want to do that, it is not as big a shock for me because I have seen it all before.

Sometimes when I cut, I talk to a friend who also self-harms. At times I cut while I am doing homework, but then it is more the frustration of not knowing how to do it that leads to anger, which turns into frustration, and then into depression and then that leads to cutting. Most of the time, though, it is because there is another fight with Mum. I try to avoid the cutting by running away or just getting away from her, or trying to talk to other people.

Just after I have cut myself, I still don't feel relieved or less stressed, and sometimes it is worse. I sometimes feel empty and physically numb and have no thoughts at all. Afterwards I usually regret that I have cut myself again because I know that people will judge and condemn me again. I don't always make the same number of cuts, but I have made up to twenty cuts at a time, even thirty, but then the last ones are usually really only welts because I don't want to bleed. It sometimes leads to anxiety. I think of the possibility of clotting badly because of how I've used the metal ruler, or what could happen if the cutting goes the wrong way. I worry about what will happen to my body and then I stop because I start freaking out. I feel I deserve the physical pain I feel when I cut. After a while you get used to the cutting, then you cut a bit deeper so that you feel the burning, and the hurt that happens when you go too deep. It really lets me feel empty afterwards. For the time of the cutting at least I get distracted from my problems.

At the start of the study I really felt that I was probably not a very good candidate and that I wouldn't be of much help, as I compared myself to my other friends who also self-harm. Compared to how strong their emotions and thoughts seemed to be, to me anyway, I thought that I was doing pretty okay. I did more than what was expected of me, in that I read through more than one topic at a time. When I logged on to participate in the study, I read along and listened to the spoken bits. Sometimes I just listened when there was too much to read. The animations did not really work for me. If it were a real person talking I would have been able to take in a lot more. I would rather deal with a real person.

I felt really depressed doing the first questionnaire. I was thinking "Am I that depressed that I have to do this kind of stuff? Am I really such a fucked up kid?" I was also thinking "Do I really have all of this in my head without even knowing?" I

felt as if I acknowledged and admitted depression, as if the walls I so carefully built to protect me from the negative feelings were coming down. I do not know. I felt exposed and naked when all my old memories surfaced while I was participating in the study.

I experienced a lot of frustration because I was expected to go online and record how I felt and everything else that was happening. The computer is too slow, and when I had to log on feeling the way I did when I felt like cutting, it enraged me even more. I just cannot handle the agitation. I think that if I had paper copies of the daily quiz it would work better than having to do it online because I would have been able to just tick all the things that applied at the time. It would also have been more private. While I was going through the topics on the website, my mum kept coming in, asking questions, and wanted to see how I was doing all the time. She constantly wanted to know if I needed help, but it was like overdoing it. It really seemed that she wanted to see what I was doing and it bugged me. It made me feel caged in. I told my mum that she was making me anxious, but she still kept doing it. She knew that, still she kept contributing to my anxiety, so I think what she did also influenced my frustration with having had to log on.

I understood all the information of the first topic about behaviour, how the brain works, and about mindfulness. Maybe I have done the mindfulness exercises the wrong way, because when I acknowledged my emotions in that situation and what was happening, it actually made me feel so much worse, as if it was a shower of emotion, thoughts and memories. When I concentrated on the breathing, I got a headache and I had to stop. This is the same as when I try to concentrate on doing anything else, such as Maths or other subjects or topics I had difficulty in.

I have experienced very strong feelings while I was reading the information in the second topic and I had to think back at what has happened to me in my life until now. It brought everything back to the forefront in my thoughts. But, I always remember those things very clearly and therefore I always experience those strong feelings, so I don't think that reading the information contributed to the urge to cut. I do have very strong feelings against those people who have treated me so badly and have done those things to me. They have made me feel worthless, like an object. I

have been used and sexually abused. Am I just a freak so that it is okay for people to make me feel like an outcast? People say that they will be there for you but when you do need them, you realise that those words were just empty phrases. They are not there for me, but I have to be there for them. Why would people actually want to be with me, after all? So, when I read the information, I remembered all that had happened to me and I realised that I still had very strong feelings against them. At that point in time, after having worked through the second topic, I felt quite helpless to change anything about my situation.

I understand now, after having read and listened to the information, how the things that have happened to me in my past have contributed to what I have become, and how all of that contributed to me starting to self-harm. The strongest influence on me to self-harm is definitely what happened with my dad, my ex-friend James, and Tim. My dad is never really available to talk to me, although he is the one I can actually talk to. He is never around. He kicked me out and so I had to grow up without a dad most of the time. Other people go off about what their dads do, but at least they do have two parents who live together. I do realise that my parents just cannot and should not be together. Last year they happened to be in the same space at the same time, and the experience was just too overwhelming. It just didn't feel right because it has not happened in so many years. I can't really even remember when it last happened because it has been so long, then when my mum was sitting and my dad standing only a few feet away, it was just too awkward to experience it.

After having worked through Topic 3, I think it explained why people continue to harm themselves, I understand how the things in my past may have influenced me to start cutting and to continue cutting. All the things that have happened to me had an impact on how my brain developed and influenced my reactions, and who I have become, as well as some of the specific problems I experience, such as the problems with people, how I see myself, and the problems I experience with emotions. I realise that remembering and thinking about the things of the past is not really helpful. I did have flashbacks of the horrible past working through this study, and it did make me more depressed, but I can look at my life a lot differently and from a different perspective now. It makes sense when I look at the behaviour cycle, as it is a picture

or a snapshot of how things have developed in my life until now. Yes, it makes a lot of sense.

On the one side are all the things that have happened to me in the past, and as it was explained, that have set the scene for the problems I am experiencing and the reason for why I have become who I am. That I fully agree with, I can see it clearly. Then, added to that are the triggers that are there when I feel like cutting. I have learned the word antecedents now, it is a big word! I can see where the thoughts I have influence me to feel what I feel. It is because I just let the thoughts run without being able to stop them. Actually, I don't want to stop them. But the thoughts then cause the emotions. And because I am not always good at controlling my emotions, it builds up and up until it becomes unbearable. Other things that make the situation worse are the fights with my mum, for instance. All those things then become so overwhelming that I have to cut to get the relief I need from those emotions. That is when I cut; when I reach that peak of negative emotions.

I now understand what happens in my head, how what I think and feel influences what happens in my brain, and that some of the chemicals in my brain can influence me to self-harm, and how other chemicals help me to feel good afterwards. It is like a reward kind of thing that you want again and again, I suppose. I can see how that good feeling of relief that comes from cutting can lead to more cutting so that you can experience it over and over. But it actually makes me feel worse if I have to think about things I do not want to feel again. In the study, if I had to think about the feelings again, I didn't want to, because I was scared about the flood of emotions I would experience if my protective walls would give in. I felt vulnerable and scared that I wouldn't be able to control it.

On the other side of the behaviour cycle are all the things that happen after I have cut, like feeling relieved and less stressed, but also feeling disappointed that I have harmed myself again. The sadness and depression come back again afterwards, and so the cycle continues over and over again. That makes sense. I suppose why I am cutting again and again, or to say what the function of cutting myself is, is mostly to get rid of the negative emotions and the memories of all the horrible things that have happened, and also to get control over my emotions. But it is also to feel more

in control of my body, to take the control back from other people who have controlled my body in the past. I was used and sexually abused. I know it sounds weird, and I don't know if people can understand it, but for me some of the feeling good is that I have punished myself for everything I am guilty of or even blamed for. It is difficult to be so exposed and to admit that I get attention when I cut and that somehow it has to make up for not having received enough positive attention when I really needed it. By cutting I did become part of a group of others whom I think are people I want to be part of. At least I belong somewhere, since it is with others who will understand and accept me into their group. It is a sort of an 'in' group, isn't it? If I feel like that again, I will know what is going on in my brain. I understand it all and therefore I can control it better.

I found the information in Topic 4 interesting, and I did have a quick look at some of the websites mentioned. I understand what things to avoid that would play a part in contributing to the cutting, by just not doing it. There are some strategies that I think I might try if I need to, but there are others I will not even consider. I will try some of the strategies based on the function of my self-harming behaviour, like naturally changing the chemicals in my brain. I have actually tried some of them already, like the laughter to release the endorphins, and it works. I will most definitely not try to do the mindfulness exercises because when I tried it before it really felt as if the walls that were supposed to protect me, were coming down and a big wave or tsunami of emotions came over me. I felt like drowning, so I will not do that again. And I will not even try to forgive those people who treated me badly. Why would I go back to the past and forgive them?

I will probably try to get information on the Internet, like on YouTube about how to improve time management and being more organised, for instance, or improve my memory, but I don't think I will talk to somebody about helping me with that. I think I have come a long way since first starting with the study and I think I will be able to change the negative way I see myself and the world, for instance, or not expecting the worst to happen. I may look on the Internet for more help. But I will probably talk to someone who can help me a bit to increase my self-esteem. I'm not too sure about trying to be more assertive. I will probably not do that, but I will

rather ignore people who are horrible and go off against them in my head and then deal with it later, if it is in a workplace, for instance.

If there is someone available I can talk to that person about communication skills or learning to understand other people and dealing with the problems they cause, or I might just look on the Internet. I'm not too sure about getting help with calming down or trying to relax, though. Going to a doctor about any of the problems is not something I will do. I think I can now identify what is happening to me, and when it happens I think I will be able to deal with whatever is happening a lot better. I am not motivated to do exercises so that is definitely something I won't do.

If I have time I will try to rest more, but I will have to see what happens in the future. Focusing on other people when I am lonely is something I know that helps, so I will definitely do that as a strategy to avoid getting to the point of harming myself. Trying to talk to Mum about how the fights affect me, or trying to go to family counselling is definitely not something that I will try. It won't work because Mum is just too stubborn. Trying to understand the reason for fights with friends is not something I have to think about at the moment, because I do not have any friends left. In future, though, I will try to repair a friendship straight away.

I don't think I will consider assertiveness training. It will have to happen spontaneously; I don't think I will actively research it. I won't stop listening to music, because if I do not have my music, I don't have anything at all. I won't involve my parents in trying to overcome self-harm because they don't have time. I'm avoiding a lot of things already, like going on Facebook. I hardly do that nowadays. But I do have the information and I understand things a lot better, so I can always refer to that again when I need it in the future.

I wanted to help with this study, but I avoided the whole meeting online thing, so I was a bit quiet at times, because I just didn't want to do it. I did not feel comfortable talking to someone online and I felt that it would be quicker to discuss these things in person. When meeting in person was suggested as an option, I started to participate again. I do not mind sharing my story, but I wanted to talk and not

have to type or spell because it takes so long and I have always struggled with that. I wanted to talk to someone in person so that I could show my emotions, because when you write, people do not get what the real emotions are that you experience. It is so easy to take things out of context if you cannot talk and show emotions.

When we first met in person, it was really stressful because Mum was also there and it turned into a fight between us as always because she wanted to be part of the discussion and wanted to make sure that she got her opinion of me across. It made me so angry. After all, it is my story and what I think and feel, and not her opinion or what she thinks. She blamed me for not wanting to talk to her about these things, but I cannot talk to her, as I have already explained, as she always judges me. The other meetings went okay, and I felt that I could explain what was happening for me. I could explain my answers in all the quizzes and questionnaires and clarify it when there were some things that I haven't explained enough at first.

I feel quite naked and that I am such a weird kid, now that I have listened to my whole story. But I liked having been part of writing my story as I felt like I was in charge of what people would read and things they might think, instead of what someone else would say based on their opinion. Overall I feel like we had a great time and I enjoyed being part of the study. I was being listened to and understood, and I got advice, and some level of connection happened. The format of the behaviour cycle made everything easier to understand. It was very simple and clear and a good summary. I feel a lot better knowing a lot of things, and I understand anxiety and depression better. I still feel a bit helpless to change anything about my situation, but that does not really have anything to do with the information from this study. It is just that I cannot change anything about living with my mum, for now.

6.3. Mick's Story

My name is Mick, I am 16 years old and in Year 12 at one of the local high schools. I also attend the local Technical and Further Education (TAFE) facility where I am doing an automotive course. I was born in another state and moved to the coastal town where we now live when I was one year old. My family consists of

my dad, David, my mum, Susan, my brother Jordan, and I. I live with my dad while my mum and brother live in a separate house.

Looking back at my childhood, I do admire my parents in a way, as I now realise that they have gone through tough times when I was a little boy. I admire them for how they coped financially and for trying their hardest despite their circumstances and with what little means they had to their disposal. They were really just trying very hard to survive life's circumstances. We used to live in a caravan park, and that could not have been easy for them, yet that was their only option. I remember how all our toys get stolen when we moved here, so there were times when we did not have what other kids take for granted.

We never had birthday parties and my parents could not see the need for parties either, or for me to go out to parties when I was invited. Dad really tried his best to support me financially going through school but I am not sure whether he was always able to. He also tried to help me with schoolwork when I was younger, but he is not really brainy, so he wasn't able to continue doing it when I grew older. I suppose my parents do try to show me that they love me, although I just don't think they do. I feel that they don't know the right way to show love, because they think they show me that they love me by allowing me to do whatever I want. As a teenager I must have gotten up their noses quite a bit too.

Dad abused alcohol when I was growing up, so he wasn't around much as he was asleep most of the time. There were also drugs involved. Although I did not do much with my parents when I grew up, I do remember that I went fishing with my dad at times. The details of these experiences are not so clear anymore. I remember riding my bike with my friends and with my brother when we were really young, doing typical boy activities, getting hurt, and ending up with injuries. My happiest memories, I think, are related to preschool, being surrounded by people my age, and doing fun activities. It must have made a big impression on me if I can still remember it. I felt close to one of my friends called Brendon, who I am still friends with.

We didn't have much contact with other people when I was growing up. My grandparents on my dad's side were not really part of my life as they lived in another state and visits were rare and far apart. I have no memories of my mum's parents while growing up at all. We also didn't have many other friends as a family, not like other families have. I know that from seeing friends I had when we lived in the caravan park, who always had many people who came over.

I started school at one of the local primary schools. Overall my primary school years were relatively happy, and at that time my life was still quite normal. Academically I was doing fairly well, and achieved a B for most of my subjects. I played cricket for the school team as well as for a local cricket club. Other activities I enjoyed doing and spent a lot of time on, included playing video games, either alone or with my friends. I have fond memories of times playing handball with my friends. When I was in Year 7, however, things changed and my life became utter madness. That is how I experienced it. I was about 11 years old when I realised that my brother, who is two years older than me, was not quite the same as other boys his age. I noticed that he acted very immaturely, and enjoyed watching baby shows on television.

My dad informed me that Jordan had attention deficit-hyperactivity disorder and an intellectual disability, but did not explain what it meant. I did not really understand or questioned it either, but somehow, intuitively I think, I knew that these conditions were the reasons why Jordan was so different. Now, at the age of 18, Jordan still has the intellectual ability of a six year old child. When I first learned about Jordan's disability, I felt very sad for him because he has to live with it for the rest of his life. I did not fully understand the implications of the disability and I could not pre-empt how it would impact upon my life growing up and being a teenager.

From that time onwards life at school became a real nightmare. I was bullied relentlessly, mostly by peers whom I have known since pre-school. That really hurt. The bullying generally was being teased about my family. They called my brother a retard. I felt very embarrassed, sad, and depressed, and like I was an outcast. I also felt that it was very unfair that I had to have close family members with disabilities.

At school people would also put me down immediately when I wanted to do things, or when I gave an incorrect answer. They called me an idiot and told me that I shouldn't be in that class. That made me become so depressed. When my friends belittled me like that, my dad did try to show that he cared; it just didn't come across that way and it made me feel really worthless. I grew up feeling that I did not belong anywhere, not with friends nor with my family. I just felt that I was different. There were also neighbours of Mum's who physically attacked me and my friend, so the bullying occurred everywhere and in various ways.

My memories of my mum as a boy growing up with her are not very favourable, I am sorry to say. My mum appeared to be very lazy and did not do much with us, nor did she give us any attention. I never felt that I received any warmth from her. I felt much rejection because of it, especially when I think of how other boys' mothers were. When I was about 13 years old, I learned from Dad that my mother also has an intellectual disability. This, my dad explained to me, means that Mum's intellectual ability is equal to that of a 13 year old person. That still makes me feel pretty upset till this day. Why did it have to happen to me? Why did I have to have two family members who have an intellectual disability?

Until just before last year, I lived with my mum and Jordan for four years. Those were not happy times at all, and I got damaged in so many ways because of it. At the end of last year my dad made the decision that I had to come and live with him, as he realised the enormous toll it took on my life and mental health having to live with them. While living with Mum and Jordan, my typical day started with mornings filled with the stress of getting Jordan ready for school and making sure that Mum had lunch. In the afternoon after school I had to try to get Mum to cook and to take some responsibility for her motherly duties as I saw it. It always took a long time to get dinner ready, and it was usually very late by the time we could finally have something to eat.

At night I had to make sure that Jordan had a shower, as he refused to listen to Mum. He wasn't particularly obedient to or cooperative with me either, so this always resulted in a fight which included verbal altercations, and lots of yelling and swearing. On top of the day to day caring for Mum and Jordan, I also had to do

shopping on Mum's behalf because she is not capable of performing this duty on her own. In other words, I was the man in the house at the age of twelve; I had to take on the role my dad was unwilling, and at times unable, to fill due to his own mental health problems. This often made me feel stressed, depressed, and sad to think that I just had to accept it. I didn't have a choice but just had to get on with it. They are after all family.

The pressure these responsibilities placed on me was at times almost unbearable, and I felt that I was about to go crazy. At times it felt that my body did not belong to me. My body was on auto pilot going through the motions, while my mind was in another part of the world. I think the ability to go into auto-pilot mode, in a sense, was how I coped. The situation drained my energy and had far reaching effects on many areas of my life. I was not able to do my homework, as afternoons were filled with tasks I had to perform in support and care of Jordan and Mum. The typical consequence of this was that I would get into trouble the next day at school. I never bothered trying to defend my case or to inform teachers at school why I was not able to complete my homework. I do not like talking about these things, and nobody would understand or care either, so I chose to just take the punishment. I often felt angry because life was unfair. I did not have any friends, as I could not socialise with my peers. I rarely had time for the normal social activities children my age typically engaged in. I could also not invite anyone to visit me, as I was highly embarrassed by my life circumstances caused by the disabilities of my family members. I felt so isolated.

In the meantime high school started. I had more friends and also had a few girlfriends. I was relatively happy at times. The bullying at school, however, increased to include not only verbal harassment and emotional abuse, but also physical aggression by both boys and girls. They always put the blame on me for things other kids had done to them. I felt as if I was targeted but I did not understand why they would single me out. Surely there were enough other students they could pick on for a variety of reasons, so why was I the one to be the target? Most of the time I was disappointed in and angry at myself for not being able to stand up more against the bullies.

I often experienced unfair treatment by teachers where there was not sufficient consequences for what others did to me. I feel that teachers did not do enough to get to the truth and the bottom of incidences and therefore I was often the one to take the blame while I was only defending myself. I find it difficult telling adults to stop treating me like that because I do not know how to do that without being rude and disrespectful, so I left it at that. One day my right ear drum got busted in one of the physical attacks by three of the bullies. Later on the bullying also included rumours about what my girlfriend and I would supposedly have done, such as having had sex in the carpark. Those were not pleasant stories to deal with either.

When I was 15 years old, my life seemed a bit brighter for a while, as I had a nice girlfriend, or so I thought. But then another blow was served. I found out that my girlfriend was cheating on me and my whole life seemed to have fallen back down again and crumbled around me. I experienced extreme hurt, loneliness, and rejection. I felt as if no one cared about me or what happened to me, and that no one loved me. I could not talk to my family about it, with the situation being what it is; with Dad and his own mental health issues, and Mum and Jordan not able to understand any of what I was going through anyway. I also could not talk to any of my few friends, as they were not interested in me and my hurt and pain. When I tried to talk to them, they would just continue talking about what they wanted to talk about, or they would bluntly ignore me.

I was all alone and had to deal with all of the emotional pain by myself. I have never been able to express my thoughts and feelings in words anyway, so people would probably not have been able to really understand how it was for me, and what was going on in my thoughts, or how I felt. I did feel very helpless and hopeless, and sensed that I had to find a way of coping with the cumulative effect of my family situation, the bullying, and negative experiences and emotions of my life up to that stage, and then the added intense experience of deceit and betrayal as well. I was looking for a way to relieve the negative emotions and effect of memories. I started cutting myself out of despair.

The first time I cut myself I pulled apart a razor and used the blade. I did not really feel much, as it just felt like a fingernail on my skin. Even seeing the blood did

not upset me or made me feel anything. I did not really have any particular outcome in mind at the time, but I wanted to try it to see if I felt any better afterwards. I did actually feel better after that. My parents did not really show any reaction or concern when they found out about the cutting. Perhaps Dad was too busy trying to cope with the issues in his own life, and Mum probably did not understand completely what it involved and how serious it could be if anything would go wrong. Their lack of reaction was of course not very helpful, and it made me feel only more isolated and hopeless, even worthless, as I felt that they did not really care. Looking back, being more mature and understanding more about their particular issues, I realise that they were in no position to support me or help me work through what I was going through. But at the time I suppose I was still hoping that the cutting would tell them that I was there, that I was hurting, and that I too needed some help and support. I only had myself to rely on, and that was a very lonely place to be in.

Since that first episode I have injured myself between 11 and 20 times or it could just as well have been more. I don't know and can't remember as I don't keep score. At this point in time, the last time I have injured myself was about one month ago, which is less frequent than before. It only happens about twice a month now. At times I do not cut myself, but dig into the skin on my arms with my nails. It is very difficult explaining what I think and feel to other people because it is so private and I have never been allowed or encouraged to share my thoughts and feelings with anyone. What I do feel and think about all these things that have happened in the past and that are still happening are fairly strong. The effect of my past on me is enormous. It is like a thin piece of string which is stretched to the max over time, and it will just snap, and then the tension will be gone. The effect cutting myself has, is that I feel relieved afterwards. If I do not cut, I will just snap because of the constant tension I experience. Who knows what the outcome will be then?

I have made terrible mistakes in my life I believe. I always make terrible mistakes. I made mistakes in my choice of girlfriends, and friends in general. But when I was in those situations at the time, I could not see that I was making wrong choices. I am constantly aware that something bad may happen at any time. The world is a nasty place and there are so many dangers out there, around every corner

and in so many situations. Almost all of what has ever been good in my life has always ended badly. That is just how it is.

I tend to take the blame on me for everything that has happened to me. I know I can probably do something to make things better or avoid things turning bad, but I do not have any guarantee that things will turn out better, so I don't do anything. Then I blame myself for it again. I blame myself for not being able to stand up to the people who bully me. I cannot stand up to them because I want them to accept me and like me. At times I did fight back and then I did nasty things during those fights. I feel very bad about what I did, and that is why I do not like looking people in the eye and just keep my head down. It feels as if they can see through me if I make eye contact and that they are able to see what kind of a bad person I am or form a bad opinion about me, so I am very nervous around other people. When there is a misunderstanding or fight with someone, that person never wants to have anything to do with me again because I am such a horrible person.

I have a small circle of people I trust, because in the past, when I trusted my friends, they turned on me and became bullies. I think I am probably not worth much. I can't be worth anything if people could treat me the way they did. I have come to expect people to treat me badly, because that is how it has always been, so why would it change? People have rejected me because of my family. I feel people easily reject me for many things. I have come to be someone who does not really care about other people any longer. I have seen it all, and have no more sympathy with others. I do to them now what they have done to me.

At times I feel as if I do not know myself or who I am any longer. So many people, including my friends and my parents, want me to be this other person they believe I should be. I do try, but I just can't do it. I just want to be my own person. Some of my friends are completely outrageous and do rather weird and sometimes silly, risky things. They try to convince me to join them, but I do not want to do those things, so I just walk away from them. By doing that I have lost some friendships.

I find it very difficult to relax and at times I have difficulty sleeping, or I sleep too much. I also cannot calm myself down. I am very restless and nervous, especially

at school, and need to fidget. There are times that I have pain in my stomach, or in the lower part of my body, especially in my back. I am not sure whether the pain in my tummy is just because I do not eat much as I do not have time for it. When things happen at school or it does not go very well, I get so frustrated, but because I cannot calm myself down, it often becomes so bad that I have to cut myself to get a relief from the negative emotions.

I often feel very angry, and I suppose I have a short temper, especially during all the frequent family fights. Lots of people and things easily irritate me, especially the immaturity I see in others. Saying the wrong thing or something inappropriate without thinking first is something I often do. It is usually intended to be funny, but people don't get the humour and that makes them feel annoyed with me. I do try hard not to make mistakes though, because I do not want to feel embarrassed; I want to be accepted and I do worry about what other people think of me.

I am not good at using language to explain something to others. When I have to write a story like a narrative, with a beginning, middle, and end, I find it difficult, because I cannot easily organise my thoughts and get them onto paper. Sometimes when I have to remember a sequence of events, like when I have to write an incident report when there was a fight or incident at school, I get quite stressed and cannot do it. Even when I have to verbally explain to teachers, I cannot do it when I am stressed. I have difficulty organising my belongings and often lose things, such as my guitar picks. I hate to admit it, but my room is very messy. Being organised is difficult because I have multiple things to do and give attention to at once, especially when I have a number of assignments all due at about the same time.

Sometimes I miss instructions at school and then teachers have to remind me or tell me again what and how it should be done, or I look at what my friends do so I can copy them. Planning what I have to do, and guessing or estimating how long it will take is very difficult for me. Even managing my time wisely and sensibly is something I find quite challenging and will often procrastinate, to the point where I feel rushed and stressed. I struggle with homework at times and doing my assignments, and because I do not have anyone to help, I get frustrated and just give up.

I have to admit, I have had thoughts of killing myself especially in the early days of cutting. Sometimes before I cut when things were really bad, I often thought to myself: "Just die, you idiot". I often thought that I deserved to die as I was so worthless. I was so pathetic, a real nobody; no-one loved me and nobody wanted me in their lives, so why not? Although I have had thoughts of killing myself, I do not really want to die; I just want the emotional pain to stop. When I feel like cutting, the thoughts that are the strongest on a scale of one to ten, are the memories of having been emotionally and physically abused by the bullies at school. On the top end of this scale are also my thoughts about being no good. I am a failure and just not as good as I think I should be, except being good at allowing others to bully me. This is why I think everybody hates me. I hate my own body as it is. I am ugly and there are so many things I do not like about myself which I would like to change, maybe get cosmetic surgery done, but I can't because I do not have any money.

When I cut myself, I feel that I have control over my life. That is in contrast to everything other people had done to me over which I had no control, and which I could not stop. Even the present circumstances of my life control me. I do not have any control over what happens to me or in my life. I do not have any say in the circumstances or any choice in any of these things. That makes me feel so hopeless, helpless, and depressed, which I feel quite frequently.

Many times I have overwhelmingly strong thoughts of just not being able to cope with everything. I cannot cope being around my family. I cannot cope with the schoolwork and I have no-one who can help me with it. At least when I cut myself, I have control over what happens to me. I control how many cuts I make. I control where and how deep I cut. After I have cut myself, I try not to focus on it, and try to stay away from other people so that they cannot see what I have done.

Another strong thought just before I cut, is that I am a freak. I do not have many friends because other people think I am a freak, so therefore I must be one. Teenagers are all in some sort of a group. I am not a normal teenager; I am in the depressed group, and not in the nerdy group or sporty group. I have not only been diagnosed with depression, but also with anxiety, and that makes me a freak. Other people don't understand how it feels to be depressed so they just view you as being a

freak. I am also a freak because of the music I listen to. Not many of the other students at school listen to Screamo music. At least I think that they think I am a freak because of that. On the other hand I want to be different. Being an individual is important, and somehow I find this type of music enjoyable and relaxing. It is difficult for other people to understand how that could be.

People do not understand how it feels to constantly be depressed and they do not understand how depression affects me and my life. People do not understand why I would cut myself. I have one friend who also self-harms and she understands without judging me. On the other hand I often think about the criticism I have to endure from my dad. Other things that sometimes occupy my thoughts before I cut myself is the worries I have about school work and also our finances, mine in particular with not having a job, but hoping to get one soon. At times I get to the point where I think that I just cannot cope any longer. Last year I realised that I needed help and saw three different psychologists, which helped to a degree, but not completely, so I have harmed myself again and again since.

I find it really very difficult to express my feelings in words. I don't even know how to identify and name my emotions correctly, but I do know that they are very up and down. My strongest feelings when I feel that I have to cut myself, if I have to rate them on the same scale of one to ten, are hating myself and feeling worthless. No wonder people reject me. Feeling rejected is also a very strong feeling, and so is feeling lonely and isolated. Often other strong feelings that overwhelm me are feeling depressed and stressed. At other times I feel guilty about all the bad things I have done, but also feeling guilty about the things I know I didn't do.

Sometimes I feel overwhelmed by hopelessness, and frustration. There are moments when I am just angry at myself, or I feel out of control, as if my emotions are just all out of control. Then there are the times when I just feel so sad, and at other times I just feel empty. At times everything I have gone through and had to endure, cause me to feel numb or unreal, as if I exist but am not really alive. At such times I injure myself just to feel something, to feel "real". I want to know that I am really alive, and not just like a robot or a zombie. In between the times when I injure myself, there is nothing there. I experience a nothingness in my life, and especially in

friendships. I often feel intensely lonely because I cannot socialise with people my own age.

My dad wants me to be a normal teenager and go out and be with friends, but I do not have many friends because of a variety of reasons. People don't like me or love me and I feel that I am not important to my friends. They leave me out of their groups or when they organise things they do not take me into consideration, or they choose other people above me. When I suggest something to do, people immediately put me and my suggestions down and all they want is to have it their way. My opinion, wants, and ideas are not important enough to be considered. The few friends I have are usually busy doing their own thing and I have all the things I have to do for my family, and so I do not get together with other teenagers.

I often feel resentment because my life is what it is and I often think of my negative past and what has caused it. The thoughts then just multiply and I can't control them. They just keep coming back again and again. I do not want to do all the things for my mum. She should be the one caring for me and looking after me, but now the roles are reversed and it is just not right. Even though I do not live with them any longer, I still have to help her with the shopping and getting Jordan to do things. When I get my licence my dad intends cutting up his licence and all the responsibility will be all mine. I do not think it is right or fair to me that I have to look after mum and do the things my dad should have done for her because he does not want to do that any longer. I do not want to take responsibility for my brother.

There are always fights between us, at least two every day. It is so hard talking to him and getting him to do things. I always feel depressed and useless afterwards. It is unfair that I, as the younger brother, have to take care of him, and get him to do what he should just because Mum is just not able to take control. I feel disappointed because I never really had a brother; not an older brother like other people have. I do not want to have to do things for my dad, take care of him and make sure that he is all right. It should be the other way around. Dad suffers from depression and there were times that I had to call the ambulance to take him to hospital after he has self-harmed. I am scared that he might die, and at those times I do panic a bit.

When I cut, I am often on Facebook. People, who call themselves friends, can say such hurtful things to you; things everybody else can then read. I feel that I am being bullied. Most often, though, there are fights with the family just before I cut or even going on while I am doing it because nothing gets resolved. It leaves me with all the emotional pain and overwhelming thoughts and would probably account for about 50% of the reason why I get to the point of cutting myself. I am alone when I do it, and I have never done it while other people have been with me. At times I look at my old scars while I cut and they remind me of how desperate my life is.

Sometimes I can make up to 40 cuts when the thoughts and emotions are very intense and overwhelming. I can't sleep at times because I keep thinking of my brother and my mum, and then I criticise myself about what I could have done to help them more. There are times that I cannot sleep because the television is on, or I am on Facebook for too long. I sometimes cut when I am doing homework and worrying about it, especially if I have a lot of assignments to do and I feel overwhelmed by the pressure and the fact that I do not know how to do, or even start doing them. I only get about 4 to 5 hours sleep a night while I really need at least 6 to 8 hours.

There are times that I smoke or drink in an attempt not to cut. Lately, now that I have been part of the study and know that cutting is not the only way to feel better, I have been playing guitar or tried talking to other people online to distract me, although I know that these are temporary cures. After I have harmed myself, I feel less stressed, I stop feeling depressed, I feel relieved, and satisfied. Sometimes I feel disappointed that I have cut myself again and that I wasn't able to cope with my life circumstances. Afterwards I ask myself why I did it again, although I know the answer: I do feel relief from the pain. I should not have to be in a situation where I have to cut myself to feel better. I know about the possible scarring, and that is what I think of afterwards, with all good intentions not to do it again. Until the next time.

How did I experience being part of the study? I became part of this study when our guidance officer at the school I attend contacted me and my dad with the invitation to be part of the research. I was known to the guidance officer who has worked with me trying to help me with the self-harming. The expectations were

explained very well and I knew what was expected of me. I was motivated to become involved, as it would help the researcher with getting the research done. I felt that the website was a bit like schoolwork, as I had to work through the topics and answer the questions, but it wasn't a bad experience. I just wanted to get it done, pretty much like when I have homework to do. I chose to read all the information because I am a good reader. I did not listen to the animations as they did not really appeal to me. I might have listened to them, had they been different types of animations, maybe other type of characters.

Doing the quiz we had to complete when we felt the urge to self-harm was a bit difficult at times. The internet connection is so slow and that really just made me more frustrated. I think that a paper copy that I could tick and flick would have been more useful to get more information about how it is for me when I cut. Having had to do the quiz did not increase the risk of self-harming. If anything, it helped me to focus on what is going on for me at that time; what I think, how I feel, and to consider what else is happening at the time. I think that in a sense it distracted me from making more cuts.

I didn't really feel comfortable with the meeting online thing. I preferred to meet in person because I think emotions can be sensed as well as explained in words, but online the other person only gets the words and so they cannot really get a good understanding of what you really mean. I also felt that the whole online thing would have been too frustrating, with slow Internet, having to wait for the other person to respond, and that would probably have increased the urge to cut. I did reply in emails to clarify some information and to answer more questions, later on after the times we met in person, and that was okay, because all the most important information was already out there.

The information in the first topic about behaviour, the brain and being mindful was easy to understand. I found the mindfulness exercises easy and helpful, and it is something I would probably do again in the future when it is needed. While I was reading through the information in the second topic about the past events in my life, I experienced very strong negative feelings when I identified and recorded the events that took place in my past. I also experienced very strong feelings again against the

people who have done these things to me. All the old memories came back fairly intensely but even though I experienced a lot of the negative thoughts and emotions again, it did not contribute to the urge to cut myself. I did experience very strong negative feelings about my family though, although it had more to do with the fact that my family don't believe in me and that they have their doubts whether I will even pass Year 12. It is the lack of inspiration and encouragement that is so difficult to accept. They never congratulate me when I do anything well, and it is the lack of acknowledgement that makes me so sad.

My strong feelings were also against Dad who doesn't really want to be with Mum any more, and now it has become my problem and all the pressure is on me to take over his role. I also experienced very strong feelings against one teacher in particular, who told me that I was not allowed to fight back when I was being bullied, because I would get expelled if I did. The other students involved got away with warnings because they changed their stories to suit them, and because there are usually 3 or 4 supporters for the bully, there are more evidence against me than what I can bring in against them. They just argue that they are right and the majority of voices get heard. After having read the information I now understand how the things of my past may have influenced me to start harming myself. At the end of that topic I felt helpless to change anything about my situation. But I hoped that going through the rest of the information would help me in the end.

The information in the third topic explained to me that my cutting happens because of the things that have happened in the past that made me to be the person I am today. It makes me feel less guilty and disappointed in myself. I understand that all behaviour serves a purpose or function for the person doing the behaviour and that it is the reason why people keep doing what they are doing. Looking at the information and explanations on the website, it seems that my self-harming is to get rid of the intense negative emotions because I feel relieved afterwards, but in a sense it is also a way of not committing suicide. Because for a moment while I cut myself I forget about everything else, it seems that I also cut to get rid of the negative memories. It just doesn't last for ever, unfortunately.

I think, because seeing the scars send some people into a frenzy and they just want to get away from you, it helps to get rid of some people and put a barrier between you and those people. It is not that simple though, so it is a bit confusing for others to understand, isn't it? I mean, I want to get away from stuff, but I also get something out of the cutting that seems good, like getting control over my feelings. I can understand how that relieved feeling can become addictive; it is so much better than the negative emotions I have most of the time. I know this sounds really weird, no wonder people think I am a freak, but if I want to be honest I have to admit that I do the cutting in a hope that my family will notice and love me as a result, but also to show others that I can handle the pain. I can't get people to admire me in any other way. It makes quite a lot of sense now that I understand what happens in my brain when I cut. It is really interesting and I like the idea that when I feel that I am going to cut, I can stop and think about what is happening in my brain. (Laugh)… It kinda makes me stop for long enough and think of my brain instead so that I don't feel like cutting then. Maybe that is why I have hardly done any cutting since I started with this! Wow, I think I am more in control of things now! I also feel better talking about what has happened in my life now. I am more able to talk about things.

I found the suggestions of what I can do instead of cutting kinda interesting. Also what I could do about the things of the past and the problems I have now. Some of those ideas I might try, I think, but then there are some of those things I might or might not try; I am not sure yet, but will see in the future when I need it. I might try the mindfulness exercises again because I want to have a good and mentally healthy lifestyle; I do not want to keep having depressive moments because of fights with family, but I kind of don't have time to do it because of school and trying to get a part-time job. I do want to do something about the chemicals in my brain rather than continue to cut, because I want a healthy lifestyle without worrying about depression setting in, but I do not have the money or so to try all those things. I need to learn how to forgive someone who has done wrong to me and I will try to do so because I don't want any grudges with anyone, although the people who have done stuff to me don't deserve my forgiveness because of what they did.

I want a happier life, I want to be able to have the skills that were listed, and I want to be a better person, not just for myself, but also for my family, so that is a goal I want to set, but I don't really have anyone to talk to about most of my problems or how to solve it. I can't talk to my family, and soon I will be finished with school and then I won't be able to see a guidance officer again. I do want to try and change the negative thought patterns. I don't want to think the worst is always going to happen to me and I don't want to have a negative self-view because it brings the people around me down and I don't want that. I do want to be more assertive and able to talk to people and 'fit in', but actually I don't want to, because the people in this world are either stuck up or idiots. I like my own space at times, like everyone else, but I like it more than others.

I have a really low self-esteem issue and I want to fix that so I can be more of a happy person, and not someone who is always judging themselves. I know I have a problem with getting along with others but I can communicate really well when I want to. I will try to talk to my new girlfriend about how I can get along with others. I will see a doctor about some issues because I want to have a peaceful and relaxing lifestyle when I am older. I don't want to feel sick or ill because of a mental illness. I have to learn how to communicate with others about how bad things are for me.

I do not want to self-harm in the future. I don't need to try any of the things for smoking or drinking because I know what harm it is doing, not just to myself, but to people around me. My new girlfriend doesn't like drinkers or smokers, so I'm giving up both so I can satisfy both of our needs and wants and to keep her happy. I will do some more exercise because I don't need to have depression or anxiety bringing me down for the rest of my life. I am able to do a lot of exercise. I do like time to myself, so I want to be able to be alone, and I would like not to have any of the unnecessary thoughts on my mind, so I will have to work on some skills to deal with it.

I think I will try talking to my family about the fighting. I don't want more fights to happen and put more emotional strain on me. I have tried to understand why friends fight with me, but I will try harder because I don't want to lose any more friends than what I have already, and I want to be able to have a good friendship with others. I know that people who bully others may have low self-esteem and could

be jealous and I will try to think differently about how to deal with people who do try to pull me down. I will mostly try some relaxation exercises or some of the other strategies. I need to have a good sleep due to the fact that I have a lot of school work to do and also because I need to find a job. I can't focus without sleep. Making notes of homework I do not understand and then go and ask the teachers the following day sounds like a good idea, because it helps with two parts of my life; schooling and mentally, so I will be doing this more often. I will avoid being on Facebook to not to have to read what some of the idiots say. I will be doing this so I can have better thoughts on my mind.

I think I should look at my old scars differently, as reminders that the feel-good feelings didn't last very long and that it is therefore not a long-term solution. I need to think of my future and reflect, that I have chosen to say to myself that I will not be doing this anymore and give up trying to get away from the pain by harming myself. I want to be in control of my feelings and thoughts, so I should not listen to self-harm music.

Regarding the function the cutting has for me, I think the ones I have to really try some strategies for will be the getting attention from my family and getting other people to admire me, because those are the things I haven't gotten much of when I was growing up. I want to start getting those things now without cutting, so I have to do good things to deserve them. I will take a look at the websites mentioned and see if they can help me with dealing with my problems. For now it is first of all to get done with school, and then find a job. The stress and negative emotions will be a lot less. I think the future will be much better. I think I won't cut again, I can choose to do things to change my reaction to pain. I enjoyed being part of the study, and I feel good that I could help with it. Thank you.

6.4. Barbie's Story

My name is Barbie and I am sixteen years old. I was born in the capital city of another state and when I was four years old, we moved to a neighbouring town of the one where I live now. I started pre-school at the local school there. We moved to this small country town in Queensland when I was in Year 8. My family consisted of

my dad, my mum, older sister Lorraine, who is 21, my older brother Brad, who is 18, as well as my two younger sisters, Amelia, who is 13, and Fiona, who is 12.

Growing up in my family was very difficult and challenging. My parents were always busy with other things, so I did not really get the attention I needed and felt I deserved, or saw other kids getting from their parents. My dad worked and managed to keep his job, but we never had a lot of money. Mum did not work but stayed home to look after the kids. Both my parents were alcoholics and there was a lot of fighting between them all the time. Mum did not always go out to the pub to drink, but she drank at home. Dad did not and still does not get along with Brad at all and there were many times where Dad was physical with Brad. I remember many times when Dad chased Brad up the drive-way with rocks in his hand, telling him to f….. off. I always stuck up for Brad and helped him to get back into the house when Dad refused to let him come back, even when I was just a young child. The Department of Child Safety came out to our house a number of times, but Mum would always stick up for Dad. She always took his side over her kids'. So nobody ever stepped in and removed us from the situation.

I never got to go to special places or do special things like going on road trips. As the middle child I never quite fitted in anywhere; not physically and not emotionally either. Brad and Amelia were my mum's favourites, while Lorraine and Fiona were my dad's favourites. The others got favoured, but I was always left behind with babysitters. I hated my sisters, as the situation became worse once they came along, especially after Amelia was born. They were very annoying and always caused fights between everybody. My dad became crankier and crankier and it always ended in either a 'heart attack' type of reaction or fighting of some sort. I do not have anything against my parents today, but while I was growing up, I felt that it was very unfair and it made me feel a little unwanted, and that nobody cared. At the time I felt like I was always treated unfairly.

My parents were never happy with me and I basically got blamed for their unhappiness. I know that from my dad's behaviour and attitude towards me. My mum did not talk much to me, so there was never a strong bond between us. I had to find out about 'girl' stuff for myself because I could never talk to her about anything,

especially not about emotions. She never wanted to hear about my problems with boys and would say that she needed a drink before she could listen to my problems. I used to play music like loud "Screamo" to get my mum to pay attention to me because I knew she hated it. Negative attention was better than no attention, I thought, and I did not know any other way of getting her attention. I felt pretty worthless because of how I was treated by my parents. So I did not experience much warmth from other people, especially not from my parents.

As a child growing up, I often felt very unsafe and got exposed to many unsafe and scary experiences. Dad tried to hang himself one day and that really scared me. We were sent to the neighbours to be safe and out of the way. We were often sent to the neighbours to be out of the way when Dad exploded. A few times Mum had to lock all of us in a room in order to keep us safe from Dad and his violent outbursts. One day my dad accidentally hit me in the head when he tried to kick my bedroom door down because I told him that he was an idiot for kicking my brother out while he was in a drunken rage. I escaped and ran away to a friend's house where I stayed for a whole day. The sad thing is that nobody even went looking for me. When I returned home, I did not even get into trouble. Nobody really cared.

One day my sisters had a fight with me and decided to get back at me by telling Dad that I was cutting. Dad got angry at me and told me that I was doing that for attention and because my friends were doing it. At the time, my friend Alice was there and I was going back to her place for the night but after that Dad wouldn't let me. He kept yelling at me in front of my friend. She was petrified and angry at my dad for what he had said about attention-seeking, as she was also cutting at the time and going through the same thing. I called Brad at work to talk to him, because he was aware of the fact that I was cutting myself. Brad called the police and arranged for them to come around to the house. Brad left work and ran home to look after me and to try to control the situation. Brad held Dad back while my friend and I ran out the door and up to my brother's work where we hid out in the back room. Later, Alice and I met up with the police who told me to go back to her house and not answer any of Dad's calls for a day or two. My mum was not happy about what I

was doing, but she didn't over-react about the cutting either. She helped me out the door and tried to keep Dad from stopping me.

In the meantime my mum became very ill and she was diagnosed with lung cancer. About eight months ago I had had enough of what I had to go through until then. On a specific day, my dad verbally abused one of my male friends in public. I was on my way home from the main street when my dad tried to send me a text. My phone battery was dead, so I did not receive the text, and therefore I did not reply. My dad became very angry and came looking for me. He met us halfway home, started the verbal abuse, and even followed the young man for a while, continuing with the verbal outburst. I was so embarrassed and angry, and did not want to go back home. That is when I decided to run away, so I called my friends in another town to come and get me. While I was gone, my dad found my diary where I used to write when I was angry or depressed. He was so angry that I had run away with my friends that he decided to hand my diary to the people at the Youth Centre, but I didn't care, as they knew how I felt and what was going on anyway.

A missing person report was filed with the police. The police called me and told me to go back or at least stay somewhere safe. The night I came back, my family were having dinner at the pub. At the time, I had a part-time job there. I met my boss in the kitchen and she offered for me to work that night so that I didn't have to see them if I didn't want to. She wanted me to talk to my parents and tell them why I ran away. My dad's friend, who was having dinner with my family, found me when I went to use the toilet at the pub. She told me that everybody was looking for me and offered me a place to go to, as I didn't want to go back home. I went with her and stayed the night.

The next morning she dropped me off to see my mum while Dad was at work. I told Mum why I ran away. Mum really wanted me to come home but I told her that the agreement was for Dad to stop drinking and then I would come home. Dad tried to get my friend who came to pick me up in trouble with the police because he was nineteen and much older than me. I then realised that he was more stuck on getting my friend into trouble than being concerned about whether I was safe or not. When I got back home after that, I got blamed for everything again, so I ignored Dad for a

couple of days and stayed in my room to avoid the problems. After the incident Mum wouldn't let me leave the house when I wanted to take my dog for a walk to get away from the family for a little while because she was afraid that I would run away again. She also wouldn't even give me a knife with my dinner. I don't blame her, as I know that she was only worried.

I remember another time when Dad had a fight with Brad again. I felt very angry and frustrated that after all the trouble he had put us through, he still acted up, and so I warned Dad. I told him that if he didn't leave Brad alone, I was leaving home. I said it three times and when he still didn't want to stop, I just left. I went to talk to my bosses about it and about not really having anywhere to go, but they were having dinner, so I went to sit in the main street. I didn't know what else to do or where to go. Soon enough I saw my dad crossing the road and at first I thought that he was Brad, as he was wearing the same jacket. It was a good thing that I didn't call out to 'Brad', so I ran and hid behind an old shop near some flats, where I could still hear Dad yelling my name as he was looking for me. I called my youth worker to ask her for help and she told me to go somewhere safe.

I got a call from the police whilst hiding and I answered. They told me they had my dad in the main street and were sending him home. They told me to meet them at the police station, so I did. They made excuses for his actions, like 'how much he has on his shoulders' with my mum being sick with cancer but that was no excuse in my books any longer. The police later dropped me off at home. It was not my first time being dropped off home in a police car, so it was nothing strange or different. Dad was once again told, like every other time, not to drink any more that night, but of course he never listened to their advice. The police always offered him some help, but he always refused. He would always come home with alcohol and get busted. The police put Dad on a good behaviour bond for his actions towards Brad. He was very angry about it and blamed me for it. I took the blame, even though I knew it was his fault, and I was made to feel guilty because it had happened.

On another occasion I had permission to go to a friend's house. Dad called me and told me to get home. I reminded him that I had permission to be there. I really wanted to stay there because it was already very late, too late to walk back home.

My dad lost his temper and told me not to bother going back home, so I didn't have a choice but to stay there. But staying at that friend's house was not much of an option either. My friend's mum treated me very badly and called me all sorts of names. I could do nothing to defend myself or stand up to her. On top of that, her boyfriend's drug debt had to be paid so she was not able to provide for my needs, so I didn't really have anywhere to go. I felt as if I had made a mistake and that this house was just as bad as home, if not worse. I had a bad day where I'd self-harm here and there, but not many times while I lived at my friend's house, as I felt ashamed, and it isn't easy to hide while you are with other people, so it was really difficult coping with life at that time.

My sister Lorraine called me to come and get my dog, and so I managed to get away from that family, as I didn't want to leave on bad terms or start a war, as that could have turned out nasty for everybody. It is such a small town after all. I then went to live with a friend of my current boyfriend for four months. It was very different living with three older guys but in the end two of them were just as close as family have ever been. They are the only ones I know I can trust and go to for help when I need it, as well as my brother Brad, of course. I felt a lot more independent and in control and I liked not having to rely on anybody. I just never want to be like my sister who is constantly loaning money off Dad and not paying it back. I am happy that I have proved to Dad and Mum that I can handle life in the 'big, bad world' after having moved out.

At the time I felt guilty because I was not living at home any longer, with Mum having been diagnosed with lung cancer and all, and not being there to help out. People used to ask me how I could live away from home when Mum was so sick. People would call me selfish for leaving in my parents' time of need, but I felt there was no other option but to live elsewhere and away from the negative situation in which I had grown up. They seemed a lot happier and had fewer fights with me living elsewhere, I'm sure. At first, I was still on bad terms with Dad. When Dad finally accepted the fact that I was never going to return home, I started to visit them, so I did spend some time with my parents while Mum was so ill. In the end he didn't bring up the issue of me moving out anymore. When Mum was sick, Brad

helped a lot with looking after Amelia and Fiona, while Dad had to look after Mum. It is a difficult job looking after my two sisters, as they fight a lot. My parents did not discipline them enough when they were younger.

Recently, my mum passed away. Now I am really missing my mum, even though we were never close, and emotionally she has never been there for me. Dad is much calmer now and as I do not live at home any longer, we get along better. I think he may even be able to understand my point of view. Now he is very supportive of me and my boyfriend and buys us smokes and some food while he should really take care of his own finances and needs, so he is really helping me where I sometimes can't do things on my own. I suppose that is his way of showing that he loves me. In a way I think we have a better relationship now than what we ever had.

My school and social life didn't go much better than my home life when I was growing up, I am now still dealing with some negative things and situations and problems related to school and friends. I find it quite difficult giving attention for a long time, especially at school. I tend to daydream a lot, thinking about anything but my schoolwork. If I have to sit there for an overly long time, I get really bored. I used to have to look at what my friends did because I did not know what to do or where to go. I had to do that because I just got confused about things, and then had to go with the crowd and hope to end up in the right place. I also go with the crowd and get peer-pressured into things very easily, so I end up doing inappropriate things without thinking for myself. I am very easily influenced by other people. Once my friends were breaking into a house and I went with them because of peer pressure. It was all a joke, though, because everyone knew it was one of their houses but me. I was so embarrassed and felt left out in a sense, but I also felt deceived.

I find it difficult memorising facts and cannot remember information I need for tests and exams. I often lose things, especially my keys. I just forget where I leave them. Sometimes I leave them outside in the door, which is a big NO. Lots of things and people can irritate me quite quickly. For instance, I cannot stand a lot of noise, especially at school. I try to do my work and get things done, and get annoyed when people are distracting me. I am trying my best, and they are not, so I just wonder

why they are there and what they are actually doing at school. I hate it when teachers just ignore them though, and don't do anything about it.

I often feel like a failure because I seem to mess up a lot of things, even though I try very hard not to make mistakes. I hate myself if I do something wrong. I mess up cooking, schoolwork, and relationships. I often say inappropriate things without thinking first, especially when I get bullied. People at school or in the street start on me, and I will just lose my mind, get angry, yell at them, and say bad things in front of everyone. And then fights start of course. Depending on what the reason is for being angry or upset, I can find it difficult to control my behaviour. If people say mean things, I am not able to control myself. I tend to not learn from my mistakes either, and can do the same silly thing over and over, except in relationships. There I am smart, because one or two chances are all that people will get from me. I don't believe people can actually change, so they don't deserve more chances.

I blame myself for everything that goes wrong. Usually I do this because it is just easier to take the blame. Nobody else will do it. I even blame myself for what has happened to me in my past. I thought that I was a bad child because I did such a lot of stupid stuff. Always apologising for everything, even if I am not wrong, has become a habit. I cannot tell adults to stop treating me badly. If I do, I am being rude and disrespectful. When I lived with my one friend's family and I was treated badly, I could never stand up to them because they were my only place to stay at the time and I was worried about them kicking me out. Today, of course, I realise that they wouldn't have done it because they needed me for my money.

I often feel very nervous, like when I have to do public speaking. I hate doing it because I worry about being judged. I also get nervous talking to new people, so I keep to myself everywhere I go to avoid feeling like that. I am easily frustrated and then just give up. I quit and don't usually go back to something that frustrates me. In Maths, for instance, I get so frustrated because I feel stupid when everyone gets something and I don't, and then I give up and will not try again. If I am playing a game and not doing any good, I will sit out because I think "Why bother?" I give up easily on friendships also. I started doing that early in my life because of the emotional abuse and bullying I had to endure since I started school.

People often belittled me, and put me down in front of others. Other kids did not want to talk to me or play with me when I went to school in the neighbouring town. They ran away as if I had a bad smell around me. I felt isolated and like a freak, and people were very mean to me. When I was younger, I couldn't really stand up to those kids who treated me badly, because I wanted them to accept me and like me. I still find it difficult to tell people not to do things that make me unhappy or upset, or that affect me negatively. It won't help either, because everyone around those nasty ones is joining in, or being one against a whole class is just going to make people hate me and treat me badly.

I tried to make friends and that I was all I wanted back then, but no, it didn't happen. Now I don't care. Who needs friends anyway? Some people have to hurt others so that they can feel better. The first few years in this town and school were also very bad. I have come to believe that people are very quick to reject me and leave me out of their group, or they choose their other friends above me. I would go with some friends, then their other friends would tell me to go away, sometimes using very nasty words. My so-called friends didn't do anything to keep me with them, and didn't stand up for me against the people who told me to go away. They did not value my friendship and rejected me, so I gave up on my friends. I would invite friends to visit me, but then they choose not to, so I know they do not really like me, otherwise they would have put in some effort to come to me. Maybe it is because I am not worth much. I am not amazing, I am just me. At times it feels as if I do not know myself or who I am, feeling that I was not meant to be.

Now I just push people away. Well, some friendships are not really worth it, but I do feel like a failure for not fixing it. I do not have any friends and I actually do not need them. Maybe I do want friends, but I do not want all the nonsense that goes with that, so I would rather avoid the trouble and not have any friends. I do not really get along with anyone in my class. I am pretty much a loner and rather avoid people. The others are so immature, probably because they have not been through what I have been through in life. It is important to be accepted for whom you are, and that is what other kids my age cannot do. I don't try to talk to anyone except my boyfriend now, and for some reason I find it easier to make friends with people in

their twenties, because they are older and more mature. I hate this generation of kids.

The things some people who call themselves friends do are just unbelievable and make me feel very disgusted with them at times. A so-called friend spread rumours that I was pregnant, which I obviously was not. An ex-boyfriend became a real idiot, called me a slut, and spread stories around that my dad had raped me. He told me to go kill myself, or to get pregnant and kicked in the guts so I could lose the baby. Isn't that completely horrible that one person can be so cruel to another person? How can I tolerate people like that in my life? How can I trust other people after what I have been through, and what other people have done to me? I do not try to be friends with people or to repair friendships any longer. If I have a fight with a friend, I will try and make it right, but if they ignore me, I will just not talk to them anymore and I will not try again to make it work.

I feel so insecure about my eyes. I have a lazy eye that plays up, and that I got teased about so often. Now I do not like looking people in the eye. I keep my head down when there are other people around. I don't want to start any trouble by looking at someone who could take it the wrong way. I just had way too many experiences with people and so I expect people to treat me badly. The world is not a very friendly place, because there are so many people that just treat other people badly for no reason and they are the people I see that get everything handed to them and have great lives, while people like me who try to do the best they can and be a good person, end up struggling. I have had so many bad experiences that I am always aware that something bad may happen; always waiting for the next incident to bring me down. I hate people. Well, most of them.

I started cutting myself when I was 13 years old, and I have had many more than 50 cutting episodes over the years. I only burned myself once, and that was to clean up the cut and to stop it from bleeding. I did not know much about it at the time, so I did not do it because of what others told me the outcome would be. I started cutting because I noticed that others were doing it, and I thought that it might help me get some relief of the negative thoughts and emotions. I mainly started cutting because of the situation at home, especially the constant fighting, which was

becoming too much to handle. I felt so powerless for not being able to change anything or to control what was happening.

I used to wish that I was normal, like all the other kids at school seem to be, because then I would be a lot happier, I thought. But then, I cannot imagine myself being so happy that I won't feel like cutting myself. It is crazy, but it felt like it had to be that way. I did not want people to know and make a fuss, or discriminate against me because of it. Most definitely I did not want people I care about to know because I did not want them to worry. I always thought that if no one knew, no-one could care, and that is how I'd rather have this situation. I used to have one other friend who also cut, but she is not my friend any longer. She knew about my cutting but she was weird and thought it was cool. My brother also knew and he cared. He was always there for me and promised that he wouldn't tell my dad, but he always encouraged me to stop cutting.

I feel stupid for having cut myself. I know there are other ways of getting relief of emotions, but I still choose cutting. I have tried some other things to keep me from cutting myself, like cutting up pillows, crying, or writing down feelings in a diary. Those things the youth workers at the Youth Centre suggested. Sometimes I would go for a run with my dog to get away and calm down and because I didn't want the other person to know they had upset me. When I ran away to the other town that time, I was referred to get some help from Child Youth Mental Health, where I saw a social worker. She told me to get out of my parents' house, but I didn't really have many practical options. We also talked about emotions, and that helped a little bit.

I also received help from the youth workers, the chaplain, and the guidance officer at school, and it helped a bit to make things better, but I was still cutting afterwards. There were times when I had thoughts of killing myself, but I have never cut to kill myself, though. At times, I drink alcohol to help me forget or improve my mood, or to get over all the negative thoughts and emotions. Sometimes when I get really drunk, I will end up getting injuries that I cannot explain how it happened, but it did not happen because of cutting. I also smoke cigarettes to help me cope with my situation. My brother gave me my first smoke so that I could calm down and relax. I still find that having a good cry every now and then also helps, for a time anyway.

I actually find it difficult to explain what I think when I want to cut myself. I often think: "Who cares?" Or sometimes I think: "Why shouldn't I do it?" No one will care, and maybe I would be doing the world a favour, so just do it. People think I am a freak anyway, and they have always treated me like one. One of the strongest thoughts while I am cutting is that I just want to do something to stop the emotional pain I am experiencing. Other strong thoughts while I am cutting, or just before I do, are remembering the emotional abuse I had to endure from my family while I was growing up, but also from other kids, even those I thought were my friends. I think about the relationship with my parents and their criticism of me when I cut. Relationships have always been difficult, whether with my family or with a lot of my friends, and it is often thinking about these difficult relationships that contribute to the emotional pain I want to get rid of with the cutting. I often think that I am a failure and no good, because of all the mess-ups I make in every area of my life, even though I try so hard not to.

It is fairly difficult to identify and name what I feel and to explain these emotions in words. I just find it hard to explain them and I feel like other people don't care. Before I cut myself, my emotions are all over the place. My emotions can be very up and down, from a little happy to extremely angry or sad. It was even worse when I was a little girl. A lot of different emotions and thoughts would come and go over me, very much like waves. I experience very strong emotions, though. The feelings that are the strongest when I feel like cutting are being lonely and depressed. I feel so lonely because of how friendships turned out and of having left home. Sometimes I feel like I just have to talk to someone else. Feeling depressed comes from basically being kicked out of home because I was not welcome there, and so I was really rejected. I am also very sad because I was not treated nicely and because of all the family trouble, and generally just about how life turned out.

What I feel a lot of times is being angry about different things or at different people. Getting angry can be a big problem for me because I feel angry very often and very quickly. Even when I get upset or sad, it easily turns into anger. I get angry at myself when I get in trouble for doing stupid things or making mess-ups. I just get angry at family and friends over small things. I don't know; I just don't like people. I

feel as if I get overwhelmed by little things. I work myself up way too much and get way angrier than I should over some things, and then I get carried away by my emotions. Sometimes I feel as if I am going crazy when I find it so difficult to control my feelings, and especially the anger. I do not know how to calm myself down and if I don't cut myself as a result, I always just cry when I feel that things are getting too much for me to deal with. I find it very difficult to relax. I am just always really fiddly and can't sit still for long. If anyone should say anything mean to me, such as about my mum, I think that would be my first physical fight and I don't think I would be able to stop myself.

There were so many things that happened when I was growing up and I felt so powerless for not being able to change anything or control what was happening. Everything felt so out of control. It caused me to feel hopeless and desperate because I could not control what was happening in my life, both at home and at school. I feel in control when I cut, because I can determine what happens, and I can feel how my emotions change. I need to see the blood, as it makes me feel calmer when I see it; it brings such relief. Many people never understood me, like in my past relationships. If I had a bad day and couldn't help but harm myself, they would be angry at me for a day or two, which made me feel worse about what I was doing, and they made me feel like I was weak for doing it. I often feel misunderstood because I have nobody to even talk to. I have never done cutting to punish myself, but only to feel real after having felt so numb at times, to feel better and at ease. The numbness is a quiet sort of not feeling anything, and is actually a more positive feeling than feeling the intense emotional pain most of the time.

I used to hate my body because I was so fat. Other people do not agree, but I know that it was true. It was even worse when I was younger, and I got judged and bullied and rejected a lot because of that. I think maybe it was just my mind telling me that. I knew I was overweight and did not eat very much because of how I felt. I often have pain in my stomach, but I am not sure why it is. I know I'm not the prettiest and have always felt that I was ugly because everyone had clear skin, was skinny, had nice hair, and I had none of that. Another feeling I experience, although not as strong or overwhelming, is being worried, mostly about life in general, but

also about my difficulty making and keeping friends, how I am going at school, and of course about my family. I feel confused about why I am feeling so sad, and also why my family had to be such a mess. My family does not seem to care much about me, and that makes me feel so worthless. The family fighting, friendship issues, and school also cause me a lot of stress. At times, though, it feels as if I am just empty, and I do not feel anything.

I like listening to self-harm music because it tells a story. I also like listening to Screamo music. In a sense, music calms me down, so I often have music on when I cut. Sometimes I smoke because that also helps me calm down. I look at my old scars and it makes me feel ashamed and happy at the same time. I feel ashamed because I cut and haven't sought help earlier, and I feel happy because it shows that I haven't gone all the way and killed myself. There are times when I am talking to a friend who also self-harms while I am cutting, but talking to her never contributes to the self-harm. I am always been alone when I cut; I think it would be weird doing it with someone else. I have bad sleeping patterns and always feel tired. I sleep too much or too little and at times I cannot sleep at all, although at the moment it has mostly to do with our sleeping arrangements and not having enough room on the bed, or being uncomfortable. I often feel restless, tired, or lazy.

There are times when I have eaten too much on purpose and have to vomit at the time I am cutting, but it doesn't really contribute to wanting to cut. When I cut while being on Facebook it is because I see how awesome other people have it, and then I just get very angry when people have the happiest family life and get spoiled, but then they still complain about their life. When there was a family fight, it made me angry to the point of crying and just wanting to just climb out of my window and leaving again. I couldn't do it, so I had to cut to feel better and get relief from feeling so angry.

The bullying contributes to the cutting because sometimes I also experience it on Facebook or through other ways, and that is sometimes during a cutting episode. It makes me feel so worthless and as if I do not have any friends. The bullies are usually friends with the people I thought were my friends, but not once would any of the people who were supposed to be my friends ever stand up for me. So, I left them

to their chosen friendships and avoided making friends. At times while I am cutting I am fighting with a friend because I can't trust the person. I would trust them with information I never should have but then they turned around and used it against me. I just get sick and tired of losing friends after the fights that made me cut out of desperation and hopelessness. Denial is now the only thing left to do. I do not need friends.

Afterwards I usually have mixed feelings. My experience is that I am much calmer, more relaxed and tired after a cutting episode. I feel relieved because for the moment I get distracted from my other problems, and sometimes I am able to get out of doing a task I don't want to do. After a cutting episode I feel less stressed but satisfied in a way. At the worst time that I was cutting, if I did not do it at least once a week, I just got angrier and angrier until I felt an overwhelming need to cut myself. I feel angry at myself, but I am not quite sure why. Sometimes the frustration I feel with my schoolwork, issues with friends and my home situation develop into anger. When I feel the physical pain when I cut, it makes me realise that I am real, and still alive. Having physical pain that I know will go away and get better is way better than having the ongoing emotional pain. But then I often feel sad and depressed soon after, and I feel very disappointed that I've cut myself again.

By the time I agreed to participate in this study, I was getting a bit better because I had moved out by then but I was still cutting. My motivation to participate anyway was to learn more about myself and why I self-harmed. I fully understood what was expected of me in this study, as our chaplain explained everything to me, but at times it was difficult to do what was required. At first I did not have Internet at home, and the web site was blocked at school, so it was not always possible to log on. I could not access it on my phone either. The chaplain was going to take me to the local library so that I could log on to the web site there, away from the school where it was blocked, but she is not at school every day, and I missed a lot of school because of the mess my life was in, so that plan did not work. Sometimes the e-mails did not open, and so I could not always reply straight away. Because I have had so many absences due to how I felt and the cutting, I also had a lot of catching-up to do with my schoolwork, therefore it was not always easy to participate.

Because of my problems with the Internet connection and having had to be online, particularly getting into EdStudio, which I can only log onto at school while I have to give attention to schoolwork, and which I could not get into anyway, I could not practically make it to the online meetings that were supposed to have happened. I didn't mind the typing that would be involved, but I preferred to meet in person to talk about my life story and why I self-harmed. After we had met in person, it was easier to answer and clarify more questions, read through the various versions of my story, and to change or explain more if needed. It was good that I could have input into how my story was written, as I could change things if I wanted to, or try to explain things better, especially when I was able to read my whole story in one go, and also to see how everything fit together.

When I was finally able to log onto the web site, I mainly read everything. I didn't really like listening to the animations speaking, as it sounds a lot like Dictionary.com. I guess it is a smart idea for those people who don't like reading. I had a problem with the clarity of the meaning of some questions, I think. There were also some instructions that I did not quite understand. For instance, at the end of the first topic I thought that I was allowed to click only one of the statements, and not all that apply. I had the opportunity to go through the information again later and I could then click on all the ones I agreed with. I read and understood all the information about the brain and the hormones and chemicals, and it all made a lot of sense.

I understand what is happening in my brain and why I cut. The daily quiz made me more aware of what I was actually thinking and feeling at the exact time when I was cutting, and it helped to make sense of thoughts and feelings that were otherwise all jumbled and overwhelming. I think that doing the quiz helped to clarify and separate the thoughts and feelings so that I was better able to sense what was really happening for me at the time. I did not practise the mindfulness exercises, as I thought that they were only for when it I felt sad or depressed.

While I was reading through the second topic, where I had to think of the past and what had happened to me, I experienced very intense and strong negative feelings. Thinking about and remembering all of the years of fighting that used to be

part of my life and everything associated with it,, all at the same time, highlighted how bad my life really was. The question kept coming into my thoughts; "Why did it have to happen to me?" I also remembered the bullies and what they did to me. I tend to hold a grudge and it is not easy to let go, so in a way those horrible times were highlighted in my mind, and the feelings I experienced then became stronger and more intense, I think.

Having re-lived all of the abuse while reading through this topic's information and doing the quizzes about what happened in my past and identifying how I am now, has also helped me to get a clear understanding about how it happened that I started harming myself, so that was a really good outcome. I was able to understand how my experiences while growing up had caused the thoughts that I had, and also how those thoughts led to what I experienced emotionally. I now also understand how everything had worked together towards the cutting so that I could get rid of the emotional pain. I understand how thoughts and feelings cause behaviour such as cutting to happen.

From working through the topics I understand that things can change and that I do actually have some control over what happens to me, like choosing who I hang out with. At the end of the third topic, where it was explained why I continued to cut, I was able to understand that self-harm is a behaviour. It is actually so clear that cutting happens because there were certain things that happened in the past that influenced me to become the person I am, and that those things have influenced me to self-harm.

It makes so much sense that all behaviour, including the cutting, has a function or purpose for me. When I self-harm there are certain things that follow, like consequences that make me want to harm myself again and again. I also now understand how the relief I feel after I had cut, serves a purpose or function for me, and how that has become a behaviour pattern that happened based on what I got out of the cutting. Much of these consequences have to do with what happens in my brain and the chemicals that cause me to self-harm again and again. I think putting all the information into the behaviour cycle helps paint the picture pretty accurately

and explains how things have happened for me. People can see in a visual way how the cutting works for me.

My situation is pretty unique; what has happened in my past is different to what has happened to other people who cut, I think. Those things caused me to have those negative emotions and therefore one of the functions the cutting had for me was to escape from those emotions through the emotional release I experienced after an episode of cutting because of the release of endorphins. It was also an attempt to escape those memories of painful and negative past events. Another function of my cutting was actually to avoid suicide, strange as it may sound.

Because people get offended by scars and signs of cutting, another function of cutting for me is to avoid or escape unwanted attention from people, especially those I don't want to have anything to do with or interact with. I reasoned that the signs of the cutting put a boundary between me and the people around me because once they see the fresh scars, they don't want to get involved with me, and that suits me.

On the other hand, the cutting is not just all about escaping emotions or avoiding things. For me, one of the functions of the cutting, so I have discovered, is also to get control over the negative emotions, and also to have the feel-good sensation afterwards. I now know that the feeling good afterwards is a strong habit, almost like an addiction, and that it contributes to the cutting happening again and again. So, for me, the reasons for or functions of why I keep cutting are to avoid the things I don't want, but also to get some good things.

It is good to know that there are some things that I can do to get more control over my situation and to change some of the effects of the past in my life, my thoughts, and my emotions. Some of the strategies in Topic 4, I think, will fit in with the different sections of the behaviour cycle and also with the functions the cutting has for me. I cut to escape those things from my past, all the experiences that caused all that intense emotional pain that is mentioned under the Setting Events. One function was to gain control over the negative feelings. I will most likely try the mindfulness exercises at those times when I have the same old feelings and thoughts that I used to have when I felt so hopeless that I had to cut myself for release. I have

realised that I can't change anything that has happened in my past, so I just have to accept what's happening and wait for it to become better, but in the mean time I can deal with the thoughts and feelings by putting those mindfulness exercises into practise. That is probably one way of getting the same outcome as what the cutting has for me.

The information about the chemicals in the brain and how they affect emotions was very interesting and it made a lot of sense. It explained why wanting to experience that release and feeling good after cutting is almost like having an addiction to it, and that is why I feel that I just have to cut, so I think I will most likely try those strategies to balance those chemicals when I feel a specific emotion such as depression. I try to escape the negative emotions through the emotional release I experience by cutting. The way it makes sense to me is that I cut to experience that "feel-good" effect that the release of some of the chemicals in my brains causes. Trying to get those chemicals released in a more natural way instead of cutting should work, so I will try those strategies.

When I am stressed, for instance about homework that I do not understand and cannot do, too much cortisol gets released, so I will try to make a note of what I struggle with and see my teachers the following day to ask for help because there's no point being stuck on the same thing for hours. The serotonin levels in my brain may also be too low when I stress a lot, and I understand that it can lead to feeling depressed, and that it may affect my sleeping and eating patterns and even cause me to struggle with controlling the anger. I will probably not try the strategy to rest because when I lie down by myself and get bored, I can think only of bad things, and I am sure I will get into the habit of sleeping all day, which would ruin my sleeping pattern even more. When I can't sleep, I will most likely try doing some more physical exercises, taking a warm bath, or some relaxation exercises because I do have trouble sleeping every night, and hate having to get up for school.

I will definitely go to a doctor to see whether any of the symptoms I experience in my body, like the pains in my stomach, or other physical problems I have, should be treated with medication or whether they are because of emotional problems, because I would like to get more information on why I am the way I am. I will

definitely try to stop smoking and drinking because I want to be healthier and never want to end up like my mum. I know I have to look at eating healthier, and if I can focus on eating some of the foods that can help release serotonin, for instance, I think that could also help me. I can always look at the list of foods again when I forget what they are.

As far as forgiving others is concerned, I will most likely try that because there is no accomplishment in holding a grudge. I understand that if I don't, it can keep me from reaching the right oxytocin levels in my brain. I will forgive family, but those fake friends who hurt me so deeply will never be forgiven. I know that avoiding or escaping social interactions or setting boundaries around me to keep the attention from other people away from me was the purpose of my cutting. The strategies that were suggested may not all work for me, though. Learning to be more assertive and setting boundaries is not a strategy that I will try because I don't want to be friends with anyone anymore. I would rather be a loner than have fake, distracting people around me. I will not try to avoid being alone or lonely because I don't like to be around people or my annoying sisters. I am happy by myself.

As I am not living at home I won't try talking to my dad about family fights as it is not my problem anymore. I will not try to understand the reason for a fight, because if there is a fight, I don't want those people as friends. If there is a fight for a good reason, I can try once to fix the friendship but after one attempt I am done. I am also not interested in understanding the reason behind bullies' behaviour, so I would rather just avoid them. It is their problem and they can go find help for themselves. The friends I had who also used to cut themselves are not my friends any longer, so there are no more problems in that regard. I will most probably try to avoid Facebook altogether for a while because people on Facebook can be so harmful.

I will start listening to other music, which is better than the music about self-harm, because I know that the thoughts I allow into my mind can influence me a lot, and all music has a message. I will work on increasing my self-esteem, so I might try this strategy because I do want to start exercising and feeling healthier. I will also try exercising when I feel depressed or anxious thinking about the things of the past,

as I do not want to feel angry about it all the time. I will most likely look on the Internet for more information to help me cope and I will try to access the web sites that were suggested because I am interested in learning more about this. I do not want to be stressed any longer. I will probably not give the links to the web sites for parents to my dad to help him understand what happened to me and what he can do to help me, because he is too old for the Internet.

Talking to the guidance counsellor to help me with unhelpful thought patterns, dealing with emotional problems, learning better ways of communication, or getting along with other people is not something that I will ever do. I don't like my guidance counsellor. She tried to take control of my situation when I only wanted advice, and then blew things completely out of proportion. I will not be seeing her again as she has overstepped the boundaries of what I wanted her to do in my situation.

One of the functions the cutting had for me was to avoid committing suicide. I will try to look differently at those scars from the past, because the past is the past, so I will let it stay there. They are still a reminder that I am alive and that I did not go all the way. But I also know that there are other things I can do to avoid getting to the place where I would feel so hopeless that I would want to end it all. I do have some hope of things getting better, and maybe of setting some goals for the future. Maybe I will move away from here, get a job elsewhere, and so be able to do something about the situation permanently.

6.5. Jaycee's Information

Jaycee was 16 years old at the time she agreed to be part of the study. She was the first one of the participants to log on and to do the online modules. Due to a glitch experienced during those early days of the website, she was somehow able to access the topics without having completed the questionnaire, therefore the background data was never provided.

Jaycee completed the quiz at the end of Topic 1 and indicated that she had read and understood the information. She also completed the quiz at the end of Topic 2 and reported that she had experienced very strong negative feelings while she was

identifying the events that had happened in her past, and she still had very strong feelings against the people who had done things to her. Jaycee also indicated that she understood how the things of her past may have influenced her to start harming herself, as well as what happens in her brain when she is stressed, anxious, and depressed and how chemicals could play a part in self-harming. She indicated that she felt helpless in respect of changing anything about her situation. Jaycee never completed the quizzes of Topics 3 and 4.

Regarding the events that have happened in her past, she completed the Checklist in Topic 2. She identified that people have often accused her of something they knew she wasn't guilty of, and that people have often accused her of being responsible for their own problems and unhappiness. Jaycee acknowledged some specific problems related to her parents. In this regard she stated that her parents often criticised her, that one or both parents were too busy with other things when she was growing up, and that one or both had abused alcohol. They did not have much money. One of her parents also had a mental health condition. Jaycee acknowledged that she sometimes felt as if she did not belong anywhere, that she had not experienced much warmth from others, but that instead she was bullied, made fun of, put down in front of others, and that she was made to feel worthless as people had belittled her plans and achievements.

As a result of these events, Jaycee identified some characteristics evident in her life as a teenager. At times it feels as if she does not know herself or who she is, as if she is more than one person, that things around her are not real, or that her body does not belong to her. Sometimes she feels as if she is going crazy. She blames herself for everything that happens, even for what has happened to her in the past. She always apologises even if she isn't wrong and feels guilty when she knows she is not. Jaycee cannot stand up to people or tell them not to do things that affect her negatively or make her unhappy. She does not know how to set boundaries for adults who treat her badly as she feels she cannot do that without being rude or disrespectful.

Jaycee identified that she needs people to help her do things, or remind her to do what she needs to. She finds it challenging organising herself and her belongings

and therefore her room is messy and she often loses things. Her parents have to nag her to be ready on time, and she finds it difficult managing her time wisely. Planning projects and estimating how long a task will take is problematic for her. At school she has difficulty starting and completing school work so she looks to her friends for clues of what to do as she may feel quite lost. She tends to put off doing things. She cannot give attention to something for a long time. Switching focus from one thing to another and remembering details or memorising information pose a problem. Jaycee feels easily overwhelmed by little things, does not like a lot of noise, is easily frustrated and then she gives up. She does not know what to plan for the future.

Regarding her emotions, Jaycee finds it difficult controlling her emotions and describes them as being up and down. Emotions she experiences very often include feeling depressed, angry, or nervous. She worries about a lot of things. She finds it challenging explaining what she feels, but also identifying and naming her emotions. When things feel too much for her to deal with, she may cry or drink alcohol to improve her mood. She does not know how to calm herself down, has trouble relaxing, feels restless but cannot sleep, while at other times she sleeps too much.

Jaycee thinks that she is ugly and she hates her body. She does not think she is worth much, therefore she expects people to treat her badly and to reject her. She is of the opinion that people will never like or love her. When she has a misunderstanding or fight with someone, that person will never want to have anything to do with her again because she is such a horrible person. People choose other friends above her and leaver her out of their group. When her friends do not visit her when they are invited, it confirms that they do not like her. She does not like looking people in the eye and just keeps her head down when other people are around. Jaycee tries to avoid being with other people as she cannot trust them, and she sees the world as a dangerous place. She is often scared and fearful and always aware that something bad may happen.

Jaycee views herself as always making terrible mistakes, although she tries hard not to make any. She does not learn from her mistakes, often thinking of her negative past and what has caused it. Jaycee identified that she has difficulty

controlling her behaviour and that she often says inappropriate things without thinking first. In addition to the above, Jaycee identified that she is not good with using language to explain something to others. At times she has pain in her stomach and in the lower part of her body.

Jaycee completed two accounts of the daily quiz that participants were required to complete online when they felt like harming themselves. She identified her strongest thoughts at the time as hating her body, thinking that she is no good, thinking about a difficult relationship, and wanting the emotional pain to stop. Thoughts rated a little bit lower but still on the higher end of the scale, were that she cannot cope, was worrying about schoolwork, thinking that she is a failure, and wanting to feel in control. The strongest emotions she experienced was feeling sad, rejected, worthless, and hating herself. She also identified that finding it difficult to explain her feelings in words was important. Other things that were happening at the time was that she was alone and lonely, she was being bullied, and could not sleep. She was also looking at her old scars and had visited a website about self-harm on the Internet. She had eaten too much on purpose and felt that she had to vomit. At the time she had made 12 cuts on her wrist and thigh. Afterwards she was feeling sad, relieved, and satisfied, she felt physical pain, and was also disappointed that she had harmed herself again.

For the second account, Jaycee's strongest thoughts were that she could not cope, she worried about schoolwork, she was thinking that she is a failure, she is no good, she was thinking about a difficult relationship, and she was also thinking that someone would see her wounds and care about her. At this time, Jaycee identified several very strong feelings on the highest end of the scale, namely feeling sad, hopeless, isolated, lonely, worried, rejected, and angry at herself. Other very strong emotions at this time were being frustrated, worthless, depressed, hating herself, but also feeling numb and empty. Other things that were happening at the time were that she was alone, lonely, being bullied, she could not sleep and was also doing homework. Jaycee was also looking at her old scars, was looking on the Internet on a website about self-harm, and had to vomit as she had eaten too much on purpose. This time she had made 20 cuts. Afterwards she felt relieved, satisfied, less stressed,

and recorded that she felt physical pain and was disappointed that she had harmed herself again. As Jaycee withdrew from the study, despite indicating a willingness to meet and discuss the data, no clarification or further interpretation could be obtained.

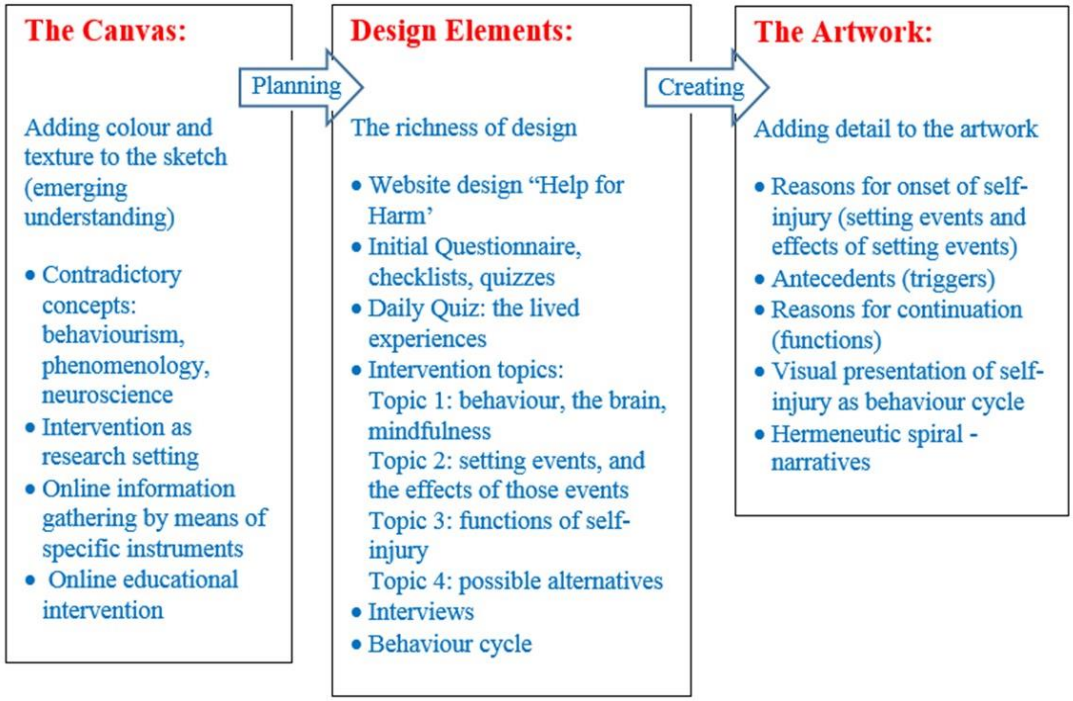
6.6. Conclusion

This chapter presents the complete stories depicting the 'lived experience' of three adolescents willing to remember and share the details of their lives up to the point where they resorted to self-harm as a way of coping with the challenges they have had to face. Each of these stories yielded deep, unique, and sometimes surprising insights that were the aim of this hermeneutic phenomenological study (van Manen, 2014). The stories therefore answer the research question "What are the lived experiences of adolescents who self-injure both before and after engaging with an intervention strategy based on neuro-science and functional behaviour perspectives? In addition, the three stories also address the second sub-research question of how they experienced having been part of the intervention strategy at the heart of this study. From the three accounts it can be concluded that the educational intervention the participants were involved in, had a positive impact on their lived experiences. Information about a fourth participant was also included with the aim to provide enough background information in addition to the three stories in order to identify themes in the next chapter.

CHAPTER 7: UNITS OF MEANING

7.1. Introduction

This chapter follows on from the detailed narratives of the lived experiences as described by the participants. Three complete stories were presented. The data of a fourth participant, who had terminated her participation in the study, were summarised and included, with the aim of providing comprehensive background information in addition to the three stories. Chapter 7 therefore constitutes the data analysis of this study in the form of applying van Manen's (1990) third research activity, namely *identifying units of meaning* or themes common to the participants' lived experience of self-injury by means of phenomenological reflection.



During the first reading of the completed narratives significant statements were highlighted to provide an overall understanding of self-injury. From these statements broad themes were identified. The second reading was done with the broad themes in mind. The narratives were more closely examined to find incidences of those themes from each participant. Those incidences were then added to each broad theme in the form of quotes from each participant. The third reading identified contributing

features to each theme. The fourth reading identified any individual themes that emerged. Those themes ensured that the individual voices would still be heard. No themes were therefore discarded. Unexpected themes identified related to the participants' 'lived experience' during the study, as well as those regarding the features of the study.

In this chapter each of the broad themes is further explained by identifying contributing features. In the themes directly related to the self-injury lived experience, the features are referred to as images to reflect the analogy of the process of an artwork in progress. When put together, these images contribute to a more complete picture and understanding of self-injury. At the end of each theme, the themes are outlined in textboxes depicting functional behavioural or cognitive behavioural therapeutic terminology with which participants have become familiar by means of the intervention.

It must be noted, though, that the objective is not to arrive at generalisations (van Manen, 2014), but rather, as van Manen (1990) explains, when we analyse a phenomenon, we try to determine the structures that make up the experience applicable to each of the participants in the form of fuller descriptions instead of a single statement. These meaningful patterns or themes are illustrated by keeping close to the original text (Benner, 2008), by quoting the participants. This chapter therefore aims to discuss "the significance of the . . . themes in light of the original phenomenological question" (van Manen, 1990, p. 99), namely "What are the lived experiences of adolescents who self-harm both before and after engaging with an intervention strategy based on neuroscience and functional behaviour perspectives?"

In the first section, themes are identified that relate to the past lived experiences of the participants that led to the onset of self-injury as a coping method before they, the participants, engaged in the intervention. These events had a significant impact on the participants' psychological development and caused a number of conditions that made it more likely that the self-injury would continue. The second section identifies themes related to the more immediate conditions that make it most likely that the participants would engage in self-injury. Their experiences immediately after having self-injured are then explored. Together with

the act of self-injury, the prevailing conditions at the time of self-injury represent the participants' lived experiences, in reply to the first sub-research question, namely "How do adolescents describe their 'in the moment' experiences of self-injury and the reasons underpinning their actions?"

Themes related to the reasons for ongoing engagement in self-injury are identified next. This is followed by a discussion of the adolescents' experiences of being involved in the study and the intervention itself, and answers the second sub-research question, namely "In what ways did engagement with the intervention strategy affect the 'in the moment' and subsequent lived experiences of self-injury?" The chapter concludes with a brief summary of the themes identified in this study.

7.2. Theme 1: Self Injury is Rooted in Trauma

The overall theme is that self-injury is rooted in early complex traumatic events or difficult circumstances experienced while growing up. Some of these events and circumstances were caused by peers and friends, but also parents in some instances. Included is trauma such as emotional abuse and neglect, experiences of rejection and not being validated, being falsely blamed, having been bullied, trauma of a sexual nature, and exposure to suicidal behaviour. Other traumatic events are more directly related to parental and family factors such as substance abuse, parental illness (physical and/or mental), and lack of money, witnessing domestic violence, as well as experiencing social isolation. These experiences and events cumulatively contributed to what the participants perceive other people to think of them. Detailed responses regarding these events are outlined in Appendix J. Lastly, retrospective recounts are presented of the participants' introduction and experiences related to the onset and continuation of self-injury.

7.2.1. Emotional abuse and neglect.

A common key subtheme is that of having been subjected to emotional abuse or neglect, being made fun of, belittled, and put down in front of others.

> *….we were made to read out loud and that really got to me. The other kids would yell at me to read aloud and speak up, while I could not read properly. I*

was made to think that there was something wrong with me and I felt so scared and embarrassed. …People made me feel worthless and belittled my achievements, like getting the words right, or reading a book. That was a huge achievement for me… (Clare).

At school people would also put me down immediately when I wanted to do things, or when I gave an incorrect answer. They called me an idiot and told me that I shouldn't be in that class (Mick).

People often belittled me, and put me down in front of others. Other kids did not want to talk to me or play with me when I went to school in the neighbouring town. They ran away as if I had a bad smell around me (Barbie).

7.2.2. Lack of validation and experiences of rejection.

Closely related to having been emotionally abused and neglected, is not having been valued or validated by those of whom the participants expected it. Also included in this theme is the notion of having been rejected.

I often feel as if I am invisible… Nobody listens to me when I speak anyway; nobody pays attention. People make me feel like something bad or very low… Sometimes I want to explain something deep, but nobody is interested enough to listen to me. I have never been listened to throughout all of my life… I have always been the little girl in the background. …I was put in the back row with the boys.... Mentally and emotionally I was also put in the background. You do not normally notice the people in the background, so I was just not noticed (Clare).

I grew up feeling that I did not belong anywhere, not with friends nor with my family. I just felt that I was different. People have rejected me because of my family. …people easily reject me for many things (Mick).

I get rejected a lot, ever since I was a little girl. …I feel people still easily reject me and do not want to accept me for who I am. …I got rejected by my whole class… (Clare).

….my whole life seemed to have fallen back down again and crumbled around me. I experienced extreme hurt, loneliness, and rejection. I felt as if no one cared about me or what happened to me, and that no one loved me (Mick).

…it was very unfair and it made me feel a little unwanted, and that nobody cared. I never quite fitted in anywhere; not physically and not emotionally either. At the time I felt like I was always treated unfairly. …The first few years in this town and school were also very bad. I have come to believe that people are very quick to reject (Barbie).

7.2.3. False blame.

The participants remembered having been falsely accused and blamed for what they were not guilty of.

…other students would accuse me of something they knew I had not done. They blamed me for the things they did and then I got into trouble for it (Clare).

They always put the blame on me for things other kids had done to them. I felt as if I was targeted but I did not understand why they would single me out (Mick).

My parents were never happy with me and I basically got blamed for their unhappiness. …When I got back home after [having run away], *I got blamed for everything again…. I took the blame, even though I knew it was his fault, and I was made to feel guilty…* (Barbie).

7.2.4. Experiences of being bullied.

The participants reported having been bullied.

…I got bullied by people with lots of friends, all tough boys and girls, I could not do anything to stop it. To protect myself, I just allowed it to happen, because if I had tried to stop them, I would have made it worse... Even now I get told to shut up because my laugh is weird.... Or they just stare at me or tease me about my laugh or how I talk. It makes me feel so degraded. …People

talk about me and my boyfriend and spread rumours about us, even in schools in a neighbouring town (Clare).

I was bullied relentlessly, mostly by peers whom I have known since pre-school. That really hurt. …being teased about my family. They called my brother a retard. I felt very embarrassed, sad, and depressed, and like I was an outcast. …There were also neighbours of Mum's who physically attacked me and my friend, so the bullying occurred everywhere and in various ways. …The bullying …increased to include not only verbal harassment and emotional abuse, but also physical aggression by both boys and girls. …also included rumours about what my girlfriend and I would supposedly have done, such as having had sex in the carpark (Mick).

A so-called friend spread rumours that I was pregnant, which I obviously was not. An ex-boyfriend became a real idiot, called me a slut, and spread stories around that my dad had raped me. He told me to go kill myself, or to get pregnant and kicked in the guts so I could lose the baby (Barbie).

7.2.5. Sexual trauma.

In addition to the commonly experienced trauma, one participant, Clare, also experienced additional **trauma of a sexual nature**.

While I was in the pool, the father of my dad's friend tried to touch me inappropriately. I told my dad but he did not believe me. According to him the man was old and half blind and could not have done to me what I said he did. But he still had hands, and I know what I felt on my body and where I felt his hands on me (Clare).

What added to the trauma of this incident for Clare was that her dad did not believe her, therefore she was no longer able to live with him and had to go and live with her mum, with whom she did not have a very good relationship. She described the experience, *"When we got back to Dad's house, he told me that I could no longer live with him. That absolutely killed me and I just shut down after that".*

Clare also experienced further traumatic sexual encounters with boys.

When I was fourteen years old, my friend Josh touched me in a way he shouldn't have. It made me feel very uncomfortable, but it also left a big impression on me. At the age of sixteen I was raped by a guy named Tim (Clare).

7.2.6. Serious medical issues.

For Clare there was also the additional traumatic experience of having had rather **serious medical issues** when she was younger.

...I had to go to hospital for an operation. Ever since I can remember I have always had a lot of headaches, sometimes up to ten per day. When I was in about Year 3, I had an MRI and CAT scan done, and it was found that I was born with four holes (lesions) in my frontal lobe. There was a major one on the left, and three in the right back lobe. I have had a number of MRIs since, and recently it was established that the lesions were gone. I think that these holes had a lot to do with how my brain developed and my problems later on, though - especially with memory and in school generally (Clare).

7.2.7. Witnessing suicidal behaviour.

In another instance witnessing suicidal behaviour added another layer to the trauma experienced.

...I was about 13 or14 years old, I tried to help a young boy, but I was helpless when he tried to kill himself. I saw him stabbing the bed and stabbing himself. I saw him choking himself. I basically saw him wanting to die on Skype. ...back then his suicide attempts had a huge impact on me (Clare).

7.2.8. Parental and family behaviours and circumstances.

Parental and family situations contributed to the participants' traumatic experiences.

Image 1 emerges from parental substance abuse.

Dad abused alcohol when I was growing up, so he wasn't around much as he was asleep most of the time. There were also drugs involved (Mick).

Both my parents were alcoholics… Mum did not always go out to the pub to drink, but she drank at home (Barbie).

Image 2 emerged as the presence of familial physical and/or mental illness, or other conditions that caused early trauma that had to be endured.

I wasn't allowed to go with her while she had to get chemotherapy. It made me feel so bad and helpless because I couldn't do anything to help her or to make it better for her (Clare).

…Jordan had attention deficit-hyperactivity disorder and an intellectual disability… Now, at the age of 18, Jordan still has the intellectual ability of a six year old child. …When I was about 13 years old, I learned from Dad that my mother also has an intellectual disability. …Mum's intellectual ability is equal to that of a 13 year old person. That still makes me feel pretty upset till this day. …Why did I have to have two family members who have an intellectual disability? …Dad suffers from depression and there were times that I had to call the ambulance to take him to hospital after he has self-harmed. I am scared that he might die, and at those times I do panic a bit (Mick).

Recently, my mum passed away. Now I am really missing my mum, even though we were never close, and emotionally she has never been there for me (Barbie).

Image 3 was a lack of money while growing up, and the effect it had on them.

My dad worked and managed to keep his job, but we never had a lot of money (Barbie).

While dad had lots of money and I could have what I wanted; since I started living with Mum only, there has not been a lot of money, so I was never able to keep up with others. …That really made me depressed and it made me wonder what I was going to get out of life; what type of life I was going to have (Clare).

We used to live in a caravan park…. I remember how all our toys get stolen when we moved here, so there were times when we did not have what other kids take for granted. Dad really tried his best to support me financially going through school but I am not sure whether he was always able to (Mick).

Image 4 emerged from witnessing and **experiencing domestic violence**, and experiencing or fearing physical abuse.

Dad did not and still does not get along with Brad at all and there were many times where Dad was physical with Brad. I remember many times when Dad chased Brad up the drive-way with rocks in his hand, telling him to fuck off (Barbie).

As a child growing up, I often felt very unsafe and got exposed to many unsafe and scary experiences. Dad tried to hang himself one day and that really scared me. We were sent to the neighbours to be safe and out of the way (Barbie).

We were often sent to the neighbours to be out of the way when Dad exploded. A few times Mum had to lock all of us in a room in order to keep us safe from Dad and his violent outbursts (Barbie).

Image 5 materialised from **parental neglect**, that their parents were unavailable and busy with other matters, and that they lacked the necessary nurturing and care from their parents.

My parents were always busy with other things, so I did not really get the attention I needed and felt I deserved, or saw other kids getting from their parents (Barbie).

…I only had one parent at a time, and it didn't matter which parent I was with, they were both too busy with other things to really give me enough attention (Clare).

My memories of my mum…. are not very favourable, I am sorry to say. [She] *did not do much with us, nor did she give us any attention* (Mick).

Image 6 was the identified feeling of not belonging anywhere due to experiences of **social isolation.**

> *We also did not have contact with a lot of other people, such as family. …I often felt that I did not belong anywhere* (Clare).

> *We didn't have much contact with other people when I was growing up. ….We also didn't have many other friends as a family, not like other families have. I know that from seeing friends …who always had many people who came over. …never had birthday parties and my parents could not see the need for parties either, or for me to go out to parties when I was invited. …I did not belong anywhere, not with friends nor with my family* (Mick).

> *I did not have any friends, as I could not socialise with my peers. I rarely had time for the normal social activities... I could also not invite anyone to visit me, as I was highly embarrassed… by the disabilities of my family members. I felt so isolated* (Mick).

> *I never got to go to special places or do special things like going on road trips. As the middle child I never quite fitted in anywhere; not physically and not emotionally either. …The others got favoured, but I was always left behind…* (Barbie).

Image 7, closely related to the participants' feelings that they do not belong anywhere, is the **others' perceptions** that they think others held about them.

People think I am a freak anyway, and they have always treated me like one (Barbie).

> *I reckon my attitude and how I dress make me a freak…I do not fit in ….people reject me. …other people think that I am a freak, because when I look up, I see people looking at me* (Clare).

> *…other people think I am a freak, so therefore I must be one. Teenagers are all in some sort of a group. I am not a normal teenager; I am in the depressed group, and not in the nerdy group or sporty group. I am also a freak because of the music I listen to. Not many of the other students at school listen to*

Screamo music. At least I think that they think I am a freak because of that (Mick).

7.3. Theme 2: Fractured Relationships

As indicated in the literature review, the traumatic events and circumstances experienced in childhood and early adolescence very often result in a breakdown in relationships and an overall difficulty forming and maintaining positive and healthy relationships. A further key theme with a number of related features therefore explores the participants' disordered attachment patterns and problematic relationships with their parents. Various factors (images) contribute to this theme, such as having experienced a lack of warmth, role reversal between the parent and child, critical parenting, feelings of hopelessness, as well as the unhelpful responses from their parents when they learned about the self-injury, and an explanation of why the participants continued to perform self-injury for such a long period.

7.3.1. Disordered attachments.

Many of the participants' testimonies exhibited their lived experiences in relation to disordered attachments.

I was so confused... They expected me to make a decision as to who I wanted to live with, while all I wanted was to live with both Mum and Dad. …I was raised in different ways by my mum and dad and their partners, which was really very confusing (Clare).

My mum did not talk much to me, so there was never a strong bond between us. I could never talk to her about anything, especially not about emotions (Barbie).

7.3.2. Relationship difficulties with their parents.

My relationship with my mum is not good; it has never been good, and it is just getting harder to live with her. …I feel trapped and caged in, as if the walls are caving in. It makes me want to just run. I feel that I cannot talk to my mum... When I am distressed I try to ignore her… I have been called a slut a

lot by kids when I was in high school, therefore I do not need it from Mum as well. It distresses me… …My relationship with Mum is what it is, and my dad lives in another state. I suppose it is fate that I have to be without him in my life. I am like my dad and feel like he feels about my mum; I just cannot divorce her. I cannot get away from her like my dad could (Clare).

I used to play music like loud "Screamo" to get my mum to pay attention to me because I knew she hated it. Negative attention was better than no attention, I thought, and I did not know any other way of getting her attention (Barbie).

Image 1, emerging from the theme of Fractured Relationships, depicts an **absence of warmth** and attention from other people, and especially from their parents.

I feel that I did not experience much warmth from other people growing up… (Clare).

I never felt that I received any warmth from her. I felt much rejection because of it, especially when I think of how other boys' mothers were (Mick).

I felt pretty worthless because of how I was treated by my parents. So I did not experience much warmth from other people, especially not from my parents (Barbie).

Image 2, Role Reversal, was identified by one participant as parental inversion, or a reversal of roles, which occurred as a result of his mother's intellectual disability and limited capacity to fulfil the duties expected of a mother. This situation was further aggravated by his father's expectations.

I do not want to have to do things for my dad, take care of him and make sure that he is all right. It should be the other way around. …I do not want to do all the things for my mum. She should be the one caring for me and looking after me, but now the roles are reversed and it is just not right. …In other words, I was the man in the house at the age of twelve; I had to take on the role my dad was unwilling, and at times unable, to fill due to his own mental health problems (Mick).

Image 3, Critical Parenting, was identified by most of the participants as problems caused by parenting patterns, such as their parents being over-protective or over-critical.

> *I think about the relationship with my parents and their criticism of me* (Barbie).

> *My mum is over-protective and does not want to allow me to do the things my friends do. She did not even trust me with having house keys until I was in Year 7! …My mum has such a wrong idea about me and always criticises me about everything…* (Clare).

The cumulative results of multiple experiences of trauma experienced by the participants were clear in the data. A number of images related to the result of the traumatic experiences were identified.

Image 4 emerging from the experiences related to feelings of **Hopelessness.** The cumulative impact of these traumatic experiences eventually led to the unbearable negative affect that the adolescents could not cope with, and from which they sought to get relief from by engaging in self-injury.

> *At the age of fourteen, I started deliberately injuring myself, as I needed some form of relief of the stress caused by lots of things in my past* (Clare).

> *I did feel very helpless and hopeless, and sensed that I had to find a way of coping …. …The first time I cut myself I pulled apart a razor and used the blade. I did not really feel much, as it just felt like a fingernail on my skin. Even seeing the blood did not upset me or made me feel anything. …I wanted to try it to see if I felt any better afterwards. I did actually feel better after that* (Mick).

> *I started cutting myself when I was 13 years old. …I thought that it might help me get some relief of the negative thoughts and emotions. …because of the situation at home, especially the constant fighting, which was becoming too much to handle* (Barbie).

Image 6, Negative Responses, emerged as unhelpful parental responses to finding out about the self-injury. This differed among the parents, but commonly did not stop the participants doing it.

> *My mum was very angry and shocked, and embarrassed me in front of other people in a shop when she blurted out about me self-harming, which made me furious. My dad didn't find out until much later. He asked me how I wanted to manage it, and he just wanted to make sure that I was safe* (Clare).

> *My parents did not really show any reaction or concern when they found out about the cutting. Perhaps Dad was too busy trying to cope with the issues in his own life, and Mum probably did not understand completely what it involved…. Their lack of reaction was of course not very helpful …made me feel only more isolated and hopeless, even worthless, as I felt that they did not really care* (Mick).

> *Dad got angry at me and told me that I was doing that for attention and because my friends were doing it. …My mum was not happy about what I was doing, but she didn't over-react about the cutting either* (Barbie).

Image 7, Continuation, depicts the continuation of self-injury despite help-seeking attempts and other coping strategies.

> *At the worst time that I was cutting, if I did not do it at least once a week, I just got angrier and angrier until I felt an overwhelming need to cut myself* (Barbie).

> *Since that first time, I've cut myself a lot of times… I cannot always remember, as my memory is not good at all; it never has been, but I have a self-harm photo album on my phone to keep track of it. …When I feel the urge to cut building up, it is usually because I remember the many very bad experiences in my life…. It becomes so bad that it then causes me to feel overwhelmed by it all. …I become anxious when people try to stop me or prevent me from doing …and also when my wounds start to heal* (Clare).

> *Since that first episode I have injured myself between 11 and 20 times or it could just as well have been more. …The effect of my past on me is enormous.*

It is like a thin piece of string which is stretched to the max over time, and it will just snap, and then the tension will be gone. …If I do not cut, I will just snap… Who knows what the outcome will be then? (Mick).

Reflection: The traumatic events and circumstances explained above (7.2 and 7.3) can be related to **Setting Events** (distal factors) from a functional behavioural perspective.

7.4. Theme 3: Self-Injury is Related to Being Vulnerable and At-Risk

Further to the overall theme in the previous section, the third common theme that adolescents who have experienced complex trauma will as a result, present with certain characteristics, which make them more vulnerable and at risk of engaging in self-injury. A number of key subthemes, some with numerous identifiable features, were identified in this complex theme. These subthemes include impaired executive functions due to the impact of trauma on the developing brain, the development of unhelpful thought patterns, a weak sense of self and having low self-esteem, experiencing chronic difficult relationships, emotional dysregulation, employing other avoidance behaviours, somatisation, and having co-morbid mental health difficulties. A detailed summary of participant responses is available in Appendix K.

7.4.1. Impaired executive functions.

Adolescents who self-injure experience chronic difficulties in performing daily tasks due to the presence of characteristics that are the result of the compromised development of the frontal lobes due to early traumatic experiences at an early age.

Image 1 represents **impaired impulse control and inhibition**, evident in making inappropriate remarks without thinking, and having difficulty controlling their behaviour.

Saying the wrong thing or something inappropriate without thinking first is something I often do. It is usually intended to be funny, but people don't get the humour and that makes them feel annoyed with me (Mick).

I often say or do inappropriate things without thinking first, and then I act stupid. …Controlling my behaviour is not easy …Then my thoughts get the better of me and trigger emotions that cause mood swings. …Controlling my emotions is really difficult for me, and then I act without thinking (Clare).

Depending on what the reason is for being angry or upset, I can find it difficult to control my behaviour. …I often say inappropriate things without thinking first, especially when I get bullied. …I tend to not learn from my mistakes either, and can do the same silly thing over and over, except in relationships (Barbie).

Image 2 is an **impaired organisation and planning ability** of both themselves and their belongings, being messy, and losing things. Difficulty with planning, as well as initiation and completion of tasks are included.

Being organised is not one of my strengths, so my room is very messy and I often lose things…. difficult to switch focus from one thing to another, especially when I am tired, and I cannot give attention to more than one person or thing at a time. …My mum always has to nag me to be ready on time (Clare).

I often lose things, especially my keys. I just forget where I leave them. Sometimes I leave them outside in the door, which is a big NO (Barbie).

I have difficulty organising my belongings and often lose things… I hate to admit it, but my room is very messy. Being organised is difficult... Planning what I have to do, and guessing or estimating how long it will take is very difficult (Mick).

Image 3 was identified as difficulties regarding **memory and attention**.

...and I cannot give attention to more than one person or thing at a time. I struggled to learn things, even normal, everyday things I had to do. I have always had a poor memory, so remembering details and memorising information are very difficult for me. …I am not very good academically, and have always had difficulty with memory and recalling what I have learned (Clare).

I find it difficult memorising facts and cannot remember information I need for tests and exams. ….quite difficult giving attention for a long time, especially at school. …If I have to sit there for an overly long time, I get really bored (Barbie).

Image 4 was the notion of having **difficulties with self-direction**, evident in different forms.

I need other people to help me do things, or remind me to do what I have to. At school I used to look at what my friends were doing so I could do what they did, as I often had no idea of what I was supposed to do (Clare).

Sometimes I miss instructions at school and then teachers have to remind me or tell me again… or I look at what my friends do so I can copy them… Even managing my time wisely and sensibly is something I find quite challenging and will often procrastinate, to the point where I feel rushed and stressed (Mick).

I used to have to look at what my friends did because I did not know what to do or where to go. I had to do that because I just got confused about things, and then had to go with the crowd and hope to end up in the right place (Barbie).

Image 5 included other aspects related to impaired executive functions such as **procrastination, anxiety** and **frustration** being identified.

I often procrastinate, especially during school, or try to get out of doing things like assignments, or chores here at home. …I do not even know what I want to do in the future; I still have to figure that out, and it does cause some anxiety because I do not know what will or should happen… (Clare).

I struggle with homework at times and doing my assignments, and because I do not have anyone to help, I get frustrated and just give up (Mick).

7.4.2. Unhelpful thought patterns.

A further common theme, with several features, is that certain unhelpful thought patterns contribute to the high-negative affect that eventually becomes so overwhelming that self-injury is needed for relief.

Image 1 included **taking the blame** for everything, even if something was not their fault.

> *I tend to blame myself for everything that happens, and even for what has happened to me in the past. It has to do with me, so I should be at fault in some way. …Everybody blames me, so I suppose I should take the blame for it, so I continue doing it* (Clare).

> *I blame myself for everything that goes wrong …it is just easier to take the blame. Nobody else will do it. I even blame myself for what has happened to me in my past. I thought that I was a bad child because I did such a lot of stupid stuff* (Barbie).

Image 2 was identified as the perception of **lack of worthiness**, that they were of no value and not worthy of love, acceptance, and decent treatment, based on how they were treated in the past.

> *People have always made me feel like I am some sort of 'thing', with no value, so I do not think I am worth much in any person's eyes* (Clare).

> *I think I am probably not worth much. I can't be worth anything if people could treat me the way they did. I have come to expect people to treat me badly, because that is how it has always been, so why would it change? …I often thought that I deserved to die as I was so worthless. I was so pathetic, a real nobody; no-one loved me and nobody wanted me in their lives, so why not?* (Mick).

> *Maybe it is because I am not worth much. I am not amazing, I am just me* (Barbie).

Image 3 included a number of unhelpful thought patterns. **Rumination** is intended as a coping strategy, but it often leads to experiencing higher levels of negative emotions.

> *My negative past and what has caused it are in my thoughts most of the time. I try to avoid thinking about bad things that have happened when I was younger, but that is very difficult and it doesn't always work. Sometimes the memories just come back without warning* (Clare).

Some thought patterns such as **catastrophising** and **overgeneralisation** were identified.

> *When there is a misunderstanding or fight with someone, that person never wants to have anything to do with me again because I am such a horrible person. …I have made terrible mistakes in my life I believe. I always make terrible mistakes. I made mistakes in my choice of girlfriends, and friends in general* (Mick).

Other thought patterns are an example of **selective abstraction**.

> *I would invite friends to visit me, but then they choose not to, so I know they do not really like me, otherwise they would have put in some effort to come to me* (Barbie).

Image 4 included having a **negative view of the world** as an unfriendly place, and of anticipating that something bad may happen anytime.

> *If I am happy for too long, I start freaking out because something bad usually follows a time of happiness. …I am stressed most of the time because I make myself think of the worst-case scenario and then believe all the negative things I imagine can happen. I tend to see a glass as half empty, or so I am told. How can it be half full if there is nothing in the top part? …I tend to expect people to treat me badly; they always have, so why would it change now? Something bad can happen any time …the world that is just not a very friendly place. There is a lot of bad people out there* (Clare).

I am constantly aware that something bad may happen at any time. The world is a nasty place and there are so many dangers out there, around every corner and in so many situations. Almost all of what has ever been good in my life has always ended badly. That is just how it is (Mick).

I just had way too many experiences with people and so I expect people to treat me badly. The world is not a very friendly place, because there are so many people that just treat other people badly for no reason… …I am always aware that something bad may happen; always waiting for the next incident to bring me down (Barbie).

7.4.3. A weak sense of self.

A common theme, with various features, is that of a weak sense of self that manifests in a variety of problems the adolescents experience and contributes to the escalated negative affect they all experience.

Image 1 was described as **feeling abnormal.**

I feel that I am not a normal teenager. There is something wrong with me….. I am not like the other girls. …I am confused about who I am supposed to be. (Clare).

At times I feel as if I do not know myself or who I am any longer. So many people …want me to be this other person they believe I should be. I do try…. I just want to be my own person (Mick).

I used to wish that I was normal, like all the other kids at school seem to be (Barbie).

Image 2 was identified as the **need for acceptance** by others and to fit into their peer groups.

I always wanted to fit in; I wanted to be pretty, and to be accepted, but nobody ever wanted anything to do with me… (Clare).

I just felt that I was different …I want to be accepted and I do worry about what other people think of me (Mick).

I used to wish that I was normal, like all the other kids at school seem to be, because then I would be a lot happier, I thought (Barbie).

Image 3 was an **inability to set interpersonal boundaries** and to act self-protectively.

I cannot stand up to people because I want them to accept me and like me. I also find it difficult standing up to adults treating me badly …without being rude and disrespectful. I just go off on them and blame them for a situation (Clare).

I cannot stand up to them [bullies] *…I want them to accept me and like me. …I find it difficult telling adults to stop treating me like that… so I left it at that* (Mick).

…I couldn't really stand up to those kids who treated me badly, because I wanted them to accept me and like me. I still find it difficult to tell people not to do things that make me unhappy or upset, or that affect me negatively. …I cannot tell adults to stop treating me badly. If I do, I am being rude and disrespectful (Barbie).

Image 4 was identified as related to **being easily influenced** by other people.

I am very easily influenced and therefore I always want to be someone else. I often feel that I do not belong anywhere (Clare).

I also go with the crowd and get peer-pressured into things very easily, so I end up doing inappropriate things without thinking for myself. I am very easily influenced by other people (Barbie).

Image 5 included **not knowing themselves** or who they were.

At times it feels as if I do not know myself or who I am, feeling that I was not meant to be… I feel that I have more than one personality, or I have a disorder that goes with that... Sometimes I feel that my body does not really belong to me, as if I am more than one person, really. One day I will feel like this; the next day I will feel like something else because I have a lot of different

characters inside of me. Every day I have a different kind of personality (Clare).

At times I feel as if I do not know myself or who I am any longer (Mick).

7.4.4. Low self-esteem.

Another subtheme is having a **low self-esteem**, which can be seen as having a low sense of self-worth, hating their bodies, and seeing themselves as being ugly, lacking confidence, and reverting to avoidance tactics.

Image 1, focusing on their bodies, relates to somatisation.

At times I really hate my body as well (Clare).

I am ugly and there are so many things I do not like about myself which I would like to change…. (Mick).

I know I'm not the prettiest and have always felt that I was ugly because everyone had clear skin, was skinny, had nice hair, and I had none of that. I used to hate my body because I was so fat. (Barbie).

Image 2, **lacking confidence**, is seen in an inability to know how to behave when they are with other people.

I do try very hard not to make mistakes, because if I do, people will just judge me again (Clare).

I do try hard not to make mistakes though, because I do not want to feel embarrassed; I want to be accepted and I do worry about what other people think of me (Mick).

…..because I seem to mess up a lot of things, even though I try very hard not to make mistakes. …Always apologising for everything, even if I am not wrong, has become a habit (Barbie).

Image 3 was identified as an **inability to know how to behave** when they are with other people and consequently reverting to certain **avoidance tactics**.

Now I do not like looking people in the eye. I keep my head down when there are other people around. I don't want to start any trouble by looking at someone who could take it the wrong way (Barbie).

I do not really know how to behave when I am with other people because I do not know how to talk to them. I do not like looking people in the eye, even though I know I should. I just cannot do it.... I keep my head down when there are other people around. If I do that, it is less likely that they will look at me or talk to me (Clare).

I feel very bad about what I did, and that is why I do not like looking people in the eye and just keep my head down. It feels as if they can see through me if I make eye contact and that they are able to see what kind of a bad person I am or form a bad opinion about me, so I am very nervous around other people (Mick).

7.4.5. Chronic interpersonal difficulties.

A number of associated features explain this subtheme of experiencing chronic interpersonal difficulties.

Image 1, communication difficulties, was identified as having difficulty using language to explain something to others and organising thoughts.

When I have to write a story like a narrative, with a beginning, middle, and end, I find it difficult, because I cannot easily organise my thoughts and get them onto paper… Sometimes when I have to remember a sequence of events …I get quite stressed and cannot do it. Even when I have to verbally explain to teachers, I cannot do it when I am stressed… I have never been able to express my thoughts and feelings in words anyway, so people would probably not have been able to really understand how it was for me, and what was going on in my thoughts, or how I felt (Mick).

Usually I do feel comfortable with some people, but then I can still not talk to them. Music says what I cannot say, because I am definitely not good at using language to explain something to others. Sometimes I think that if I make things outrageous, people will probably understand me better (Clare).

I also get nervous talking to new people, so I keep to myself everywhere I go to avoid feeling like that (Barbie).

Image 2, lack of a peer group, was identified as being left out.

People don't like me or love me and I feel that I am not important to my friends. They leave me out of their groups… ….or when they organise things they do not take me into consideration, or they choose other people above me (Mick).

People do not accept me into their group and just leave me out. I do not even feel welcome in the group of students in my year level… People always choose other friends over me (Clare).

I would go with some friends, then their other friends would tell me to go away, sometimes using very nasty words. My so-called friends didn't do anything to keep me with them, and didn't stand up for me against the people who told me to go away. They did not value my friendship and rejected me… (Barbie).

Image 3, was identified as an **inability to trust** people enough to seek support when they experienced difficult situations, which they then attempted to solve on their own as a result of the traumatic experiences.

How can I tolerate people like that in my life? How can I trust other people after what I have been through, and what other people have done to me? (Barbie).

I wanted my friends to do something but they couldn't because I couldn't trust anyone with anything at that point, and almost a year went by and no one knew a thing... I couldn't tell them what had happened because I didn't know who I could trust. But I also do not talk to her [mum] *because I cannot trust her and because she just doesn't understand me* (Clare).

I experienced extreme hurt, loneliness, and rejection. …no one cared about me or what happened to me …no one loved me. I could not talk to my family about it, with the situation being what it is… I also could not talk to any of my

few friends…not interested in me and my hurt and pain. When I tried to talk to them, they would just continue talking about what they wanted to talk about, or they would bluntly ignore me. …had to deal with all of the emotional pain by myself … I have a small circle of people I trust, because in the past, when I trusted my friends, they turned on me and became bullies (Mick).

Image 4, was identified as a common reaction to the negative social experiences participants underwent and was classified as **withdrawal** from others and giving up on people and friendships.

I have come to be someone who does not really care about other people any longer. I have seen it all, and have no more sympathy with others. I do to them now what they have done to me (Mick).

I'm not good at making and keeping friends, I suppose. …I have online friends, even from America, rather than friends in real life. It is more comfortable with them and you can easily get rid of people if you don't like them (Clare).

I give up easily on friendships also. I started doing that early in my life because of the emotional abuse and bullying I had to endure since I started school. …Now I just push people away. …I do not have any friends and I actually do not need them. Maybe I do want friends, but I do not want all the nonsense that goes with that... I am pretty much a loner and rather avoid people …Relationships have always been difficult… (Barbie).

7.4.6. Emotional dysregulation.

A theme common to the lived experiences, with a number of defining features, is that of emotion regulation difficulties, which in turn lead to maladaptive coping strategies such as self-injury.

Image 1 is the experience of **high levels of negative emotions** such as feeling angry, depressed, or nervous.

I cannot deal with feeling so low and distressed. …I get angry and depressed. It is so intense that it feels like having PMS 12 times in one night (Clare).

I often feel very angry, and I suppose I have a short temper, especially during all the frequent family fights. …It often becomes so bad that I have to cut myself to get a relief from the negative emotions (Mick).

What I feel a lot of times is being angry about different things or at different people. …Even when I get upset or sad, it easily turns into anger. I get angry at myself…. I just get angry at family and friends over small things (Barbie).

Image 2 is **alexithymia** which is the difficulty explaining to other people what they feel.

It is so difficult identifying and naming my emotions, so it is very hard for me to explain to other people what I feel (Clare).

I find it really very difficult to express my feelings in words. …but I do know that they are very up and down (Mick).

I just find it hard to explain them (emotions) and I feel like other people don't care (Barbie).

Image 3 was identified as the common problem of **emotional regulation difficulties**, which has three components, namely emotional swings, difficulty controlling emotions and therefore getting carried away by their emotions.

My emotions are usually very up and down, and people tell me that I am very moody. I think what I experience is not really just moods. Schizophrenia; I have its cousin, namely mood swings… I just let my emotions run their course. There is other stuff in my system that has to come out, so I reckon why should I stop it? ....It is better to just let it come out (Clare).

My emotions can be very up and down, from a little happy to extremely angry or sad. …A lot of different emotions and thoughts would come and go over me, very much like waves. …and then I get carried away by my emotions. Sometimes I feel as if I am going crazy when I find it so difficult to control my feelings, and especially the anger (Barbie).

Image 4, Frustration, in this theme surfaced as depictions of a low tolerance for distress and frustration, encompassing traits and difficulties such as feeling overwhelmed, even by little things, being irritable, and having a short temper.

> *Little things can easily overwhelm me, and it is usually worse when I have PMS. …Frustration is something else I find difficult to manage and I just cannot tolerate it. ….I also get frustrated easily, and then I just give up with what I have to do … I have a very short temper and lots of people… irritating me very quickly* (Clare).

> *I am easily frustrated… I quit and don't usually go back to something that frustrates me. … I get so frustrated because I feel stupid when everyone gets something and I don't, and then I give up and will not try again. If I am playing a game and not doing any good … "Why bother?" Lots of things and people can irritate me quite quickly. For instance, I cannot stand a lot of noise, especially at school* (Barbie).

> *Lots of people and things easily irritate me, especially the immaturity I see in others* (Mick).

Image 5, Inability to calm, encompassed participants' perceptions about their inability to relax and to calm themselves down amidst frustration and irritability.

> *I also cannot calm myself down. I am very restless and nervous, especially at school, and need to fidget. …I have to cut myself to get a relief from the negative emotions* (Mick).

> *I find it very difficult to relax. I am just always really fiddly and can't sit still for long. … and if I don't cut myself as a result, I always just cry when I feel that things are getting too much for me to deal with* (Barbie).

> *I cannot relax. Whenever I try to, even more things pop up in my thoughts, to the point where I start getting a headache. I cannot control those thoughts, so they just become more and more. I try to block them, I say that to myself, but they just keep coming back again, so I have given up trying to relax* (Clare).

7.4.7. Avoidance-related behaviours.

Emerging from the participants' reaction to the traumatic events they underwent is the prevalence of avoidance behaviours such as substance abuse and having dissociation-related experiences.

Image 1, Experiencing symptoms related to dissociation, was identified as participants reporting at times feeling as if they do not know themselves or who they are.

> *And then there are times when it feels as if I do not know myself or who I am. One day I will feel like this; the next day I will feel like something else because I have a lot of different characters inside of me. …Feel as if things around me are not real. I used to say the weirdest things, as I pretended to be in a movie. I often pretend to be in the music I listen to, like a movie kind of world. I would rather be in that world of the music than in the real world. That world I can control, but I cannot control the real world* (Clare).

> *At times it felt that my body did not belong to me* (Mick).

Image 2, relying on other **substances** in order to forget the trauma.

> *At times, I drink alcohol to help me forget or improve my mood, or to get over all the negative thoughts and emotions. I also smoke cigarettes to help me cope with my situation. …There were times when I had eaten too much on purpose and had to vomit at the time I was cutting* (Barbie).

7.4.8. Somatisation.

Associated with self-injury is the issue of sometimes experiencing stomach pain or elsewhere in their bodies otherwise known as **somatisation.**

> *There are times that I have pain in my stomach, or in the lower part of my body, especially in my back* (Mick).

> *I often have pain in my stomach, but I am not sure why it is* (Barbie).

7.4.9. Comorbid disorders and related symptoms.

Common among all participants was either being diagnosed with comorbid disorders, or experiencing some symptoms of other disorders.

Image 1 surfaced as being formally diagnosed with **depression** as well as with **anxiety**.

> *I was diagnosed with clinical depression and anxiety, for which I have seen a counsellor* (Clare).

> *I have not only been diagnosed with depression, but also with anxiety, and that makes me a freak* (Mick).

Image 2 emerged as participants discussed the presence of some symptoms of **post-traumatic stress disorder**, such as experiencing sleep disturbances, experiencing flashbacks, as well as the absence of emotions at times.

> *I find it very difficult to relax and at times I have difficulty sleeping, or I sleep too much* (Mick).

> *I have bad sleeping patterns and always feel tired. I sleep too much or too little and at times I cannot sleep at all. I often feel restless, tired, or lazy* (Barbie).

> *I sleep too little because I struggle with sleeplessness at times. I go to bed earlier to make up for it, but then I wake up a number of times during the night, mostly from dreams, and I always wake up early, like 2 am – 4 am. It is very stressful if I do not get enough sleep* (Clare).

It was noted that sometimes there was an **absence of emotions.**

> *Sometimes I do not feel anything, as if I have no emotions; like when I am a zombie. The other day I was like a zombie again. I couldn't think and I couldn't talk… It was as if I was in a trance, but I just could not control it. I did not talk at all, but just kept walking…* (Clare).

One participant reported **having flashbacks** and described their effect on her.

The flashbacks about the sexual assaults affect my body because it makes the anxiety worse, so much so that I get panic attacks. …When I have the flashback it is as if it is happening in the present. It is so real for me…. After the flashback I often feel empty, as if it has been scooped out of me (Clare).

I make very strong associations between events and the places where those events took place, so it is better for me to avoid those places so that I do not have to experience the anxiety that goes with the flashbacks (Clare).

Image 3 stemmed from perceptions of symptoms related to **anxiety**, expressed as times when they felt as if they were going crazy. Constant worrying was also reported.

I can make myself freak out when I stress because I believe the most outrageous possibilities of what can happen in a situation… - something like the worst-case scenario. …I worry about a lot of things and then those worrying thoughts lead to anxiety building up in me. I can feel the anxiety in my body when I have a panic attack. …At times I cannot think straight; I feel like a vegetable. Then I feel as if I am going crazy… …Sometimes I feel that my body does not really belong to me, as if I am more than one person, really (Clare).

I felt that I was about to go crazy (Mick).

Reflection: From a functional behavioural perspective the vulnerabilities explained above (7.4) can be related to the **Effects of Setting Events** (proximal setting events). The presence of these factors makes the onset of self-injury more likely:

- Impaired executive functions
- Unhelpful thought patterns (cognitive distortions)
- Weak sense of self (Identity disturbance)
- Low self-esteem
- Chronic interpersonal difficulties
- Emotional dysregulation
- Avoidance behaviours
- Somatisation
- Comorbid disorders/symptoms

7.5. Theme 4: Interaction Between Thoughts, Feelings, Behaviour (Self-Injury) and After-Effects

There is a common theme underlying 'in the moment' experiences of self-injury. Partnering those actions are that a variety of negative thoughts that differ in strength from incident to incident, however almost all lead to a number of negative feelings. The strength of these feelings, further complicated by the combination of emotions experienced, could lead to an increased urge to self-injure. The effect of the combination of thoughts and feelings is further compounded by other conditions that may be present to contribute to the urge to self-injure. A detailed summary of the average responses as indicated in the Daily Quiz regarding the thoughts, feelings, and other aspects at the time of self-injury as well as details of the self-injury and what they experience immediately after an incident are presented in Appendix L.

7.5.1. Thoughts.

The thoughts and the average strength of each, as identified by the participants, are summarised below, followed by explanations regarding the strongest thoughts typically experienced during the urge to self-injure or during the actual episode. Detailed explanations of their thoughts are contained in their individual narratives in Chapter 6. Thoughts identified by all four participants are summarised, followed by the strongest thoughts as identified and experienced by the individual participants. The average strength of the thought is indicated in parentheses on a scale from one to ten. All the participants reported the following thoughts:

Hating their bodies (8.4)

At times I really hate my body as well (Clare).

I hate my own body as it is. I am ugly and there are so many things I do not like about myself (Mick).

I used to hate my body because I was so fat. …I know I'm not the prettiest and have always felt that I was ugly (Barbie).

Thinking that they are no good or worthless (8)

I am not good enough and I feel depressed because I am so worthless (Clare).

I think I am probably not worth much. I can't be worth anything if people could treat me the way they did (Mick).

My family does not seem to care much about me, and that makes me feel so worthless (Barbie).

Thoughts about being a failure (7.8)

Then there is, of course, remembering all the horrible things that have happened to me, things people say about and think of me; things like I am a freak, a failure, and no good (Clare).

I am a failure and just not as good as I think I should be, except being good at allowing others to bully me (Mick).

I often think that I am a failure and no good, because of all the mess-ups I make in every area of my life, even though I try so hard not to (Barbie).

Finding it difficult to explain their thoughts (7.8)

I do find it difficult to explain my thoughts and feelings in words, though, especially the flashbacks I get of how I felt during a bad experience (Clare).

It is very difficult explaining what I think and feel to other people (Mick).

I actually find it difficult to explain what I think when I want to cut myself (Barbie).

Wanting the pain to stop (7.6)

I just want the emotional pain to stop, so I do not have thoughts of killing myself (Clare).

One of the strongest thoughts while I am cutting is that I just want to do something to stop the emotional pain I am experiencing (Barbie).

Wanting to feel in control (7.2)

When I cut, at least I have control over my life, not like when other people do horrible things to me and I cannot control it. ...At least I can control how many cuts I make (Clare).

When I injure myself, I feel that I have control over my life. That is in contrast to everything other people had done to me over which I had no control, and which I could not stop… At least when I cut myself, I have control over what happens to me. I control how many cuts I make. I control where and how deep I cut (Mick).

I feel in control when I cut, because I can determine what happens, and I can feel how my emotions change (Barbie).

Worrying about schoolwork (7.1)

…before I cut myself are the worries I have about school work and also our finances (Mick).

...is being worried, mostly about life in general, but also about my difficulty making and keeping friends, how I am going at school (Barbie).

Thoughts of not coping (7)

Before I cut, I get to the point where I feel that I cannot cope……It makes me feel that there is no hope of change, and then I feel so overwhelmed that I think I can just not cope with it any longer (Clare).

Many times I have overwhelmingly strong thoughts of just not being able to cope with everything. I cannot cope being around my family. I cannot cope with the schoolwork… (Mick).

.....when I feel that things are getting too much for me to deal with (Barbie).

Thinking about parents' criticism (6.5)

My mum has such a wrong idea about me and always criticises me about everything (Clare).

On the other hand I often think about the criticism I have to endure from my dad (Mick).

I think about the relationship with my parents and their criticism of me when I cut (Barbie).

They are/ people think they are freaks (7.5)

Another strong thought just before I cut, is that I am a freak. I do not have many friends because other people think I am a freak, so therefore I must be one (Mick).

Then there is, of course … things people say about and think of me; things like I am a freak, a failure, and no good (Clare).

People think I am a freak anyway, and they have always treated me like one (Barbie).

Not wanting to die (7.3)

The thoughts I have just before I cut myself differ in strength, but one of the strongest thoughts is that I do not want to die (Clare).

Although I have had thoughts of killing myself, I do not really want to die; I just want the emotional pain to stop (Mick).

...while I am cutting is that I just want to do something to stop the emotional pain I am experiencing (Barbie)

Thinking about a difficult relationship (7)

Relationships have always been difficult… and it is often thinking about these difficult relationships that contribute to the emotional pain I want to get rid of with the cutting… (Barbie).

Participants additionally identified **other thoughts** experienced while they self-injure.

> *I need to see the blood (9), as it makes me feel calmer when I see it; it brings such relief* (Barbie).

> *Another strong thought (6) I often have before I cut myself is that I have to punish myself because I feel guilty about things, either about what I have been involved in, or what I have done to other people by hurting them* (Clare).

> *When I cut, I want my parents to feel bad (6) because they do not care, even though they say they do* (Clare).

> *I care about people, and I expect that back from people, but rarely get it, so I wish someone would see and care (5)* (Clare).

> *Other strong thoughts (8)…are remembering the emotional abuse I had to endure from my family while I was growing up, but also from other kids, even those I thought were my friends* (Barbie).

> *I often think: "Who cares?" Or sometimes I think: "Why shouldn't I do it?" No one will care, and maybe I would be doing the world a favour, so just do it* (Barbie).

> *Sometimes before I cut when things are really bad, I often think to myself: "Just die, you idiot". I often thought that I deserved to die as I was so worthless* (Mick).

7.5.2. Feelings.

Similar to the thoughts in the previous section, this section discusses the feelings and their average strength, as identified by the participants. The feelings are summarised, followed by explanations regarding the strongest feelings typically experienced while participants had the urge to self-injure or during an episode of cutting. A complete summary is given in Appendix L, while detailed explanations of their feelings are contained in their individual narratives in Chapter 6. The common feelings and the average strength, indicated in parenthesis, are summarised below:

Finding it difficult to explain feelings in words (8.8)

I do find it difficult to explain my thoughts and feelings in words, though. ……it does make me feel agitated because of my inability to express myself… if I cannot identify and explain my feelings, I get angry and depressed (Clare).

I find it really very difficult to express my feelings in words. I don't even know how to identify and name my emotions correctly (Mick).

It is fairly difficult to identify and name what I feel and to explain these emotions in words. I just find it hard to explain them and I feel like other people don't care (Barbie).

Lonely (8.5)

…and so is feeling lonely and isolated. …I often feel intensely lonely (Mick).

I feel so lonely because of how friendships turned out and of having left home (Barbie).

Depressed (8.4)

Often other strong feelings that overwhelm me are feeling depressed and stressed (Mick).

The feelings that are the strongest when I feel like cutting are being lonely and depressed. Feeling depressed comes from basically being kicked out of home (Barbie).

…worried, depressed, and sometimes scared and anxious. Sometimes I just feel so very tired (Clare).

Angry at self (8.1)

The strongest feelings I have when I cut myself are feeling angry at myself (Clare).

There are moments when I am just angry at myself (Mick).

I get angry at myself when I get in trouble for doing stupid things or making mess-ups (Barbie).

Self-hate (7.8)

My strongest feelings when I feel that I have to cut myself, if I have to rate them on the same scale of one to ten, are hating myself and feeling worthless (Mick).

Worthless (7.8)

…feeling worthless and nothing special at all (Clare).

My family does not seem to care much about me, and that makes me feel so worthless (Barbie).

Empty (7.6)

…I often feel empty, as if it has been scooped out of me (Clare).

…and at other times I just feel empty (Mick).

At times, though, it feels as if I am just empty, and I do not feel anything (Barbie).

Sad (7.5)

Then there are the times when I just feel so sad (Mick).

I am also very sad because I was not treated nicely and because of all the family trouble, and generally just about how life turned out (Barbie).

Hopeless (7.4) and **frustrated** (7.1)

Sometimes I feel overwhelmed by hopelessness, and frustration (Mick).

Guilty (7.3)

…but also guilty about how I treat people (Clare).

At other times I feel guilty about all the bad things I have done, but also feeling guilty about the things I know I didn't do (Mick).

Rejected (6.8)

No wonder people reject me. Feeling rejected is also a very strong feeling (Mick).

....*I was not welcome there, and so I was really rejected* (Barbie).

Participants additionally identified **other feelings** experienced while they self-injure.

Feeling **misunderstood**

Another strong feeling is being misunderstood (5.5) throughout my life by my mum and my friends, being judged about being me (Clare).

Many people never understood me (9), like in my past relationships... I often felt misunderstood because I had nobody to even talk to (Barbie).

Feeling **confused**

With that I also feel confused (6) and often ask myself the question "why, why, why; why do people judge me, why do they have to spread rumours about me, why do they have to treat me the way they did and still do?" (Clare).

I feel confused (7.5) about why I am feeling so sad, and also why my family had to be such a mess (Barbie).

Feeling as if **feelings are out of control**.

...*I feel out of control (9.5), as if my emotions are just all out of control* (Mick).

There were so many things that happened when I was growing up and I felt so powerless for not being able to change anything or control what was happening. Everything felt so out of control (9) (Barbie).

Feeling **unreal or numb**

At times [I] *feel numb or unreal, as if I exist but am not really alive. At such times I injure myself just to feel something, to feel "real". I want to know that I am really alive, and not just like a robot or a zombie* (Mick).

...but only to feel real after having felt so numb at times, to feel better and at ease. The numbness is a quiet sort of not feeling anything, and is actually a more positive feeling than feeling the intense emotional pain most of the time (Barbie).

Emptiness or experiencing 'nothingness'

In between the times when I injure myself, there is nothing there. I experience a nothingness in my life, and especially in friendships because I cannot socialise with people my own age (Mick).

It caused me to feel hopeless and desperate because I could not control what was happening in my life, both at home and at school (Barbie).

Worried and stressed

Another feeling I experience, although not as strong or overwhelming, is being worried (6.5), mostly about life in general, but also about my difficulty making and keeping friends, how I am going at school, and of course about my family (Barbie).

...The family fighting, friendship issues, and school also cause me a lot of stress (9) (Barbie).

Wanting support from others

...and also desperate to talk to someone at that time (9) (Clare).

Sometimes I feel like I just have to talk to someone else (8) (Barbie).

7.5.3. Other influences or circumstances.

Participants indicated what else happened at the time they self-injured. In some instances, those factors contributed to the negative thoughts and emotions they experienced, which led to the need to self-injure, while at times those circumstances were merely identified as being present without influencing the self-injury episode. Complete responses are in Appendix L.

Looking at old scars

At times I look at my old scars while I cut and they remind me of how desperate my life is (Mick).

I look at my old scars and it makes me feel ashamed and happy at the same time. I feel ashamed because I cut and haven't sought help earlier, and I feel happy because it shows that I haven't gone all the way and killed myself (Barbie).

I do look at my old scars when I cut, but looking at them does not contribute to the urge to cut (Clare).

Being alone

I have always been alone when I cut; I think it would be weird doing it with someone else (Barbie).

I am alone when I do it, and I have never done it while other people have been with me (Mick).

Family fights

Most of the time, though, it is because there is another fight with Mum. I try to avoid the cutting by running away or just getting away from her (Clare).

Most often, though, there are fights with the family just before I cut or even going on while I am doing it because nothing gets resolved. It leaves me with all the emotional pain and overwhelming thoughts and would probably

account for about 50% of the reason why I get to the point of cutting myself (Mick).

When there was a family fight, it made me angry to the point of crying and just wanting to just climb out of my window and leaving again. I couldn't do it, so I had to cut to feel better and get relief from feeling so angry (Barbie).

Fighting with a friend

At times while I was cutting I would be fighting with a friend because I could not trust the person (Barbie).

Talking to a friend who self-injures

Sometimes when I cut, I talk to a friend who also self-harms (Clare).

There are times when I am talking to a friend who also self-harms while I am cutting, but talking to her never contributes to the self-harm (Barbie).

Doing homework

At times I cut while I am doing homework, but then it is more the frustration of not knowing how to do it that leads to anger, which turns into frustration, and then into depression and then that leads to cutting (Clare).

I sometimes cut when I am doing homework and worrying about it, especially if I have a lot of assignments to do and I feel overwhelmed by the pressure and the fact that I do not know how to do, or even start doing them (Mick).

Being bullied

When I cut, I am often on Facebook. People, who call themselves friends, can say such hurtful things to you; things everybody else can then read. I feel that I am being bullied (Mick).

The bullying contributed to the cutting because sometimes I also experienced it on Facebook or through other ways, and that was sometimes during a cutting episode (Barbie).

Listening to music

I do listen to music while I cut, but it is music about depression, not with lyrics about suicide. I associate the things that have happened with the music that played at the time. I can relate to the song, in a way that is how I cut myself (Clare).

I like listening to self-harm music because it tells a story. I also like listening to Screamo music. In a sense, music calms me down, so I often have music on when I cut (Barbie).

Looking at self-injury pictures on the Internet

When I cut and look at the Internet, it is really to de-sensitise myself so that I can control the shock I get when I see photos my friends send me, so that I do not freak out. I look at blogs, and YouTube to see what happens to other people. I see their stories and then, when my friends want to do that, it is not as big a shock for me because I have seen it all before (Clare).

Being on Facebook

When I cut while being on Facebook it is because I see how awesome other people have it, and then I just get very angry when people have the happiest family life and get spoiled, but then they still complain about their life (Barbie).

Cannot sleep

I can't sleep at times because I keep thinking of my brother and my mum, and then I criticise myself about what I could have done to help them more. There are times that I cannot sleep because the television is on, or I am on Facebook for too long (Mick).

I have bad sleeping patterns and always feel tired. I sleep too much or too little and at times I cannot sleep at all (Barbie).

Smoking/drinking/eating to vomit

There are times that I smoke or drink in an attempt not to cut (Mick).

Sometimes I smoke because that also helps me calm down (Barbie).

There were times when I had eaten too much on purpose and had to vomit at the time I was cutting, but it didn't really contribute to wanting to cut (Barbie).

7.5.4. After the act.

The participants indicated whether they have actually self-injured, and if so, how many cuts they have made, as well as how they felt afterwards. The detailed information is presented in Appendix L. The participants' responses are mentioned in the order of frequency of appearance. The number in parentheses indicates the total number of times that a response was recorded during the study.

Disappointed that they have harmed themselves again (9)

Afterwards I usually regret that I have cut myself again because I know that people will judge and condemn me again (Clare).

Sometimes I feel disappointed that I have cut myself again and that I wasn't able to cope with my life circumstances. ...Afterwards I ask myself why I did it again, although I know the answer: I do feel relief from the pain (Mick).

...and I feel very disappointed that I've harmed myself again (Barbie).

Feeling relieved (8)

I feel relieved (Mick).

I would feel relieved because for the moment I was distracted from my other problems (Barbie)

Feeling less stressed (7)

After I have harmed myself, I feel less stressed, I stop feeling depressed, I feel relieved, and satisfied (Mick).

After a cutting episode I feel less stressed but satisfied in a way (Barbie).

Feeling less stressed (Clare).

Felt physical pain (6)

When I feel the physical pain when I cut, it makes me realise that I am real, and still alive. Having physical pain that I know will go away and get better is way better than having the ongoing emotional pain (Barbie).

I feel I deserve the physical pain I feel when I cut. After a while you get used to the cutting, then you cut a bit deeper so that you feel the burning, and the hurt that happens when you go too deep. It really lets me feel empty afterwards (Clare).

Participants described having **mixed feelings** or **a combination** of feelings afterwards.

Afterwards I usually have mixed feelings. My experience is that I am much calmer, more relaxed and tired after a cutting episode (Barbie).

After I have harmed myself, I feel less stressed, I stop feeling depressed, I feel relieved, and satisfied (Mick).

While the self-harm brings relief of the anxiety and depression, it also stresses me out. When I feel overwhelmed or angry, I take it out on myself and then I cut myself… Just after I have cut myself, I sometimes still don't feel relieved or less stressed, and sometimes it is worse. I sometimes feel empty and physically numb and have no thoughts at all (Clare).

Other feelings were identified by individuals such as:

Feeling **depressed** (4) and **sad** (5)

But then I often feel sad and depressed soon after… (Barbie).

Being **distracted** from other problems (3)

For the time of the cutting at least I get distracted from my problems (Clare).

Being able to **avoid doing a task** (1)

…and sometimes I was able to get out of doing a task I didn't want to do (Barbie).

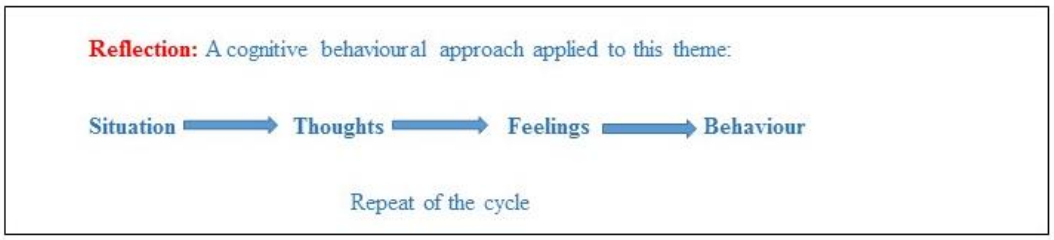
Individual participants also offered additional explanations regarding their self-injury episodes.

Determination not to repeat cutting episodes

Sometimes I can make up to 40 cuts when the thoughts and emotions are very intense and overwhelming. …I know about the possible scarring, and that is what I think of afterwards, with all good intentions not to do it again. Until the next time (Mick).

Possibilities of bleeding

I don't always make the same number of cuts, but I have made up to twenty cuts at a time, even thirty, but then the last ones are usually really only welts because I don't want to bleed… I think of the possibility of clotting badly… or what could happen if the cutting goes the wrong way. I worry about what will happen to my body and then I stop because I start freaking out (Clare).



7.6. Theme 5: Self-Injury Serves a Purpose

An important theme running through participants' lived experiences was that self-injury serves a purpose or function/functions for the individual performing self-injurious acts. These functions are the reasons for the continuation of self-injuring. This theme can be further explained by sub-themes based on a four-function model of self-injury (Nock & Prinstein, 2004) explained in Chapter 2. A summary of the participants' responses is in Appendix M.

7.6.1. Avoid/Escape something internal (automatic).

A common subtheme is that self-injury serves the function of automatic negative reinforcement by escaping negative emotions through emotional release.

...the function of cutting myself is, is mostly to get rid of the negative emotions… (Clare).

...it seems that my self-harming is to get rid of the intense negative emotions because I feel relieved afterwards (Mick).

...those negative emotions and therefore one of the functions the cutting had for me was to escape from those emotions through the emotional release I experienced after an episode of cutting because of the release of endorphins (Barbie).

Automatic negative reinforcement also occurs through escaping memories of painful and negative past events.

...the memories of all the horrible things that have happened… (Clare).

Because for a moment while I cut myself I forget about everything else, it seems that I also cut to get rid of the negative memories. … (Mick).

…an attempt to escape those memories of painful and negative past events (Barbie).

In the third place, automatic negative reinforcement occurs in the sense that self-injury serves the function of avoiding suicide.

…but in a sense it is also a way of not committing suicide (Mick).

Another function of my cutting was actually to avoid suicide, strange as it may sound (Barbie).

7.6.2. Avoid/Escape a social situation.

Self-injury could also serve the purpose of avoiding or escaping unwanted social attention and interaction, in that the visible signs of self-injury serve the purpose of a protective boundary around the person in anticipation of the other person's aversive reaction to those signs.

I think, because seeing the scars send some people into a frenzy and they just want to get away from you, it helps to get rid of some people and put a barrier between you and those people (Mick).

…people get offended by scars and signs of cutting… …especially those I don't want to have anything to do with or interact with…because once they see the fresh scars, they don't want to get involved with me, and that suits me (Barbie).

7.6.3. Gain/Access something internal (automatic).

Self-injury could serve the purpose of gaining control over one's own body and life, due to the experiences of having been controlled or impacted upon by other people.

...it is also to feel more in control of my body, to take the control back from other people who have controlled my body in the past (Clare).

…everything other people had done to me over which I had no control, and which I could not stop. Even the present circumstances of my life control me. I do not have any control over what happens to me or in my life. I do not have any say in the circumstances or any choice in any of these things (Mick).

I felt so powerless for not being able to change anything or control what was happening. Everything felt so out of control. …I could not control what was happening in my life… I feel in control when I cut, because I can determine what happens, and I can feel how my emotions change (Barbie).

Automatic positive reinforcement could also occur when the function is that of gaining control over the high-negative feelings.

….also to get control over my emotions (Clare).

For me, one of the functions of the cutting, so I have discovered, was also to get control over the negative emotions (Barbie).

It is not that simple though, so it is a bit confusing for others to understand, isn't it? I mean, I want to get away from stuff, but I also get something out of the cutting that seems good, like getting control over my feelings (Mick).

Experiencing the feel-good sensation after self-injury that has addictive or habit-forming qualities is also an automatic positive reinforcement.

> *I can understand how that relieved feeling can become addictive; it is so much better than the negative emotions I have most of the time* (Mick).

> *…also to have the feel-good sensation afterwards. I now know that the feeling good afterwards was a strong habit, almost like an addiction, and that it contributed to the cutting happening again and again* (Barbie).

Lastly, due to feeling guilty or being blamed for something, self-injury as self-punishment could lead to experiencing (gaining) satisfaction and therefore serves a positive reinforcement function.

> *I know it sounds weird, and I don't know if people can understand it, but for me some of the feeling good is that I have punished myself for everything I am guilty of or even blamed for* (Clare).

7.6.4. Gain/Access social rewards.

Self-injury serves different functions to individuals to gain social rewards, although it appears to be a less common theme.

> *It is difficult to be so exposed and to admit that I get attention when I cut and that somehow it has to make up for not having received enough positive attention when I really needed it. ….By cutting I did become part of a group of others whom I think are people I want to be part of. At least I belong somewhere, since it is with others who will understand and accept me into their group. It is a sort of an 'in' group, isn't it?* (Clare).

> *...but also to show others that I can handle the pain. I can't get people to admire me in any other way. …I know this sounds really weird, no wonder people think I am a freak, but if I want to be honest I have to admit that I do the cutting in a hope that my family will notice and love me as a result* (Mick).

Reflection: A Functional behavioural approach identified four functions of self-injury (7.6):

Avoid /Escape something internal (automatic).
Avoid/Escape a social situation.
Gain/Access something internal (automatic).
Gain/Access social rewards.

7.7. Theme 6: Participating in the Study

This theme explores the 'lived experience' of participants during the study. The participants identified difficulties and frustrations experienced, which was an unexpected and unforeseen theme to be identified. They also described the positive experiences and outcomes related to having been part of the study, which confirmed some findings explained in the literature review.

The participants explained that the reason for becoming part of the study was because they were approached by their school guidance officer, as they met the criteria for inclusion in the study. How they viewed themselves at the beginning of the study was different for each of the participants.

> *I was motivated to become involved, as it would help the researcher with getting the research done* (Mick).

> *At the start of the study I really felt that I was probably not a very good candidate and that I wouldn't be of much help, as I compared myself to my other friends who also self-harm. Compared to how strong their emotions and thoughts seemed to be, to me anyway, I thought that I was doing pretty okay* (Clare).

> *By the time I agreed to participate in this study, I was already getting better because I had moved out by then. My motivation to participate anyway, despite getting better, was to learn more about myself and why I self-harmed* (Barbie).

The three participants who completed the study, all explained that they had encountered some frustrations during their involvement. Some of the reasons were common among the participants.

I experienced a lot of frustration because I was expected to go online... The computer is too slow, and when I had to log on feeling the way I did when I felt like cutting, it enraged me even more. I just cannot handle the agitation. I think that if I had paper copies of the daily quiz it would work better than having to do it online because I would have been able to just tick all the things that applied at the time. It would also have been more private (Clare).

Doing the quiz … was a bit difficult at times. The internet connection is so slow and that really just made me more frustrated. I think that a paper copy that I could tick and flick would have been more useful to get more information about how it is for me when I cut (Mick).

One participant experienced a range of frustrations and practical problems related to Internet access.

At times it was difficult to do what was required. At first I did not have Internet at home, and the web site was blocked at school, so it was not always possible to log on. I could not access it on my phone either... Sometimes the e-mails did not open, and so I could not always reply straight away. Because I have had so many absences due to how I felt and the cutting, I also had a lot of catching-up to do with my schoolwork, therefore it was not always easy to participate (Barbie).

Additional frustrations and emotions experienced during the study.

In the study, if I had to think about the feelings again, I didn't want to, because I was scared about the flood of emotions I would experience if my protective walls would give in. I felt vulnerable and scared that I wouldn't be able to control it (Clare).

When we first met in person, it was really stressful because Mum was also there … It made me so angry. After all, it is my story and what I think and feel, and not her opinion or what she thinks…. The other meetings went okay, and I felt that I could explain what was happening for me. I could explain my answers in all the quizzes and questionnaires and clarify it when there were some things that I haven't explained enough at first (Clare).

The participants reflected on having been given the opportunity to have input and co-written their stories.

> *I feel quite naked and that I am such a weird kid, now that I have listened to my whole story. But I liked having been part of writing my story as I felt like I was in charge of what people would read and things they might think, instead of what someone else would say based on their opinion* (Clare).

> *It was good that I could have input into how my story was written, as I could change things if I wanted to, or try to explain things better, especially when I was able to read my whole story in one go, and also to see how everything fit together* (Barbie).

The participants also reflected on how they felt after having completed their involvement in the study.

> *I enjoyed being part of the study, and I feel good that I could help with it. Thank you* (Mick).

> *I do have some hope of things getting better, and maybe of setting some goals for the future* (Barbie).

> *Overall I feel like we had a great time and I enjoyed being part of the study. I was being listened to and understood, and I got advice, and some level of connection happened. …I feel a lot better knowing a lot of things, and I understand anxiety and depression better. … I still feel a bit helpless…but that does not really have anything to do with the information from this study. It is just that I cannot change anything about living with my mum, for now* (Clare).

7.8. Intervention-Related Experiences

The online intervention not only contained information that the participants had to work through, but it also provided the setting for data generation in the form of checklists and quizzes. The participants related their lived experience of each aspect of the intervention as well as technical features of the website design. Some of these themes were unexpected and unforeseen, but are considered to be valuable information for future applications of the intervention.

7.8.1. Website design feature.

The participants explained their opinion of the option to choose between reading and listening to the animations presenting the information.

> *When I logged on to participate in the study, I read along and listened to the spoken bits. Sometimes I just listened when there was too much to read. The animations did not really work for me. If it were a real person talking I would have been able to take in a lot more.* (Clare).

> *I felt that the website was a bit like schoolwork, as I had to work through the topics and answer the questions, but it wasn't a bad experience. …I chose to read all the information because I am a good reader. I did not listen to the animations as they did not really appeal to me. I might have listened to them, had they been different types of animations, maybe other type of characters* (Mick).

> *When I was finally able to log onto the web site, I mainly read everything. I didn't really like listening to the animations speaking, as it sounds a lot like Dictionary.com. I guess it is a smart idea for those people who don't like reading. I had a problem with the clarity of the meaning of some questions, I think. There were also some instructions that I did not quite understand* (Barbie).

7.8.2. Daily quiz feature.

The participants reflected on their experiences when they felt the urge to self-injure while completing the daily quiz.

> *Having had to do the quiz did not increase the risk of self-harming. If anything, it helped me to focus on what is going on for me at that time; what I think, how I feel, and to consider what else is happening at the time. I think that in a sense it distracted me from making more cuts* (Mick).

> *Working through the daily quiz made me more aware of what I was actually thinking and feeling at the exact time when I was cutting, and it helped to make sense of thoughts and feelings that were otherwise all jumbled and overwhelming. I think that doing the quiz helped to clarify and separate the*

thoughts and feelings so that I was better able to sense what was really happening for me at the time (Barbie).

7.8.3. Topic 1 feature.

Participants described their experiences while completing this topic.

The information in the first topic about behaviour, the brain and being mindful was easy to understand. I found the mindfulness exercises easy and helpful, and it is something I would probably do again in the future… (Mick).

I understood all the information of the first topic about behaviour, how the brain works, and about mindfulness. Maybe I have done the mindfulness exercises the wrong way, because when I acknowledged my emotions in that situation and what was happening, it actually made me feel so much worse, as if it was a shower of emotion, thoughts and memories. When I concentrated on the breathing, I got a headache and I had to stop (Clare).

I read and understood all the information about the brain and the hormones and chemicals, and it all made a lot of sense. I understand what is happening in my brain and why I cut (Barbie).

7.8.4. Topic 2 feature.

The participants reflected on their experiences, working through the information of the second topic and completing the required checklists. At the end of the topic, all participants acknowledged that they understood how incidents in their past may have influenced them to start harming themselves, as well as what happens in their brains when they are stressed, anxious and depressed, and the relation of the chemicals to self-injury. Some participants identified feeling helpless to change anything, but decided to persevere in the hope that they might receive help. Detailed explanations of their experiences are recounted in their individual narratives in Chapter 6.

I have experienced very strong feelings while I was reading the information in the second topic.... It brought everything back to the forefront in my thoughts. But, I always remember those things very clearly…, so I don't think that reading the information contributed to the urge to cut. …So, when I read the

information, I remembered all that had happened to me and I realised that I still had very strong feelings against them. At that point in time, after having worked through the second topic, I felt quite helpless to change anything about my situation (Clare).

…I experienced very strong negative feelings when I identified and recorded the events that took place in my past. …against the people who have done these things to me. All the old memories came back fairly intensely …it did not contribute to the urge to cut myself. ...At the end of that topic I felt helpless to change anything about my situation. But I hoped that going through the rest of the information would help me in the end (Mick).

I experienced very intense and strong negative feelings. Thinking about and remembering all of the years of …how bad my life really was. The question kept coming into my thoughts; "Why did it have to happen to me?" I tend to hold a grudge and it is not easy to let go, so in a way those horrible times were highlighted in my mind, and the feelings I experienced then became stronger and more intense, I think (Barbie).

They explained what they had experienced while completing the checklists.

I felt really depressed doing the first questionnaire. I was thinking "Am I that depressed that I have to do this kind of stuff? Am I really such a fucked-up kid?" I was also thinking "Do I really have all of this in my head without even knowing?" I felt as if I acknowledged and admitted depression, as if the walls I so carefully built to protect me from the negative feelings were coming down. I do not know. I felt exposed and naked when all my old memories surfaced while I was participating in the study (Clare).

Having re-lived all of the abuse while reading through this topic's information …has also helped me to get a clear understanding about how it happened that I started harming myself, so that was a really good outcome. I now also understand how everything had worked together towards the cutting so that I could get rid of the emotional pain. I understand how thoughts and feelings cause behaviour such as cutting to happen (Barbie).

7.8.5. Topic 3 feature.

The information in this topic was intended to help them feel less guilty and to not blame themselves, as they could see how occurrences in their past had influenced them to develop the way they did and to become who they did.

> *I understand how the things in my past…had an impact on how my brain developed and influenced my reactions, and who I have become, as well as some of the specific problems I experience …and it did make me more depressed, but I can look at my life a lot differently and from a different perspective now* (Clare).

> *The information in the third topic …makes me feel less guilty and disappointed in myself. I understand that all behaviour serves a purpose or function…. …It makes quite a lot of sense now that I understand what happens in my brain when I cut. It is really interesting and I like the idea that when I feel that I am going to cut, I can stop and think about what is happening in my brain. (Laugh). …It kinda makes me stop for long enough and think of my brain instead so that I don't feel like cutting then. Maybe that is why I have hardly done any cutting since I started with this! Wow, I think I am more in control of things now! I also feel better talking about what has happened in my life now. I am more able to talk about things* (Mick).

> *…I understand that things can change and that I do actually have some control over what happens to me… …I was able to understand that self-harm is a behaviour* [and] *has a function or purpose for me. When I self-harmed there were certain things that followed, like consequences that made me want to harm myself again and again. …Much of these consequences have to do with what happens in my brain and the chemicals that cause me to self-harm again and again* (Barbie).

7.8.6. Topic 4 feature.

This topic provided alternatives to cutting. Detailed explanations of their responses are given in their individual narratives in Chapter 6. At the end of this topic, the participants indicated that they had more hope for the future.

I found the information in Topic 4 interesting, and I did have a quick look at some of the websites mentioned. …There are some strategies that I think I might try if I need to, but there are others I will not even consider (Clare).

I found the suggestions of what I can do instead of cutting kinda interesting. …Some of those ideas I might try, I think, but then there are some of those things I might or might not try… (Mick).

It is good to know that there are some things that can be done to get more control over my situation… Some of the strategies in Topic 4, I think, will fit in with the different sections of the behaviour cycle and also with the functions the cutting had for me (Barbie).

7.8.7. Interviews feature.

Due to the practical problems all of them experienced, there were times when they did not engage with the study. When questioned they all responded that they would prefer to meet in person and be interviewed instead of taking part in the planned synchronous online meetings in EdStudio.

Because of my problems with the Internet connection and having had to be online, particularly getting into EdStudio, which I can only log onto at school while I have to give attention to schoolwork, and which I could not get into anyway, I could not practically make it to the online meetings that were supposed to have happened. …but I preferred to meet in person to talk about my life story and why I self-harmed. After we had met in person, it was easier to answer and clarify more questions, read through the various versions of my story, and to change or explain more if needed (Barbie).

…. I avoided the whole meeting online thing, so I was a bit quiet at times, because I just didn't want to do it. I did not feel comfortable talking to someone online and I felt that it would be quicker to discuss these things in person. When meeting in person was suggested as an option, I started to participate again. I do not mind sharing my story, but I wanted to talk and not have to type or spell because it takes so long and I have always struggled with that. I wanted to talk to someone in person so that I could show my emotions, because when you write, people do not get what the real emotions are that you

experience. It is so easy to take things out of context if you cannot talk and show emotions (Clare).

I didn't really feel comfortable with the meeting online thing. I preferred to meet in person because I think emotions can be sensed as well as explained in words, but online the other person only gets the words and so they cannot really get a good understanding of what you really mean. I also felt that the whole online thing would have been too frustrating, with slow Internet, having to wait for the other person to respond, and that would probably have increased the urge to cut. I did reply in emails to clarify some information and to answer more questions, later on after the times we met in person, and that was okay, because all the most important information was already out there (Mick).

7.8.8. Behaviour cycle feature.

During follow-up interviews with the participants they were presented with their individual, completed behaviour cycles, and they were given the opportunity to interpret the information and give their opinion about the usefulness of the graphic organiser. The completed organisers for each participant are included in Appendix N. Regarding their opinions, they noted:

I think putting all the information into the behaviour cycle helps paint the picture pretty accurately and explains how things have happened for me. People can see in a visual way how the self-harming worked for me (Barbie).

It makes sense when I look at the behaviour cycle, as it is a picture or a snapshot of how things have developed in my life until now. Yes, it makes a lot of sense. …The format of the behaviour cycle made everything easier to understand. It was very simple and clear and a good summary (Clare).

A subtheme related to the effect of the intervention on their lived experience.

The intervention provided an understanding of how events in the past had led to them engaging in self-injury, why they continued to self-injure, as it served a purpose for them, what happens neuro-biologically during self-injury, and how understanding resulted in being able to reduce or eliminate self-injury. This

subtheme contributes to answering the sub-research question: In what ways did engagement with the intervention strategy affect the 'in the moment' and subsequent lived experiences of self-harm?

> *But I also know that there are other things I can do to avoid getting to the place where I would feel so hopeless that I would want to end it all* (Barbie).

> *I understand now … how the things that have happened to me in my past have contributed to what I have become, and …to me starting to self-harm. …I now understand what happens in my head, how what I think and feel influences what happens in my brain, and that some of the chemicals in my brain can influence me to self-harm, and how other chemicals help me to feel good afterwards… I feel a lot better knowing a lot of things, and I understand anxiety and depression better. …If I feel like that again, I will know what is going on in my brain. I understand it all and therefore I can control it better* (Clare).

> *It makes quite a lot of sense now that I understand what happens in my brain when I cut. It is really interesting and I like the idea that when I feel that I am going to cut, I can stop and think about what is happening in my brain. (Laugh)… It kinda makes me stop for long enough and think of my brain instead so that I don't feel like cutting then. Maybe that is why I have hardly done any cutting since I started with this! Wow, I think I am more in control of things now! I also feel better talking about what has happened in my life now. I am more able to talk about things. The stress and negative emotions will be a lot less. I think the future will be much better. I think I won't cut again, I can choose to do things to change my reaction to pain* (Mick).

7.9. Summary

This chapter contains the units of meaning or essential themes related to self-injury identified by applying the third research activity (van Manen, 1990) to the narratives of the participants. Each of the themes was illustrated by means of direct quotations from the participants' accounts of their lived experiences of self-injury.

The overall theme was determined to be that self-injury is rooted in complex traumatic events or circumstances. The second main theme was that the onset of self-injury is more likely in the presence of vulnerabilities as a result of the cumulative effect of the traumatic events. The third main theme identified was that during an episode of self-injury, those who self-injure may be influenced by certain immediate factors that also contribute to experiencing strong thoughts and feelings that underlie such an episode. A fourth main theme identified was that self-injury serves as a function or combination of functions for the person who engages in it, making ongoing engagement in self-injury more likely. A further main theme regarding participants' experience of being part of the study indicated the helpfulness of the intervention.

Where Chapter 6 offered the unique lived experiences as explained in the participants' narratives, this chapter presented the fusion of pre-understanding and subsequent deeper understanding, where themes, or units of meaning, were identified in each case. As a result, these two chapters provided a deeper understanding of self-injury. The reader is invited to become immersed in the discussions of how the study's findings relate to research literature, its contribution to knowledge, limitations of the study, and implications for future research in Chapter 8.

CHAPTER 8: DISCUSSION

8.1. Introduction

In the first chapter of this thesis I invited the reader to embark on a journey with me to discover the lived experience of adolescents who self-injure. I compared the research process to an artwork which, at the start of the journey, resembled a mere line drawing, based on limited knowledge and an incomplete understanding of self-injury. I presented the existing knowledge in order for the reader to grasp the complexities of this phenomenon and what it is that self-injuring adolescents may experience. Through the review of the literature it was established that this study had the potential to contribute to what is already known about self-injury, but from an 'in-the-moment' lived experience perspective, thus justifying the selection of Hermeneutic Phenomenology as the methodology.

The methods and procedures used in the study were presented. I presented my rationale for choosing to combine the seemingly contradictory approaches of functional behaviour assessment and phenomenology, with neurobiology added to the mix. 'In-the-moment' narratives expressed the experiences of the adolescents who had participated in the study. The accounts of these lived experiences were further explored to find themes, both relatively common to all the adolescents in the study, but also some individual themes that contributed to the uniqueness of the experiences.

In this last chapter I wish to reflect on the significance of this study, what contribution it has made to the existing knowledge base about self-injury as lived experience, as well as consider the limitations of the study and implications for possible future research. Answers to the research questions are not presented together but appear in various sections of the discussion that follows. The main research question, as well as the first and second sub-research questions, will be answered in the discussion concerning the significance of this study, while the third sub-research question will be answered in the discussion regarding the implications of the study's findings.

8.2. Significance of the Study

The significance of this study is considered to be multiple.

8.2.1. Outcome 1: Contribution to knowledge.

This study's significance lies firstly in that it presents an in-depth understanding of the phenomenon of self-injury from the adolescent's point of view, namely as 'lived experience' in the phenomenological tradition. Despite self-injury being a well-researched topic from a wide range of theoretical perspectives and viewpoints or hypotheses, and with a growing number of studies using ecological momentary assessment methods, there is still a limited understanding of self-injury as a lived experience at the exact time of self-injury taking place.

Measuring the strength of thoughts and feelings at the time of self-injury, combined with other circumstances at play at that time, is uncommon. There was also no other study found that was based on the ecological momentary assessment approach combined with the added explanation of the lived experiences in narrative format, as provided by the participants. Answering the main research question as well as the first and second sub-research questions explains the resultant in-depth understanding of lived experience that emerged from this research.

Answering the research questions

The main research question for this study was: What are the lived experiences of adolescents who self-injure both before and after engaging with an intervention strategy based on neuro-science and functional behavioural perspectives? Three adolescents completed this study. They shared their life histories and explained how it came about that self-injury became their choice of coping mechanism to manage the effects of early and ongoing adverse life circumstances. Their stories, together with the information they contributed by engaging with the intervention, became the narratives of their lived experiences. In the previous chapter, common themes related to those lived experiences were uncovered, providing the answer to the main research question.

8.2.1.1. Lived experiences before the intervention.

The overall theme determined that self-injury for these adolescents was rooted in complex traumatic events or circumstances. A cumulative effect of the traumatic events, as seen in a range of difficulties experienced by the adolescents, explained the second main theme. These difficulties made the onset of self-injury more likely. Before the intervention they reported regular acts of self-injury, without which they could not control the high level of negative affect they experienced.

8.2.1.2. Lived experiences after the intervention.

All the adolescents reported that being provided with the information contained in the intervention led to their understanding of how events in the past had led them to self-injury, why they continued to self-injure as it served a purpose for them, and what happened neuro-biologically during self-injury. They all reported how understanding resulted in being able to reduce or eliminate self-injury, and in some instances because they had become more aware of what was happening and why they felt the urge to self-injure, understanding led to empowerment to choose something to do other than to self-injure.

Answering the first sub-research question:

How do adolescents describe their 'in the moment' experiences of self-injury and the reasons underpinning their actions?

The narratives tell the full story of their 'in-the-moment' experiences of self-injury. Some common themes were identified among the three adolescents' lived experiences, for example during an episode of self-injury they may be influenced by certain immediate factors contributing to experiencing a variety of thoughts. Those negative thoughts that differ in strength from incident to incident lead to a number of negative feelings. The combination and strength of those emotions at the time could lead to experiencing the urge to self-injure. Up to 40 cuts may be made during one incident. The adolescents reported feeling relieved afterwards, but also very disappointed that they had injured themselves again. Another main theme identified was that self-injury serves a purpose or has a function, or combination of functions,

for the person who engages in it, such that the function maintains ongoing engagement with self-injury.

Answering the second sub-research question:

In what ways did engagement with the intervention strategy affect the 'in the moment' and subsequent lived experiences of self-injury?

One of the main themes regarding the participants' experience of being part of the study indicated the helpfulness of the intervention. Participants reported fewer incidents of self-injury occurred during the intervention. Despite having been confronted with memories of their traumatic past, and having experienced strong emotions, the adolescents said that the intervention did not contribute to the urge to self-injure. They reported being more aware of what was happening in their brains, and that they were able to stop and consider alternative actions instead of self-injury.

8.2.2. Outcome 2: A combined study functional behavioural assessment and hermeneutic phenomenology.

This study also contributed to knowledge by successfully relating two seemingly opposing approaches such as functional behavioural assessment and hermeneutic phenomenology into the one study.

8.2.3. Outcome 3: A brief online intervention.

The significance of this study also lies in the successful, initial evaluation of a brief online intervention for self-injury that included functional-behavioural as well as neuroscientific information. Treatment or intervention approaches differ as widely as every other aspect related to self-injury, and while most approaches hold some promise at being possibly successful in reducing self-injury, most of them were considered to require lengthy time commitments and associated costs, which make them less attractive and less practical, particularly for teenagers who self-injure or those that try to support them.

None of the numerous online therapeutic options were found to be brief enough to be implemented by busy school guidance officers and other therapists who serve

rural or hard-to-reach populations. Despite various available online interventions, there are, to my knowledge, none available that require less than six to eight weeks involvement, and that explain the antecedents and functions of self-harming behaviour, combined with neuroscientific insights.

8.2.4. Outcome 4: Combining data-gathering with intervention.

Research studies consisting of data-gathering as well as an intervention usually perform the two processes in separate phases. This study has successfully integrated the data-gathering and intervention phases, and thereby potentially shortened the time it takes to do research, as well as making it more practical for clinicians interested in both processes. While the adolescent is accessing the online intervention, responses to electronically-provided prompts provide insights into the lived experience at the exact moment of self-injury.

8.2.5. Outcome 5: Data collection method.

The significance of this study for research practices lies in the ability to collect information in the designed format regarding the adolescents' thought processes, their emotions, the strength thereof, as well as behavioural choice-making decisions at the exact time when they experience the urge to self-injure. While this is not a completely new approach to collecting ecological momentary assessment information, the format used in this study was simple and easy to use, providing there was access to a reliable Internet connection. The use of an instrument (Daily Quiz) developed for the purpose of generating the information at the time of self-injury was deemed necessary to eliminate the limitations associated with retrospective accounts. Furthermore, the fact that the responses were entered electronically allowed for information to be available to the researcher or clinician immediately. This could potentially shorten the time span of a research project's data-collection and data-analysis phases.

8.2.6. Outcome 6: Usability of the graphic organiser.

To date, the graphic organiser (Behaviour Cycle Tool), which is based on a functional behavioural approach, has not, to my knowledge, been used as a research

and teaching instrument for adolescents who self-injure. No evidence was found that this graphic organiser has ever been used as an instrument in a research study regarding self-injury from a hermeneutic phenomenological perspective. The graphic representation of the relationships between variables contributing to, and resulting from, self-injury that are mutually informed by neurobiological and functional behavioural perspectives, was successfully used to promote understanding of self-injury by the researcher as well as by the participants.

8.2.7. Outcome 7: Reduced incidence of self-injury.

The implementation of the online intervention resulted in an enhanced phenomenological understanding of self-injury as the adolescents' own lived experience. Participants reported having gained a perspective about events that had occurred over which there was perceived to be no or little control, the influence of other factors that could be controlled, as well as what alternative behavioural choices were available to replace self-injury but that would still obtain the consequences that self-injury used to provide, such as a reduction of negative affect. It was also found that an understanding of the previously unknown neurobiological and functional-behavioural information provided to participants had contributed to the decrease in self-injury, as it was replaced by what could be considered as socially more acceptable behaviours.

8.2.8. Outcome 8: Meaningful face-to-face sessions.

Although not planned, an unexpected outcome was the meaningful and powerful face-to-face sessions with the adolescents during which they had the opportunity to clarify the information in their narratives and change anything they felt that could further enhance the final account of their lived experience. They reported that having been granted the opportunity to be co-authors, and give their final approval as to the correctness and thereby validating the narratives as true, was an empowering experience that they appreciated and valued.

8.3. Limitations of the Study

A number of limitations were identified. One limitation is considered to be the fact that all the participants were from a fairly homogenous section of the adolescent population.

An unplanned limitation occurred when the planned synchronous online sessions did not eventuate. Despite adolescents being avid users of the Internet and all forms of electronic applications, the participants were resistant to meeting in this manner. An alternative arrangement, such as meeting in person, which was feasible in this small study, ensured that this limitation did not have a negative effect on the validity or outcome of the study.

Arising from the previous limitation is that the usability of the graphic organiser in an online setting could not be assessed. The instrument was applied in a face-to-face meeting instead, and its usability in relation to the research questions was confirmed, therefore this limitation also did not have a negative effect on the validity or outcome of the study.

It had been anticipated that the participants would be able to complete more sessions online to record their experiences during an episode of self-injury by means of the Daily Quiz. Due to the unavailability or sometimes slow Internet connections, only a limited number of sessions were completed by each participant. Sufficient information was, however, provided to produce accurate accounts of the lived experiences.

Overall, the identified limitations did not reduce the validity of the study and did not impact on the research questions being answered or the research problem being solved, due to successful alternative strategies. The limitations also did not negatively impact on the construction of valid narratives and the identification of the main essence of the lived experience of self-injury. Participants ultimately agreed on the accuracy of the final representations of their lived experiences.

8.4. Implications of the Study's Findings

The implications of the study's findings answer the third sub-research question:

What implications arise from these findings - for the adolescents themselves, for support professionals, and for future research directions?

8.4.1. Implications for adolescents.

The implications for the adolescents were identified in their narratives, where they reflected on the impact the study had had on their future engagement with self-injury. They reported how having been provided with the information offered in the four topics has led to understanding the reasons why they started to self-injure, why they continued to do it, and what happens in their brains before, during, and after self-injury. Understanding led to empowerment to take control over their lives and having other options to choose from. All the adolescents reported having more hope for the future and that, despite their situations not having changed yet, they do not see the need to continue to self-injure.

8.4.2. Implications for support professionals.

This study was designed from the point of view of someone in a helping profession, therefore it has a number of implications for clinicians and researchers.

- A similar website could be developed to contain all the data collection instruments, as well as intervention topics.
- The information gained from the instruments could be used to develop semi-structured and open-ended questions for interviews and follow-up therapy sessions.
- The graphic organiser has already been used in face-to-face counselling, with excellent outcomes. In this study it was also used in the same way and has the potential to be used with any other maladaptive behaviour, and with similar outcomes. As the various parts of the instrument are used to visually represent how a behaviour is maintained over time, adolescents find it easy

to understand, and it provides the opportunity for them to be part of the problem-solving process and to reflect on cause and effect in their lives.

- In the context of the educational intervention, this instrument could be used by guidance officers, counsellors, and psychologists who might be interested in implementing it in their practice when working with students who self-injure.

- In addition to this possibility, the implementation of an interactive online intervention where this graphic organiser is used by a guidance officer in a school setting could alleviate some of the constraints experienced. While the adolescent is accessing the online counselling, responses to electronically-provided prompts deliver insights into the lived experience of self-harm at the moment when the urge to self-injure is experienced.

8.4.3. Implications for future research.

This study provides several avenues for further research, a fact that became apparent while the study was underway and more questions arose that could not be answered.

- **Potential for a Quantitative or Mixed Method Study:** Similar to the implications for supporting professions, a similar website with the same functionality could be used in future research. In studies with a large number of participants, data analysis software could be used as an additional functionality in order to provide quantitative data regarding the specific thoughts and feelings and other conditions at the time of a self-injury incident, as well as the strength of each of the thoughts and feelings per participant, overall and over time, as well as compared to other participants.

- **Potential for deeper understandings to be gained:** Provided that Internet connection is readily available, which would reduce the frustration encountered when accessing the online quiz to be completed at the time an urge to self-injure is experienced, adherence to the protocols would ensure

that more information regarding the lived experience could potentially add to our understanding of the phenomenon.

- **Application for mobile phones:** As adolescents are known to have their phones with them most, if not all, of the time, developing an application based on the website for mobile phones could eliminate some of the frustrations around being able to log on and complete the Daily Quiz. This could potentially ensure that more information regarding 'in-the-moment' thoughts and feelings being recorded and therefore it could add to our understanding of self-injury. In addition, they would have ready reminders to choose alternatives to self-injury.

- **Younger age groups could benefit:** Due to the restrictions regarding ethical clearance, students younger than 14 were not allowed to take part in this study. Statistics indicate that the typical onset of self-injury occurs when the adolescent is between 11 and 15 years of age. Given the success of this study in reducing the occurrence of self-injury among older adolescents, it would be beneficial to replicate this study with a group of younger students. The possible value of the study as an early intervention strategy could contribute to the existing knowledge base.

- **Potential to explore lived experiences of diverse cohorts:** Replicating this study with a more diverse group of students would add a wealth of knowledge to understanding the lived experience of youth from mixed ethnic backgrounds, immigrants, people with a sexual orientation other than being heterosexual, as well as minority groups.

- **Greater use of the graphic organiser:** The graphic organiser used in this study provided a tool for researching and intervention that could be useful in future studies and applied to other behaviours. In future studies it could be used during synchronous sessions with participants. The potential value of this template is that, although it is guided by the therapist via electronic means, it could still lead to self-reflection by the student in terms of antecedents over which there could be some control, as well as making choices regarding replacement behaviours. This template could potentially

also be used in other behaviour-change applications where a cognitive behavioural approach would typically be applied.

- **Potential of using instruments for further research:** During the intervention, instruments that were specifically developed for this study made it possible to gather information (data) electronically. The instruments could potentially be used in future research.

- **Potential of edStudio to make a difference in State School contexts:** Teachers report using online platforms such as edStudio for synchronous sessions as well as asynchronous chats with their students all the time. Adolescents are major users of online blogs, chatrooms, social media and other applications. Yet, the adolescents in this study did not feel comfortable meeting online and preferred to meet face-to-face. Exploring what factors contribute to the unwillingness of self-injurers to connect online could potentially contribute a wealth of knowledge regarding their lived experience of an intervention based on this form of technology. One possible option worth exploring is whether having learning difficulties impact on the self-injurers' ability to navigate their way in online discussions. It is also considered to be worthwhile determining what factors impact on their willingness to participate, for instance depression, or not being familiar with the technology used at school due to chronic absenteeism.

- **Exploring mindfulness in more detail:** Mindfulness is considered to be successful in treating self-injury. In this study, one participant indicated an adverse experience when attempting the proposed exercises. Determining the exact reasons for this reaction fell outside the parameters of this study; however, valuable knowledge could potentially add to understanding what factors contribute to the positive or negative effects that participants experience during mindfulness as part of an intervention.

- **Exploring thoughts preceding self-injury in more detail:** Many studies claim to have explored self-injurious thoughts; however, the focus appears to be on having thought of engaging in self-injury. As it is a known fact from cognitive behaviour therapy that thoughts lead to emotions, which then lead

to behaviour, the specific thoughts experienced at the time of self-injury could potentially add to understanding self-injury as a lived experience.

8.5. Final Deliberations

To return to my original analogy of an artwork, I consider this study and its outcomes to have added layers of texture and colour to my initial sketch of the incomplete understanding of self-injury as it is lived. It is a work in progress, though, as I believe that there are still a variety of textures and more layers of colour out there to be discovered and added to my artwork. Even though I have endeavoured to present to the full, with as much rich detail as possible what was discovered and learned, the restraints of a thesis do not allow for truly deep rich descriptions of lived experience. I trust that the reader has come to a deeper understanding of the 'in-the-moment' lived experiences of these adolescents who shared their life stories and experiences of self-injury with us. At the end of this thesis, as a product of my research journey, all that is left to present, is my lived experience reflections as the creator of this piece.

REFLECTION: THE RESEARCHER'S LIVED EXPERIENCE

At the beginning of the thesis I presented a picture of myself as person, my personal history and characteristics. I explained the origins of my ontological and epistemological standpoints in order to validate the statement "The researcher you are is the person you are" (Gale, 1998, p. 2). I made the declaration that having gone through the research process, had had a profound impact on me as person. It was an experience that lasted a number of years and that took longer than at first anticipated. Here, at the end of my thesis, the product of my research, I reflect on my lived experience as a researcher.

At first, phenomenology was not my research approach of choice. My background in behaviour tried to pull me away from this 'new' direction introduced to me. There were days right at the beginning of the research when I had my doubts. Why not just take a straightforward functional behavioural approach and get it over and done with? Yet, I realised, the more I explored what hermeneutic phenomenology involved, that it was the way in which I was going to find the answers to my questions. It was this pull from two almost opposing approaches that sometimes caused me frustration, until one day when a light-bulb was switched on and I could, at least in my own mind, formulate why it could work to combine the two approaches. Explaining this clarity to other people was a different story, though. They would look at me as if I had lost my marbles. How was I going to get others to understand that self-injury as behaviour is functional, but because behaviour is part of life, executed by living human beings, it can be understood as a lived experience, and marrying behaviourism and phenomenology is actually simple and straightforward? So, the journey of frustration continued, driven by my determination to make it work.

The writing of the thesis started early in the process. Throughout, I have often found myself in the position van Manen (1990, p. 33) describes when he says "It is easy to get so buried in writing that one no longer knows where to go…". I often felt that I did not know where I was going with putting together the chapters of this

thesis, in which order they would make more sense, or simply whether what I have written would be of value in presenting the lived experiences of the three adolescents who completed the study. Would I be able to do them justice? More often than not I used the backspace button to 'obliterate', or so it felt, what I had just constructed in my writing. Frustration was sometimes joined by hopelessness and required a walking away from it, before returning with a fresh approach after much reflection. In turn, writing, and rewriting, became part of my lived experience towards completing this thesis, in a more practical way than what van Manen may have intended with the hermeneutical spiral's activity.

I felt emancipated once I could break free from the dilemma of being caught up between writing in first versus third person. Writing all of a sudden became more inspired, especially when I was set free from the idea that a doctoral thesis should be highly boring. The realisation that I should give this phenomenon the life it deserves came like the switching on of a light-bulb. Self-injury is, after all, a very real lived experience, therefore more than only one chapter revealing the lived experiences of the adolescents, should reflect life as lived. This whole research process was just as much a lived experience for me. The rewriting that resulted required more time and energy to be invested, but I believe it was worth it.

Reflecting on the very vivid, emotionally-laden memories forever imprinted in my brain, and kept alive by reading notes of the overall experience in my reflective diary, I often felt that if I had to provide a summary of my lived experience of the research process, one word would be sufficient, namely 'frustration'. What many people, including myself, would call 'a journey', felt more like an obstacle course existing of set-backs, disappointments, and frustrations around which I had to navigate my way in order to complete what I had started many years ago. As a living person in relationships and in a fairly emotionally demanding job, I experienced complications that did not only arise from the research process as such, but personal circumstances sometimes threatened to be insurmountable stumbling blocks that could end the whole journey.

One may ask why I, time and time again, decided to continue on this journey. That is a question I often asked of myself. Was it a matter of masochism to find

pleasure in pain? Was I also committing self-injury in an emotional way? Or was it commitment, perseverance or merely tenacity? The answer may not be that simple, but despite it having been full of obstacles, I found a way around again and again, which made the research process also highly enriching. I had the privilege of meeting three amazing young people who entrusted me with their life stories. While writing each participant's story, I was amazed at how different each of their experiences was. They were presented with the same quizzes and questionnaires. They were asked the same questions, yet the unique, individual understanding, reflection, explanation and meaning-making during the interviews were enriching and enlightening. Three very unique narratives I had the privilege of being co-author of, filled me with a new compassion and empathy, but also with admiration for them, for their having lived through self-injury whilst retaining a will to live.

Here at the end of the research process I can still say "The researcher you are is the person you are", only with a different focus added. I would like to conclude this thesis by stating that just as much I have influenced the research process in a way that reflects who I am as person, the research process has influenced me in a profound way. If at all possible, it has made me more tenacious, more stubborn, and with a stronger determination to never be someone who quits in the face of frustration. If I had decided to take the easy way out, I would not have been able to stand here, enriched by the creative process called research. I would not have been able to present a 'piece of art' that developed from a light pencil sketch to a work full of rich colour and texture describing the lived experience of some adolescents who self-injure.

REFERENCES

Abrams, L. S., & Gordon, A. L. (2003). Self-harm narratives of urban and suburban young women. *Affilia, 18*(4), 429–444. doi:10.1177/0886109903257668

Adler, P. A., & Adler, P. (2005). Self-injurers as loners: The social organisation of solitary deviance. *Deviant Behavior, 26*(4), 345–378. doi:10.1080/016396290931696

Adler, P. A., & Adler, P. (2007). The demedicalization of self-injury: From psychopathology to sociological deviance. *Journal of Contemporary Ethnography, 36*(5), 537–570. doi:10.1177/0891241607301968

Adrian, M., Zeman, J., Erdley, C., Lisa, L., & Sim, L. (2011). Emotional dysregulation and interpersonal difficulties as risk factors for nonsuicidal self-injury in adolescent girls. *Journal of Abnormal Child Psychology, 39*(3), 389–400. doi:10.1007/s10802-010-9465-3

Alfonso, M. L., & Kaur, R. (2012). Self-injury among early adolescents: Identifying segments protected and at risk. *Journal of School Health, 82*(12), 537–547. doi: 10.1111/j.1746-1561.2012.00734.x.

Allen, K. J. D., & Hooley, J. M. (2015). Inhibitory control in people who self-injure: Evidence for impairment and enhancement. *Psychiatry Research, 225*(3), 631–637. http://dx.doi.org/10.1016/j.psychres.2014.11.033

Allen, M. N., & Jensen, L. (1990). Hermeneutical inquiry: Meaning and scope. *Western Journal of Nursing Research, 12*(2), 241–253. http://journals.sagepub.com/doi/pdf/10.1177/019394599001200209

Allison, K. L., & Rossouw, P. J. (2013). The therapeutic alliance: Exploring the concept of "safety" from a neuropsychotherapeutic perspective. *International Journal of Neuropsychotherapy, 1*, 21–29. doi: 10.12744/ijnpt.2013.0021-0029

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: American Psychiatric Association.

Ammerman, B. A., & Brown, S. (2016). The mediating role of self-criticism in the relationship between parental expressed emotion and NSSI. *Current Psychology, 37*(1), 325–333. doi:10.1007/s12144-016-9516-1

Anderson, N. L., & Crowther, J. H. (2012). Using the experiential avoidance model of non-suicidal self-injury: Understanding who stops and who continues. *Archives of Suicide Research, 16*(2), 124–134. doi:10.1080/13811118.2012.667329

Andersson, G. (2009). Using the Internet to provide cognitive behaviour therapy. *Behaviour Research and Therapy, 47*(3), 175–180. doi:10.1016/j.brat.2009.01.010

Andrews, T., Martin, G., & Hasking, P. (2012). Differential and common correlates of non-suicidal self-injury and alcohol use among community-based adolescents. *Advances in Mental Health, 11*(1), 55–66. https://doi.org/10.5172/jamh.2012.11.1.55

Andrews, T., Martin, G., Hasking, P., & Page, A. (2013). Predictors of continuation and cessation of nonsuicidal self-injury. *Journal of Adolescent Health, 53*(1), 40–46. http://dx.doi.org/10.1016/j.jadohealth.2013.01.009

Andrews, T., Martin, G., Hasking, P., & Page, A. (2014). Predictors of onset for non-suicidal self-injury within a school-based sample of adolescents. *Prevention Science, 15*(6), 850–859. doi:10.1007/s11121-013-0412-8

Anestis, M. D., Khazem, L. R., & Law, K. C. (2015). How many times and how many ways: The impact of number of nonsuicidal self-injury methods on the relationship between nonsuicidal self-injury frequency and suicidal behavior. *Suicide and Life-Threatening Behavior, 45*(2), 164–177. doi:10.1111/sltb.12120

Anestis, M. D., Pennings, S. M., Lavender, J. M., Tull, M. T., & Gratz, K. L. (2013). Low distress tolerance as an indirect risk factor for suicidal behavior: Considering the explanatory role of non-suicidal self-injury. *Comprehensive Psychiatry, 54*(7), 996–1002. http://dx.doi.org/10.1016/j.comppsych.2013.04.005

Anestis, M. D., Silva, C., Lavender, J. M., Crosby, R. D., Wonderlich, S. A., Engel, S. G., & Joiner, T. E. (2012). Predicting nonsuicidal self-injury episodes over a discrete period of time in a sample of women diagnosed with bulimia nervosa: An analysis of self- reported trait and ecological momentary assessment based affective lability and previous suicide attempts. *International Journal of Eating Disorders, 45*(6), 808–811. doi:10.1002/eat.20947

Angelkovska, A., Houghton, S., & Hopkins, S. (2012). Differential profiles of risk of self-harm among clinically referred primary school aged children. *School Psychology International*, *33*(6), 1–16. doi:10.1177/0143034311427434

Arbuthnott, A. E., Lewis, S. P., & Bailey, H. N. (2015). Rumination and emotions in nonsuicidal self-injury and eating disorder behaviors: A preliminary test of the emotional cascade model. *Journal of Clinical Psychology, 71*(1), 62–71. doi:10.1002/jclp.22115

Armey, M. F., & Crowther, J. H. (2008). A comparison of linear versus non-linear models of aversive self-awareness, dissociation, and non-suicidal self-injury among young adults. *Journal of Consulting and Clinical Psychology, 76*(1), 9–14. doi:10.1037/0022-006X.76.1.9

Armey, M. F., Crowther, J. H., & Miller, I. W. (2011). Changes in ecological momentary assessment reported affect associated with episodes of nonsuicidal self-injury. *Behaviour Therapy*, *42*(4), 579–588. https://doi.org/10.1016/j.beth.2011.01.002

Armiento, J., Hamza, C. A., Stewart, S. L., & Leschied, A. (2016). Direct and indirect forms of childhood maltreatment and nonsuicidal self-injury among clinically-referred children and youth. *Journal of Affective Disorders, 200*, 212–217. http://dx.doi.org/10.1016/j.jad.2016.04.041

Armour, M., Rivaux, S. L., & Bell, H. (2009). Using context to build rigor: Application to two hermeneutic phenomenological studies. *Qualitative Social Work, 8*(1), 101–122. doi: 10.1177/1473325008100424

Assavedo, B. L., & Anestis, M. D. (2016). The relationship between non-suicidal self-injury and both perceived burdensomeness and thwarted belongingness. *Journal of Psychopathology and Behavioral Assessment, 38*(2), 251–257. doi:10.1007/s10862-015-9508-8

Auerbach, R. P., Kim, J. C., Chango, J. M., Spiro, W. J., Cha, C., Gold, J., …Nock, M. K. (2014). Adolescent nonsuicidal self-injury: Examining the role of child abuse, comorbidity, and disinhibition. *Psychiatry Research, 220,* 579–584. http://dx.doi.org/10.1016/j.psychres.2014.07.027

Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment, 13*(1), 27–45. doi:10.1177/1073191105283504

Baetens, I., Claes, L., Hasking, P., Smits, D., Grietens, H., Onghena, P., & Martin, G. (2015). The relationship between parental expressed emotions and non-suicidal self-injury: The mediating roles of self-criticism and depression. *Journal of Child and Family Studies, 24*(2), 491–498. doi:10.1007/s10826-013-9861-8

Baetens, I., Claes, L., Martin, G., Onghena, P., Grietens, H., Van Leeuwen, K., …Griffith, J. W. (2014). Is nonsuicidal self-injury associated with parenting and family factors? *Journal of Early Adolescence, 34*(3), 387– 405. doi:10.1177/0272431613494006

Baetens, I., Claes, L., Willem, L., Muehlenkamp, J., & Bijttebier, P. (2011). The relationship between non-suicidal self-injury and temperament in male and female adolescents based on child- and parent-report. *Personality and Individual Differences, 50*(4), 527–530. https://doi.org/10.1016/j.paid.2010.11.015

Baiden, P., Stewart, S. L., & Fallon, B. (2017). The role of adverse childhood experiences as determinants of nonsuicidal self-injury among children and adolescents referred to community and inpatient mental health settings. *Child Abuse & Neglect, 69,* 163–176. http://dx.doi.org/10.1016/j.chiabu.2017.04.011

Bailey, B. (2011). *Case studies: A security science research methodology*. Retrieved from http://igneous.scis.ecu.edu.au/proceedings/2011/secintel/bailey.pdf

Baker, C., & Brown, B. (2016). Suicide, self-harm and survival strategies in contemporary heavy metal music: A cultural and literary analysis. *Journal of Medical Humanities, 37*(1), 1–17. doi:10.1007/s10912-014-9274-8

Baker, T. G., & Lewis, S. P. (2013). Responses to online photographs of non-suicidal self-injury: A thematic analysis. *Archives of Suicide Research, 17*(3), 223–235. doi:10.1080/13811118.2013.805642

Bakken, N. W., & Gunter, W. D. (2012). Self-cutting and suicidal ideation among adolescents: Gender differences in the causes and correlates of self-injury. *Deviant Behavior, 33*(5), 339–356. http://dx.doi.org/10.1080/01639625.2011.584054

Ballard, E., Bosk, A., & Pao, M. (2010). Invited commentary: Understanding brain mechanisms of pain processing in adolescents' non-suicidal self-injury. *Journal of Youth and Adolescence, 39*(4), 327–334. doi:10.1007/s10964-009-9457-1

Ballard, M. E., Dodson, A. R., & Bazzini, D. G. (1999). Genre of music and lyrical content: Expectation effects. *The Journal of Genetic Psychology, 160*(4), 476–487. doi:10.1080/00221329909595560

Barak, A. (1999). Psychological applications on the Internet: A discipline on the threshold of a new millennium. *Applied & Preventive Psychology, 8*, 231–245. Retrieved from http://construct.haifa.ac.il/~azy/B17-Psych ApplicationsInternetBarak.pdf

Barak, A. (2004). Internet counseling. In C. E. Spielberger (Ed.), *Encyclopaedia of Applied Psychology* (pp. 369-378). San Diego, CA: Academic Press. Retrieved from http://construct.haifa.ac.il/~azy/B167-InternetCounseling Barak.pdf

Barak, A., & Grohol, J. M. (2011). Current and future trends in Internet-supported mental health interventions. *Journal of Technology in Human Services, 29*(3), 155–196. http://dx.doi.org/10.1080/15228835.2011.616939

Barak, A., Klein, B., & Proudfoot, J. G. (2009). Defining Internet-supported therapeutic interventions. *Annals of Behavioral Medicine, 38*(1), 4–17. doi:10.1007/s12160-009-9130-7

Barlow, D. H., & Nock, M. (2009). Why can't we be more idiographic in our research? *Perspectives on Psychological Science, 4*(1), 19–21. doi:10.1111/j.1745-6924.2009.01088.x

Barrocas, A. L., Giletta, M., Hankin, B. J., Prinstein, M. J., & Abela, J. R. Z. (2015). Nonsuicidal self-injury in adolescence: Longitudinal course, trajectories, and intrapersonal predictors. *Journal of Abnormal Child Psychology, 43*(2), 369–380. doi:10.1007/s10802-014-9895-4

Barrocas, A. L., Hankin, B. L., Young, J. F., & Abela, J. R. Z. (2012). Rates of nonsuicidal self-injury in youth: Age, sex, and behavioral methods in a community sample. *Pediatrics, 130*(1), 39–45. doi:10.1542/peds.2011-2094

Barsaglini, A., Sartori, G., Benetti, S., Pettersson-Yeo, W., & Mechelli, A. (2014). The effects of psychotherapy on brain function: A systematic and critical review. *Progress in Neurobiology, 114*, 1–14. http://dx.doi.org/10.1016/j.pneurobio.2013.10.006

Batejan, K. L., Jarvi, S. M., & Swenson, L. P. (2015). Sexual orientation and non-suicidal self-injury: A meta-analytic review. *Archives of Suicide Research, 19*(2), 131–150. doi:10.1080/13811118.2014.957450

Ben-Ari, A., & Enosh, G. (2010). Processes of reflectivity. Knowledge construction in qualitative research. *Qualitative Social Work, 10*(2), 152–171. doi:10.1177/1473325010369024

Benner, P. (2008). Interpretive phenomenology. In L. M. Given (Ed.), *The Sage Encyclopedia of Qualitative Research Methods* (pp. 462-465). Thousand Oaks, CA: SAGE Publications, Inc. Online ISBN: 9781412963909. http://dx.doi.org/10.4135/9781412963909.n234

Bentley, K. H., Cassiello-Robbins, C. F., Vittorio, L., Sauer-Zavala, S., & Barlow, D. H. (2015). The association between nonsuicidal self-injury and the

emotional disorders: A meta-analytic review. *Clinical Psychology Review, 37*, 72–88. http://dx.doi.org/10.1016/j.cpr.2015.02.006

Bentley, K. H., Nock, M. K., & Barlow, D. H. (2014). The four-function model of nonsuicidal self-injury: Key directions for future research. *Clinical Psychological Science, 2*(5). 638–656. doi:10.1177/2167702613514563

Ben-Zeev, D., Young, M. A., & Depp, C. A. (2012). Real-time predictors of suicidal ideation: Mobile assessment of hospitalized depressed patients. *Psychiatry Research, 197*(1-2), 55–59. https://doi.org/10.1016/j.psychres.2011.11.025

Berger, E., Hasking, P., & Martin, G. (2017). Adolescents' perspectives of youth non-suicidal self-injury prevention. *Youth & Society, 49*(1), 3–22. doi:10.1177/0044118X13520561

Bernoff, M., & Rossouw, P. J. (2014). A review of the effectiveness of computer-based interventions in Australia for anxiety-based disorders and reconceptualization of these interventions from a neuropsychotherapy focus. *International Journal of Neuropsychotherapy, 2*(1), 27–43. doi:10.12744/ ijnpt.2014.0027-0043

Best, R. (2006). Deliberate self-harm in adolescence: A challenge for schools. *British Journal of Guidance & Counselling, 34*(2), 161–175. doi:10.1080/03069880600583196

Bifulco, A., Schimmenti, A., Moran, P., Jacobs, C., Bunn, A., Rusu, A. C. (2014). Problem parental care and teenage deliberate self-harm in young community adults. *Bulletin of the Menninger Clinic, 78*(2), 95–114. https://doi.org/10.1521/bumc.2014.78.2.95

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., …Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*(3), 230–241. doi:10.1093/clipsy/bph077

Bjärehed, J., Pettersson, K., Wångby-Lundh, M., & Lundh, L. (2012). Examining the acceptability, attractiveness, and effects of a school-based validating

interview for adolescents who self-injure. *The Journal of School Nursing, 29*(3), 225–234. doi:10.1177/1059840512458527

Blasco-Fontecilla, H., Fernández-Fernández, R., Colino. L., Fajardo, L., Perteguer-Barrio, R., & de Leon, J. (2016). The addictive model of self-harming (non-suicidal and suicidal) behaviour. *Frontiers in Psychiatry, 7*(Article), 1–7. doi: 10.3389/fpsyt.2016.00008

Bloom, C. M., Holly, S., & Miller, A. M. P. (2012). Self-Injurious behavior vs. nonsuicidal self-injury. The CNS stimulant pemoline as a model of self-destructive behavior. *Crisis, 33*(2), 106–112. doi:10.1027/0227-5910/a000127

Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theories and methods* (5th ed.). Boston: Allyn and Bacon.

Bohus, M., Limberger, M., Ebner, U., Glocker, F. X., Schwarz, B., Wernz, M,, & Lieb, K. (2000). Pain perception during self-reported distress and calmness in patients with borderline personality disorder and self-mutilating behavior. *Psychiatry Research, 95*(3), 251–260. https://doi.org/10.1016/S0165-1781(00)00179-7

Borrero, J. C., Vollmer, T. R., Wright, C. S., Lerman, D. C., & Kelley, M. E. (2002). Further evaluation of the role of protective equipment in the functional analysis of self-injurious behavior. *Journal of Applied Behavior Analysis, 35*(1), 69–72.

Bowlby, J. (1969). *Attachment and Loss: Volume 1: Attachment*. London: The Hogarth Press and the Institute of Psycho-Analysis.

Boxer, P. (2010). Variations in risk and treatment factors among adolescents engaging in different types of deliberate self-harm in an inpatient sample. *Journal of Clinical Child & Adolescent Psychology, 39*(4), 470–480. doi:10.1080/15374416.2010.486302

Bracken-Minor, K. L., McDevitt-Murphy, M. E., & Parra, G. R. (2012). Profiles of non-suicidal self-injurers and associated patterns of alcohol use. *Journal of*

Psychopathological Behavioral Assessment, 34(4), 552–563. doi:10.1007/s10862-012-9306-5

Brausch, A. M., & Girresch, S. K. (2012). A review of empirical treatment studies for adolescent nonsuicidal self-injury. *Journal of Cognitive Psychotherapy: An International Quarterly, 26*(1), 3–18. http://dx.doi.Org/10.1891/0889-8391.26.l.3

Brausch, A. M., & Gutierrez, P. M. (2010). Differences in non-suicidal self-injury and suicide attempts in adolescents. *Journal of Youth and Adolescence, 39*(3), 233–242. doi: 10.1007/s10964-009-9482-0

Brausch, A. M., Muehlenkamp, J. J., Washburn, J.J. (2016). Nonsuicidal self-injury disorder: Does Criterion B add diagnostic utility? *Psychiatry Research, 244*, 179–184. http://dx.doi.org/10.1016/j.psychres.2016.07.025

Breen, A. V., Lewis, S. P., & Sutherland, O. (2013). Brief report: Non-suicidal self-injury in the context of self and identity development. *Journal of Adult Development, 20*(1), 57–62. doi:10.1007/s10804-013-9156-8

Brenner, C. J., & Ben-Zeev, D. (2014). Affective forecasting in schizophrenia: Comparing predictions to real-time ecological momentary assessment (EMA) ratings. *Psychiatric Rehabilitation Journal, 37*(4), 316–320. http://dx.doi.org/10.1037/prj0000105

Bresin, K. (2014). Five indices of emotion regulation in participants with a history of nonsuicidal self-injury: A daily diary study. *Behavior Therapy, 45*(1), 56–66. https://doi.org/10.1016/j.beth.2013.09.005

Bresin, K., Carter, D. L., & Gordon, K. H. (2013). The relationship between trait impulsivity, negative affective states, and urge for nonsuicidal self-injury: A daily diary study. *Psychiatry Research, 205*(3), 227–231. http://dx.doi.org/10.1016/j.psychres.2012.09.033

Bresin, K., & Gordon, K. H. (2013). Endogenous opioids and nonsuicidal self-injury: A mechanism of affect regulation. *Neuroscience and Biobehavioral Reviews, 37*(3), 374–383. http://dx.doi.org/10.1016/j.neubiorev.2013.01.020

Bresin, K., Gordon, K. H., Bender, T. W., Gordon, L. J., & Joiner, T. E., Jr. (2010). No pain, no change: Reductions in prior negative affect following physical pain. *Motivation and Emotion, 34*(3), 280–287. doi:10.1007/s11031-010-9168-7

Bresin, K., & Schoenleber, M. (2015). Gender differences in the prevalence of nonsuicidal self-injury: A meta-analysis. *Clinical Psychology Review, 38*, 55–64. http://dx.doi.org/10.1016/j.cpr.2015.02.009

Brickman, L. J., Ammerman, B. A., Look, A. E., Berman, M. E., & McCloskey, S. (2014). The relationship between non-suicidal self-injury and borderline personality disorder symptoms in a college sample. *Borderline Personality Disorder and Emotion Dysregulation, 1*(14), 1–8. https://doi.org/10.1186/2051-6673-1-14

Briere, J. (2002). Treating adult survivors of severe childhood abuse and neglect: Further development of an integrative model. (2002). In J.E.B. Myers, L. Berliner, J. Briere, C.T. Hendrix, T. Reid, & C. Jenny (Eds.), *The APSAC handbook on child maltreatment*, (2nd ed.). Newbury Park, CA: Sage Publications. Retrieved from http://johnbriere.com/STM.pdf

Briere, J., & Eadie, E. M. (2016). Compensatory self-injury: Posttraumatic stress, depression, and the role of dissociation. *Psychological Trauma: Theory, Research, Practice, and Policy, 8*(5), 618–625. http://dx.doi.org/10.1037/tra0000139

Briere, J., & Elliot, D. M. (1997). Psychological assessment of interpersonal victimization effects in adults and children. *Psychotherapy, 34*(4), 353–364. http://dx.doi.org/10.1037/h0087848

Briere, J., & Gil, E. (1998). Self-mutilation in clinical and general population samples: Prevalence, correlates, and functions. *American Journal of Orthopsychiatry, 68(*4), 609–620. https://doi.org/10.1037/h0080369

Briere, J., Hodges, M., & Godbout, N. (2010). Traumatic stress, affect dysregulation, and dysfunctional avoidance: A structural equation model. *Journal of Traumatic Stress, 23*(6), 767–774. doi:10.1002/jts.20578

Briere, J., & Jordan, C. E. (2009). Childhood maltreatment, intervening variables, and adult psychological difficulties in women: An overview. *Trauma, Violence, & Abuse, 10*(4), 375–388. doi: 10.1177/1524838009339757

Briere, J., Kaltman, S., & Green, B. L. (2008). Accumulated childhood trauma and symptom complexity. *Journal of Traumatic Stress, 21*(2), 223–226. doi:10.1002/jts.20317

Briere, J., & Lanktree, C. B. (2008). *Integrative treatment of complex trauma for adolescents (ITCT-A): A guide for the treatment of multiply-traumatized youth.* Retrieved from http://www.johnbriere.com/Adol%20Trauma%20Tx%20Manual%20-%20Final%208_25_08.pdf

Briere, J., & Rickards, S. (2007). Self-awareness, affect regulation, and relatedness: Differential sequels of childhood versus adult victimization experiences. *The Journal of Nervous and Mental Disease, 195*(6), 497–503. http://dx.doi.org/10.1097/NMD.0b013e31803044e2

Briere, J., & Spinazzola, J. (2005). Phenomenology and psychological assessment of complex posttraumatic states. *Journal of Traumatic Stress, 18*(5), 401–412. doi:10.1002/jts.20048

Briere, J., Weathers, F. W., & Runtz, M. (2005). Is dissociation a multidimensional construct? Data from the Multiscale Dissociation Inventory. *Journal of Traumatic Stress, 18*(3), 221–231. doi:10.1002/jts.20024

Brossard, B. (2014). Fighting with oneself to maintain the interaction order: A sociological approach to self-injury daily process. *Symbolic Interaction, 37*(4), 558–575. doi:10.1002/SYMB.118

Brown, L. C., & Wright, J. (2001). Attachment theory in adolescence and its relevance to developmental psychopathology. *Clinical Psychology and Psychotherapy, 8*(1), 15–32. https://doi.org/10.1002/cpp.274

Brown, M. Z., Comtois, K. A., & Linehan, M. M. (2002). Reasons for suicide attempts and nonsuicidal self-injury in women with borderline personality disorder. *Journal of Abnormal Psychology, 111*(1), 198–202. doi:10.1037//0021-843X.111.1.198

Brown, M. Z., Linehan, M. M., Comtois, K. A., Murray, A., & Chapman, A. L. (2009). Shame as a prospective predictor of self-inflicted injury in borderline personality disorder: A multi-modal analysis. *Behaviour Research and Therapy 47*(10), 815–822. doi:10.1016/j.brat.2009.06.008

Brown, R. C., & Plener, P. L. (2017). Non-suicidal self-injury in adolescents. *Current Psychiatry Reports, 19*(3), 2–8. doi:10.1007/s11920-017-0767-9

Brown, S. A., Williams, K., & Collins, A. (2007). Past and recent deliberate self-harm: Emotion and coping strategy differences. *Journal of Clinical Psychology, 63*(9), 791–803. doi:10.1002/jclp.20380

Brown, T. B., & Kimball, T. (2013). Cutting to live: A phenomenology of self-harm. *Journal of Marital and Family Therapy, 38*(3), 1–14. doi:10.1111/j.1752-0606.2011.00270.x

Bureau, J., Martin, J., Freynet, N., Poirier, A. A., Lafontaine, M., & Cloutier, P. (2010). Perceived dimensions of parenting and non-suicidal self-injury in young adults. *Journal of Youth and Adolescence, 39*(5), 484–494. doi:10.1007/s10964-009-9470-4

Buser, T. J., & Buser, J. K. (2013). The HIRE model: A tool for the informal assessment of nonsuicidal self-injury. *Journal of Mental Health Counseling, 35*(3), 262–281. http://www.amhca.org/journal.html

Buser, T. J., Buser, J. K., & Kearney, A. (2012). Justice in the family: The moderating role of social self-efficacy in the relationship between nonsuicidal self-injury and interactional justice from parents. *The Family Journal: Counseling and Therapy for Couples and Families, 20*(2), 147–156. doi:10.1177/1066480712441575

Buser, T. J., Buser, J. K., & Rutt, C. C. (2017a). Predictors of unintentionally severe harm during nonsuicidal self-injury. *Journal of Counseling & Development, 95*(1), 14–23. doi:10.1002/jcad.12113

Buser, J. K., Buser, T. J., & Rutt, C. C. (2017b). Nonsuicidal self-injury and spiritual/religious coping. *Journal of Mental Health Counseling, 39*(2), 132–l48. doi:l0.17744/mehc.39.2.04

Buser, T. J., & Hackney, H. (2012). Explanatory style as a mediator between childhood emotional abuse and nonsuicidal self-injury. *Journal of Mental Health Counseling, 34*(2), 154–169. http://www.amhca.org/journal.html

Buser, T. J., Peterson, C. H., & Hill, T. M. (2016). Brief Severity Index for nonsuicidal self-injury: Initial validation of a self- report measure. *Journal of Mental Health Counseling, 38*(1), 28–46. doi:10.17744/mehc.38.1.03

Bylund Grenklo, T., Kreicbergs, U., Valdimarsdóttir, U. A., Nyberg, T., Steineck, G., & Fürst, C. J. (2014). Self-injury in youths who lost a parent to cancer: Nationwide study of the impact of family-related and health-care-related factors. *Psycho-Oncology, 23*(9), 989–997. doi:10.1002/pon.3515

Cage, N. A., Lewis, T. J., & Stichter, J. P. (2012). Functional behavioral assessment-based interventions for students with or at risk for emotional and/or behavioral disorders in school: A hierarchical linear modeling meta-analysis. *Behavioral Disorders, 37*(2), 55–77. http://journals.sagepub.com/doi/abs/10.1177/019874291203700201

Calati, R., Bensassi, I., & Courtet, P. (2017). The link between dissociation and both suicide attempts and non-suicidal self-injury: Meta-analyses. *Psychiatry Research, 251*, 103–114. http://dx.doi.org/10.1016/j.psychres.2017.01.035

Calvert, R., & Kellett, S. (2014). Cognitive analytic therapy: A review of the outcome evidence base for treatment. *Psychology and Psychotherapy: Theory, Research and Practice, 87(*3), 253–277. doi:10.1111/papt.12020

Carter, C. S., Pournajafi-Nazarloo, H., Kramer, K. M., Ziegler, T. E., White-Traut, R., Bello, D., & Schwertz, D. (2007). Oxytocin behavioral associations and potential as a salivary biomarker. *Annals of the New York Academy of Sciences, 1098*(1), 312–322. doi: 10.1196/annals.1384.006

Carvalho, C. B., Nunes, C., Castilho, P., Motta, C., Caldeira, S., & Pinto-Gouveia, J. (2015). Mapping nonsuicidal self-injury in adolescence: Development and confirmatory factor analysis of the Impulse, Self-harm and Suicide Ideation Questionnaire for Adolescents (ISSIQ-A). *Psychiatry Research, 227*(2-3), 238–245. http://dx.doi.org/10.1016/j.psychres.2015.01.031

Centonze, D., Siracusano, A., Calabresi, P., & Bernardi, G. (2005). Removing pathogenic memories. A neurobiology of psychotherapy. *Molecular Neurobiology, 32*(2), 123–132. https://doi.org/10.1385/MN:32:2:123

Chaplo, S. D., Kerig, P. K., Bennet, D. C., & Modrowski, C. A. (2015). The roles of emotion dysregulation and dissociation in the association between sexual abuse and self-injury among juvenile justice–involved youth. *Journal of Trauma & Dissociation, 16*(3), 272–285. doi:10.1080/15299732.2015.989647

Chapman, A. L., Gratz, K. L., & Brown, M. Z. (2006). Solving the puzzle of deliberate self-harm: The experiential avoidance model. *Behaviour Research and Therapy 44,* 371–394. doi:10.1016/j.brat.2005.03.005

Cho, J., & Trent, A. (2006). Validity in qualitative research revisited. *Qualitative Research, 6*(3), 319–340. doi:10.1177/1468794106065006

Cicchetti, D., Rogosch, F. A., Gunnar, M. R., & Toth, S. L. (2010). The differential impacts of early physical and sexual abuse and internalizing problems on daytime cortisol rhythm in school-aged children. *Child Development, 81*(1), 252–269. http://www.jstor.org/stable/40598977

Claes, L., De Raedt, R., Van de Walle, M., & Bosmans, G. (2016). Attentional bias moderates the link between attachment-related expectations and non-suicidal self-injury. *Cognitive Therapy and Research, 40*(4), 540–548. doi:10.1007/s10608-016-9761-5

Claes, L., Klonsky, E. D., Muehlenkamp, J., Kuppens, P., Vandereycken, W. (2010). The affect-regulation function of nonsuicidal self-injury in eating-disordered patients: Which affect states are regulated? *Comprehensive Psychiatry, 51,* 386–392. doi:10.1016/j.comppsych.2009.09.001

Claes, L., Luyckx, K., Baetens, I., Van de Ven, M., & Witteman, C. (2015). Bullying and victimization, depressive mood, and non-suicidal self-injury in adolescents: The moderating role of parental support. *Journal of Child and Family Studies, 24*(11), 3363–3371. doi:10.1007/s10826-015-0138-2

Claes, L., Luyckx, K., & Bijttebier, P. (2014). Non-suicidal self-injury in adolescents: Prevalence and associations with identity formation above and beyond depression. *Personality and Individual Differences, 61–62*, 101–104. http://dx.doi.org/10.1016/j.paid.2013.12.019

Claes, L., Soenens, B., Vansteenkiste, M., & Vandereycken, W. (2012). The scars of the inner critic: Perfectionism and nonsuicidal self-injury in eating disorders. *European Eating Disorders Review*, *20*(3), 196–202. doi:10.1002/erv.1158

Coffey, K. A., Hartman, M., & Fredrickson, B. L. (2010). Deconstructing mindfulness and constructing mental health: Understanding mindfulness and its mechanisms of action. *Mindfulness, 1*(4), 235–253. doi:10.1007/s12671-010-0033-2

Cohen, J. N., Stange, J. P., Hamilton, J. L., Burke, T. A., Jenkins, A., Ong, M., …Alloy, L. B. (2015). The interaction of affective states and cognitive vulnerabilities in the prediction of non-suicidal self-injury. *Cognition and Emotion, 29*(3), 539–547. doi:10.1080/02699931.2014.918872

Cohn, A. M., Hunter-Reel, D., Hagman, B. T., & Mitchell, J. (2011). Promoting behavior change from alcohol use through mobile technology: The future of ecological momentary assessment. *Alcoholism: Clinical and Experimental Research, 35*(12), 2209–2215. doi:10.1111/j.1530-0277.2011.01571.x

Colvin, G., & Sugai, G. (1989). *Responding to non-responders: Managing escalations* [PowerPoint slides]. Retrieved from https://www.pbis.org/common/cms/files/pbisresources/0109gsEscalationsMA2.ppt

Cook, A., Blaustein, M., Spinazzola, J, & van der Kolk, B. (Eds.). (2003). *Complex trauma in children and adolescents.* National Child Traumatic Stress Network. Retrieved from http://www.nctsnet.org/nctsn_assets/pdfs/edu_materials/ComplexTrauma_All.pdf

Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., …van der Kolk, B. A. (2005). Complex trauma in children and adolescents.

Psychiatric Annals, 35(5), 390–398. https://doi.org/10.3928/00485713-20050501-05

Courtois, C. A. (n.d.). *Understanding complex trauma, complex reactions, and treatment approaches*. Retrieved from www.drchriscourtois.com

Craigen, L. M., Healey, A. C., Walley, C. T., Byrd, R., & Schuster, J. (2010). Assessment and self-injury: Implications for counsellors. *Measurement & Evaluation in Counseling and Development, 43*(1), 3–15. doi:10.1177/0748175610362237

Creswell, J. W., Hanson, W. E., Plano Clark, V. L., & Morales, A. (2007). Qualitative research designs: Selection and implementation. *The Counseling Psychologist, 35*(2), 235–264. doi:10.1177/0011000006287390

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. St Leonards, NSW: Allen & Unwin.

Crowell, S. E., Baucom, B. R., McCauley, E., Potapova, N. V., Fitelson, M., Barth, H., …Beauchaine, T. P. (2013). Mechanisms of contextual risk for adolescent self-injury: Invalidation and conflict escalation in mother-child interactions. *Journal of Clinical Child and Adolescent Psychology, 42*(4), 467–480. doi:10.1080/15374416.2013.785360.

Crowell, S. E., Beauchaine, T. P., McCauley, E., Smith, C. J., Vasilev, C. A., & Stevens, A. L. (2008). Parent–child interactions, peripheral serotonin, and self-inflicted injury in adolescents. *Journal of Consulting and Clinical Psychology*, *76*(1), 15–21. doi:10.1037/0022-006X.76.1.15

Crowther, S., Ironside, P., Spence, D., & Smythe, L. (2017). Crafting stories in hermeneutic phenomenological research: A methodological device. *Qualitative Health Research, 27*(6), 826–935. doi:10.1177/1049732316656161.

Cyr, M., McDuff, P., Wright, J., Thériault, C., & Cinq-Mars, C. (2005). Clinical correlates of self-harming behaviors among female adolescent victims of sexual abuse. *Journal of Child Sexual Abuse, 14(*2), 49–68. doi:10.1300/J070v14n02_03

D'Andrea, W., Ford, J., Stolbach, B., Spinazzola, J., & van der Kolk, B. A. (2012). Understanding interpersonal trauma in children: Why we need a developmentally appropriate trauma diagnosis. *American Journal of Orthopsychiatry, 82*(2), 187–200. doi:10.1111/j.1939-0025.2012.01154.x

Danielsson, L., Papoulias, I., Petersson, E., Carlsson, J., & Waern, M. (2014). Exercise or basic body awareness therapy as add-on treatment for major depression: A controlled study. *Journal of Affective Disorders, 168*, 98–106. http://dx.doi.org/10.1016/j.jad.2014.06.049

Dansereau, D. F., & Simpson, D. D. (2009). A picture is worth a thousand words: The case for graphic representations. *Professional Psychology: Research and Practice, 40*(1), 104–110. doi:10.1037/a0011827

Day, W. F. (1969). Radical behaviorism in reconciliation with phenomenology. *Journal of the Experimental Analysis of Behavior, 12*(2), 315–328. doi:10.1901/jeab.1969.12-315

De Bellis, M. D. (2005). The psychobiology of neglect. *Child Maltreatment, 10*(2), 150–172. doi:10.1177/1077559505275116

De Bellis, M. D., Hooper, S. R., Spratt, E. G., & Woolley, D. P. (2009). Neuropsychological findings in childhood neglect and their relationships to pediatric PTSD. *Journal of the International Neuropsychological Society, 15*(6), 868–878. doi:10.1017/S1355617709990464.

De Bellis, M. D., & Zisk, A. (2014). The biological effects of childhood trauma. *Child and Adolescent Psychiatric Clinics of North America, 23*(2), 185–222. http://dx.doi.org/10.1016/j.chc.2014.01.002

De Leo, D., & Heller, T. S. (2004). Who are the kids who self-harm? An Australian self-report survey. *The Medical Journal of Australia, 181*(3), 140–144. Retrieved from https://www.mja.com.au/journal/2004/181/3/who-are-kids-who-self-harm-australian-self-report-school-survey

Deliberto, T. L., & Nock, M. K. (2008). An exploratory study of correlates, onset, and offset of non-suicidal self-injury. *Archives of Suicide Research, 12*(3), 219–231. doi:10.1080/13811110802101096

Denman, C. (2001). Cognitive-analytic therapy. *Advances in Psychiatric treatment, 7*, 243–256. doi:10.1192/apt.7.4.243

DePrince, A. P., Weinzierl, K. M., & Combs, M. D. (2009). Executive function performance and trauma exposure in a community sample of children. *Child Abuse & Neglect, 33*(6), 353–361. doi:10.1016/j.chiabu.2008.08.002

De Stefano, J., & Atkins, S. (2017). Nonsuicidal self-injury, interpersonal neurobiology, and attachment: Implications for counselors and therapists. *Journal of Mental Health Counseling, 39*(4), 289–304. doi:10.17744/mehc.39.4.02

Diamond, A. (2013). Executive functions. *Annual Review of Psychology, 64*(1), 135–168. doi:10.1146/annurev-psych-113011-143750

Dimeff, L., & Linehan, M. M. (2001). Dialectical behavior therapy in a nutshell. *The California Psychologist, 34*, 10–13. Retrieved from http://www.dbtselfhelp.com/DBTina Nutshell.pdf

Di Pierro, R., Sarno, I., Perego, S., Gallucci, M., & Madeddu, F. (2012). Adolescent nonsuicidal self-injury: The effects of personality traits, family relationships and maltreatment on the presence and severity of behaviours. *European Child & Adolescence Psychiatry, 21*(9), 511–520. doi:10.1007/s00787-012-0289-2

Dixon, D. R., Vogel, T., & Tarbox, J. (2012). A brief history of functional analysis and applied behavior analysis. In J. L. Matson (Ed.), *Functional Assessment for Challenging Behaviors: Vol. 3. Autism and Child Psychopathology Series* (pp. 3–24). doi:10.1007/978-1-4614-3037-7_2

Dixon-Gordon, K. L., Gratz, K. L., McDermott, M. J., & Tull, M. T. (2014). The role of executive attention in deliberate self-harm. *Psychiatry Research, 218*(1), 113–117. http://dx.doi.org/10.1016/j.psychres.2014.03.035

Doidge, N. (2010). *The brain that changes itself*. Carlton North: Victoria, Scribe Publications Pty Ltd. Retrieved from http://www.usq.eblib.com.au.ezproxy.usq.edu.au/patron/FullRecord.aspx?p=533618

Dougherty, D. M., Mathias, C. W., Marsh-Richard, D. M., Prevette, K. N., Dawes, M. A., Hatzis, E. S., …Nouvion, S. O. (2009). Impulsivity and clinical symptoms among adolescents with non-suicidal self-injury with or without attempted suicide. *Psychiatry Research, 169*(1), 22–27. doi:10.1016/j.psychres.2008.06.011

Dowling, M. (2007). From Husserl to van Manen. A review of different phenomenological approaches. *International Journal of Nursing Studies, 44*(1), 131–142. doi:10.1016/j.ijnurstu.2005.11.026

Dowling, M., & Cooney, A. (2012). Research approaches related to phenomenology: negotiating a complex landscape. *Nurse Researcher, 20*(2), 21–27. doi:10.7748/nr2012.11.20.2.21.c9440

Drolet, G., Dumont, I. C., Gosselin, I., Kinkead, R., Laforest, S., & Trott'ier, J. (2001). Role of endogenous opioid system in the regulation of the stress response. *Progress in Neuro-Psychopharmacology & Biological Psychiatry, 25*(4), 729–741. https://doi.org/10.1016/S0278-5846(01)00161-0

Duggan, J. M., Toste, J. R., & Heath, N. L. (2013). An examination of the relationship between body image factors and non-suicidal self-injury in young adults: The mediating influence of emotion dysregulation. *Psychiatry Research, 206*, 256–264. http://dx.doi.org/10.1016/j.psychres.2012.11.016

Dunlap, G., & Fox, L. (2011). Function-based interventions for children with challenging behavior. *Journal of Early Intervention, 33*(4), 333–343. doi:10.1177/1053815111429971

Dunlap, G., Kern-Dunlap, L., Clarke, S., & Robbins, F. R. (1991). Functional assessment, curricular revision, and severe behavior problems. *Journal of Applied Behavior Analysis, 24*(2), 387–397.

Ekman, I. (2016). Beyond medicalization: Self-injuring acts revisited. *Health, 20*(4), 346-362. doi:10.1177/1363459316633280

Elliot, R. (2003). Executive functions and their disorders. *British Medical Bulletin, 65*, 49–59. doi:10.1093/bmb/ldg65.049. Retrieved from https://academic.oup.com/bmb/article-pdf/65/1/49/1066812/49.pdf

Ellis, A. (2001). The rise of cognitive behavior therapy. In W. T. O'Donohue, D. Henderson, S. C. Hayes, J. Fisher, & L. Hayes (Eds.), *A History of the Behavioral Therapies: Founders' Personal Histories* (pp. 349–372). Retrieved from http://psycnet.apa.org/record/2001-10026-000

Engel, S. G., & Joiner, T. E. (2012). Predicting nonsuicidal self-injury episodes over a discreet period in time in a sample of women diagnosed with bulimia assessment based affective lability and previous suicide attempts. *International Journal of Eating Disorders 45*(6), 808–811. doi:10.1002/eat.20947

Englander, M. (2012). The interview: Data collection in descriptive phenomenological human scientific research. *Journal of Phenomenological Psychology, 43*(1), 13–35. doi:10.1163/156916212X632943

Evans, J. (2000). Interventions to reduce repetition of deliberate selfharm. *International Review of Psychiatry, 12*(1), 44–47. doi:10.1080/09540260074111

Favazza, A. R. (2012). Non-suicidal self-injury: How categorisation guides treatment. *Current Psychiatry, 11*(3), 21–26. Retrieved from http://currentpsychiatry.com/pdf /1103/1103CP_Favazza.pdf

Fernandez, K. C., Johnson, M. R., & Rodebaugh, T. L. (2013). TelEMA: A low-cost and user-friendly telephone assessment platform. *Behaviour Research Methods, 45*(4), 1279–1291. doi:10.3758/s13428-012-0287-9

Ferrara, M., Terrinoni, A., & Williams, R. (2012). Non-suicidal self-injury (NSSI) in adolescent inpatients: Assessing personality features and attitudes toward death. *Child and Adolescent Psychiatry and Mental Health, 6*(12), 1–8. doi:10.1186/1753-2000-6-12

Fikke, L. T., Melinder, A., & Landrø, N. I. (2011). Executive functions are impaired in adolescents engaging in non-suicidal self-injury. *Psychological Medicine, 41*(3), 601–610. doi:10.1017/S0033291710001030

Fikke, L. T., Melinder, A., & Landrø, N. I. (2013). The effects of acute tryptophan depletion on impulsivity and mood in adolescents engaging in non-suicidal

self-injury. *Human Psychopharmacology: Clinical and Experimental, 28*(1), 61–71. doi:10.1002/hup.2283

Finlay, L. (2009). Debating phenomenological research methods. *Phenomenology & Practice, 3*(1), 6–25. Retrieved from https://journals.library.ualberta.ca/pandpr/index.php/pandpr/article/view/19818

Finlay, L. (2013). Unfolding the phenomenological research process: Iterative stages of "seeing afresh". *Journal of Humanistic Psychology, 53*(2), 172–201. doi:10.1177/0022167812453877

Finlay, L. (2014). Engaging phenomenological analysis. *Qualitative Research in Psychology*, *11*(2), 121–141. doi:10.1080/14780887.2013.807899

Flick, U. (2014). Mapping the field. In U. Flick (Ed.), *The SAGE Handbook of Qualitative Data Analysis* (pp. 3–17). http://dx.doi.org.ezproxy.usq.edu.au/10.4135/9781446282243

Fliege, H., Lee, J-R., Grimm, A., & Klapp, B. F. (2009). Risk factors and correlates of deliberate self-harm behavior: A systematic review. *Journal of Psychosomatic Research, 66*(6), 477–493. doi:10.1016/j.jpsychores.2008.10.013

Fletcher, L. B., & Hayes, S. S. (2008). Phenomenology and modern behavioral psychology. *Philosophy, Psychiatry, & Psychology*, *15*(3), 255–258. https://doi.org/10.1353/ppp.0.0190

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry, 12*(2), 219–245. doi:10.1177/1077800405284363

Focus Education (n.d.). *Learning with the brain in mind. It's imperative.* Retrieved from http://www.focuseducation.com.au/

Ford, J. D., & Gómez, J. M. (2015). The relationship of psychological trauma and dissociative and posttraumatic stress disorders to nonsuicidal self-injury and suicidality: A review. *Journal of Trauma & Dissociation*, *16*(3), 232–271. doi:10.1080/15299732.2015.989563

Fortune, S., Cottrell, D., & Fife, S. (2016). Family factors associated with adolescent self-harm: A narrative review. *Journal of Family Therapy, 38*(2), 226–256. doi:10.1111/1467-6427.12119

Fortune, S., Sinclair, J., & Hawton, K. (2008). Help-seeking before and after episodes of self-harm: A descriptive study in school pupils in England. *BMC Public Health, 8,* 369–381. doi:10.1186/1471-2458-8-369

Fox, K. R., Franklin, J. C., Ribeiro, J. D., Kleiman, E. M., Bentley, K. H., & Nock, M. K. (2015). Meta-analysis of risk factors for nonsuicidal self-injury. *Clinical Psychology Review, 42*, 156–167. http://dx.doi.org/10.1016/j.cpr.2015.09.002

Franklin, J. C., Lee, K. M., Puzia, M. E., & Prinstein, M. J. (2014). Recent and frequent nonsuicidal self-injury is associated with diminished implicit and explicit aversion toward self-cutting stimuli. *Clinical Psychological Science, 2*(3), 306–318. doi:10.1177/2167702613503140

Franzke, I., Wabnitz, P., & Catani, C. (2015). Dissociation as a mediator of the relationship between childhood trauma and nonsuicidal self-injury in females: A path analytic approach. *Journal of Trauma & Dissociation, 16*(3), 286–302. doi:10.1080/15299732.2015.989646

Fredlund, C., Svedin, C. G., Priebe, G., Jonsson, L., & Wadsby, M. (2017). Self-reported frequency of sex as self-injury (SASI) in a national study of Swedish adolescents and association to sociodemographic factors, sexual behaviors, abuse and mental health. *Child and Adolescent Psychiatry and Mental Health, 11*(1), 1–9. doi:10.1186/s13034-017-0146-7

Fried, Carrie. (2003). Stereotypes of music fans: Are rap and heavy metal fans a danger to themselves or others? *Journal of Media Psychology Theories Methods and Applications, 8*(3). Retrieved from https://www.researchgate.net/publication/228772092_Stereotypes_of_music_fans_Are_rap_and_heavy_metal_fans_a_danger_to_themselves_or_others

Friesen, N. (2012). Hermeneutic phenomenology in education: Method and practice. In N. Friesen, C. Henriksson, & T. Saevi (Eds.), Practice of Research

Method, Vol. 4, ISBN: 978-94-6091-834-6 (Online). https://link-springer-com.ezproxy.usq.edu.au/book/10.1007%2F978-94-6091-834-6

Gable, R. A., Park, K. L., & Scott, T. M. (2014). Functional behavioral assessment and students at risk for or with emotional disabilities: Current issues and considerations. *Education and Treatment of Children, 37*(1), 111–135. https://doi.org/10.1353/etc.2014.0011

Gabowitz, D., Zucker, M., & Cook, A. (2008). Neuropsychological assessment in clinical evaluation of children and adolescents with complex trauma. *Journal of Child & Adolescent Trauma, 1*(2), 163–178. doi:10.1080/19361520802003822

Gale, T. (1998). Methodological 'maps' and key assumptions: A framework for understanding research. Unpublished paper. Central Queensland University.

Galea, L. A. M., Uban, K. A., Epp, J. R., Brummelte, S., Barha, C. K., Wilson, W. L., …Pawluski, J. L. (2008). Endocrine regulation of cognition and neuroplasticity: Our pursuit to unveil the complex interaction between hormones, the brain, and behaviour. *Canadian Journal of Experimental Psychology, 62*(4), 247–260. doi:10.1037/a0014501

Gandhi, A., Claes, L., Bosmans, G., Baetens, I., Wilderjans, T. F., Maitra, S., …Luyckx, K. (2016). Non-suicidal self-injury and adolescents attachment with peers and mother: The mediating role of identity synthesis and confusion. *Journal of Child and Family Studies, 25*(6), 1735–1745. doi:10.1007/s10826-015-0350-0

Gandhi, A., Luyckx, K., Goossens, L., Maitra, S., & Claes, L. (2016). Sociotropy, autonomy, and non-suicidal self-injury: The mediating role of identity confusion. *Personality and Individual Differences, 99*, 272–277. http://dx.doi.org/10.1016/j.paid.2016.05.040

Gandhi, A., Luyckx, K., Maitra, S. & Claes, L. (2015). Non-suicidal self-injury and identity distress in Flemish adolescents: Exploring gender differences and mediational pathways. *Personality and Individual Differences 82*, 215–220. http://dx.doi.org/10.1016/j.paid.2015.03.031

Gandhi, A., Luyckx, K., Maitra, S., Kiekens, G., Verschueren, M., & Claes, L. (2017). Directionality of effects between non-suicidal self-injury and identity formation: A prospective study in adolescents. *Personality and Individual Differences, 109*, 124–129. http://dx.doi.org/10.1016/j.paid.2017.01.003

Gask, L., & Morriss, R. (2006). Assessment and immediate management of people at risk of harming themselves. *Psychiatry, 5*(8), 266–270. https://doi.org/10.1053/j.mppsy.2006.05.002

Gethin, G., & Clune-Mulvaney, C. (2010). Understanding research. Wounds UK, 6(1). Retrieved from https://www.wounds-uk.com/download/resource/371

Gilman, S. L. (2013). From psychiatric symptom to diagnostic category: Self-harm from the Victorians to DSM-5. *History of Psychiatry, 24*(2), 148–165. doi:10.1177/0957154X13478082

Giletta, M., Burk, W. J., Scholte, R. H. J., Engels, R. C. M. E., & Prinstein, M. J. (2013). Direct and indirect peer socialization of adolescent nonsuicidal self-injury. *Journal of Research on Adolescence, 23*(3), 450–463. doi:10.1111/jora.12036

Glaser, D. (2000). Child abuse and neglect and the brain - A review. *Journal of Child Psychology and Psychiatry, 41*(1), 97–116. https://doi.org/10.1111/1469-7610.00551

Glasheen, K., & Campbell, M. (2009). The use of online counselling within an Australian secondary school setting: A practitioner's viewpoint. *Counselling Psychology Review, 24*(2), 42–59. https://shop.bps.org.uk/catalogsearch/result/?q=counselling+psychology+review

Glassman, L. H., Weierich, M. R., Hooley, J. M., Deliberto, T. L., & Nock, M. K. (2007). Child maltreatment, non-suicidal self-injury, and the mediating role of self-criticism. *Behaviour Research and Therapy, 45*(10), 2483–2490. doi:10.1016/j.brat.2007.04.002

Glenn, C. R., Kleiman, E. M., Cha, C. B., Nock, M. K., & Prinstein, M. J. (2016). Implicit cognition about self-injury predicts actual self-injurious behavior:

Results from a longitudinal study of adolescents. *Journal of Child Psychology and Psychiatry, 57*(7), 805–813. doi:10.1111/jcpp.12500

Glenn, C. R., & Klonsky, E. D. (2010a). A multimethod analysis of impulsivity in nonsuicidal self-injury. *Personality Disorders: Theory, Research, and Treatment, 1*(1), 67–75. doi:10.1037/a0017427

Glenn, C. R., & Klonsky, E. D. (2010b). The role of seeing blood in non-suicidal self-injury. *Journal of Clinical Psychology, 66*(4), 466–473. doi:10.1002/jclp.20661

Glenn, C. R., & Klonsky, E. D. (2011a). Prospective prediction of nonsuicidal self-injury: A 1-year longitudinal study in young adults. *Behavior Therapy, 42*(4), 751–762. https://doi.org/10.1016/j.beth.2011.04.005

Glenn, C. R., & Klonsky, E. D. (2011b). One-year test-retest reliability of the Inventory of Statements about Self-Injury (ISAS). *Assessment, 18*(3), 375–378. doi:10.1177/1073191111411669

Glenn, C. R., Lanzillo, E. C., Esposito, E. C., Santee, A. C., Nock, M. K., & Auerbach, R. P. (2017). Examining the course of suicidal and nonsuicidal self-injurious thoughts and behaviors in outpatient and inpatient adolescents. *Journal of Abnormal Child Psychology, 45*(5), 971–983. doi:10.1007/s10802-016-0214-0

Glenn, J. J., Michel, B. D., Franklin, J. C., Hooley, J. M., & Nock, M. K. (2014). Pain analgesia among adolescent self-injurers. *Psychiatry Research, 220*(3), 921–926. http://dx.doi.org/10.1016/j.psychres.2014.08.016

Goh, A. E., & Bambara, L. M. (2012). Individualized positive behavior support in school settings: A meta-analysis. *Remedial and Special Education, 33*(5), 271–286. doi:10.1177/0741932510383990

Gold, P. W. (2005). The neurobiology of stress and its relevance to psychotherapy. *Clinical Neuroscience Research, 4*, 315–324. doi:10.1016/j.cnr.2005.03.006

Good, M., Hamza, C., & Willoughby, T. (2017). A longitudinal investigation of the relation between nonsuicidal self-injury and spirituality/religiosity.

Psychiatry Research 250, 106–112. http://dx.doi.org/10.1016/j.psychres.2017.01.062

Gordon, K. H., Selby, E. A., Anestis, M. D., Bender, T. W., Witte, T. K., Braithwaite, S., …Joiner, T. E., Jr. (2010). The reinforcing properties of repeated deliberate self-harm. *Archives of Suicide Research, 14*(4), 329–341. doi:10.1080/13811118.2010.524059

Gratz, K. L. (2001). Measurement of deliberate self-harm: Preliminary data on the Deliberate Self-Harm Inventory. *Journal of Psychopathology and Behavioral Assessment, 23*(4), 253–263. https://doi.org/10.1023/A:1012779403943

Gratz, K. L. (2006). Risk factors for deliberate self-harm among female college students: The role and interaction of childhood maltreatment, emotional inexpressivity, and affect intensity/reactivity. *American Journal of Orthopsychiatry, 76*(2), 238–250. doi:10.1037/0002-9432.76.2.238

Gratz, K. L., Dixon-Gordon, K. L., Chapman, A. L., & Tull, M. T. (2015). Diagnosis and characterization of DSM-5 nonsuicidal self-injury disorder using the Clinician-Administered Nonsuicidal Self-Injury Disorder Index. *Assessment, 22*(5), 527–539. doi:10.1177/1073191114565878

Gratz, K. L., & Roemer, L. (2008). The relationship between emotion dysregulation and deliberate self-harm among female undergraduate students at an urban commuter University. *Cognitive Behaviour Therapy, 37*(1), 14–25. doi:10.1080/16506070701819524

Gregory, R. J., & Mustata, G. T. (2012). Magical thinking in narratives of adolescent cutters. *Journal of Adolescence, 35*(4), 1045–1051. doi:10.1016/j.adolescence.2012.02.012

Gregory, R. J., & Remen, A. L. (2008). A manual-based psychodynamic therapy for treatment-resistant borderline personality disorder. *Psychotherapy: Theory, Research, Practice, Training, 45*(1), 15–27. doi:10.1037/0033-3204.45.1.15

Gresham, F. M., Watson, T. S., & Skinner, C. H. (2001). Functional behavioral assessment: Principles, procedures, and future directions. *School*

Psychology Review, 30(2), 156–172. http://www.nasponline.org/publications/periodicals/spr/volume-30/volume-30-issue-2/functional-behavioral-assessment-principles-procedures-and-future-directions

Grillon, C., Krimsky, M., Charney, D. R., Vytal1, K., Ernst, M., & Cornwell, B. (2013). Oxytocin increases anxiety to unpredictable threat. *Molecular Psychiatry*, *18*(9), 958–960. doi:10.1038/mp.2012.156

Grippo, A. J., Trahanas, D. M., Zimmerman, R. R., Porges, S. W., & Carter, C. S. (2009). Oxytocin protects against negative behavioral and autonomic consequences of long-term social isolation. *Psychoneuroendocrinology*, *34*(10), 1542–1553. doi:10.1016/j.psyneuen.2009.05.017

Gromatsky, M. A., Waszczuk, M. A., Perlman, G., Salis, K.L., Klein, D. N., & Kotov, R. (2017). The role of parental psychopathology and personality in adolescent non-suicidal self-injury. *Journal of Psychiatric Research, 85*, 15–23. http://dx.doi.org/10.1016/j.jpsychires.2016.10.013

Groschwitz, R. C., Kaess, M., Fischer, G., Ameis, N., Schulze, U. M. E., Brunner, R., …Plener, P. L. (2015). The association of non-suicidal self-injury and suicidal behavior according to DSM-5 in adolescent psychiatric inpatients. *Psychiatry Research, 228*, 454–461. http://dx.doi.org/10.1016/j.psychres.2015.06.019

Groschwitz, R. C., & Plener, P. L. (2012). The neurobiology of non-suicidal self-injury (NSSI): A review. *Suicidology Online, 3*, 24–32. Retrieved from http://selfinjury.bctr.cornell.edu/perch/resources/groschwitz.pdf

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Thousand Oaks, CA: Sage.

Guerdjikova, A. I., Gwizdowski, I. S., McElroy, S. L., McCullumsmith, C., & Suppes, P. (2014). Treating nonsuicidal self-injury. *Current Treatment Options in Psychiatry*, *1*(4), 325–334. doi:10.1007/s40501-014-0028-z

Guerry, J. D., & Prinstein, M. J. (2009). Longitudinal prediction of adolescent nonsuicidal self-injury: Examination of a cognitive vulnerability-stress

model. *Journal of Clinical Child & Adolescent Psychology, 39*(1), 77–89. doi:10.1080/15374410903401195

Gutierrez, P. M., Osman, A., Barrios, F. X., & Kopper, B. A. (2001). Development and initial validation of the Self-Harm Behavior Questionnaire. *Journal of Personality Assessment, 77*(3), 475-490. doi:10.1207/S15327752JPA7703_08

Hadjistavropoulos, H. D., Thompson, M., Ivanov, M., Drost, C., Butz, C. J., Klein, B., & Austin, D. W. (2011). Considerations in the development of a therapist-assisted internet cognitive behavior therapy service. *Professional Psychology: Research and Practice, 42*(6), 463–471. doi:10.1037/a0026176

Hallab, L., & Covic, T. (2010). Deliberate self-harm: The interplay between attachment and stress. *Behaviour Change, 27*(2), 93–103. http://dx.doi.org/10.1375/bech.27.2.93

Hamza, C. L., Stewart, S. L., & Willoughby, T. (2012). Examining the link between nonsuicidal self-injury and suicidal behaviour: A review of the literature and an integrated model. *Clinical Psychology Review, 32*(6), 483-495. doi:10.1016/j.cpr.2012.05.003

Hamza, C. A., & Willoughby, T. (2013). Nonsuicidal self-injury and suicidal behavior: A latent class analysis among young adults. *PLoS ONE, 8*(3), e59955. doi:10.1371/journal.pone.0059955

Hamza, C. A., & Willoughby, T. (2015). Nonsuicidal self-injury and affect regulation: Recent findings from experimental and ecological momentary assessment studies and future directions. *Journal of Clinical Psychology, 71*(6), 561–574. doi:10.1002/jclp.22174

Hamza, C. A., Willoughby, T., & Heffer, T. (2015). Impulsivity and nonsuicidal self-injury: A review and meta-analysis. *Clinical Psychology Review, 38*, 13–24. http://dx.doi.org/10.1016/j.cpr.2015.02.010

Hankin, B. L., & Abela, J. R. Z. (2011). Nonsuicidal self-injury in adolescence: Prospective rates and risk factors in a 2 ½ year longitudinal study. *Psychiatry Research, 186*(1), 65–70. doi:10.1016/j.psychres.2010.07.056.

Hannan, T. (2016). Childhood trauma and the developing brain. *Australasian Science, 37*(7), 41. Retrieved from http://www.australasianscience.com.au/article/issue-september-2016/childhood-trauma-and-developing-brain.html.

Hargus, E., Hawton, K., & Rodham, K. (2009). Distinguishing between subgroups of adolescents who self-harm. *Suicide & Life-Threatening Behavior, 39*(5), 518–537. https://doi.org/10.1521/suli.2009.39.5.518

Harris, R. (2006). Embracing your demons: An overview of acceptance and commitment therapy. *Psychotherapy in Australia, 12*(4), 1–8. Retrieved from https://www.actmindfully.com.au/upimages/Dr_Russ_Harris_-_A_Non-technical_Overview_of_ACT.pdf

Hasking, P., Andrews, T., & Martin, G. (2013). The role of exposure to self-injury among peers in predicting later self-injury. *Journal of Youth and Adolescence, 42*(10), 1543–1556. doi:10.1007/s10964-013-9931-7

Hasking, P., Rees, C. S., Martin, G., & Quigley, J. (2015). What happens when you tell someone you self-injure? The effects of disclosing NSSI to adults and peers. *BioMed Central Public Health, 15*(1), 1039. doi:10.1186/s12889-015-2383-0

Hasking, P., & Rose, A. (2016). A preliminary application of social cognitive theory to nonsuicidal self-injury. *Journal of Youth and Adolescence, 45*(8), 1560–1574. doi:10.1007/s10964-016-0449-7

Hasking, P., Tatnell, R. C., & Martin, G. (2015). Adolescents' reactions to participating in ethically sensitive research: A prospective self-report study. *Child and Adolescent Psychiatry and Mental Health, 9*(39), 1–12. doi:10.1186/s13034-015-0074-3

Hasking, P., Whitlock, J., Voon, D., & Rose, A. (2016). A cognitive-emotional model of NSSI: Using emotion regulation and cognitive processes to explain why people self-injure. *Cognition and Emotion, 31*(8), 1543–1556. doi:10.1080/02699931.2016.1241219

Haverkamp, B. E., & Young, R. A. (2007). Paradigms, purpose, and the role of literature: Formulating a rationale for qualitative investigations. *The Counseling Psychologist, 35*(2), 265–294. doi:10.1177/0011000006292597

Hawton, K., Harriss, L., & Rodham, K. (2010). How adolescents who cut themselves differ from those who take overdoses. *European Child & Adolescent Psychiatry, 19*(6), 513–523. doi:10.1007/s00787-009-0065-0

Hawton, K., & Rodham, K. (2006). *By their own young hand: Deliberate self-harm and suicidal ideas in adolescents*. London, GBR: Jessica Kingsley Publishers.

Hawton, K., Rodham, K., Evans, E., & Harriss, L. (2009). Adolescents who self-harm: A comparison of those who go to hospital and those who do not. *Child and Adolescent Mental Health, 14*(1), 24–30. doi:10.1111/j.1475-3588.2008.00485.x

Hawton, K., Rodham, K., Evans, E., & Weatherall, R. (2002). Deliberate self harm in adolescents: Self report survey in schools in England. *British Medical Journal, 325*(7374), 1207–1211. Retrieved from http://www.ncbi.nlm.nih.gov /pmc/articles/PMC135492/

Hayes, L., Boyd, C. P., & Sewell, J. (2011). Acceptance and commitment therapy for the treatment of adolescent depression: A pilot study in a psychiatric outpatient setting. *Mindfulness, 2*(2), 86–94. Retrieved from https://contextualscience.org/publications/acceptance_and_commitment_therapy_for_the_treatmen

Hayes, S. C., Masuda, A., Bissett, R., Luoma, J., & Guerrero, L. F. (2004).DBT, FAP, and ACT: How empirically oriented are the new behavior therapy technologies? *Behavior Therapy, 35*(1), 35–54. https://doi.org/10.1016/S0005-7894(04)80003-0

Hayes, S. C., Pistorello, J., & Levin, M. E. (2012). Acceptance and commitment therapy as a unified model of behavior change. *The Counseling Psychologist, 40*(7), 976–1002. doi:10.1177/0011000012460836

Hays, D. G., & Wood, C. (2011). Infusing qualitative traditions in counseling research designs. *Journal of Counseling & Development, 89*(3), 288–295. https://doi.org/10.1002/j.1556-6678.2011.tb00091.x

Healey, A. C., Trepal, H. C., & Emelianchik-Key, K. (2010). Nonsuicidal self-injury: Examining the relationship between diagnosis and gender. *Journal of Mental Health Counseling, 32*(4), 324–341. https://doi.org/10.17744/mehc.32.4.366740506r458202

Heath, N. L., Baxter, A. L., Toste, J. R., & McLouth, R. (2010). Adolescents' willingness to access school-based support for nonsuicidal self-injury. *Canadian Journal of School Psychology, 25*(3), 260–276. doi:10.1177/0829573510377979

Heath, N. L., Ross, S., Toste, J. R., Charlebois, A., & Nedecheva, T. (2009). Retrospective analysis of social factors and nonsuicidal self-injury among young adults. *Canadian Journal of Behavioral Science, 41*(3), 180–186. doi:10.1037/a0015732

Heilbron, N., & Prinstein, M. J. (2008). Peer influence and adolescent nonsuicidal self-injury: A theoretical review of mechanisms and moderators. *Applied and Preventive Psychology, 12*, 169–177. doi:10.1016/j.appsy.2008.05.004

Heilbron, N., & Prinstein, M. J. (2010). Adolescent peer victimization, peer status, suicidal ideation, and nonsuicidal self-injury: Examining concurrent and longitudinal associations. *Merrill-Palmer Quarterly, 56*(3), 388–419. doi:10.1353/mpq.0.0049

Heim, C., & Nemeroff, C. B. (2001). The role of childhood trauma in the neurobiology of mood and anxiety disorders: Preclinical and clinical studies. *Biological Psychiatry, 49*(12), 1023–1039. https://doi.org/10.1016/S0006-3223(01)01157-X

Heim, C., Plotsky, P. M., & Nemeroff, C. B. (2004). Importance of studying the contributions of early adverse experience to neurobiological findings in depression. *Neuropsychopharmacology, 29*(4), 641–648. doi:10.1038/sj.npp.1300397

Heim, C., Shugart, M., Craighead, M., & Nemeroff, C. B. (2010). Neurobiological and psychiatric consequences of child abuse and neglect. *Developmental Psychobiology, 52*(7), 671–690. doi:10.1002/dev.20494

Heron, K. E., & Smyth, J. M. (2013). Body image discrepancy and negative affect in women's everyday lives: An ecological momentary assessment evaluation of self-discrepancy theory. *Journal of Social & Clinical Psychology, 32*(3), 276–295. https://doi.org/10.1521/jscp.2013.32.3.276

Hiles, D. R. (2008). Axiology. In L. M. Given (Ed.), *The SAGE Encyclopedia of Qualitative Research Methods* (pp. 52–56). http://dx.doi.org/10.4135/9781412963909.n31

Hill, K., & Dallos, R. (2011). Young people's stories of self–harm: A narrative study. *Clinical Child Psychology and Psychiatry, 17*(3), 459–475. doi:10.1177/1359104511423364

Hill, R. M., Castellanos, D., & Pettit, J. W. (2011). Suicide-related behaviors and anxiety in children and adolescents: A review. *Clinical Psychology Review, 31*(7), 1133–1144. doi:10.1016/j.cpr.2011.07.008

Hilt, L. M., Nock, M. K., Lloyd-Richardson, E. E., & Prinstein, M. J. (2008). Longitudinal study of nonsuicidal self-injury among young adolescents. Rates, correlates, and preliminary test of an interpersonal model. *Journal of Early Adolescence, 28*(3), 455-469. doi:10.1177/0272431608316604

Hilvert-Bruce, Z., Rossouw, P. J., Wong, N., Sunderland, M., & Andrews, G. (2012). Adherence as a determinant of effectiveness of internet cognitive behavioural therapy for anxiety and depressive disorders. *Behaviour Research and Therapy, 50* (7-8), 463-468. doi:10.1016/j.brat.2012.04.001

Hoff, E. R., & Muehlenkamp, J. J. (2009). Nonsuicidal self-injury in college students: The role of perfectionism and rumination. *Suicide and Life-Threatening Behavior, 39*(6), 576–587. doi:10.1521/suli.2009.39.6.576

Hoffman, R. M., & Kress, V. E. (2010). Adolescent nonsuicidal self-injury: Minimizing client and counselor risk and enhancing client care. *Journal of*

Mental Health Counseling, 32(4). 342–347. https://www.researchgate.net/publication/228474323

Hooley, J. M., & St. Germain, S. A. (2014). Nonsuicidal self-injury, pain, and self-criticism: Does changing self-worth change pain endurance in people who engage in self-injury? *Clinical Psychological Science, 2*(3), 297–305. doi:10.1177/2167702613509372

Hopps, S. L., Pépin, M., & Boisvert, J. (2003). The effectiveness of cognitive-behavioral group therapy for loneliness via inter-relay-chat among people with physical disabilities. *Psychotherapy: Theory, Research, Practice, Training, 40*(1/2), 136–147. doi:10.1037/0033-3204.40.1/2.136

Horner, R. H. (1994). Functional assessment: Contributions and future directions. *Journal of Applied Behavior Analysis, 27*(2), 401-404. doi:10.1901/jaba.1994.27-401

Horner, R. H., & Day, H. M. (1991). The effects of response efficiency on functionally equivalent competing behaviors. *Journal of Applied Behavior Analysis, 24*(4), 719–732. doi:10.1901/jaba.1991.24-719

Hoshmand, L. T. (2005). Narratology, cultural psychology, and counseling research. *Journal of Counseling Psychology, 52*(2), 178–186. doi:10.1037/0022-0167.52.2.178

Howe-Martin, L. S., Murrell, A. R., & Guarnaccia, C. A. (2012). Repetitive nonsuicidal self-injury as experiential avoidance among a community sample of adolescents. *Journal of Clinical Psychology, 68*(7), 809–828. doi:10.1002/jclp.21868

Hysing, M., Sivertsen, B., Stormark, K. M., & O'Connor, R. C. (2015). Sleep problems and self-harm in adolescence. *The British Journal of Psychiatry, 207*(4), 306–312. doi:10.1192/bjp.bp.114.146514

Iwata, B. A., Dorsey, M. F., Slifer, K. J., Bauman, K. E., & Richman., G. S. (1994). Toward a functional analysis of self-injury. *Journal of Applied Behavior Analysis, 27*(2), 197–209. doi:10.1901/jaba.1994.27-197

Iwata, B. A., & Dozier, C. L. (2008). Clinical application of functional analysis methodology. *Behavior Analysis in Practice*, *1*(1), 3–9. doi:10.1007/BF03391714

Jacobson, C. M., Muehlenkamp, J. J., Miller, A. C., & Turner, J. B. (2008). Psychiatric impairment among adolescents engaging in different types of deliberate self-harm. *Journal of Clinical Child & Adolescent Psychology, 37*(2), 363–375. doi:10.1080/15374410801955771

Jaffe, E., DiLillo, D., Hoffmann, L., Haikalis, M., & Dykstra, R.E. (2015). Does it hurt to ask? A meta-analysis of participant reactions to trauma research. *Clinical Psychology Review, 40*, 40–56. http://dx.doi.org/10.1016/j.cpr.2015.05.004

Janis, I. B., & Nock, M. K. (2009). Are self-injurers impulsive?: Results from two behavioral laboratory studies. Psychiatry Research, 169(3), 261–267. doi:10.1016/j.psychres.2008.06.041

Jarvi, S. M., Hearon, B. A., Batejan, K. L., Gironde, S., & Björgvinsson, T. (2017). Relations between past-week physical activity and recent nonsuicidal self-injury in treatment-seeking psychiatric adults. *Journal of Clinical Psychology, 73*(4), 479–488. doi:10.1002/jclp.22342

Jenkins, A. L., & Schmitz, M. F. (2012). The roles of affect dysregulation and positive affect in non-suicidal self-injury. *Archives of Suicide Research, 16*(3), 212–225. doi:10.1080/13811118.2012.695270

Johnson, L. E., & Benight, C. C. (2003). Effects of trauma-focussed research on recent domestic violence survivors. *Journal of Traumatic Stress, 16*(6), 567–571.

Joiner, T. E., Ribeiro, J. D., & Silva, C. (2012). Nonsuicidal self-injury, suicidal behavior, and their co-occurrence as viewed through the lens of the interpersonal theory of suicide. *Current Directions in Psychological Science, 21*(5), 342–347. https://doi-org.ezproxy.usq.edu.au/10.1177/0963721412454873

Jutengren, G., Kerr, M., & Stattin, H. (2011). Adolescents' deliberate self-harm, interpersonal stress, and the moderating effects of self-regulation: A two-wave longitudinal analysis. *Journal of School Psychology, 49*(2), 249–264. doi:10.1016/j.jsp.2010.11.001

Kaess, M., Hille, M., Parzer, P., Maser-Gluth, C., Resch, F., & Brunner, R. (2012). Alterations in the neuroendocrinological stress response to acute psychosocial stress in adolescents engaging in nonsuicidal self-injury. *Psychoneuroendocrinology*, *37*(1), 157–161. doi:10.1016/j.psyneuen.2011.05.009

Kaess, M., Parzer, P., Mattern, M., Plener, P., Bifulco, A., Resch, F., & Brunner, R. (2013). Adverse childhood experiences and their impact on frequency, severity, and the individual function of nonsuicidal self-injury in youth. *Psychiatry Research, 206*, 265–272. http://dx.doi.org/10.1016/j.psychres.2012.10.012

Kafle, N. P. (2011). Hermeneutic phenomenological research method simplified. *Bodhi: An Interdisciplinary Journal, 5*(1), 181–200. http://dx.doi.org/10.3126/bodhi.v5i1.8053

Kamen, D. G. (2009). How can we stop our children from hurting themselves? Stages of change, motivational interviewing, and exposure therapy applications for non-suicidal self-injury in children and adolescents. *International Journal of Behavioral Consultation and Therapy, 5*(1), 106–123. http://dx.doi.org/10.1037/h0100874

Kandel, E. R. (1998). A new intellectual framework for psychiatry. *American Journal of Psychiatry*, *155*(4), 457–469. https://www.ncbi.nlm.nih.gov/pubmed/9545989

Kaplan, C., Tarlow, N., Stewart, J. G., Aguirre, B., Galen, G., & Auerbach, R. P. (2016). Borderline personality disorder in youth: The prospective impact of child abuse on non-suicidal self-injury and suicidality. *Comprehensive Psychiatry, 71*, 86–94. http://dx.doi.org/10.1016/j.comppsych.2016.08.0160010-440X/©

Kapur, N., & Gask, L. (2006). Introduction to suicide and self-harm. *Psychiatry, 5*(8), 259–262. https://doi.org/10.1053/j.mppsy.2006.05.004

Karpel, M. G., & Jerram, M. W. (2015). Levels of dissociation and nonsuicidal self-injury: A quartile risk model. *Journal of Trauma & Dissociation, 16*(3), 303–321. doi:10.1080/15299732.2015.989645

Kearney, A. J. (2007). *Understanding applied behavior analysis: An introduction to ABA for parents, teachers, and other professionals.* London, GBR: Jessica Kingsley Publishers.

Kelada, L., Hasking, P., & Melvin, G. (2016a). The relationship between nonsuicidal self-injury and family functioning: Adolescent and parent perspectives. *Journal of Marital and Family Therapy, 42*(3), 536–549. doi:10.1111/jmft.12150

Kelada, L., Hasking, P., & Melvin, G. (2016b). Adolescent NSSI and recovery: The role of family functioning and emotion regulation. *Youth & Society,* 1–22. doi:10.1177/0044118X16653153

Kellet, M. (2011). Researching with and for children and young people. *Centre for Children and Young People: Background Briefing Series, no. 5*. Centre for Children and Young People, Southern Cross University, Lismore, NSW. Retrieved from https://epubs.scu.edu.au/cgi/viewcontent.cgi?article=1044&context=ccyp_pubs

Kerr, P. L., & Muehlenkamp, J. J. (2010). Features of psychopathology in self-injuring female college students. *Journal of Mental Health Counseling, 32*(4), 290–308. http://dx.doi.org/10.17744/mehc.32.4.r805820715t6124q

Kidger, J., Heron, J., Leon, D. A., Tilling, K., Lewis, G., & Gunnell, D. (2015). Self-reported school experience as a predictor of self-harm during adolescence: A prospective cohort study in the South West of England (ALSPAC). *Journal of Affective Disorders, 173*, 163–169. http://dx.doi.org/10.1016/j.jad.2014.11.003

Kids Help Line (2011). *Overview 2011*. Retrieved from http://www.kidshelp.com.au/upload/22918.pdf

Kilpatrick, L. A., Suyenobu, B. Y., Smith, S. R., Bueller, J. A., Goodman, T., Creswell, J. D., …Naliboff, B. D. (2011). Impact of mindfulness-based stress reduction training on intrinsic brain connectivity. *Neuroimage, 56*(1), 290–298. doi:10.1016/j.neuroimage.2011.02.034

Kingston, J., Clarke, S., & Remington, B. (2010). Experiential avoidance and problem behavior: A mediational analysis. *Behavior Modification, 34*(2), 145–163. doi:10.1177/0145445510362575

Kinniburgh, K. J., Blaustein, M., Spinazzola, J., & van der Kolk, B. A. (2005). Attachment, self-regulation, and competency. *Psychiatric Annals, 35*(5), 424–430. http://psycnet.apa.org/record/2005-05449-007

Kirke-Smith, M., Henry, L., & Messer, D. (2014). Executive functioning: Developmental consequences on adolescents with histories of maltreatment. *British Journal of Developmental Psychology, 32*(3), 305–319. doi:10.1111/bjdp.12041

Kirtley, O. J., O'Carroll, R. E., & O'Connor, R. C. (2016). Pain and self-harm: A systematic review. *Journal of Affective Disorders, 203*, 347–363. http://dx.doi.org/10.1016/j.jad.2016.05.068

Kleim, J. A., & Jones, T. A. (2008). Principles of experience-dependent neural plasticity: Implications for rehabilitation after brain damage. *Journal of Speech, Language, and Hearing Research, 51*(1), S225–S239. doi:1092-4388/08/5101-S225

Klineberg, E., Kelly, M. J., Stansfeld, S. A., & Bhui, K. S. (2013). How do adolescents talk about self-harm: A qualitative study of disclosure in an ethnically diverse urban population in England. *BMC Public Health, 13*(1), 572. doi:10.1186/1471-2458-13-572

Klomek, A. B., Snir, A., Apter, A., Carli, V., Wasserman, C., Hadlaczky, G., …Wasserman, D. (2016). Association between victimization by bullying and direct self-injurious behavior among adolescence in Europe: A ten-country study. *European Child & Adolescent Psychiatry, 25*(11), 1183–1193. doi:10.1007/s00787-016-0840-7

Klonsky, E. D. (2007). The functions of deliberate self-injury: A review of the evidence. *Clinical Psychology Review, 27*(2), 226–239. doi:10.1016/j.cpr.2006.08.002

Klonsky, E. D. (2009). The functions of self-injury in young adults who cut themselves: Clarifying the evidence for affect-regulation. *Psychiatry Research, 166*(2), 260–268. doi:10.1016/j.psychres.2008.02.008

Klonsky, E. D., & Glenn, C. R. (2008). Resisting urges to self-injure. *Behavioural and Cognitive Psychotherapy, 36*(2), 211–220. doi:10.1017/S1352465808004128

Klonsky, E. D., & Glenn, C. R. (2009). Assessing the functions of non-suicidal self-injury: Psychometric properties of the Inventory of Statements about Self-injury (ISAS). *Journal of Psychopathology and Behavioral Assessment, 31*(2), 215–219. doi:10.1007/s10862-008-9107-z

Klonsky, E. D., Glenn, C. R., Styer, D. M., Olino, T. M., & Washburn, J. J. (2015). The functions of nonsuicidal self-injury: Converging evidence for a two-factor structure. *Child & Adolescent Psychiatry & Mental Health, 9*, 44. doi:10.1186/s13034-015-0073-4

Klonsky, E. D., & Muehlenkamp, J. J. (2007). Self-injury: A research review for the practitioner. *Journal of Clinical Psychology: In Session, 63*(11), 1045–1056. doi:10.1002/jclp.20412

Klonsky, E. D., & Olino, T. M. (2008). Identifying clinically distinct subgroups of self-injurers among young adults: A latent class analysis. *Journal of Consulting and Clinical Psychology, 76*(1), 22–27. doi:10.1037/0022-006X.76.1.22

Koenig, J., Brunner, R., Fischer-Waldschmidt, G., Parzer, P., Plener, P. L., Park, J., …Kaess, M. (2017). Prospective risk for suicidal thoughts and behavior in adolescents with onset, maintenance or cessation of direct self-injurious behavior. *European Child & Adolescent Psychiatry, 26*(3), 345–354. doi:10.1007/s00787-016-0896-4

Kögler, H. (2011). Phenomenology, hermeneutics, and ethnomethodology. In I. C. Jarvie & J. Zamora-Bonilla (Eds.), *The SAGE Handbook of the Philosophy of Social Sciences* (pp. 445-463). doi:http://dx.doi.org/10.4135/ 9781473913868.n23

Kohlenberg, R. J. (2005). *Functional analytic psychotherapy basic principles*. Retrieved from http://www.functionalanalyticpsychotherapy.com/FAP %20Basic%20Principles.pdf

Kohlenberg, R. J., & Tsai, M. (1994) Functional analytic psychotherapy: A radical behavioral approach to treatment and integration. *Journal of Psychotherapy and Integration, 4*(3), 175–201. http://dx.doi.org/10.1037/h0101264

Kool, N., van Meijel, B., Bosman, M. (2009). Behavioral change in patients with severe self-injurious behavior: A patient's perspective. *Archives of Psychiatric Nursing, 23*(1), 25–31. doi:10.1016/j.apnu.2008.02.012

Kozlowski, A. M., & Matson, J. L. (2012). Interview and observation methods in functional assessment. In J. L. Matson (Ed.), *Functional Assessment for Challenging Behaviors. Autism and Child Psychopathology Series.* (pp. 105–124). doi:10.1007/978-1-4614-3037-7_7,4614-3037-7_2,

Kress, V. E., Newgent, R. A., Whitlock, J., & Mease, L. (2015). Spirituality/religiosity, life satisfaction, and life meaning as protective factors for nonsuicidal self-injury in college students. *Journal of College Counseling, 18*(2), 160–174. doi:10.1002/jocc.12012

Kuckartz, U. (2014). *Qualitative text analysis: A guide to methods, practice and using software.* Retrieved from https://au.sagepub.com/en-gb/oce/ qualitative-text-analysis/book240393

Kuentzel, J. G., Arble, E., Boutros, N., Chugani, D., & Barnett, D. (2012). Nonsuicidal self-injury in an ethnically diverse college sample. *American Journal of Orthopsychiatry*, *82*(3), 291–297. doi:10.1111/j.1939-0025.2012.01167.x

Laghi, F., Terrinoni, A., Cerutti, R., Fantini, F., Galosi, S., Ferrara, M., & Bosco, F. M. (2016). Theory of mind in non-suicidal self-injury (NSSI) adolescents.

Consciousness and Cognition, 43, 38–47 http://dx.doi.org/10.1016/j.concog.2016.05.004

Lakeman, R., & FitzGerald, M. (2009). The ethics of suicide research: The views of ethics committee members. *Crisis, 30*(1), 13–19. doi:10.1027/0227-5910.30.1.13

Landstedt, E., & Gillander Gådin, K. (2011). Deliberate self-harm and associated factors in 17-year-old Swedish students. *Scandinavian Journal of Public Health, 39*(1), 17–25. doi:10.1177/1403494810382941

Lang, C. M., & Sharma-Patel, K. (2011). The relation between childhood maltreatment and self-injury: A review of the literature on conceptualization and intervention. *Trauma, Violence, & Abuse, 12*(1), 23–37. doi:10.1177/1524838010386975

Lanza, S. T., Piper, M. E., & Shiffman, S. (2014). New methods for advancing research on tobacco dependence using ecological momentary assessments. *Nicotine & Tobacco Research, 16*(Supplement 2), S71–S72. doi:10.1093/ntr/ntt213

Larkin, C., Di Blasi, Z., & Arensman, E. (2013). Self-cutting versus intentional overdose: Psychological risk factors. *Medical Hypotheses, 81*(2), 347–354. http://dx.doi.org/10.1016/j.mehy.2013.04.001

Latimer, S., Meade, T., & Tennant, A. (2013). Measuring engagement in deliberate self-harm behaviours: Psychometric evaluation of six scales. *BMC Psychiatry, 13*(1), 4. https://doi.org/10.1186/1471-244X-13-4

Laukkanen, E., Rissanen, M., Tolmunen, T., Kylma, J., & Hintikka, J. (2013). Adolescent self-cutting elsewhere than on the arms reveals more serious psychiatric symptoms. *European Child and Adolescent Psychiatry, 22*(8), 501–510. doi:10.1007/s00787-013-0390-1

Lavender, J. M., Wonderlich, S. A., Crosby, R. D., Engel, S. G., Mitchell, J. E., Crow, S. J., …Le Grange, D. (2013). Personality-based subtypes of anorexia nervosa: Examining validity and utility using baseline clinical variables and

ecological momentary assessment. *Behaviour Research and Therapy, 51*(8), 512–517. http://dx.doi.org/10.1016/j.brat.2013.05.007

Laverty, S. M. (2003). Hermeneutic phenomenology and phenomenology: A comparison of historical and methodological considerations. *International Journal of Qualitative Methods, 2*(3), 21–35. doi:10.1177/160940690300200303

LaVigna, G. W., & Willis, T. J. (1992). *Challenging behavior: A model for breaking the barriers to social and community integration*. Retrieved from http://www.iaba.com/article.htm

LaVigna, G. W., & Willis, T. J. (2005). Episodic severity. An overlooked dependent variable in the application of behavior analysis to challenging behavior. *Journal of Positive Behavior Interventions, 7*(1), 47–54. https://doi.org/10.1177/10983007050070010501

Lawrence, D., Johnson, S., Hafekost, J., Boterhoven De Haan, K., Sawyer, M., Ainley, J., & Zubrick, S. R. (2015). *The mental health of children and adolescents. Report on the second Australian Child and Adolescent Survey of Mental Health and Wellbeing*. Department of Health, Canberra. Retrieved from https://www.health.gov.au/internet/main/publishing.nsf/Content/9DA8CA21306FE6EDCA257E2700016945/%24File/child2.pdf

Laye-Gindhu, A., & Schonert-Reichl, K. A. (2005). Nonsuicidal self-harm among community adolescents: Understanding the "whats" and "whys" of self-harm. *Journal of Youth and Adolescence, 34*(5), 447–457. doi:10.1007/s10964-005-7262-z

Leahy, R. L., & Rego, S. A. (2012). Cognitive restructuring. In W. T. O'Donohue & J. E. Fisher (Eds.), *Cognitive behavior therapy: Core principles for practice* (pp. 133-158). http://dx.doi.org/10.1002/9781118470886.ch6

Legrand, F. D., & Neff, E. M. (2016). Efficacy of exercise as an adjunct treatment for clinically depressed inpatients during the initial stages of antidepressant pharmacotherapy: An open randomized controlled trial. *Journal of Affective Disorders, 191,* 139–144. http://dx.doi.org/10.1016/j.jad.2015.11.047

Lereya, S. T., Winsper, C., Heron, J., Lewis, G., Gunnell, D., Fisher, H. L., & Wolke, D. (2013). Being bullied during childhood and the prospective pathways to self-harm in late adolescence. *Journal of the American Academy of Child & Adolescent Psychiatry, 52*(6), 608–618. http://dx.doi.org/10.1016/j.jaac.2013.03.012

Lerman, D. C., & Iwata, B. A. (1993). Descriptive and experimental analyses of variables maintaining self-injurious behavior. *Journal of Applied Behavior Analysis, 26(*3), 293–319. doi: 10.1901/jaba.1993.26-293

Lerman, D. C., Iwata, B. A., Zarcone, J. R., & Ringdahl, J. (1994). Assessment of stereotypic and self-injurious behavior as adjunctive responses. *Journal of Applied Behavior Analysis, 27*(4), 715–728. doi: 10.1901/jaba.1994.27-715

Lester, S. (1999). *An introduction to phenomenological research*. Retrieved from https://www.researchgate.net/profile/Stan_Lester/publication/255647619_An_introduction_to_phenomenological_research/links/545a05e30cf2cf5164840df6.pdf

Levekron, S. (1998). *Cutting: Understanding and overcoming self-mutilism.* New York, NY: W. W. Norton & Company Inc.

Lewis, S. P., & Baker, T. G. (2011). The possible risks of self-injury web sites: A content analysis. *Archives of Suicide Research, 15*(4), 390–396. doi:10.1080/13811118.2011.616154

Lewis, S. P., Heath, N. L., St Denis, J. M., & Noble, R. (2011). The scope of nonsuicidal self-injury on YouTube. *Pediatrics, 127*(3), 552–557. doi:10.1542/peds.2010-2317

Lewis, S. P., Heath, N. L., Sornberger, M. J., & Arbuthnott, A. E. (2012). Helpful or harmful? An examination of viewers' responses to nonsuicidal self-injury videos on YouTube. *Journal of Adolescent Health, 51*(4), 380–385. doi:10.1016/j.jadohealth.2012.01.013

Lewis, S. P., & Michal, N. J. (2014). Start, stop, and continue: Preliminary insight into the appeal of self-injury e-communities. *Journal of Health Psychology, 21*(2), 1–11. doi:10.1177/1359105314527140

Lewis, S. P., Rosenrot, S. A., & Santor, D. A. (2011). An integrated model of self harm: Identifying predictors of intent. *Canadian Journal of Behavioural Science 43*(1), 20–29. doi:10.1037/a0022076

Lewis, T. J., Mitchell, B. S., Harvey, K., Green, A., & McKenzie, J. (2015). A comparison of functional behavioral assessment and functional analysis methodology among students with mild disabilities. *Behavioral Disorders, 41*(1), 5–20. http://journals.sagepub.com/doi/pdf/10.17988/0198-7429-41.1.5

Lisetti, C. L., & Wagner, E. (2007). Mental health promotion with animated characters: Exploring issues and potential. *Association for the Advancement of Artificial Intelligence.* Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.464.6601&rep=rep1&type=pdf

Liu, R. T., Cheek, S. M., & Nestor, B. A. (2016). Non-suicidal self-injury and life stress: A systematic meta-analysis and theoretical elaboration. *Clinical Psychology Review, 47*, 1–14. http://dx.doi.org/10.1016/j.cpr.2016.05.005

Liu, R. T., Frazier, E. A., Cataldo, A. M., Simon, V. A., Spirito, A., & Prinstein, M. J. (2014). Negative life events and non-suicidal self-injury in an adolescent inpatient sample. *Archives of Suicide Research, 18*(3), 251–258. doi:10.1080/13811118.2013.824835

Liu, X., Chen, H., Bo, Q., Fan, F., & Jia, C. (2017). Poor sleep quality and nightmares are associated with non-suicidal self-injury in adolescents. *European Child & Adolescent Psychiatry, 26*(3), 271–279. doi:10.1007/s00787-016-0885-7

Lloyd-Richardson, E. E., Lewis, S. P., Whitlock, J. L., Rodham, K., & Schatten, H. T. (2015). Research with adolescents who engage in non-suicidal self-injury: Ethical considerations and challenges. *Child & Adolescent Psychiatry & Mental Health, 9*(37), 1–14. doi:10.1186/s13034-015-0071-6

Lloyd-Richardson, E. E., Perrine, N., Dierker, L., & Kelley, M. L. (2007). Characteristics and functions of non-suicidal self-injury in a community

sample of adolescents. *Psychological Medicine*, *37*(8), 1183–1192. doi:10.1017/S003329170700027X.

Long, M., & Jenkins, M. (2010). Counsellors' perspectives on self-harm and the role of the therapeutic relationship for working with clients who self-harm. *Counselling and Psychotherapy Research, 10*(3), 192–200. doi:10.1080/14733140903474293

Longo, J., Walls, N. E., & Wisneski, H. (2013). Religion and religiosity: Protective or harmful factors for sexual minority youth? *Mental Health, Religion & Culture, 16*(3), 273–290. doi:10.1080/13674676.2012.659240

Lucassen, M. F. G., Merry, S. N., Robinson, E. M., Denny, S., Clark, T., Ameratunga, S., …Rossen, F. V. (2011). Sexual attraction, depression, self-harm, suicidality and help-seeking behaviour in New Zealand secondary school students. *Australian and New Zealand Journal of Psychiatry, 45*(5), 376–383. doi:10.3109/00048674.2011.559635

Lüdtke, J., In-Albon, T., Michel, C., & Schmid, M. (2016). Predictors for DSM-5 nonsuicidal self-injury in female adolescent inpatients: The role of childhood maltreatment, alexithymia, and dissociation. *Psychiatry Research, 239*, 346–352. http://dx.doi.org/10.1016/j.psychres.2016.02.026

Lüdtke, J., Weizenegger, B., Rauber, R., Contin, B., In-Albon, T., & Schmid, M. (2017). The influence of personality traits and emotional and behavioral problems on repetitive nonsuicidal self-injury in a school sample. *Comprehensive Psychiatry, 74*, 214–223. http://dx.doi.org/10.1016/j.comppsych.2017.02.005

Lundh, L., & Bjärehed, J., & Wångby-Lundh, M. (2012). Poor sleep as a risk factor for nonsuicidal self-injury in adolescent girls. *Journal of Psychopathology and Behavioral Assessment, 35*(1), 85–92. doi:10.1007/s10862-012-9307-4

Luxton, D. D., McCann, R. A., Bush, N. E., Mishkind, M. C., & Reger, G. M. (2011). mHealth for mental health: Integrating smartphone technology in behavioral healthcare. *Professional Psychology: Research and Practice, 42*(6), 505–512. doi:10.1037/a0024485

Lynam, D. R., Miller, J. D., Miller, D, J., Bornovalova, M. A., & Lejuez, C. W. (2011). Testing the relations between impulsivity-related traits, suicidality, and nonsuicidal self-injury: A test of the incremental validity of the UPPS Model. *Personality Disorders: Theory, Research, and Treatment, 2*(2), 151–160. doi:10.1037/a0019978

Mack, L. (2010). The philosophical underpinnings of educational research. *Polyglossia, (19),* 1–7. Retrieved from http://en.apu.ac.jp/rcaps/uploads/fckeditor/publications/polyglossia/Polyglossia_V19_Lindsay.pdf

MacLaren, V. V., & Best, L. A. (2010). Nonsuicidal self-injury, potentially addictive behaviors, and the five factor model in undergraduates. *Personality and Individual Differences 49*(5), 521–525. https://doi.org/10.1016/j.paid.2010.05.019

Makinson, R. A., & Young, S. (2012). Cognitive behavioral therapy and the treatment of posttraumatic stress disorder: Where counseling and neuroscience meet. *Journal of Counseling & Development, 90*(2), 131–140. doi:10.1111/j.1556-6676.2012.00017.x

Mallen, M. J., Jenkins, I. M., Vogel, D. L., & Day, S. X. (2011). Online counselling: An initial examination of the process in a synchronous chat environment. *Counselling and Psychotherapy Research, 11*(3), 220–227. doi:10.1080/14733145.2010.486865

Mallen, M. J., Vogel, D. L., & Rochlen, A. B. (2005). The practical aspects of online counseling: Ethics, training, technology, and competency. *The Counseling Psychologist, 33*(6), 776–818. doi:10.1177/0011000005278625

Manca, M., Presaghi, F., & Cerutti, R. (2014). Clinical specificity of acute versus chronic self-injury: Measurement and evaluation of repetitive non-suicidal self-injury. *Psychiatry Research, 215*(1), 111–119. http://dx.doi.org/10.1016/j.psychres.2013.10.010

Marco, J. H., Garcia-Alandete, J., Pérez, S., Guillen, V., Jorquera, M., Espallargas, P., & Botella, C. (2015). Meaning in life and non-suicidal self-injury: A follow-up study with participants with borderline personality disorder.

Psychiatry Research, 230(2), 561–566. http://dx.doi.org/10.1016/j.psychres.2015.10.004

Marriot, M., & Kellett, S. (2009). Evaluating a cognitive analytic therapy service: Practice- based outcomes and comparisons with person-centred and cognitive-behavioural therapies. *Psychology and Psychotherapy: Theory, Research and Practice, 82*(Pt 1), 57–72. doi:10.1348/147608308X336100

Mars, B., Heron, J., Crane, C., Hawton, K., Kidger., Lewis., G … Gunnell, D. (2014). Differences in risk factors for self-harm with and without suicidal intent: Findings from the ALSPAC cohort. *Journal of Affective Disorders, 168*, 407–414. doi:http://dx.doi.org/10.1016/j.jad.2014.07.009

Marshall, S. K., Faaborg-Andersen, P., Tilton-Weaver, L. C., & Stattin, H. (2013). Peer sexual harassment and deliberate self-injury: Longitudinal cross-lag investigations in Canada and Sweden. *Journal of Adolescent Health, 53*(6), 717–722. http://dx.doi.org/10.1016/j.jadohealth.2013.06.009

Marshall, S. K., Tilton-Weaver, L. C., & Stattin, H. (2013). Non-suicidal self-injury and depressive symptoms during middle adolescence: A longitudinal analysis. *Journal of Youth and Adolescence, 42*(8), 1234–1242. doi:10.1007/s10964-013-9919-3

Martin, G., Thomas, H., Andrews, T., Hasking, P., & Scott, J. G. (2014). Psychotic experiences and psychological distress predict contemporaneous and future non-suicidal self-injury and suicide attempts in a sample of Australian school-based adolescents. *Psychological Medicine, 45*(2), 429–437. doi:10.1017/S0033291714001615

Martin, J., Bureau, J., Cloutier, P., & Lafontaine, M. (2011). A comparison of invalidating family environment characteristics between university students engaging in self-injurious thoughts & actions and non-self-injuring university students. *Journal of Youth and Adolescence, 40*(11), 1477–1488. doi:10.1007/s10964-011-9643-9

Martin, J., Bureau, J., Yurkowski, K., Fournier, T. R., Lafontaine, M., & Cloutier, P. (2016). Family-based risk factors for non-suicidal self-injury: Considering

influences of maltreatment, adverse family-life experiences, and parent-child relational risk. *Journal of Adolescence, 49*, 170–180. http://dx.doi.org/10.1016/j.adolescence.2016.03.015

Matson, J., & Minshawi, N. F. (2007). Functional assessment of challenging behavior: Toward a strategy for applied settings. *Research in Developmental Disabilities 28*(4), 353–361. doi:10.1016/j.ridd.2006.01.005

McClain, N., & Amar, A. F. (2013). Female survivors of child sexual abuse: Finding voice through research participation. *Issues in Mental Health Nursing, 34*(7), 482–487. doi:10.3109/01612840.2013.773110

McCloskey, M. S., Look, A. E., Chen, E. Y., Pajoumand, G., & Berman, M. E. (2012). Nonsuicidal self-injury: Relationship to behavioral and self-rating measures of impulsivity and self-aggression. *Suicide and Life-Threatening Behavior, 42*(2), 197–209. doi:10.1111/j.1943-278X.2012.00082.x

McCord, B. E., Thomson, R. J., & Iwata, B. A. (2001). Functional analysis and treatment of self-injury associated with transitions. *Journal of Applied Behavior Analysis, 34*(2), 195–210. doi:10.1901/jaba.2001.34-195

McDonald, G., O'Brien, L., & Jackson, D. (2007). Guilt and shame: Experiences of parents of self-harming adolescents. *Journal of Child Health Care, 11*(4), 298–310. doi:10.1177/1367493507082759

McLeod, J., & Elliott, R. (2011). Systematic case study research: A practice-oriented introduction to building an evidence base for counselling and psychotherapy *Counselling and Psychotherapy Research, 11*(1), 1–10. doi:10.1080/14733145.2011.548954

Mertler, C. A. & Charles, C. M. (2011). *Introduction to educational research* (7th ed.). Boston: Pearson Education, Inc.

Messer, J. M., & Fremouw, W. J. (2008). A critical review of explanatory models for self-mutilating behaviors in adolescents. *Clinical Psychology Review, 28*(1), 162–178. doi:10.1016/j.cpr.2007.04.006

Miller, A. L., & Smith, H. L. (2008). Adolescent non-suicidal self-injurious behavior: The latest epidemic to assess and treat. *Applied and Preventive Psychology 12*(4), 178–188. doi:10.1016/j.appsy.2008.05.003

Miranda, D. (2013). The role of music in adolescent development: much more than the same old song. *International Journal of Adolescence and Youth, 18*(1), 5–22. doi:10.1080/02673843.2011.650182

Mitchell, K. J., Wells, M., Priebe, G., & Ybarra, M. L. (2014). Exposure to websites that encourage self-harm and suicide: Prevalence rates and association with actual thoughts of self-harm and thoughts of suicide in the United States. *Journal of Adolescence, 37*(8), 1335–1344. http://dx.doi.org/10.1016/j.adolescence.2014.09.011

Moore, J. (1997). Some thoughts on the s-R issue and the relation between behavior analysis and behavioral neuroscience. *Journal of the Experimental Analysis of Behavior, 67*(2), 242–245.

Moore, J. (2002). Some thoughts on the relation between behavior analysis and behavioral neuroscience. *The Psychological Record, 52*(3), 261–279. doi:10.1007/BF03395429

Moore, J. (2011). Behaviorism. *The Psychological Record, 61*(3), 449–464. doi:10.1007/BF03395771

Moran, P., Coffey, C., Romaiuk, H., Olsson, C., Borschmann, R., Carlin, J. B., & Patton, G. C. (2012). The natural history of self-harm from adolescence to young adulthood: A population-based cohort study. *The Lancet, 379*(9812), 236–243. doi:10.1016/S0140-6736(11)61141-0

Moreno, M. A., Ton, A., Selkie, E., & Evans, Y. (2016). Secret Society 123: Understanding the language of self-harm on Instagram. *Journal of Adolescent Health, 58*(1), 78–84. http://dx.doi.org/10.1016/j.jadohealth.2015.09.015

Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counseling psychology. *Journal of Counseling Psychology, 52*(2), 250–260. doi:10.1037/0022-0167.52.2.250

Morrow, S. L. (2007). Qualitative research in counseling psychology: Conceptual foundations. *The Counseling Psychologist, 35*(2), 209–235. doi:10.1177/0011000006286990

Moustakas, C. E. (1994). *Phenomenological research methods*. Retrieved from http://methods.sagepub.com/book/phenomenological-research-methods http://dx.doi.org/10.4135/9781412995658

Muehlenkamp, J. J., Bagge, C. L., Tull, M. T., & Gratz, K. L. (2013). Body regard as a moderator of the relation between emotion dysregulation and nonsuicidal self-injury. *Suicide and Life-Threatening Behavior, 43*(5), 479–493. doi:10.1111/sltb.12032

Muehlenkamp, J.J., & Brausch, A. M. (2012). Body image as a mediator of non-suicidal self-injury in adolescents. *Journal of Adolescence, 35*(1), 1–9. doi:10.1016/j.adolescence.2011.06.010

Muehlenkamp, J. J., & Brausch, A. M. (2016). Reconsidering Criterion A for the diagnosis of non-suicidal self-injury disorder. *Journal of Psychopathology and Behavioral Assessment, 38*(4), 547–558. doi:10.1007/s10862-016-9543-0

Muehlenkamp, J., Brausch, A., Quigley, K., & Whitlock, J. (2013). Interpersonal features and functions of nonsuicidal self-injury. *Suicide and Life-Threatening Behavior, 43*(1), 67–80. doi:10.1111/j.1943-278X. 2012.00128.x

Muehlenkamp, J. J., Claes, L., Havertape, L., & Plener, P. L. (2012). International prevalence of adolescent nonsuicidal self-injury and deliberate self-harm. *Child and Adolescent Psychiatry and Mental Health, 6*(10). Retrieved from http://www.capmh.com/content/6/1/10

Muehlenkamp, J. J., Cowles, M. L., & Gutierrez, P. M. (2010). Validity of the Self-Harm Behavior Questionnaire with diverse adolescents. *Journal of Psychopathology and Behavioral Assessment, 32*(2), 236–245. doi:10.1007/s10862-009-9131-7

Muehlenkamp, J. J., Engel, S. G., Wadeson, A., Crosby, R. D., Wonderlich, S. A., Simonich, H., & Mitchell, J. E. (2009). Emotional states preceding and

following acts of non-suicidal self-injury in bulimia nervosa patients. *Behaviour Research and Therapy, 47*(1), 83–87. doi:10.1016/j.brat.2008.10.011

Muehlenkamp, J. J., Ertelt, T. W., Miller, A. L., & Claes, L. (2011). Borderline personality symptoms differentiate non-suicidal and suicidal self-injury in ethnically diverse adolescent outpatients. *Journal of Child Psychology and Psychiatry, 52*(2), 148–155. doi:10.1111/j.1469-7610.2010.02305.x

Muehlenkamp, J. J., & Gutierrez, P. M. (2007). Risk for suicide attempts among adolescents who engage in non-suicidal self-injury. *Archives of Suicide Research, 11*(1), 69–82. http://dx.doi.org/10.1080/13811110600992902

Muehlenkamp, J. J., Hoff, E. R., Licht, J-G., Azure, J. A., & Hasenzahl, S. J. (2008). Rates of non-suicidal self-injury: A cross-sectional analysis of exposure. *Current Psychology, 27*(4), 234–241. doi:10.1007/s12144-008-9036-8

Muehlenkamp, J. J., & Kerr, P. L. (2010). Untangling a complex web: How non-suicidal self-injury and suicide attempts differ. *The Prevention Researcher, 17*(1), 8–10. http://www.tpronline.org/article.cfm/Untangling_a_Complex_Web

Muehlenkamp, J. J., Swenson, L. P., Batejan, K. L., & Jarvi, S. M. (2015). Emotional and behavioral effects of participating in an online study of nonsuicidal self-injury: An experimental analysis. *Clinical Psychological Science*, *3*(1) 26–37. doi:10.1177/2167702614531579

Muehlenkamp, J. J., Williams, K. L., Gutierrez, P. M., & Claes, L. (2009). Rates of non-suicidal self-injury in high school students across five years. *Archives of Suicide Research, 13*(4), 317–329. doi:10.1080/13811110903266368

Najmi, S., Wegner, D. M., & Nock, M. K. (2007). Thought suppression and self-injurious thoughts and behaviors. *Behaviour Research and Therapy 45*(8), 1957–1965. doi:10.1016/j.brat.2006.09.014

National Health and Medical Research Council (NHMRC) (2007). *National statement on ethical conduct in human research*. Australian Government, Canberra.

Neacsiu, A. D., Ward-Ciesielski, E. F., & Linehan, M. M. (2012). Emerging approaches to counselling intervention: Dialectical behavior therapy. *The Counseling Psychologist, 40*(7), 1003–1032. doi:10.1177/0011000011421023

Neigh, G. N., Gillespie, C. F., & Nemeroff, C. B. (2009. The neurobiological toll of child abuse and neglect. *Trauma, Violence, & Abuse, 10*(4), 389–410. doi:10.1177/1524838009339758

Newcomer, L. L., & Lewis, T. J. (2004). Functional behavioral assessment: An investigation of assessment reliability and effectiveness of function-based interventions. *Journal of Emotional and Behavioral Disorders, 12*(3), 168–181. doi:10.1177/10634266040120030401

Nickels, S. J., Walls, N. E., Laser, J. A., & Wisneski, H. (2012). Differences in motivations of cutting behavior among sexual minority youth. *Child and Adolescent Social Work Journal, 29*(1), 41–59. doi:10.1007/s10560-011-0245-x

Niedtfeld, I., Schulze, L., Kirsch, P., Herpertz, S. C., Bohus, M., & Schmahl, C. (2010). Affect regulation and pain in borderline personality disorder: A possible link to the understanding of self-injury. *Biological Psychiatry, 68*(4), 383–391. doi:10.1016/j.biopsych.2010.04.015

Nock, M. K. (2008). Actions speak louder than words: An elaborated theoretical model of the social functions of self-injury and other harmful behaviors. *Applied and Preventive Psychology, 12*(4), 159–168. https://doi.org/10.1016/j.appsy.2008.05.002

Nock, M. K. (2009). Why do people hurt themselves? New insights into the nature and functions of self-injury. *Current Directions in Psychological Science, 18*(2), 78–83. Retrieved from http://www.wjh.harvard.edu/~nock/nocklab/Nock_2009_CDir.pdf

Nock, M. K. (2010). Self-injury. *Annual Review of Clinical Psychology, 6*(1), 339–363. doi:10.1146/annurev.clinpsy.121208.131258

Nock, M. K., & Banaji, M. R. (2007). Assessment of self-injurious thoughts using a behavioral test. *American Journal of Psychiatry, 164*(5), 820–823. doi:10.1176/ajp.2007.164.5.820

Nock, M. K., Holmberg, E. B., Photos, V. I., & Michel, B. D. (2007). Self-Injurious Thoughts and Behaviors Interview: Development, reliability, and validity in an adolescent sample. *Psychological Assessment, 19*(3), 309–317. doi:10.1037/1040-3590.19.3.309

Nock, M. K., Joiner, T. E., Gordon, K. H., Lloyd-Richardson, E., & Prinstein, M. J. (2006). Non-suicidal self-injury among adolescents: Diagnostic correlates and relation to suicide attempts. *Psychiatry Research, 144*(1), 65–72. doi:10.1016/j.psychres.2006.05.010

Nock, M. K., & Mendes, W. B. (2008). Physiological arousal, distress tolerance, and social problem-solving deficits among adolescent self-injurers. *Journal of Consulting & Clinical Psychology, 76*(1), 28–38. doi:10.1037/0022-006X.76.1.28

Nock, M. K., & Prinstein, M. J. (2004). A functional approach to the assessment of self-mutilative behavior. *Journal of Consulting & Clinical Psychology, 72*(5), 885–890. doi:10.1037/0022-006X.72.5.885

Nock, M. K., & Prinstein, M. J. (2005). Contextual features and behavioral functions of self-mutilation among adolescents. *Journal of Abnormal Psychology, 114*(1), 140–146. doi:10.1037/0021-843X.114.1.140

Nock, M. K., Prinstein, M. J., & Sterba, S. K. (2010). Revealing the form and function of self-injurious thoughts and behaviors: A real-time ecological assessment study among adolescents and young adults. *Psychology of Violence, 1*(S), 36–52. doi:10.1037/2152-0828.1.S.36

Nock, M. K., Teper, R., & Hollander, M. (2007). Psychological treatment of self-injury among adolescents. *Journal of Clinical Psychology in Session, 63*(11), 1081–1089. doi:10.1002/jclp.20415

Nolen-Hoeksema, S., Wisco, B. E., & Lyubomirsky, S. (2008). Rethinking rumination. *Perspectives on Psychological Science, 3*(5), 400–424. doi:10.1111/j.1745-6924.2008.00088.x.

North, A. C., & Hargreaves, D. J. (2006). Problem music and self-harming. *Suicide and Life-threatening Behavior, 36*(5). https://doi.org/10.1521/suli.2006.36.5.582

North, A. C., & Hargreaves, D. J. (2009). The power of music. *The Psychologist, 22,* 1012–1015. Retrieved from https://thepsychologist.bps.org.uk/volume-22/edition-12/power-music

Nosik, M. R., & Carr, J. E. (2015). On the distinction between the motivating operation and setting event concepts. *The Behavior Analyst, 38*(2), 219–223. doi:10.1007/s40614-015-0042-5

Nunes, D., Daly, B., Rao, K., Borntrager, C., Rohner, K., & Shrestha, S. (2010). *Technology and the adolescent: Pairing modern media and technology with mental health practice*. White paper developed for the University of Maryland, Center for School Mental Health. Baltimore, MD. Retrieved from http://csmh.umaryland.edu/resources/CSMH/articles.html

O' Connell, K. A., Gerkovich, M. M., Cook, M. R., Shiffman, S., Hickcox, M., & Kakolewski, K. E. (1998). Coping in real time: Using ecological momentary assessment techniques to assess coping with the urge to smoke. *Research in Nursing & Health, 21*(6), 487-497. http://dx.doi.org/10.1002/(SICI)1098-240X(199812)21:6<487::AID-NUR3>3.0.CO;2-G

O'Connor, R. C., Rasmussen, S., & Hawton, K. (2012). Distinguishing adolescents who think about self-harm from those who engage in self-harm. *The British Journal of Psychiatry, 200*(4), 330–335. doi:10.1192/bjp.bp.111.097808

O'Connor, R. C., Rasmussen, S., Miles, J., & Hawton, K. (2009). Self-harm in adolescents: Self-report survey in schools in Scotland. *The British Journal of Psychiatry, 194*(1), 68–72. doi:10.1192/bjp.bp.107.047704

O'Kearney, R., Kang, K., Christensen, H., & Griffiths, K. (2009). A controlled trial of a school-based Internet program for reducing depressive symptoms in

adolescent girls. *Depression and Anxiety, 26*(1), 65–72. doi:10.1002/da.20507

Oldershaw, A., Grima, E., Jollant, F., Richards, C., Simic, M., Taylor, L., & Schmidt, U. (2009). Decision making and problem solving in adolescents who deliberately self-harm. *Psychological Medicine, 39*(1), 95–104. http://dx.doi.org/10.1017/S0033291708003693

O'Neill, R. E., Horner, R. H., Albin, R. W., Sprague, J. R., Storey, K., & Newton, J. S. (1997). *Functional assessment and program development for problem behavior: A practical handbook* (2nd ed.). Pacific Grove, CA: Brooks/Cole.

Orlando, C. M., Broman-Fulks, J. J., Whitlock, J. L., Curtin, L., & Michael, K. D. (2015). Nonsuicidal self-injury and suicidal self-injury: A taxometric investigation. *Behavior Therapy*, *46*(6), 824–833. https://doi.org/10.1016/j.beth.2015.01.002

Őst, L. (2008). Efficacy of the third wave of behavioral therapies: A systematic review and meta-analysis. *Behavior Research and Therapy*, *46*(3), 296–321. doi:10.1016/j.brat.2007.12.005

Paclawskyj, T. R., Matson, J. L., Rush, K. S., Smalls, Y., & Vollmer, T. R. (2000). Questions about behavioral function (QABF): A behavioral checklist for functional assessment of aberrant behavior. *Research in Developmental Disabilities, 21*(3), 223–229. https://doi.org/10.1016/S0891-4222(00)00036-6

Page, A., Lewis, G., Kidger, J., Heron, J., Chittleborough, C., Evans, J., & Gunnell, D. (2014). Parental socio-economic position during childhood as a determinant of self-harm in adolescence. *Social Psychiatry and Psychiatric Epidemiology, 49*(2), 193–203. doi:10.1007/s00127-013-0722-y

Pasieczny, N., & Connor, J. (2011). The effectiveness of dialectical behaviour therapy in routine public mental health settings: An Australian controlled trial. *Behaviour Research and Therapy 49*(1), 4–10. doi:10.1016/j.brat.2010.09.006

Paul, E., Tsypes, A., Eidlitz, L., Ernhout, C., & Whitlock, J. (2015). Frequency and functions of non-suicidal self-injury: Associations with suicidal thoughts

and behaviors. *Psychiatry Research, 225*(3), 276–282. http://dx.doi.org/10.1016/j.psychres.2014.12.026

Pelios, L., Morren, J., Tesch, D., & Axelrod, S. (1999). The impact of functional analysis methodology on treatment choice for self-injurious and aggressive behavior. *Journal of Applied Behaviour Analysis, 32*(2), 185–195. doi:10.1901/jaba.1999.32-185

Pérez-Álvarez, M., & Sass, L. A. (2008). Phenomenology and behaviorism: A mutual readjustment. *Philosophy, Psychiatry, and Psychology, 15*(3), 199–210. doi:10.1353/ppp.0.0194

Perry, B. D. (2002). Childhood experience and the expression of genetic potential: What childhood neglect tells us about nature and nurture. *Brain and Mind, 3*(1), 79–100. https://doi.org/10.1023/A:1016557824657

Perry, B. D. (2009). Examining child maltreatment through a neurodevelopmental lens: clinical applications of the neurosequential model of therapeutics. *Journal of Loss and Trauma, 14*(4), 240–255. doi:10.1080/15325020903004350

Peterson, C. M., Davis-Becker, K., & Fischer, S. (2014). Interactive role of depression, distress tolerance and negative urgency on non-suicidal self-injury. *Personality and Mental Health, 8*(2), 151–160. doi:10.1002/pmh.1256

Peterson, C. M., & Fischer, S. (2012). A prospective study of the influence of the UPPS model of impulsivity on the co-occurrence of bulimic symptoms and non-suicidal self-injury. *Eating Behaviors, 13*(4), 335–341. doi:10.1016/j.eatbeh.2012.05.007

Petty, N. J., Thomson, O. P., & Stew, G. (2012a). Ready for a paradigm shift? Part 1: Introducing the philosophy of qualitative research. *Manual Therapy, 17*(4), 267–274. doi:10.1016/j.math.2012.03.006

Petty, N. J., Thomson, O. P., & Stew, G. (2012b). Ready for a paradigm shift? Part 2: Introducing qualitative research methodologies and methods. *Manual Therapy, 17*(5), 378–384. doi:10.1016/j.math.2012.03.004

Plener, P. L., Bubalo, N., Fladung, A. K., Ludolph, A. G., & Lulé, D. (2012). Prone to excitement: Adolescent females with non-suicidal self-injury (NSSI) show altered cortical pattern to emotional and NSS-related material. *Psychiatry Research: Neuroimaging, 203*(2), 146–152. doi:10.1016/j.pscychresns.2011.12.012

Plener, P. L., Zohsel, K., Hohm, E., Buchmann, A. F., Banaschewski, T., Zimmermann, U. S., & Laucht, M. (2017). Lower cortisol level in response to a psychosocial stressor in young females with self-harm. *Psychoneuroendocrinology, 76*, 84–87. https://doi.org/10.1016/j.psyneuen.2016.11.009

Polanco-Roman, L., Jurska, J., Quiñones, V., & Miranda, R. (2015). Brooding, reflection, and distraction: Relation to non-suicidal self-injury versus suicide attempts. *Archives of Suicide Research, 19*(3), 350–365. doi:10.1080/13811118.2014.981623

Polk, E., & Liss, M. (2007). Psychological characteristics of self-injurious behavior. *Personality and Individual Differences, 43*(3), 567–577. doi:10.1016/j.paid.2007.01.003

Polk, E., & Liss, M. (2009). Exploring the motivations behind self-injury. *Counselling Psychology Quarterly, 22*(2), 233–241. doi:10.1080/09515070903216911

Polkinghorne, D. E. (2000). Psychological inquiry and the pragmatic and hermeneutic traditions. *Theory & Psychology, 10*(4), 453–479. https://doi-org.ezproxy.usq.edu.au/10.1177/0959354300104002

Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology, 52*(2), 137–145. doi:10.1037/0022-0167.52.2 .137

Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology, 52*(2), 126–136. doi:10.1037/0022-0167.52.2.126

Ponterotto, J. G., & Grieger, I. (2007). Effectively communicating qualitative research. *The Counseling Psychologist, 35*(3), 303-–430. doi:10.1177/0011000006287443

Prensky, M. (2001a). Digital natives, digital immigrants. *On the Horizon, 9*(5). Lincoln: NCB University Press. Retrieved from http://www.marcprensky.com/writing/prensky%20-%20digital%20natives,%20digital%20immigrants%20-%20part1.pdf

Prensky, M. (2001b). Digital natives, digital immigrants, Part II: Do they really think differently? *On the Horizon, 9*(6). Lincoln: NCB University Press. Retrieved from http://www.marcprensky.com/writing/Prensky%20-%20 Digital%20Natives,%20 Digital%20Immigrants%20-%20Part2.pdf

Prensky, M. (2004). *The emerging online life of the digital native: What they do differently because of technology, and how they do it*. Retrieved from http://www.marcprensky .com/writing/ prensky-the_emerging_online_ life_of_ the_digital_native-03.pdf

Preyde, M., Vanderkooy, J., Chevalier, P., Heintzman, J., Warne, A., Barrick. K. (2014). The psychosocial characteristics associated with NSSI and suicide attempt of youth admitted to an in-patient psychiatric unit. *Journal of the Canadian Academy of Child and Adolescent Psychiatry, 23*(2), 100–110. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4032078/

Prinstein, M. J. (2008). Introduction to the special section on suicide and nonsuicidal self-injury: A review of unique challenges and important directions for self-injury science. *Journal of Consulting and Clinical Psychology, 76*(1), 1–8. doi:10.1037/0022-006X.76.1.1

Prinstein, M. J., Heilbron, N., Guerry, J. D., Franklin, J. C., Rancourt, D., Simon, V., Spirito, A. (2010). Peer influence and nonsuicidal self injury: Longitudinal results in community and clinically-referred adolescent samples. *Journal of Abnormal Child Psychology, 38*(5), 669–682. doi:10.1007/s10802-010-9423-0.

Purington, A., & Whitlock, J. (2010). Non-suicidal self-injury in the media. *The Prevention Researcher, 17*(1), 11–13. Retrieved from www.selfinjury.bctr.cornell.edu/perch/.../non-suicidal-self-injury-in-the-media.pdf

Queensland Brain Institute. (n.d.). *What are neurotransmitters?* Retrieved from https://qbi.uq.edu.au/brain/brain-physiology/what-are-neurotransmitters

Queensland. Department of Education and Training (DET). (2017). https://staff.learningplace.eq.edu.au/EdStudio/pages/default.aspx

Queensland. Department of Education, Training and Employment (DETE). (2012). *Student Protection*. Retrieved from http://ppr.det.qld.gov.au/education/community/Pages/ StudentProtection.aspx

Quirk, S. W., Wier, D., Martin, S. M., & Christian, A. (2015). The influence of parental rejection on the development of maladaptive schemas, rumination, and motivations for self-injury. *Journal of Psychopathology and Behavioral Assessment, 37*(2), 283–295. doi:10.1007/s10862-014-9453-y

Radovic, S., & Hasking, P. (2013). The relationship between portrayals of nonsuicidal self-injury, attitudes, knowledge, and behavior. *Crisis, 34*(5), 324–334. doi:10.1027/0227-5910/a000199

Rawlings, J., Shevlin, M., Corcoran, R., Morriss, R., & Taylor, P. J. (2015). Out of the blue: Untangling the association between impulsivity and planning in self-harm. *Journal of Affective Disorders, 184*, 29–35. http://dx.doi.org/10.1016/j.jad.2015.05.042

Riley, E. N., Davis, H. A., Combs, J. L., Jordan, C. E., & Smith, G. T. (2016). Nonsuicidal self-injury as a risk factor for purging onset: Negatively reinforced behaviours that reduce emotional distress. *European Eating Disorders Review*, 24(1), 78–82. doi:10.1002/erv.2407

Rizvi, S. L., Dimeff, L. A., Skutch, J., Carroll, D., & Linehan, M. M. (2011). A pilot study of the DBT Coach: An interactive mobile phone application for individuals with borderline personality disorder and substance use disorder. *Behavior Therapy, 42*(4), 589–600. doi:10.1016/j.beth.2011.01.003

Robinson, J., Gook, S., Yen, H. P., McGorry, P. D., & Yung, A. R. (2008). Managing deliberate self-harm in young people: An evaluation of a training program developed for school welfare staff using a longitudinal research design. *BMC Psychiatry, 8*, 75. doi:10.1186/1471-244X-8-75

Robinson, J., Yuen, H. P., Martin. C., Hughes, A., Baksheev, G. N., Doss, S., …Yung, A. R. (2011). Does screening high school students for psychological distress, deliberate self-harm, or suicidal ideation cause distress – And is it acceptable? An Australian-based study. *Crisis, 32*(5), 254–263. doi:10.1027/0227-5910/a000087

Rodav, O., Levy, S., & Hamdan, S. (2014). Clinical characteristics and functions of non-suicide self-injury in youth. *European Psychiatry, 29*(8), 503–508. http://dx.doi.org/10.1016/j.eurpsy.2014.02.008

Ross, S., Heath, N. L., & Toste, J. R. (2009). Non-suicidal self-injury and eating pathology in high school students. *American Journal of Orthopsychiatry, 79*(1), 83–92. doi:10.1037/a0014826

Rossouw, P. J. (2011a). *Neuroscience & the Attachment Need*. Retrieved from http://www.mediros.com.au/wp-content/uploads/2012/11/NPTIG-Newsletter-2.pdf

Rossouw, P. J. (2011b). *Neuroscience & Childhood Development.* Retrieved from http://www.mediros.com.au/wp-content/uploads/2012/11/NPTIG-News letter-3.pdf

Rossouw, P. J. (July 2011c). *The Triune Brain—Implications for Neuropsychotherapy*. Retrieved from http://mediros.com.au/wp-content/ uploads/2012/11/NPTIG-Newsletter-5.pdf

Rossouw, P. J. (2011d). *Neuropsychotherapy online: Connecting clinicians and clients*. Retrieved from http://www.mediros.com.au/wp-content/uploads/ 2012/11/NPTIG-Newsletter-10.pdf

Rossouw, P. J. (2012a). Neurobiological markers of childhood trauma. Implications for therapeutic interventions. *Neuropsychotherapy in Australia, 16*, 3–8.

Retrieved from http://www.mediros.com.au/wp-content/uploads/2012/11/NPTIG-e-journal-16.pdf

Rossouw, P. J. (2012b). Childhood trauma and neural development. Indicators for interventions with special reference to rural and remote environments. *Neuropsychotherapy in Australia, 18*, 3–8. Retrieved from http://www.mediros.com.au/wp-content/uploads/2012/11/NPTIG-e-journal-18.pdf

Rossouw, P. J. (2013). The neuroscience of talking therapies: Implications for therapeutic practice. *Neuropsychotherapy in Australia, 24*, 1–13. Retrieved from http://www.mediros.com.au/wp-content/uploads/2013/12/E-Journal-Neuropsychotherapy-in-Australia-Edition-24.pdf

Rossouw, P. J. (2014). Neuropsychotherapy: An integrated theoretical model. In P. J. Rossouw (Ed.), *Neuropsychotherapy: Theoretical underpinnings and clinical applications* (pp. 43–69). St Lucia, QLD: Mediros Pty Ltd.

Rotolone, C., & Martin, G. (2012). Giving up self-injury: A comparison of everyday social and personal resources in past versus current self-injurers. *Archives of Suicide Research, 16*(2), 147–158. doi:10.1080/13811118.2012.667333

Runyan, J. D., Steenbergh, T. A., Bainbridge, C., Daugherty, D. A., Oke, L., & Fry, B. N. (2013). A smartphone ecological momentary assessment/intervention ‘‘app’’ for collecting real-time data and promoting self-awareness. *PLoS ONE 8*(8), 1–9. doi:10.1371/journal.pone.0071325

Rusby, J. C., Westling, E., Crowley, R., & Light, J. M. (2013). Concurrent and predictive associations between early adolescent perceptions of peer affiliates and mood states collected in real time via ecological momentary assessment methodology. *Psychological Assessment, 25*(1), 47–60. doi:10.1037/a0030393

Rustad, R. A., Small, J. E., Jobes, D. A., Safer, M. A., & Peterson, R. J. (2003). The impact of rock videos and music with suicidal content on thoughts and attitudes about suicide. *Suicide and Life-Threatening Behavior, 33*(2), 120–131. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/12882414

Saldias, A., Power, K., Gillanders, D. T., Campbell, C. W., & Blake, R. A. (2013). The mediatory role of maladaptive schema modes between parental care and non-suicidal self-injury. *Cognitive Behaviour Therapy, 42*(3), 244–257. doi:10.1080/16506073.2013.781671

Sanjari, M., Bahramnezhad, F., Fomani, F. K., Shoghi, M., & Cheraghi, M. A. (2014). Ethical challenges of researchers in qualitative studies: The necessity to develop a specific guideline. *Journal of Medical Ethics & History of Medicine*, *7*(14). Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4263394/

Sansone, R. A., Wiederman, M. W., & Sansone, L. A. (1998). The Self-Harm Inventory (SHI): Development of a scale for identifying self-destructive behaviors and borderline personality disorder. *Journal of Clinical Psychology, 54*(7), 973–983. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/9811134

Saraff, P. D., & Pepper, C. M. (2014). Functions, lifetime frequency, and variety of methods of non-suicidal self-injury among college students. *Psychiatry Research, 219*(2), 298–304. http://dx.doi.org/10.1016/j.psychres.2014.05.044

Schore, A. N. (2001). The effects of early relational trauma on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal, 22*(1-2), 201–269. https://doi.org/10.1002/1097-0355(200101/04)22:1<201::AID-IMHJ8>3.0.CO;2-9

Schore, J. R., & Schore, A. N. (2008). Modern attachment theory: The central role of affect regulation in development and treatment. *Clinical Social Work Journal, 36*(1), 9-20. doi: 10.1007/s10615-007-0111-7

Schuch, F. B., Deslandes, A. C., Stubbs, B., Gosmann, N. P., da Silva, C. T. B., & Fleck, M. P. d. (2016). Neurobiological effects of exercise on major depressive disorder: A systematic review. *Neuroscience and Biobehavioral Reviews, 61*, 1–11. http://dx.doi.org/10.1016/j.neubiorev.2015.11.012

Schwartz, K. D., & Fouts, G. T. (2003). Music preferences, personality style, and developmental issues of adolescents. *Journal of Youth and Adolescence, 32*(3), 205–213. http://dx.doi.org/10.1023/A:1022547520656

Scott, L. N., Pilkonis, P. A., Hipwell, A. E., Keenan, K., & Stepp, S. D. (2015). Non-suicidal self-injury and suicidal ideation as predictors of suicide attempts in adolescent girls: A multi-wave prospective study. *Comprehensive Psychiatry, 58*, 1–10. http://dx.doi.org/10.1016/j.comppsych.2014.12.011

Selby, E. A., Anestis, M. D., Bender, T. W., & Joiner, T. E. (2009). An exploration of the emotional cascade model in borderline personality disorder. *Journal of Abnormal Psychology, 118*(2), 375–387. doi:10.1037/a0015711.

Selby, E. A., Anestis, M. D., & Joiner, T. E. (2008). Understanding the relationship between emotional and behavioral dysregulation: Emotional cascades. *Behaviour Research and Therapy, 46*(5), 593–611. doi:10.1016/j.brat.2008.02.002

Selby, E. A., Connell, L. D., & Joiner, T. E., Jnr. (2009). The pernicious blend of rumination and fearlessness in non-suicidal self-injury. *Cognitive Therapy Research, 34*(5), 421–428. doi:10.1007/s10608-009-9260-z

Selby, E. A., Franklin, J., Carson-Wong, A., & Rizvi, S. L. (2013). Emotional cascades and self-injury: Investigating instability of rumination and negative emotion. *Journal of Clinical Psychology, 69*(12), 1213–1227. doi:10.1002/jclp.21966

Selby, E. A., Kranzler, A., Fehling, K. B., & Panza, E. (2015). Nonsuicidal self-injury disorder: The path to diagnostic validity and final obstacles. *Clinical Psychology Review, 38*, 79–91. http://dx.doi.org/10.1016/j.cpr.2015.03.003

Selby, E. A., Nock, M. K., & Kranzler, A. (2014). How does self-injury feel? Examining automatic positive reinforcement in adolescent self-injurers with experience sampling. *Psychiatry Research, 215*(2), 417–423. http://dx.doi.org/10.1016/j.psychres.2013.12.005

Selfhout, M. H. W., Delsing, M. J. M. H., ter Bogt, T. F. M., & Meeus, W. H. J. (2008). Heavy metal and hip-hop style preferences and externalizing

problem behavior: A two-wave longitudinal study. *Youth & Society, 39*(4), 435–452. doi:10.1177/0044118X07308069

Shenk, C. E., Noll, J. G., & Cassarly, J. A. (2010). A multiple mediational test of the relationship between childhood maltreatment and non-suicidal self-injury. *Journal of Youth and Adolescence, 39*(4), 335–342. doi:10.1007/s10964-009-9456-2

Shine, L., & Westacott, M. (2010). Reformulation in cognitive analytic therapy: Effects on the working alliance and the client's perspective on change. *Psychology and Psychotherapy: Theory, Research and Practice, 83*(Pt 2), 161–177. doi:10.1348/147608309X471334

Shingleton, R. M., Eddy, K. T., Keshaviah, A., Franko, D. L., Swanson, S. A., Yu, J. S., … Herzog, D. B. (2013). Binge/purge thoughts in nonsuicidal self-injurious adolescents: An ecological momentary analysis. *International Journal of Eating Disorders 46*(7), 684–689. doi:10.1002/eat.22142

Shrier, L. A., Shih, M., & Beardslee, W. R. (2005). Affect and sexual behavior in adolescents: A review of the literature and comparison of momentary sampling with diary and retrospective self-report methods of measurement. *Pediatrics, 115*(5), 573–581. doi/10.1542/peds.2004-2073

Siegel, D. J. (2001). Toward an interpersonal neurobiology of the developing mind: Attachment relationships, "mindsight," and neural integration. Infant *Mental Health Journal, 22*(1–2), 67–94. https://doi.org/10.1002/1097-0355(200101/04)22:1<67::AID-IMHJ3>3.0.CO;2-G

Silk, S. J., Forbes, E. E., Whalen, D. J., Jakubcak, J. L., Thompson, W. K., Ryan, N. D., Axelson, D. A., Birmaher, B., & Dahl, R. E. (2011). Daily emotional dynamics in depressed youth: A cell phone ecological momentary assessment study. *Journal of Experimental Child Psychology, 110*(2), 241–257. doi:10.1016/j.jecp.2010.10.007

Simm, R., Roen, K., & Daiches, A. (2010). Primary school children and self harm: The emotional impact upon education professionals, and their

understandings of why children self harm and how this is managed. *Oxford Review of Education, 36*(6). 677–692. doi:10.1080/03054985.2010.501139

Singh, N. N., Matson, J. L., Lancioni, G. E., Singh, A. N., Adkins, A. D., McKeegan, G. F., & Brown, S. W. (2006). Questions about behavioral function in mental illness (QABF-MI): A behavior checklist for functional assessment of maladaptive behavior exhibited by individuals with mental illness. *Behavior Modification, 30*(6), 739–751. doi:10.1177/0145445506286700

Skinner, B. F. (1953). *Science and human behaviour.* Retrieved from http://www.bfskinner.org/newtestsite/wp-content/uploads/2014/02/ScienceHumanBehavior.pdf

Sloan, A., & Bowe, B. (2014. Phenomenology and hermeneutic phenomenology: The philosophy, methodologies and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality & Quantity, 48*(3), 1291–1303. doi:10.1007/s11135-013-9835-3

Smith, E. J. (2006). The strength-based counseling model. *The Counselling Psychologist, 34(*1), 13–79. doi:10.1177/0011000005277018

Smith, N. B., Kouros, C. D., & Meuret, A. E. (2014). The role of trauma symptoms in nonsuicidal self-injury. *Trauma, Violence, & Abuse, 15*(1), 41–56. doi:10.1177/1524838013496332

Smith, N. B., Steele, A. M., Weitzman, M. L., Trueba, A. F., & Meuret, A. E. (2015). Investigating the role of self-disgust in nonsuicidal self-injury. *Archives of Suicide Research, 19*(1), 60–74. doi:10.1080/13811118.2013.850135

Smith, P., Poindexter, E., & Cukrowicz, K. (2010). The effect of participating in suicide research: Does participating in a research protocol on suicide and psychiatric symptoms increase suicide ideation and attempts? *Suicide and Life-Threatening Behavior, 40*(6), 535–543. doi: 10.1521/suli.2010.40.6.535

Somer, O., Bildik, T., Kabukçu-Başay, B., Güngör, D., Başay, Ö., & Farmer, R. F. (2015). Prevalence of non-suicidal self-injury and distinct groups of self-injurers in a community sample of adolescents. *Social Psychiatry and*

Psychiatric Epidemiology, 50(7), 1163–1171. doi:10.1007/s00127-015-1060-z

Sornberger, M. J., Smith, N. G., Toste, J. R., & Heath, N. L. (2013). Nonsuicidal self-injury, coping strategies, and sexual orientation. *Journal of Clinical Psychology, 69*(6), 571–583. doi:10.1002/jclp.21947

Social Media Statistics Australia – December 2017. https://www.socialmedianews.com.au/social-media-statistics-australia-december-2017/

Sotres-Bayon, F., Bush, D. E. A., & LeDoux, J. E. (2004). Emotional perseveration: An update on prefrontal-amygdala interactions in fear extinction. *Learning & Memory, 11*(5), 525–535. doi:10.1101/lm.79504

Spinhoven, P., Elzinga, B. M., Hovens, J. G. F. M., Roelofs, K., Zitman, F. G., van Oppen, P., & Penninx, B. W. J. H. (2010). The specificity of childhood adversities and negative life events across the life span to anxiety and depressive disorders. *Journal of Affective Disorders, 126*(1), 103–112. doi:10.1016/j.jad.2010.02.132

Stallard, P., Richardson, T., Velleman, S., & Attwood, M. (2011). Computerized CBT (Think, Feel, Do) for depression and anxiety in children and adolescents: Outcomes and feedback from a pilot randomized controlled trial. *Behavioral and Cognitive Psychotherapy, 39*(3), 273–284. doi:10.1017/S135246581000086X

Staller, K. M. (2012). Qualitative research. In N. J. Salkind (Ed.), *Encyclopedia of Research Design* (pp. 1159–1163). Thousand Oaks: Sage Publications, Inc. http://dx.doi.org/10.4135/9781412961288

Stanley, B., Sher, L., Wilson, S., Ekman, R., Huang, Y., & Mann, J. J. (2010). Non-suicidal self-injurious behavior, endogenous opioids and monoamine neurotransmitters. *Journal of Affective Disorders, 124*(1), 134–140. doi:10.1016/j.jad.2009.10.028

Stark, S., & Torrance, H. (2010). Case study. In B. Somekh & C. Lewin (Eds.), *Research methods in social sciences* (pp. 33–40). London: Sage Publications.

Stathopoulou, G., & Powers, M. B., Berry, A. C., Smits, J. A. J., & Otto, M. W. (2006). Exercise interventions for mental health: A quantitative and qualitative review. *Clinical Psychology Science and Practice, 13*(2), 179–193. https://doi.org/10.1111/j.1468-2850.2006.00021.x

Stewart, S. L., Baiden, P., & Theall-Honey, L. (2014). Examining non-suicidal self-injury among adolescents with mental health needs, in Ontario, Canada. *Archives of Suicide Research, 18*(4), 392–409. doi:10.1080/13811118.2013.824838

Stewart, J. G., Valeri, L., Esposito, E. C., & Auerbach, R. P. (2017). Peer victimization and suicidal thoughts and behaviors in depressed adolescents. *Journal of Abnormal Child Psychology*, *46*(3), 581–596. doi:10.1007/s10802-017-0304-7

St. Germain, S. A., & Hooley, J. M. (2012). Direct and indirect forms of non-suicidal self-injury: Evidence for a distinction. Psychiatry Research, 197, 78–84. doi:10.1016/j.psychres.2011.12.050

Stirling, J., Jr., & Amaya-Jackson, L. (2008). Understanding the behavioral and emotional consequences of child abuse. *Pediatrics, 122*(3), 667–673. doi:10.1542/peds.2008-1885

Stone, A. A., & Broderick, J. E. (2007). Real-time data collection for pain: Appraisal and current status. *Pain Medicine, 8*(S3). doi:10.1111/j.1526-4637.2007.00372.x

Straiton, M., Roen, K., Dieserud, G., & Hjelmeland, H. (2013). Pushing the boundaries: Understanding self-harm in a non-clinical population. *Archives of Psychiatric Nursing, 27*(2), 78–83. http://dx.doi.org/10.1016/j.apnu.2012.10.008

Straker, G. (2006). Signing with a scar. Understanding self-harm. *Psychoanalytic Dialogues: The International Journal of Relational Perspectives 16*(1), 93–112. doi:http://dx.doi.org/10.2513/s10481885pd1601_6

Sugai, G. (2015). Fundamentals of classroom behaviour management w/in tiered system of behavior support.

https://www.pbis.org/Common/Cms/files/pbisresources/PBIS%20CBM%2028%20Aug%202015%20GS%20HAND.pptx

Sugai, G., Lewis-Palmer, T., & Hagan-Burke, S. (2000). Overview of the functional behavioral assessment process. *Exceptionality, 8*(3), 149–160, doi:10.1207/S15327035EX0803_2

Suyemoto, K. L. (1998). The functions of self-mutilation. *Clinical Psychology Review, 18*(5), 531–554. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/9740977

Suzuki, L. A., Ahluwalia, M. K., Arora, A. K., & Mattis, J. S. (2007). The pond you fish in determines the fish you catch: Exploring strategies for qualitative data collection. *The Counseling Psychologist, 35*(2), 295–327. doi:10.1177/0011000006290983

Swannell, S. V., Martin, G. E., Page, A., Hasking, P., Hazell, P., Taylor, A., & Protani, M. (2012). Child maltreatment, subsequent non-suicidal self-injury and the mediating roles of dissociation, alexithymia and self-blame. *Child Abuse & Neglect, 36*(7-8), 572–584. http://dx.doi.org/10.1016/j.chiabu.2012.05.005

Swannell, S. V., Martin, G. E., Page, A., Hasking, P., St John, N. J. (2014). Prevalence of nonsuicidal self-injury in nonclinical samples: Systematic review, meta-analysis and meta-regression. *Suicide and Life-Threatening Behavior, 44(*3), 273–303. doi:10.1111/sltb.12070

Swannell, S., Martin, G., Scott, J., Gibbons, M., & Gifford, S. (2008). Motivations for self-injury in an adolescent inpatient population: Development of a self-report measure. *Australasian Psychiatry, 16*(2), 98–103. doi:10.1080/10398560701636955

Taliaferro, L. A., & Muehlenkamp, J. J. (2014). Factors associated with current versus lifetime self-injury among high school and college students. *Suicide and Life-Threatening Behavior, 45*(1), 84–96. doi:10.1111/sltb.12117

Taliaferro, L. A., Muehlenkamp, J. J., Borowsky, I. W., McMorris, B. J., & Kugler, K. C. (2012). Factors distinguishing youth who report self-injurious

behavior: A population-based sample. *Academic Pediatrics, 12*(3), 205–213. doi:10.1016/j.acap.2012.01.008

Tang, J., Ma, Y., Guo, Y., Ahmed, N. I., Yu, Y., Wang, J. (2013). Association of aggression and non-suicidal self injury: A school-based sample of adolescents. *PLoS ONE, 8*(10), 1–7. doi:10.1371/journal.pone.0078149

Tanner, A. K., Hasking, P., & Martin, G. (2014). Effects of rumination and optimism on the relationship between psychological distress and non-suicidal self-injury. *Prevention Science, 15*(6), 860–868. doi:10.1007/s11121-013-0444-0

Tatnell, R., Hasking, P., Newman, L. (2018). Multiple mediation modelling exploring relationships between specific aspects of attachment, emotion regulation, and non-suicidal self-injury. *Australian Journal of Psychology, 70*(1), 48–56. doi:10.1111/ajpy.12166

Tatnell, R., Hasking, P., Newman, L., Taffe, J., & Martin, G. (2017). Attachment, emotion regulation, childhood abuse and assault: Examining predictors of NSSI among adolescents. *Archives of Suicide Research, 21*(4), 610–620. doi:10.1080/13811118.2016.1246267

Tatnell, R., Kelada, L., Hasking, P., & Martin, G. (2014). Longitudinal analysis of adolescent NSSI: The role of intrapersonal and interpersonal factors. *Abnormal Child Psychology, 42*, 885–896. doi:10.1007/s10802-013-9837-6

Taylor, J., Peterson, C. M., & Fischer, S. (2012). Motivations for self-injury, affect, and impulsivity: A comparison of individuals with current self-injury to individuals with a history of self-injury. *Suicide and Life-Threatening Behavior, 42*(6), 602–613. doi:10.1111/j.1943-278X.2012.00115.x

Teicher, M. H. (2000). Wounds that time won't heal: The neurobiology of child abuse. *Cerebrum, 2*(4), 50-67. Retrieved from https://www.researchgate.net/publication/215768752_Wounds_that_time_won%27t_heal_The_neurobiology_of_child_abuse

Teicher, M. H., Andersen, S. L., Polcari, A., Anderson, C. M., Navalta, C. P., & Kim, D. M. (2003). The neurobiological consequences of early stress and

childhood maltreatment. *Neuroscience and Biobehavioral Reviews, 27*(1-2), 33–44. doi:10.1016/S0149-7634(03)00007-1

Teisl, M., & Cicchetti, D. (2008). Physical abuse, cognitive and emotional processes, and aggressive/disruptive behavior problems. *Social Development, 17*(1), 1–23. doi:10.1111/j.1467-9507.2007.00412.x

Thomassin, K., Shaffer, A., Madden, A., & Londino, D. L. (2016). Specificity of childhood maltreatment and emotion deficit in nonsuicidal self-injury in an inpatient sample of youth. *Psychiatry Research, 244*, 103–108. http://dx.doi.org/10.1016/j.psychres.2016.07.050

Thompson, R. W., Arnkoff, D. B., & Glass, C. R. (2011). Conceptualizing mindfulness and acceptance as components of psychological resilience to trauma. *Trauma, Violence, & Abuse, 12*(4), 220–235. doi:10.1177/1524838011416375

Titchen, A., & Hobson, D. (2010). Phenomenology. In B. Somekh & C. Lewin (Eds.), *Research methods in the social sciences* (pp. 121–130). London: Sage Publications.

Trepal, H. C. (2010). Exploring self-injury through a relational cultural lens. *Journal of Counseling & Development, 88*(4), 492–499. https://doi.org/10.1002/j.1556-6678.2010.tb00051.x

Tschan, T., Peter-Ruf, C., Schmid, M., & In-Albon, T. (2017). Temperament and character traits in female adolescents with nonsuicidal self-injury with and without comorbid borderline personality disorder. *Child and Adolescent Psychiatry and Mental Health, 11*(4), 1–10. doi:10.1186/s13034-016-0142-3

Tsypes, A., Lane, R., Paul, E., & Whitlock, J. (2016). Non-suicidal self-injury and suicidal thoughts and behaviors in heterosexual and sexual minority young adults. *Comprehensive Psychiatry, 65*, 32–43. http://dx.doi.org/10.1016/j.comppsych.2015.09.012

Tuisku, V., Kiviruusu, O., Pelkonen, M., Karlsson, L., Strandholm, T., & Marttunen, M. (2014). Depressed adolescents as young adults –Predictors of suicide attempt and non-suicidal self-injury during an 8-year follow-up. *Journal of*

Affective Disorders, 152-154, 313–319. http://dx.doi.org/10.1016/j.jad.2013.09.031

Turner, B. J., Austin, S. B., & Chapman, A. L. (2014). Treating nonsuicidal self-injury: A systematic review of psychological and pharmacological interventions. *The Canadian Journal of Psychiatry, 59*(11), 576–585. doi:10.1177/070674371405901103

Turner, B. J., Chapman, A. L., & Gratz, K. L. (2014). Why stop self-injuring? Development of the reasons to stop self-injury questionnaire. *Behavior Modification, 38*(1), 69–106. DOI: 10.1177/0145445513508977

Turner, B. J., Cobb, R. J., Gratz, K. L., & Chapman, A. L. (2016). The role of interpersonal conflict and perceived social support in nonsuicidal self-injury in daily life. *Journal of Abnormal Psychology, 125*(4), 588–598. http://dx.doi.org/10.1037/abn0000141

Turner, B. J., Dixon-Gordon, K. L., Austin, S. B., Rodriguez, M. A., Rosenthal, M. Z., & Chapman, A. L. (2015). Non-suicidal self-injury with and without borderline personality disorder: Differences in self-injury and diagnostic comorbidity. *Psychiatry Research, 230*, 28–35. http://dx.doi.org/10.1016/j.psychres.2015.07.058

Turner, B. J., Yiu, A., Layden, B. K., Claes, L., Zaitsoff, S., & Chapman, A. L. (2015). Temporal associations between disordered eating and nonsuicidal self-injury: Examining symptom overlap over 1 year. *Behavior Therapy, 46*(1), 125–138. https://doi.org/10.1016/j.beth.2014.09.002

University of Southern Queensland. (n.d.). *Human ethics clearance.* Retrieved from http://www.usq.edu.au/ research/ethics/human/clearance

Valentino, R. J., & Van Bockstaele, E. (2015). Endogenous opioids: The downside of opposing stress. *Neurobiology of Stress*, *1*, 23–32. https://doi.org/10.1016/j.ynstr.2014.09.006

van der Kolk, B. A. (2003). The neurobiology of childhood trauma and abuse. *Child and Adolescent Psychiatric Clinics, 12*(2), 293–317. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/12725013

van der Kolk, B. A. (2006). Clinical implications of neuroscience research. *Annals of New York Academy of Sciences, 1071*(1), 277–293. doi:10.1196/annals.1364.022

Vandermause, R. K., & Fleming, S. F. (2011). Philosophical hermeneutic interviewing. *International Journal of Qualitative Methods, 10*(4), 367–377. https://doi.org/10.1177/160940691101000405

van Geel, M., Goemans, A., & Vedder, P. (2015). A meta-analysis on the relation between peer victimization and adolescent non-suicidal self-injury. *Psychiatry Research, 230*(2), 364–368. http://dx.doi.org/10.1016/j.psychres.2015.09.017

van Manen, M. (1990). *Researching lived experience: Human experience for an action sensitive pedagogy*. Albany, NY: State University of New York Press.

van Manen, M. (1997). From meaning to method. *Qualitative Health Research, 7*(3), 345–369. https://doi.org/10.1177/104973239700700303

van Manen, M. (2004). Lived experience. In M. S. Lewis-Beck, A. Bryman & T. Futing Liao, *The SAGE Encyclopedia of Social Science Research Methods* (pp. 580–581). http://dx.doi.org/10.4135/9781412950589.n504

van Manen, M .(2007). Phenomenology of practice. *Phenomenology & Practice, 1*(1), 11–30. https://journals.library.ualberta.ca/pandpr/index.php/pandpr/article/view/19803

van Manen, M. (2010). The pedagogy of Momus technologies: Facebook, privacy, and online intimacy. *Qualitative Health Research, 20*(8), 1–10. doi:10.1177/1049732310364990

van Manen, M. (2014). *Phenomenology of practice. Meaning-giving methods in phenomenological research and writing.* Walnut Creek, CA: Left Coast Press, Inc.

van Manen, M. (2017). Phenomenology in its original sense. *Qualitative Health Research, 27*(6), 810–825. doi: 10.1177/1049732317699381

Vaughn, M. G., Salas-Wright, C. P., Underwood, S., & Gochez-Kerr, T. (2015). Subtypes of non-suicidal self-injury based on childhood adversity. *The Psychiatry Quarterly, 86*(1), 137–151. doi:10.1007/s11126-014-9313-7

Veltman, M. W. M., & Browne, K. D. (2001). Three decades of child maltreatment research: Implications for the school years. *Trauma, Violence, & Abuse, 2*(3), 215–239.

Victor, S. E., Glenn, C. R., & Klonsky, E. D. (2012). Is non-suicidal self-injury an "addiction"? A comparison of craving in substance use and non-suicidal self-injury. *Psychiatry Research, 197*(1-2), 73–77. doi:10.1016/j.psychres.2011.12.011

Victor, S. E., & Klonsky, E. D. (2014a). Correlates of suicide attempts among self-injurers: A meta-analysis. *Clinical Psychology Review, 34*(4), 282–297. http://dx.doi.org/10.1016/j.cpr.2014.03.005

Victor, S. E., & Klonsky, E. D. (2014b). Daily emotion in non-suicidal self-injury. *Journal of Clinical Psychology, 70*(4), 364–375. doi:10.1002/jclp.22037

Victor, S. E., Styer, D., & Washburn, J. J. (2015). Characteristics of nonsuicidal self-injury associated with suicidal ideation: Evidence from a clinical sample of youth. *Child and Adolescent Psychiatry and Mental Health, 9*(20), 1–8. doi:10.1186/s13034-015-0053-8

Victor, S. E., Styer, D., & Washburn, J. J. (2016). Functions of nonsuicidal self-injury (NSSI): Cross-sectional associations with NSSI duration and longitudinal changes over time and following treatment. *Psychiatry Research, 241*, 83–90. http://dx.doi.org/10.1016/j.psychres.2016.04.083

Vis, J. (2008). The role and influence of interpretation in hermeneutic phenomenological research. *Currents: New Scholarship in the Human Services, 7*(1). Retrieved from http://currents.synergiesprairies.ca

Vollmer, T. R., Iwata, B. A., Zarcone, J. R., Smith, R. G., & Mazaleski, J. L. (1993). The role of attention in the treatment of attention-maintained self-injurious behavior: Noncontingent reinforcement and differential reinforcement of other behaviour. *Journal of Applied Behavior Analysis, 26*(1), 9–21. doi:10.1901/jaba.1993.26-9

Vollmer, T. R., Marcus, B. A., & Ringdahl, J. E. (1995). Noncontingent escape as treatment for self-injurious behavior maintained by negative reinforcement. *Journal of Applied Behavior Analysis, 28*(1), 15–26. doi:10.1901/jaba.1995.28-15

Voon, D., Hasking, P., Martin, G. (2014). Emotion regulation in first episode adolescent non-suicidal self-injury: What difference does a year make? *Journal of Adolescence, 37*(7), 1077–1087. doi.org/10.1016/j.adolescence.2014.07.020

Wagner, J., & Rehfuss, M. (2008). Self-injury, sexual self-concept, and a conservative Christian upbringing: An exploratory study of three young women's perspectives. *Journal of Mental Health Counseling, 30*(2), 173–188. https://doi.org/10.17744/mehc.30.2.11u01030x44h307x

Walls, N. E., Laser, J., Nickels, S. J., & Wisneski, H. (2010). Correlates of cutting behavior among sexual minority youths and young adults. *Social Work Research, 34*(4), 213–226. http://dx.doi.org/10.1093/swr/34.4.213

Walsh, B. (2007). Clinical assessment of self-injury: A practical guide. *Journal of Clinical Psychology: In Session, 63*(11), 1057–1068. doi:10.1002/jclp.20413

Washbrook, E., Gregg, P., & Propper, C. (2014). A decomposition analysis of the relationship between parental income and multiple child outcomes. *Journal of the Royal Statistical Society: Series A (Statistics in Society), 177*(4), 757–782. https://doi.org/10.1111/rssa.12074

Washburn, J. J., Juzwin, K. R., Styer, D. M., & Aldridge, D. (2010). Measuring the urge to self-injure: Preliminary data from a clinical sample. *Psychiatry Research, 178*(3), 540–544. https://doi.org/10.1016/j.psychres.2010.05.018

Washburn, J. J., Potthoff, L.M., Juzwin, K. R., & Styer, D. M. (2015). Assessing DSM–5 nonsuicidal self-injury disorder in a clinical sample. *Psychological Assessment, 27*(1), 31–41. http://dx.doi.org/10.1037/pas0000021

Washburn, J. J., Richardt, S. L., Styer, D. M., Gebhardt, M., Juzwin, K. R., Yourek, A., & Aldridge, D. (2012). Psychotherapeutic approaches to non-suicidal self-injury in adolescents. *Child and Adolescent Psychiatry and Mental Health, 6*(1), 14. doi:10.1186/1753-2000-6-14

Webster, L., Hackett, R. K., & Joubert, D. (2009). The association of unresolved attachment status and cognitive processes in maltreated adolescents. *Child Abuse Review, 18*(1), 6–23. doi:10.1002/car.1053

Weems, C. F., Berman, S. L., Silverman, W. K., & Saavedra, L. M. (2001). Cognitive errors in youth with anxiety disorders: The linkages between negative cognitive errors and anxious symptoms. *Cognitive Therapy and Research, 25*(5), 559–575. http://dx.doi.org/10.1023/A:1005505531527

Weierich, M. R., & Nock, M. K. (2008). Posttraumatic stress symptoms mediate the relation between childhood sexual abuse and nonsuicidal self-injury. *Journal of Consulting and Clinical Psychology, 76*(1), 39–44. doi:10.1037/0022-006X.76.1.39

Weinberg, A., & Klonsky, E. D. (2012). The effects of self-injury on acute negative arousal: A laboratory simulation. *Motivation and Emotion, 36*(2), 242–254. doi:10.1007/s11031-011-9233-x

Weismoore, J. T., & Esposito-Smythers, C. (2010). The role of cognitive distortion in the relationship between abuse, assault, and non-suicidal self-injury. *Journal of Youth and Adolescence, 39*(3), 281–290. doi:10.1007/s10964-009-9452-6

Weiss, J. (2002). Self-injurious behaviors in autism: A literature review. *Journal on Developmental Disabilities, 9*(2), 127-144. Retrieved from http://www.yorku.ca/ jonweiss/files/JODD_SIB_WEISS.pdf

Wertz, F. J. (2005). Phenomenological research methods for counseling psychology. *Journal of Counseling Psychology, 52*(2), 167–177. doi:10.1037/0022-0167.52.2.167

Wester, K. L., & McKibben, W. B. (2016). Participants' experiences of nonsuicidal self-injury: Supporting existing theory and emerging conceptual pathways. *Journal of Mental Health Counseling, 38*(1*),* 12-27. doi:10.17744/mehc.38. 1.02

Wester, K. L., & Trepal, H. C. (2015). Nonsuicidal self-injury: Exploring the connection among race, ethnic identity, and ethnic belonging. *Journal of College Student Development, 56*(2), 127–139. https://doi.org/10.1353/csd.2015.0013

Westlund Schreiner, M., Klimes-Dougan, B., Mueller, B. A., Eberly, L. E., Reigstad, K. M., Carstedt, P. A., …Cullen, K. R. (2017). Multi-modal neuroimaging of adolescents with non-suicidal self-injury: Amygdala functional connectivity. *Journal of Affective Disorders*, *221*, 47–55. https://doi.org/10.1016/j.jad.2017.06.004

White Kress, V. E., Drouhard, N., & Costin, A. (2006). Students who self-injure school counselor ethical and legal considerations. *Professional School Counseling, 10*(2), 203–209. Retrieved from http://www.schoolcounselor.org/

White Kress, V. E., Gibson, D. M., & Reynolds, C. A. (2004). Adolescents who self-injure: Implications and strategies for school counselors. *Professional School Counseling, 7*(3), 195–201. Retrieved from http://www.schoolcounselor.org/

Whitlock, J. L., Eckenrode, J., & Silverman, D. (2006). Self-injurious behaviors in a college population. *Pediatrics, 117*(6), 1939–1948. doi:10.1542/peds.2005-2543

Whitlock, J. L., Lader, W., & Conterio, K. (2007). The Internet and self-injury: What psychotherapists should know. *Journal of Clinical Psychology: In Session, 63*(11), 1135-1143. doi:10.1002/jclp.20420

Whitlock, J., Muehlenkamp, J., & Eckenrode, J. (2008). Variation in nonsuicidal self-injury: Identification and features of latent classes in a college population of emerging adults. *Journal of Clinical Child & Adolescent Psychology, 37*(4), 725–735. doi:10.1080/15374410802359734

Whitlock, J. L., Muehlenkamp, J., Eckenrode, J., Purington, A., Abrams, G. B., Barreira, P., & Kress, V. (2013). Nonsuicidal self-injury as a gateway to suicide in young adults. *Journal of Adolescent Health, 52*(4), 486–492. http://dx.doi.org/10.1016/j.jadohealth.2012.09.010

Whitlock, J., Muehlenkamp, J., Purington, A., Eckenrode, J., Barreira, P., Abrahms, G. B., …Knox, K. (2011). Nonsuicidal self-injury in a college population: General trends and sex differences. *Journal of American College Health, 59*(8), 691–698. doi:10.1080/07448481.2010.529626

Whitlock, J., Powers, J. L., & Eckenrode, J. (2006). The virtual cutting edge: The Internet and adolescent self-injury. *Developmental Psychology, 42*(3), 407–417. doi:10.1037/0012-1649.42.3.407

Whitlock, J., Prussien, K., & Pietrusza, C. (2015). Predictors of self injury cessation and subsequent psychological growth: Results of a probability sample survey of students in eight universities and colleges. *Child and Adolescent Psychiatry and Mental Health, 9(*1), 19–30. doi:10.1186/s13034-015-0048-5

Whitlock, J., & Rodham, K. (2013). Understanding nonsuicidal self-injury in youth. *School Psychology Forum: Research in Practice, 7*(4), 93–110. Retrieved from http://www.nasponline.org/publications/periodicals/spf/volume-7/volume-7-issue-4-(winter-2013)/understanding-nonsuicidal-self-injury-in-youth

Wichstrøm, L. (2009). Predictors of non-suicidal self-injury versus attempted suicide: Similar or different? *Archives of Suicide Research, 13*(2), 105–122. doi:10.1080/13811110902834992

Wilkinson, P. (2013). Non-suicidal self-injury. *European Child & Adolescent Psychiatry, 22*(S1), S75–S79. doi:10.1007/s00787-012-0365-7

Williams, F., & Hasking, P. (2010). Emotion regulation, coping and alcohol use as moderators in the relationship between non-suicidal self-injury and psychological distress. *Prevention Science, 11*(1), 33–41. doi:10.1007/s11121-009-0147-8

Willig, C. (2014). Interpretation and analysis. In U. Flick (Ed.), *The SAGE Handbook of Qualitative Data Analysis*, (pp. 136–150). http://dx.doi.org/10.4135/9781446282243

Willis, J. (2009). How to teach students about the brain. *Educational Leadership, 67*(4). Retrieved from http://www.ascd.org/publications/educational-leadership/dec09/vol67/num04/How-to-Teach-Students-About-the-Brain.aspx

Willis, J. (2010). Teaching students a "brain owner's manual". *New Horizons for Learning Journal, VIII*(1). Retrieved from http://education.jhu.edu/PD/newhorizons/Journals/spring2010/willis-2/index.html

Willis, J. W. (2007). Frameworks for qualitative research. In J. W. Willis, *Foundations of qualitative research: Interpretive and critical approaches* (pp. 147–184). http://dx.doi.org/10.4135/9781452230108.n5

Witt, K. J., Oliver, M., & McNichols, C. (2016). Counseling via avatar: Professional practice in virtual worlds. *International Journal for the Advancement of Counselling, 38*(3), 218–236. doi:10.1007/s10447-016-9269-4

Wolff, J. C., Frazier, E. A., Esposito-Smythers, C., Becker, S. J., Burke, T. A., Cataldo, A., & Spirito, A. (2014). Negative cognitive style and perceived social support mediate the relationship between aggression and NSSI in hospitalized adolescents. *Journal of Adolescence, 37*(4), 483–491. http://dx.doi.org/10.1016/j.adolescence.2014.03.016

Wolff, J., Frazier, E. A., Esposito-Smythers, C., Burke, T., Sloan, E., & Spirito, A. (2013). Cognitive and social factors associated with NSSI and suicide attempts in psychiatrically hospitalized adolescents. *Journal of Abnormal Child Psychology, 41*(6), 1005–1013. doi:10.1007/s10802-013-9743-y

Woltering, S., & Lewis, M. D. (2009). Developmental pathways of emotion regulation in childhood: A neuropsychological perspective. *Mind, Brain, and Education, 3*(3), 160–169. doi:10.1111/j.1751-228X.2009.01066.x.

Wood, S. M., & Craigen, L. M. (2011). Self-injurious behavior in gifted and talented youth: What every educator should know. *Journal for the Education of the Gifted, 34*(6), 839–859. doi:10.1177/0162353211424989

Xavier, A., Pinto-Gouveia, J., Cunha, M. (2016). Non-suicidal self-injury in adolescence: The role of shame, self-criticism and fear of self-compassion. *Child Youth Care Forum, 45*(4), 571–586. doi:10.1007/s10566-016-9346-1

Xavier, A., Pinto-Gouveia, J., Cunha, M., & Dinis, A. (2017). Longitudinal pathways for the maintenance of non-suicidal self-injury in adolescence: The pernicious blend of depressive symptoms and self-criticism. *Child & Youth Care Forum, 46*(6), 841–856. doi:10.1007/s10566-017-9406-1

Yates, T. M. (2004). The developmental psychopathology of self-injurious behavior: Compensatory regulation in posttraumatic adaptation. *Clinical Psychology Review, 24*(1), 35–74. doi:10.1016/j.cpr.2003.10.001

Yates, T. M., Carlson, E. A., & Egeland, B. (2008). A prospective study of child maltreatment and self-injurious behavior in a community sample. *Development and Psychopathology, 20*(2), 651–671. doi:10.1017/S0954579408000321

Yates, T. M., Tracy, A. J., & Luthar, S. S. (2008). Nonsuicidal self-injury among "privileged" youths: Longitudinal and cross-sectional approaches to developmental process. *Journal of Consulting and Clinical Psychology, 76*(1), 52–62. doi:10.1037/0022-006X.76.1.52

Yeh, C. J., & Inman, C. J. (2007). Qualitative data analysis and interpretation in counseling psychology: Strategies for best practices. *The Counseling Psychologist, 35*(3), 369–403. doi:10.1177/0011000006292596

Yen, S., Kuehn, K., Melvin, C., Weinstock, L. M., Andover, M. S., Selby, E. A., …Spirito, A. (2016). Predicting persistence of nonsuicidal self-injury in

suicidal adolescents. *Suicide and Life-Threatening Behavior 46*(1), 13–22. doi:10.1111/sltb.12167

Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, California: SAGE Publications, Inc.

Yoman, J. (2008). A primer on functional analysis. *Cognitive and Behavioral Practice, 15*(3), 325–340. http://doi.org/10.1016/j.cbpra.2008.01.002

You, J., & Leung. F. (2012). The role of depressive symptoms, family invalidation and behavioral impulsivity in the occurrence and repetition of non-suicidal self-injury in Chinese adolescents: A 2-year follow-up study. *Journal of Adolescence, 35*(2), 389–395. doi:10.1016/j.adolescence.2011.07.020

You, J., Lin, M., & Leung, F. (2015). A longitudinal mediation model of nonsuicidal self-injury among adolescents. *Journal of Abnormal Child Psychology, 43*(2), 381–390. doi:10.1007/s10802-014-9901-x

Young, R., Riordan, V., & Stark, C. (2011). Perinatal and psychosocial circumstances associated with risk of attempted suicide, nonsuicidal self-injury and psychiatric service use: A longitudinal study of young people. *BMC Public Health 2011, 11*(1), 875–885. http://www.biomedcentral.com/1471-2458/11/875

Young, R., Sproeber, N., Groschwitz, R. C., Preiss, M., & Plener, P. L. (2014). Why alternative teenagers self-harm: Exploring the link between non-suicidal self-injury, attempted suicide and adolescent identity. *BMC Psychiatry, 14*(1), 137. doi:10.1186/1471-244X-14-137

yourtown (2016). *Kids Helpline Insights 2015: National Statistical Overview*. Brisbane: Author.

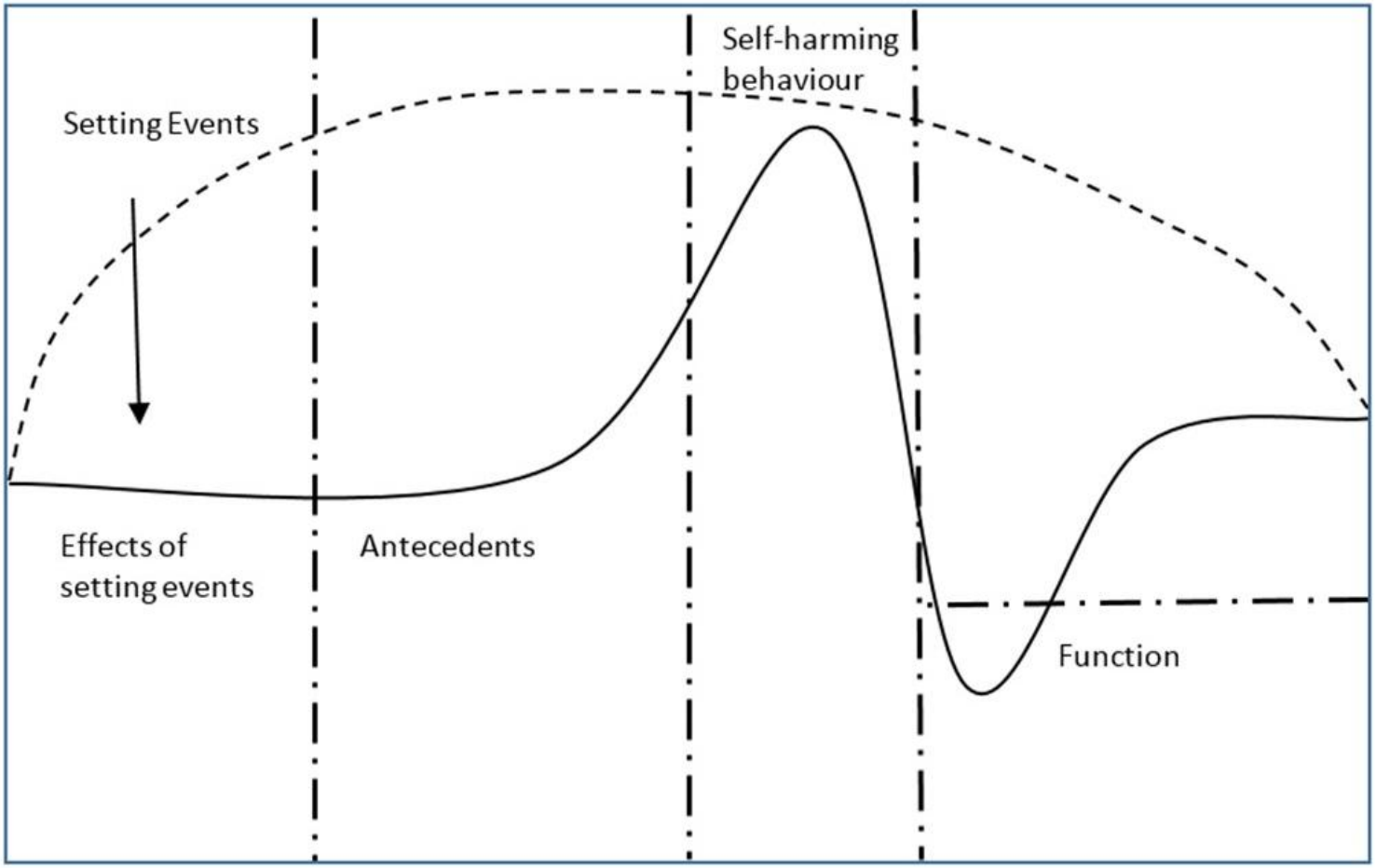
Ystgaard, M., Hestetun, I., Loeb, M., & Mehlum, L. (2004). Is there a specific relationship between childhood sexual and physical abuse and repeated suicidal behavior? *Child Abuse & Neglect 28*(8), 863–875. doi:10.1016/j.chiabu.2004.01.009

Zetterqvist, M., Lundh, L., & Svedin, C. G. (2013). A comparison of adolescents engaging in self-injurious behaviors with and without suicidal intent: Self-reported experiences of adverse life events and trauma symptoms. *Journal of Youth and Adolescence, 42*(8), 1257–1272. doi:10.1007/s10964-012-9872-6

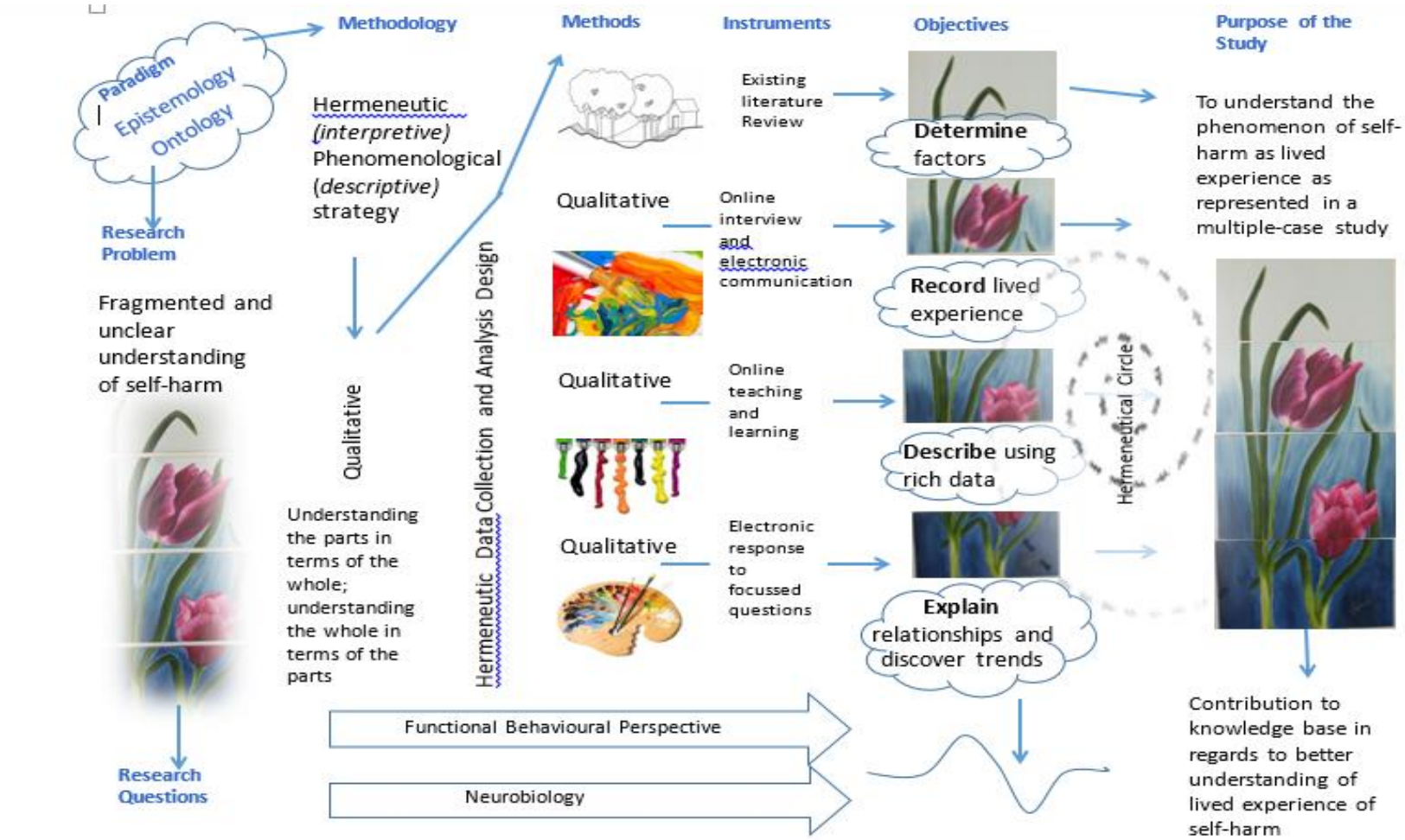
Zetterqvist, M., Lundh, L., Dahlström, Ö., & Svedin, C. G. (2013). Prevalence and function of non-suicidal self-injury (NSSI) in a community sample of adolescents, using suggested DSM-5 criteria for a potential NSSI disorder. *Journal of Abnormal Child Psychology, 41*(5), 759–773. doi:10.1007/s10802-013-9712-5

APPENDICES

Appendix A: Behaviour Cycle Graphic Organiser



Appendix B: Analogy of Artwork



Appendix C: Functions of Self-Injury

Automatic Negative Reinforcement (ANR)	Social Negative Reinforcement (SNR)
Stop/get rid of/escape bad feelings Stop flashbacks/ aversive memories Distract from intrusive thoughts Avoid suicide Relieve feeling numb/empty Distract from sexual impulses Escape/relieve feeling isolated/ rejection/ loneliness/ tension/	Avoid doing something unpleasant Avoid doing schoolwork Avoid punishment/consequences Self-isolation/avoid being with others Remove expectations of others Stop others from hurting individual Establish boundaries
Automatic Positive Reinforcement (APR)	**Social Positive Reinforcement (SPR)**
Feeling generation/relieve feeling numb or empty/to feel real or alive Euphoria Self-punishment End depersonalisation and dissociation Facilitate/hinder switching Change emotional pain into physical pain To see blood Satisfy voices inside Please important figure (God/devil) To feel control over self Sensation seeking To generate crying Prove to self how much s/he can take Take care of oneself	Feel connected to others/part of group Gain admiration of others Gain love and affection from others Because friends do it Get attention/solicit help from others Communicate hurting/pain/desperation To hurt/shock someone else/payback/make others feel guilty Change others' reaction/attitude Control over others/situation

(Brier & Gil, 1998; Gregory & Mustata, 2012; Klonsky, 2009; Klonsky et al., 2015; Lloyd-Richardson et al., 2007; Muehlenkamp, Brausch, Quigley, & Whitlock, 2013; Nock & Prinstein, 2004; Paul et al., 2015; Rodav et al., 2014; Straiton, Roen, Dieserud, & Hjelmeland, 2013; Swannell et al., 2008; Young et al., 2014)

Appendix D: Brain Development, Function and Neurobiological Facts

A. Brain Development and Functioning

Perry (2002) explained some key concepts regarding normal brain development.

Neurogenesis: In the first few weeks following conception, the brain develops from cells present in the embryo. These cells become nerve cells and glia. At birth, the majority of neurons needed for the rest of life are already present, although at that time they are not yet organised into completely functional systems. In order for functional neural networks to form, the neurons have to specialise and connect with other neurons.

Migration: Neurons move as they are born and the brain grows. They cluster, sort, move, and then settle into a location in the brain, for instance the brainstem or cortex. Both genetic and environmental factors are considered to play a role in determining the neurons' final location. This process takes place during the intra-uterine and immediate perinatal periods, but also continues throughout childhood. Experiences such as a lack of oxygen, infections, or exposure to alcohol and drugs can impact the migration of neurons.

Differentiation: Although each of the billions of neurons have the same set of genes, each neuron expresses a unique combination of genes to create a unique neurochemistry, neuro-architecture and functionality. Neurons mature to use any of the many different neurotransmitters such as norepinephrine, dopamine, serotonin, CRF, or substance-P. Some neurons have dense dendritic fields, while others have a single, linear input from one to the other neuron. Micro-environmental cues or experiences impact on the differentiation process. Neurons are specialised to change in response to certain chemical signals from experiences.

Apoptosis: As part of an organism's normal growth and development, cells will die. This is called apoptosis.

Arborisation: As neurons differentiate, they send out dendrites that become the receptive area where they connect with other neurons. When there is a high level

of activity of incoming signals (sensory experiences), the dendritic networks or trees extend.

Synaptogenesis: Neuron-to-neuron communication takes place at specialised connections called ‘synapses’. The synapse is the most experience-sensitive feature of a neuron. The presynaptic neuron releases a chemical (neurotransmitters or hormones) into the synaptic cleft. The neurotransmitter then crosses the space and binds with a specialised receptor protein in the membrane of the postsynaptic neuron. The continuous synaptic neurotransmission regulates the activity and functional properties of these chains of neurons so that the brain is able to perform all of its activities. The neural connections are guided by environmental and genetic cues. During development it is important that neurons will find and connect with the right other neurons in order for the brain to function properly. Synaptogenesis allows the brain to have the flexibility to organise and function. Neural connections are refined and sculpted through patterned, repetitive experiences in early childhood.

Synaptic sculpting: The synapse continually changes through the release of neurotransmitters, shifts of ions in and out of cells, and other processes. A consistent release of neurotransmitters strengthens synaptic connections and allows the presynaptic and postsynaptic neuron to grow closer together and make neurotransmission more efficient. A synaptic connection will dissolve if there is little activity (use it or lose it). This process is the molecular basis of learning and memory, and is the core of neurodevelopment.

Myelination: Myelination takes place when specialised glial cells wrap around axons to create more efficient electrochemical transduction down the neuron. A neural network is then able to function more efficiently and rapidly to allow more complex functioning. Myelination begins in the first year of life, but continues throughout childhood, although myelination in key cortical areas only takes place in adolescence.

B. Neurobiological Facts

The central nervous system consists of the brain and the spinal cord. The limbic system is involved with behavioural and emotional responses and consists of the thalamus, hypothalamus, basal ganglia, hippocampus, and the amygdala (QLD Brain Institute, n.d.). The thalamus is the prime centre for sensory processing, while the hypothalamus is the major control centre of the autonomic motor system. It is associated with the production of important hormones and connects the hormonal and nervous systems. It also regulates thirst, hunger, and mood (QLD Brain Institute, n.d.; Rossouw, 2012a). The basal ganglia are responsible for learning, reward processing, movement, and the formation of habits (QLD Brain Institute, n.d.). The hippocampus is also important in spatial orientation and learning new things. It is also associated with one type of brain plasticity and is the place where neurogenesis takes place (QLD Brain Institute, n.d.).

Maclean (1990, as cited in Rossouw, 2012a) referred to the 'reptilian' brain, consisting of the brainstem, pons, and cerebellum. Each area of the brain has its own timetable for development and it organises itself from the bottom up (Perry, 2002, 2009; Rossouw, 2011c, 2012a). The neurons for the brainstem have to differentiate and connect first as they are responsible for the survival mechanisms namely regulating cardiovascular and respiratory function, and are intact at birth if development is normal (Perry, 2002; Rossouw, 2012a).

While the basic structures develop and become more refined, the next phase of development results in the 'mammalian' brain or limbic system, which consists of those structures that sit on top of the brainstem, deep in the brain (Rossouw, 2011c). These structures are considered to play a vital role in processing sensory information, developing implicit memory reaction to stress, as well as short-term memory and basic emotion regulation (Rossouw, 2011b). In the first ten months after birth, powerful memory systems are formed through these structures.

The cortical areas or paleo-mammalian brain develop last. These areas are responsible for cognitive, emotional and motor functioning, and facilitate executive reasoning, emotional control and integration of responses (Rossouw, 2011c). The left and right sides of the brain are driven by different neural circuits. The right brain is

associated with self-soothing, affective expression and perception, while the left brain directs exploratory actions, linguistic processing, and has an interpreter function (Siegel, 2001).

During the body's entire development, neurons multiply, develop myelin sheaths, and develop connections with other neurons throughout the brain (Stirling & Amaya-Johnson, 2008) to form specific circuits (Siegel, 2001). Neural connections are use-dependent and some are strengthened through experience (Siegel, 2001). Unused connections between neurons get pruned through apoptosis (Perry, 2002; Siegel, 2001; Stirling & Amaya-Jackson, 2008). The use or disuse of specific pathways alter the neuronal structure, for instance changes in sensitivity and the number of synaptic connections. Although the brain is most plastic in early childhood, it is also most vulnerable to experience (Perry, 2009; Siegel, 2001).

Neurotransmitters. The synaptic cleft, which is the gap between the synapses of neurons, is where communication between neurons takes place. Electric signals travel along the axon of a neuron and are converted into chemical signals as a result of the release of neurotransmitters (QLD Brain instate, n.d.). This causes a specific response in the receiving neuron, depending on the receptor it binds to.

Acetylcholine is released by neurons in the autonomic nervous system and by motor neurons in the peripheral nervous system, where it plays a major role. It is also important in the central nervous system (CNS) for maintaining cognitive function (QLD Brain instate, n.d.). Excitatory transmitters, of which **glutamate** is the primary transmitter, promote the generation of an electrical signal. This is called an 'action potential or impulse' in the receiving neuron. Inhibitory transmitters prevent the generation of an electrical signal (QLD Brain instate, n.d.). **Glycine**, which is found in the spinal cord, and **GABA**, which is a derivative of glutamate, are inhibitory transmitters (QLD Brain instate, n.d.).

Neuromodulators again are not restricted to the synaptic cleft between neurons and can therefore regulate populations of neurons. They are mono-amines and operate over a slower time course (QLD Brain instate, n.d.). This group includes **dopamine,** which is considered to be a stress hormone and is involved in motor control, reward and reinforcement, as well as motivation. Also included is

noradrenaline (norepinephrine), which is the primary neurotransmitter in the sympathetic nervous system. It works in organs to control blood pressure, heart rate, and liver function among others. **Serotonin** is involved in sleep, memory, appetite, and mood. **Histamine** has a role in metabolism, temperature control, regulating various hormones, and it controls the sleep-wake cycle (QLD Brain Institute, n.d.).

Oxytocin is a neuropeptide, produced primarily in the hypothalamus, and plays a role in social bonding and parental behaviour, the management of stressful experiences, has effects on immune and cardiovascular functions, and fulfils a function in regulation of both the central and autonomic nervous systems (Carter et al., 2007; Grillon et al., 2013; Grippo et al., 2009).

The **endogenous opioids** and their receptors are located throughout the central peripheral, and autonomic nervous systems (Drolet et al., 2001). They are present in varying densities, and are also found in several endocrine tissues and target organs. The opioids are involved in a range of functions and behaviours, such as controlling pain, reinforcement and reward, the release of neurotransmitters, and addictive behaviours. The receptors mu, delta, and kappa are activated by endogenous peptides such as enkephalins, dynorphins, and endorphin (Stanley et al., 2010). The endogenous opioids are released by neurons and are anti-stress mediators. Stress hormones are **cortisol** and **adrenalin**. They are produced by the adrenal glands that are part of the HPA-axis. Too much cortisol can have a negative effect on the hippocampus. It interferes with neurotransmitter activities and impairs the creation of new memories, but also restricts access to existing ones. Excess cortisol can lead to memory problems, sleep problems, heart disease, and depression.

Neurobiology of attachment

An infant's first exposure to humans creates a set of assumptions about what humans are. This template is carried into future relationships (Perry, 2009; Siegel, 2001). Infants are incapable of meeting their own needs and are dependent on adults for consistent, predictable, responsive and nurturing caregiving so that the child can build adaptive and flexible stress response capability and self-regulation ability (Hannan, 2016; Perry, 2009; Siegel, 2001; van der Kolk, 2006). If this does not

occur, the child becomes more vulnerable to stressors and as a result he cannot benefit from support from others (Perry, 2009).

Attachment is considered to be a biologically adaptive motivational system that is hardwired in the brain (Siegel, 2001). Through attachment an infant can develop an internal working model of self, with others that will lead to self-soothing in times of distress in the future, as the mother co-regulates the infant's developing central and autonomic nervous systems (Schore & Schore, 2008; Siegel, 2001). This process occurs via non-verbal communications between the infant's and mother's right brains (Schore & Schore, 2008). These regulatory transactions impact on the developing brain as they promote the development and maintenance of synaptic connections (Rossouw, 2011b; Schore & Schore, 2008). Experiences that the developing child is exposed to will shape the organisation of this system in the brain, as it involves activation of neurons that respond to sensory events from both the external world and internally generated images (Siegel, 2001).

Experiences involve activation of neurons that shape the function of neural activity and potentially change the structure for life (Siegel, 2001). The molecular cues that guide development are dependent on the experiences of the developing child (Perry, 2002) and therefore early life-nurturing is critical (Siegel, 2001) Rossouw (2012a) explains that from the moment of birth, the limbic structures, and in particular the amygdalae, scan the environment for cues of discomfort, danger, or risk and have to be down-regulated by means of the fulfilment of basic needs. The basic need is a safe environment that is provided in a secure attachment (Rossouw, 2011a, 2012b).

Neurobiology of adverse life experiences

Complex trauma comprises distressing, adverse events such as physical and sexual abuse, emotional neglect, as well as exposure to violence at home or in the community (Hannan, 2016). These interpersonal events, if frequent or continual, may result in traumatic stress disorders, behavioural disturbances, and problems in the emotional, personality, as well as interpersonal areas (Hannan, 2016).

It was established that, as a result of early trauma, there could be a decreased volume in the corpus collossum, prefrontal cortices and temporal lobes, as well as decreased amygdala activation in the presence of harsh and cold parenting (D'Andrea et al., 2002). In earlier onset of trauma, smaller cerebral and cerebellar volumes were found (De Bellis & Zisk, 2014). Early stress is associated with pathophysiological changes in the central nervous system that lead to a vulnerability in response to later stress and a predisposition to mental and physical disorders (Neigh, Gillespie & Nemeroff, 2009).

The dynamic environment in which a child develops is potentially full of stressors that initiate a synchronised set of endocrine, immunological, autonomic, behavioural and cognitive reactions considered to be the stress response that is necessary for survival (Valentino & Van Bockstaele, 2015). The role of the stress response system is to sense distress, then to act on it, and address it in order to return to a state of homeostasis (Perry, 2009). In the process, the hypothalamic–pituitary–adrenal (HPA) axis is activated and feedback regulation occurs to terminate the response again (Valentino & Van Bockstaele, 2015). When the stress response is activated in an extreme or a prolonged manner, the neural networks involved in the response will undergo a use-dependent alteration (Perry, 2009), and dysfunction results. These use-dependent changes are the origin of neuro-psychiatric symptoms related to the exposure to stress and trauma (Heim & Nemeroff, 2001; Perry, 2009; Valentino & Van Bockstaele, 2015).

Disruption of the pattern, timing, and intensity of the processes of brain development results in abnormal neurodevelopment and dysfunction. The dysfunction will depend on the timing of the insult, the nature (for instance lack of sensory stimulation or trauma) and the pattern thereof (chronic or a single event). Adverse experiences impact on neural organisation and could result in compromised functioning throughout life (Rossouw, 2011a; Siegel, 2001).

Neglect leads to deficits in functions such as self-regulation, speech and language, and the capacity for healthy relationships and social interaction (Perry, 2009). Neglect was found to cause smaller corpus callosum in boys, while the same outcome in girls was caused by sexual abuse (De Bellis & Zisk, 2014). Adverse

childhood experiences also lead to abnormalities in the endogenous opioid system and the result is low resting levels of the opioids and an inadequate opioid response to stress (Bresin & Gordon, 2013).

The brain that develops in a threatening world benefits from a highly developed fight-or-flight response. Modifications take place in the limbic system and HPA-axis in the presence of stress (Gabowitz et al., 2008; Stirling & Amaya-Jackson, 2008). Siegel (2001) further explains that intrusive parenting leads to diminished mentalising abilities.

Multiple traumatic events lead to elevated levels of cortisol. If trauma occurs in the first five years, it leads to limbic-hypothalamus-pituitary-adrenal-axis dysregulation (De Bellis & Zisk, 2014). The amygdala becomes more sensitive to stress but shrinks back when it is chronically exposed to high concentrations of circulating cortisol, adapting by becoming less sensitive (Heim & Nemeroff, 2001; Stirling & Amaya-Jackson, 2008). Trauma causes a dysregulation in serotonin, which is a critical element of the stress response system (De Bellis & Zisk, 2014).

Neurobiology of mental illness

It is considered that depression is, in part, a dysregulation of the stress response that can be seen in the perception of the world that provokes fear and dread of the future (Gold, 2005). Furthermore, it is characterised by a perception of the self that is full of anxiety and dissatisfaction as a result of disturbing events that took place during critical periods of brain development (Gold, 2005). Cortisol secreted by the adrenal cortex during stress is elevated in some depressed clients (Gold, 2005).

Anxiety is thought to be an adaptive, defensive response to an unpredictable threat in which oxytocin plays a role. The role of oxytocin is to sensitise responses in the face of uncertainty or ambiguity, or in the presence of unfamiliar individuals in some cases, which results in anti-social behaviour towards those individuals (Grillon et al., 2013).

Dysfunction of the stress response due to repeated or chronic stress was found to be associated with depression, post-traumatic stress disorder, and substance use (De Bellis & Zisk, 2014; Heim & Nemeroff, 2001; Valentino & Van Bockstaele,

2015). Re-experiencing trauma and other intrusive symptoms is considered to be the classic conditioned response, mediated by the serotonin system (De Bellis & Zisk, 2014). De Bellis and Zisk explain that external or internal triggers can activate distressing memories. The stressors associated with those memories are then processed through the thalamus, which then activates the amygdala. Cortisol levels become elevated, and affect the neurons in the prefrontal cortex, hypothalamus and hippocampus. This leads to increased activity in the locus coereleus and the sympathetic nervous system, which then leads to the activation of bodily reactions (De Bellis & Zisk, 2014).

Neurobiology of intervention

Rossouw (2013) asserts that the shift in focus from seeing the brain as a neural network system instead of an electro-chemical system has resulted in a shift in focus away from chemical interventions in psychotherapy.

Environmental influences are the most powerful influences that shape neural activation patterns. The brain responds to maximise survival and to have needs met, and it regulates itself from the bottom up to ensure this (Rossouw, 2014). If any of these needs are violated, the connections change and form new patterns of firing (Rossouw, 2013). Findings regarding the plasticity of the brain, which is its ability to regenerate itself in terms of structure and function (Doidge, 2010), indicate that through stimulation such as behavioural training and therapy, the impact of the initial trauma can be reduced later in life (Rossouw, 2011b; Kleim & Jones, 2008). Neural plasticity is linked to how synaptic potentials activate (Makinson & Young, 2012). Neurons that fire together, wire together; or neurons that fire apart, wire apart (Rossouw, 2013), therefore the therapeutic environment is important to make full use of the brain's ability for neurogenesis.

Therapy is a structured talk process provided in a safe place, and these factors are the essentials for neural pathways to be redirected (Rossouw, 2011d). Cortical blood flow improves when a person has to write down thoughts or consider solutions. This leads to activation of the left pre-frontal cortex (Barsaglini et al., 2014), and in the process new firing patterns are created to replace the old ones, thus the symptoms of pathology diminish (Rossouw, 2013). For the 'unlearning' of

responses, such as is evident in self-injury, in the brain to occur, research indicates that intervention techniques therefore have to target the cortical functions of the brain (Kleim & Jones, 2008; Sotres-Bayon, Bush, & LeDoux, 2004).

Unless the new pattern of firing is actively activated, the person will drift back into old patterns, therefore ongoing activation is needed for at least six to eight weeks. Some people may be unmotivated, as dopaminergic action is often reduced in depressed and anxious clients. Home-based tasks associated with therapy may therefore have certain limitations for those clients because tasks may be too passive to create new neural growth (Rossouw, 2011d). Another reason may be that they do not understand the neuroscientific importance of the tasks, irrespective of the content, and therefore do not know about the importance of creating new neural networks that will cause them to feel well again. Tasks may also not continue for long enough to discontinue pre-existing unhelpful neural pathways that increase the risk of relapse (Rossouw, 2011d).

The benefit of mindfulness lies in how it changes the brain. Kilpatrick et al. (2011) found that mindfulness alters the intrinsic functional connectivity between regions in the brain associated with attentional processes and those in the sensory cortex. After eight weeks of mindfulness training, a more consistent attentional focus, enhanced sensory processing, and reflective awareness of sensory experience were evident. Mindfulness was found to increase the volume of gray matter (Barsaglini et al., 2014).

Appendix E: Self-Harm Self-Assessment Survey

This survey is completely confidential. All information provided is for Guidance Officers only.

NAME: _____

1. I have thoughts of killing myself True ____ False____
2. I have self-injured: Only once____ 2-5 times____ 6-10 times____ 11-20 times_____ 20 -50 times____ more than 50 times____
3. The first time I deliberately injured myself was when I was _____ years old
4. The last time I injured myself, was: Within the past week_____ Past month_____ Past six months _____ Past year_____ More than one year ago_____
5. When I hurt or injure myself, I do it by _____
6. When I injure myself, I am usually alone_____ or with others _____
7. Just before I hurt myself, my feelings often are _____
8. Just before I hurt myself, my thoughts often are _____
9. Just after I hurt myself, my feelings often are _____
10. Just after I hurt myself, my thoughts often are _____
11. I try not to hurt myself by choosing to _____ instead.
12. My parents know that I am injuring myself _____
13. My parents' reaction is _____
14. I have _____ friends who also injure themselves
15. I self-injure because I feel guilty about _____
16. My friends encourage me to injure myself True ____ False____
17. My friends and family have become worried because I injure myself True ____ False____
18. I continue injuring myself despite the fact that one or more person who is important to me have told me that they are disgusted by it True____ False____
19. I often feel like injuring myself when listening to music about self-harm and suicide True ____ False____
20. I often take drugs or alcohol just before I injure myself True ____ False____

21. I do not want to die; I just want to stop my emotional pain True ____ False____

22. I become anxious when people try to stop me or prevent me from hurting myself True____ False____

23. Many times I harm myself more out of habit than for any specific reason True____ False____

24. To injure myself is important to me, almost an obsession True____ False____

25. I sometimes can't explain where my injuries come from True____ False____

26. I get anxious when my wounds start to heal. True____ False____

27. I sometimes do not care for my wounds like I should. True____ False____

28. I often think that if I don't hurt myself, I'll go "crazy" True____ False____

29. I can't imagine life without hurting myself True____ False____

30. I think I'm addicted to hurting myself True____ False____

31. I often self-injure as a way to punish myself True____ False____

32. I injure myself to feel something, to feel 'real" True____ False____

33. I have control over my life when I injure myself True____ False____

34. If I stop hurting myself, my parents will win and have their way True____ False____

35. I have tried to get help so that I won't hurt myself again True____ False____

36. I usually don't know how to explain how I feel True____ False____

Appendix F: Daily Quiz

DAILY QUIZ

Please complete the daily quiz every time you feel like harming yourself

STEP 1

What are your thoughts just before you decide to harm yourself? Click all that apply.

For every thought you identify, please indicate on a scale from 0-10 how strong it is.

- ☐ I need to be punished
- ☐ I remember being sexually abused/ raped
- ☐ I can't cope
- ☐ I remember being emotionally abused
- ☐ I worry about finances
- ☐ I wish someone would see and care
- ☐ I don't want to die
- ☐ I am / people think I am a freak
- ☐ I hate my body
- ☐ I worry about school work
- ☐ I am a failure
- ☐ I thought about a nightmare
- ☐ I think about my relationship with my parents
- ☐ I want to feel in control
- ☐ I need to see my blood
- ☐ I think about my parents criticism
- ☐ I am confused about sexuality
- ☐ I am no good
- ☐ I want my parents to feel bad
- ☐ I remember being physically abused
- ☐ I am thinking of my depressed friend
- ☐ I find it difficult to explain my thoughts in words
- ☐ I think about a difficult relationship (friend/boyfriend/girlfriend)

- [ ] I thought about something upsetting happening to me
- [ ] I want the pain to stop
- [ ] _____ hates me
- [ ] Mention any other thoughts you may have

STEP 2

How are you feeling just before you decide to harm yourself? Click all that apply. For every feeling you identify, please indicate on a scale from 0-10 how strong it is.

- [ ] Sad
- [ ] Nervous
- [ ] Hopeless
- [ ] Isolated
- [ ] Guilty
- [ ] Lonely
- [ ] Worried
- [ ] Desperate
- [ ] Rejected
- [ ] Not feeling anything/numb
- [ ] Angry at myself
- [ ] Empty
- [ ] Confused
- [ ] Frustrated
- [ ] Everything is out of control
- [ ] Angry at someone
- [ ] Anxious
- [ ] Worthless
- [ ] Scared
- [ ] Depressed
- [ ] Powerless
- [ ] Stressed

- [ ] I hate myself
- [ ] Misunderstood
- [ ] I feel guilty about my sexuality
- [ ] I need to talk to someone
- [ ] I find it difficult to explain my feelings in words
- [ ] What other feelings do you have right now

STEP 3

What else is happening before/while you harm yourself? Click all that apply.

- [ ] I am alone
- [ ] I am resting
- [ ] I am lonely
- [ ] I am drinking alcohol
- [ ] I am on Facebook
- [ ] Family fight
- [ ] I am taking drugs
- [ ] I am sick / ill
- [ ] I am being bullied
- [ ] I have a friend with me
- [ ] Fight with friend
- [ ] I am smoking
- [ ] I can't sleep
- [ ] I am doing homework
- [ ] I am looking at my old scars
- [ ] I am playing a video/Internet game
- [ ] I have eaten too much on purpose and have to vomit
- [ ] I watch a movie where a character is self-harming
- [ ] I am talking to a friend who also self-harms
- [ ] I listen to music with lyrics about self-harm and suicide
- [ ] I am on the Internet on a website about self-harm

☐ Explain what else is happening

STEP 4

If you have self-harmed, describe what you felt, thought or experienced immediately afterwards. Click all that apply. There is room for you to write anything else about a you have self-harmed.

- ☐ I feel sad
- ☐ I feel relieved
- ☐ I feel satisfied
- ☐ I feel less stressed
- ☐ I feel depressed
- ☐ I felt physical pain
- ☐ I have not harmed myself
- ☐ I was able to get away from a person
- ☐ I got distracted from other problems
- ☐ I was able to get out of doing a task I did not want to do
- ☐ I got attention from those I wanted it from
- ☐ I am disappointed that I have harmed myself again
- ☐ I have made ▲▼ (how many) cuts
- ☐ I stopped feeling..?
- ☐ I have (name what you did to harm yourself)
- ☐ Additional information

Appendix G: Four Quick Quizzes

Topic 1 Quick Quiz
I have read all of the information
I understand all of the information
I do not understand all of the information. I want someone to explain it to me.
I have experienced very strong emotions when I exercised to be mindful
I had to contact Kids Helpline
I found the mindfulness exercises helpful
Write any other information you want to share or questions you want answered
Topic 2 Quick Quiz
I have experienced very strong negative feelings when I identified events that have happened in my past.
I have very strong feelings against people who have done things to me.
I understand myself a bit better.
I now understand how the things of my past may have influenced me to start harming myself.
I understand what happens in my brain when I am stressed, anxious and depressed and that the chemicals play a part in why I harm myself.
I feel there is hope to change some things so that life can be better.
I feel less negative about myself.
I do not understand how the past has influenced my decision to harm myself. I want to talk more about it.
I feel helpless to change anything about my situation.
Topic 3 Quick Quiz
I understand that behaviour happens because there are certain events from the past that influence me to be who I am
I understand that behaviour happens because there are certain events from the past that influence me to self-harm
It makes me feel less guilty or disappointed in myself
I understand that all behaviour serves a function or purpose for the person who does the behaviour
I understand that my self-harming behaviour is followed by a consequence that ensures that I want to self-harm again
I understand what happens in my brain when I self-harm and how that can cause me to self-harm again and again
I have less strong negative feelings towards other people
Topic 4 Quick Quiz
I feel more in control of my life
I am willing to try some of the suggested strategies
I know what things to avoid that make it more likely or trigger me to harm myself
I now have more options to choose from to replace self-harm
I have more hope for the future
I need more help to work through my problems

Appendix H: Module 2 Questionnaire 1

1. I find it difficult to manage my time wisely
2. I find it difficult giving attention for a long time
3. I find it difficult to switch focus from one thing to another
4. I find it difficult to plan projects and to estimate how long a task will take
5. I find it difficult organise myself and my belongings
6. I find it difficult to remember details
7. I find it difficult memorising information
8. I often say inappropriate things without thinking first
9. I often do inappropriate things without thinking first
10. I need other people to help me do things or remind me to do things
11. I find it difficult to start and complete school work
12. I find it difficult telling stories (narratives with a beginning, middle and end)
13. I do not really learn from my mistakes
14. I cannot give attention to more than one person/thing at the time
15. I look at what my friends do so I can do what they do as I do not know what to do
16. I do not know what I want to do in the future
17. My room is very messy
18. I often loose things
19. My mum/dad/someone else has to nag me to be ready on time
20. I find it difficult controlling my behaviour
21. I blame myself for everything that happens
22. I blame myself for what has happened to me in the past
23. I expect people to treat me badly
24. People will never like or love me (negative self-view)

25. I think the world is not a very friendly place (negative world-view)
26. I am always aware that something bad may happen
27. I often think of my negative past and what has caused it (rumination)
28. When I have a misunderstanding or fight with someone, that person will never want to have anything to do with me ever again because I am so horrible (overgeneralisation)
29. I always make terrible mistakes (catastrophising)
30. When my friends don't come to me when I invite them I know they do not like me (selective abstraction)
31. I am easily influenced by other people
32. I find it difficult to tell people not to do things that affect me negatively or make me unhappy
33. I feel I do not have the right to protect myself
34. I cannot stand up to people because I want them to accept me and like me
35. When I try to tell adults to stop treating me badly I do not know how to do that without being rude and disrespectful (boundaries)
36. I do not think I am worth much
37. I do not like looking people in the eye
38. I keep my head down when there are other people around
39. I always apologise even if I was not wrong
40. I try to avoid being with other people
41. I do not really know how to behave when I am with other people.
42. I try hard not to make mistakes
43. I hate my body
44. I think I am ugly
45. I feel people easily reject me
46. People leave me out of their group
47. People choose other friends above me

48. I cannot trust other people

49. I do not really care about other people

50. I like people's attention to be on me and will do anything to get it

51. I am not good using language to explain something to others

52. I often feel very angry

53. I often feel very guilty even when I know I am not

54. I am often scared or fearful

55. I often feel very nervous

56. What other people do makes me feel very disgusted with them

57. I find it difficult identifying and naming my emotions

58. I find it difficult explaining what I feel to other people

59. I find it difficult controlling my emotions

60. My emotions are very up and down

61. I get carried away by my emotions

62. I feel easily overwhelmed even by little things

63. I cry when things feel too much for me to deal with

64. I am easily frustrated and then give up

65. I can't stand a lot of noise

66. Lots of things and people irritate me

67. I cannot relax

68. I sleep too much/too little

69. I tend to put off doing something

70. I have a short temper

71. I do not know how to calm myself down

72. I avoid thinking about bad things that have happened when I was younger

73. Sometimes I feel as if I am more than one person

74. At times it feels as if I do not know myself or who I am
75. Sometimes it feels as if my body does not belong to me
76. Sometimes I feel that things around me are not real
77. I drink alcohol to help me forget or improve my mood
78. I smoke cigarettes to help me cope with my situation
79. I take drugs to help me cope, forget, or feel better
80. I eat too much to help me cope and then have to vomit again
81. I sometimes have pain in my stomach
82. I sometimes have pain in the lower part of my body
83. I don't feel pain as quickly as other people do
84. I feel depressed very often
85. I was diagnosed with depression
86. I sleep too much
87. I cannot sleep
88. I often have flashbacks of or nightmares about what has happened in the past
89. I avoid people and places that remind me of horrible things that have happened to me
90. Sometimes I do not feel anything, as if I have no emotions
91. I was diagnosed with post-traumatic-stress-disorder
92. There are so many dangers in the world
93. I often feel restless
94. I worry about a lot of things
95. I sometimes feel as if I am going crazy
96. I was diagnosed with anxiety

Appendix I: Module 2 Questionnaire 2

1. When I was younger someone touched/kissed me in a way I didn't like. It made me feel afraid and used
2. When I was younger I was beaten/physically hurt by a person/people over and over again
3. When I was younger a person/people made fun of me or put me down in front of others
4. People belittled my achievements/plans and made me feel worthless
5. A person/people often accused me of something they knew I had not done
6. A person/people often blamed me for their problems and unhappiness
7. A person/people did not meet my basic needs as punishment
8. When I was younger I did not always have the food and clothes I needed
9. A person/people who cared for me was/were too drunk or under the influence of alcohol to take care of me
10. When I was younger a person/people I needed to be there for me was emotionally unavailable
11. When I was younger I often saw how one person was physically violent towards another at home
12. When I grew up I sometimes felt as I did not belong anywhere
13. When I grew up our family did not have much contact with other people
14. When I grew up, I had only one parent
15. When I grew up, I did not experience much warmth from other people
16. When I grew up, one/both parent(s) was/were too busy with other things
17. My mum/dad/both understand my point of view
18. My mum/dad/both often show me that they love me
19. My mum/dad/both help me when I can't do something
20. I admire my mum/dad

21. My mum/dad is supportive of me
22. My mum/dad is over-protective and does not want to allow me to do things my friends do
23. My mum/dad often criticise me
24. When I grew up one/both parents abused alcohol
25. When I grew up one/both parents used drugs
26. One of my parents has a mental health condition (for instance anxiety, depression, bipolar)
27. When I grew up, I was removed from my parent(s)
28. When I grew up, one of my parents served a sentence
29. When I grew up, others bullied me
30. When I grew up, we did not have much money
31. When I grew up I had a chronic or life-threatening illness
32. When I grew up, one of my parents had a chronic/life-threatening illness
33. When I was younger I had to go to hospital for a major operation
34. When I was younger one of my parents had to go to the hospital for a major operation
35. When I was younger, the doctor diagnosed me with ADHD
36. When I was younger, the doctor diagnosed me with Autism

Appendix J: Responses: Setting Events

Past Events	Clare	Mick	Barbie	Jacqui
1. When I was younger someone touched/kissed me in a way I didn't like. It made me feel afraid and used	✓			
2. When I was younger I was beaten/physically hurt by a person/people over and over again	✓	✓		
3. When I was younger a person/people made fun of me or put me down in front of others	✓	✓	✓	✓
4. People belittled my achievements/plans and made me feel worthless	✓	✓	✓	✓
5. A person/people often accused me of something they knew I had not done	✓	✓	✓	✓
6. A person/people often blamed me for their problems and unhappiness	✓	✓	✓	✓
7. A person/people did not meet my basic needs as punishment				
8. When I was younger I did not always have the food and clothes I needed				
9. A person/people who cared for me was/were too drunk or under the influence of alcohol to take care of me			✓	
10. When I was younger a person/people I needed to be there for me was emotionally unavailable				
11. When I was younger I often saw how one person was physically violent towards another at home			✓	
12. When I grew up I sometimes felt as I did not belong anywhere	✓	✓	✓	✓
13. When I grew up our family did not have much contact with other people	✓	✓		
14. When I grew up, I had only one parent	✓			
15. When I grew up, I did not experience much warmth from other people	✓	✓	✓	✓
16. When I grew up, one/both parent(s) was/were too busy with other things	✓	✓	✓	✓
17. My mum/dad/both understand my point of view	✓		✓	
18. My mum/dad/both often show me that they love me		✓	✓	
19. My mum/dad/both help me when I can't do something		✓	✓	
20. I admire my mum/dad		✓	✓	
21. My mum/dad is supportive of me	✓	✓	✓	
22. My mum/dad is over-protective and does not want to allow me to do things my friends do	✓	✓	✓	
23. My mum/dad often criticise me	✓	✓	✓	✓

24. When I grew up one/both parents abused alcohol		✓	✓	✓
25. When I grew up one/both parents used drugs		✓		
26. One of my parents has a mental health condition (for instance anxiety, depression, bipolar)	✓	✓		✓
27. When I grew up, I was removed from my parent(s)			✓	
28. When I grew up, one of my parents served a sentence				
29. When I grew up, others bullied me	✓	✓	✓	✓
30. When I grew up, we did not have much money	✓	✓	✓	✓
31. When I grew up I had a chronic or life-threatening illness				
32. When I grew up, one of my parents had a chronic/life-threatening illness	✓		✓	
33. When I was younger I had to go to hospital for a major operation	✓			
34. When I was younger one of my parents had to go to the hospital for a major operation	✓			
35. When I was younger, the doctor diagnosed me with ADHD				
36. When I was younger, the doctor diagnosed me with Autism				

Appendix K: Responses: At Risk Factors (Effects of Setting Events)

Effects of Setting Events	Clare	Mick	Barbie	Jaycee
Impaired executive functions (organisation, regulation and inhibition/impulsivity)				
1 I find it difficult to manage my time wisely		✓		✓
2 I find it difficult giving attention for a long time			✓	✓
3 I find it difficult to switch focus from one thing to another	✓			✓
4 I find it difficult to plan projects and to estimate how long a task will take		✓		✓
5 I find it difficult organise myself and my belongings	✓	✓		✓
6 I find it difficult to remember details	✓	✓		✓
7 I find it difficult memorising information	✓		✓	✓
8 I often say inappropriate things without thinking first	✓	✓	✓	✓
9 I often do inappropriate things without thinking first	✓		✓	
10 I need other people to help me do things or remind me to do things	✓	✓		✓
11 I find it difficult to start and complete school work				✓
12 I find it difficult telling stories (narratives with a beginning, middle and end)		✓		
13 I do not really learn from my mistakes			✓	✓
14 I cannot give attention to more than one person/thing at the time	✓			
15 I look at what my friends do so I can do what they do as I do not know what to do	✓	✓	✓	✓
16 I do not know what I want to do in the future	✓			✓
17 My room is very messy	✓	✓		✓
18 I often lose things	✓	✓	✓	✓
19 My mum/dad/someone else has to nag me to be ready on time	✓			✓
20 I find it difficult controlling my behaviour	✓		✓	✓
Cognitive distortions (thought patterns)				
21 I blame myself for everything that happens	✓	✓	✓	✓
22 I blame myself for what has happened to me in the past	✓	✓	✓	✓
23 I expect people to treat me badly	✓	✓	✓	✓
24 People will never like or love me (negative self-view)	✓	✓		✓
25 I think the world is not a very friendly place (negative world-view)	✓	✓	✓	✓
26 I am always aware that something bad may happen	✓	✓	✓	✓
27 I often think of my negative past and what has caused it (rumination)	✓	✓		✓

28 When I have a misunderstanding or fight with someone, that person will never want to have anything to do with me ever again because I am so horrible (overgeneralisation)		✓		✓
29 I always make terrible mistakes (catastrophising)		✓		✓
30 When my friends don't come to me when I invite them I know they do not like me (selective abstraction)	✓		✓	✓
Identity disturbance				
31 I am easily influenced by other people	✓		✓	
32 I find it difficult to tell people not to do things that affect me negatively or make me unhappy			✓	✓
33 I feel I do not have the right to protect myself				
34 I cannot stand up to people because I want them to accept me and like me	✓	✓	✓	✓
35 When I try to tell adults to stop treating me badly I do not know how to do that without being rude and disrespectful (boundaries)	✓	✓	✓	✓
Low self-esteem				
36 I do not think I am worth much	✓	✓	✓	✓
37 I do not like looking people in the eye	✓	✓	✓	✓
38 I keep my head down when there are other people around	✓	✓	✓	✓
39 I always apologise even if I was not wrong			✓	✓
40 I try to avoid being with other people			✓	✓
41 I do not really know how to behave when I am with other people.	✓	✓		
42 I try hard not to make mistakes	✓	✓	✓	✓
43 I hate my body	✓	✓	✓	✓
44 I think I am ugly		✓	✓	✓
Chronic interpersonal difficulties and poor communication				
45 I feel people easily reject me	✓	✓	✓	✓
46 People leave me out of their group	✓	✓	✓	✓
47 People choose other friends above me	✓	✓	✓	✓
48 I cannot trust other people	✓	✓	✓	✓
49 I do not really care about other people		✓		
50 I like people's attention to be on me and will do anything to get it				
51 I am not good using language to explain something to others	✓	✓		✓
Emotional disturbances				
High negative affect				
52 I often feel very angry	✓	✓	✓	✓
53 I often feel very guilty even when I know I am not		✓		✓
54 I am often scared or fearful				✓
55 I often feel very nervous		✓	✓	✓

56 What other people do makes me feel very disgusted with them			✓	
Alexithymia				
57 I find it difficult identifying and naming my emotions	✓	✓	✓	✓
58 I find it difficult explaining what I feel to other people	✓	✓	✓	✓
Difficulties with emotional regulation				
59 I find it difficult controlling my emotions	✓		✓	✓
60 My emotions are very up and down	✓	✓	✓	✓
61 I get carried away by my emotions	✓		✓	✓
Low distress and frustration tolerance				
62 I feel easily overwhelmed even by little things	✓		✓	✓
63 I cry when things feel too much for me to deal with			✓	✓
64 I am easily frustrated and then give up	✓	✓	✓	✓
65 I can't stand a lot of noise			✓	✓
66 Lots of things and people irritate me	✓	✓	✓	
67 I cannot relax	✓	✓	✓	✓
68 I sleep too much/too little	✓	✓	✓	✓
69 I tend to put off doing something	✓			✓
70 I have a short temper	✓	✓		✓
Inability to self-soothe				
71 I do not know how to calm myself down	✓	✓	✓	✓
Avoidance behaviours				
Dissociation				
72 I avoid thinking about bad things that have happened when I was younger	✓			
73 Sometimes I feel as if I am more than one person	✓			✓'
74 At times it feels as if I do not know myself or who I am	✓	✓	✓	✓
75 Sometimes it feels as if my body does not belong to me	✓	✓		✓
76 Sometimes I feel that things around me are not real	✓			✓
Substance abuse				
77 I drink alcohol to help me forget or improve my mood			✓	✓
78 I smoke cigarettes to help me cope with my situation			✓	
79 I take drugs to help me cope, forget, or feel better				
Binge/purge				
80 I eat too much to help me cope and then have to vomit again				
Somatisation				
81 I sometimes have pain in my stomach	✓	✓	✓	✓
82 I sometimes have pain in the lower part of my body		✓		✓

83 I don't feel pain as quickly as other people do				
Comorbid Disorders/Symptoms				
Depression/depressive disorder				
84 I feel depressed very often	✓	✓	✓	✓
85 I was diagnosed with depression	✓	✓		
PTSD				
86 I sleep too much			✓	
87 I cannot sleep		✓	✓	✓
88 I often have flashbacks of or nightmares about what has happened in the past	✓			
89 I avoid people and places that remind me of horrible things that have happened to me	✓			
90 Sometimes I do not feel anything, as if I have no emotions	✓			
91 I was diagnosed with post-traumatic-stress-disorder				
92 There are so many dangers in the world	✓	✓		✓
Anxiety / Anxiety Disorder				
93 I often feel restless		✓	✓	✓
94 I worry about a lot of things	✓	✓		✓
95 I sometimes feel as if I am going crazy	✓	✓	✓	✓
96 I was diagnosed with anxiety	✓	✓		

Appendix L: Responses: Average Thoughts, Feelings, Other, Afterwards (Daily Quiz) Average ratings 0-10

Daily Quiz	Clare	Mick	Barbie	Jaycee	Overall average
Thoughts during Self-harm experience					
I need to be punished	6		5		5.5
I remember being sexually abused/raped	5				
I can't cope	5	8	6.5	8.5	7
I remember being emotionally abused		10	8		9
I worry about finances	3	9.5	1		4.5
I wish someone would see and care	5		3	7	5
I don't want to die	10	9	3		7.3
I am/ people think I am a freak	5	10	7.5		7.5
I hate my body	5	9.5	9	10	8.4
I worry about schoolwork	4	9	6	9.5	7.1
I am a failure	3	10	9	9	7.8
I thought about a nightmare	5		7		6
I think about my relationship with my parents	5		9		7
I want to feel in control	5	8	8	8	7.2
I want to see my blood			8		8
I think about my parents' criticism	3	9	8	6	6.5
I am confused about sexuality	4				
I am no good	5	10	8	9	8
I want my parents to feel bad	6				
I remember being physically abused		9	6		7.5
I am thinking of my depressed friend			4		
I find it difficult to explain my thoughts in words	5	9.5	9/9		7.8
I think about a difficult relationship (friend/boyfriend/girlfriend)	4		8	9	7
I think about something upsetting happening to me	5		9/5		7
I want the pain to stop	5	9	10/7	6.5	7.6
…….. hates me	people	everyone			
Mention any other thoughts you may have	Self-worth and how much I hurt people		Who cares?		

Feelings during Self-harm experience					
Sad	4.5	8	7.5	10	7.5
Nervous	2.3				
Hopeless	3.5	9	7	10	7.4
Isolated	4	9	8	10	7.8
Guilty	6	9	8	6	7.3
Lonely	5	10	9	10	8.5
Worried	4		6.5	10	6.8
Desperate	3		7		5
Rejected	2	10	5	10	6.8
Not feeling anything			8	10	9
Angry at myself	6.5	9	9	8	8.1
Empty	5.5	9	6	10	7.6
Confused	6	10	7.5		7.8
Frustrated	3.5	9.5	8.5	7	7.1
Everything is out of control		9.5	9		9.3
Angry at someone	4		7		5.5
Anxious	2		6.5	10	6.2
Worthless	3	10	8	10	7.8
Scared	5		6		5.5
Depressed	5	10	8.5	10	8.4
Powerless	1		8		4.5
Stressed	4.5	10	9		5.9
I hate myself	3	10	8	10	7.8
Misunderstood	5.5		9		7.3
I feel guilty about my sexuality	6				
I need to talk to someone	9		8		8.5
I find it difficult to explain my feelings in words	8	9	8.5	9.5	8.8
What other feelings do you have right now?	Worthless, nothing special, tired	Numb, not real			
What else happens before/during Self-harm experience					
I am alone	✓✓	✓✓	✓✓	✓✓	8

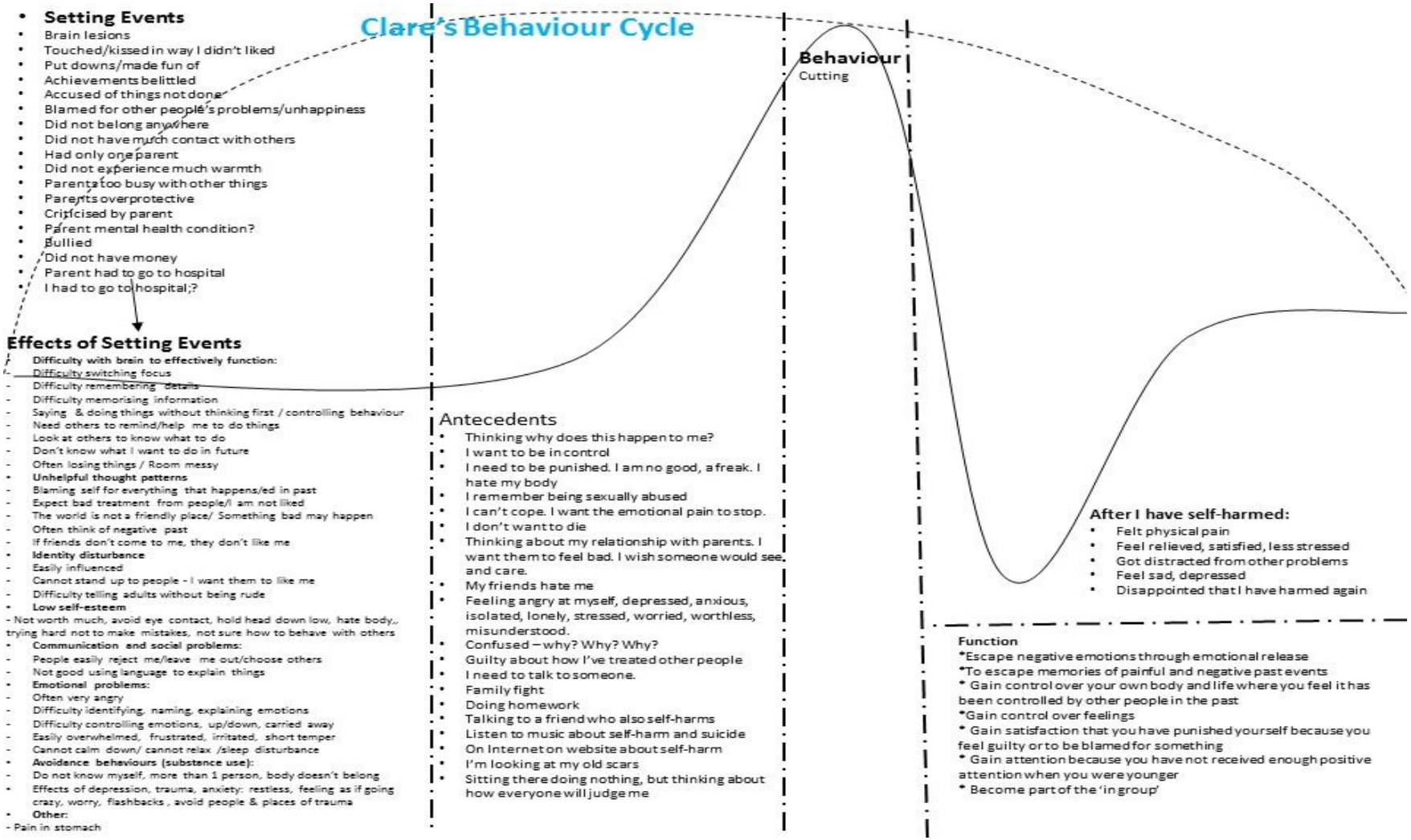
I am resting	✓				
I am lonely	✓✓	✓✓	✓	✓✓	7
I am drinking alcohol			✓✓		
I am on Facebook	✓	✓✓	✓		4
Family fight	✓	✓	✓✓		4
I am taking drugs					
I am sick/ill					
I am being bullied		✓✓✓	✓✓	✓✓	7
I have a friend with me					
Fight with a friend			✓✓		
I am smoking		✓	✓✓		
I can't sleep		✓	✓✓	✓✓	5
I am doing homework	✓	✓		✓	3
I am looking at my old scars	✓✓	✓✓	✓✓	✓✓	8
I am playing a video/Internet game					
I have eaten too much and have to vomit			✓	✓✓	3
I watch a movie where the character is self-harming					
I am talking to a friend who also self-harms	✓✓		✓		3
I listen to music with lyrics about self-harm and suicide	✓✓		✓		3
I am on the Internet on a website about self-harm	✓			✓✓	3
Explain what else is happening	Thinking why does this happen to me, all I do is good to people, so why do I get all of this? Putting away item I used, thinking about everyone will judge me again				
Immediately after self-harm experience					
I feel sad	✓✓		✓✓	✓	5
I feel relieved	✓	✓✓✓	✓✓	✓✓	8
I feel satisfied		✓✓	✓	✓✓	5

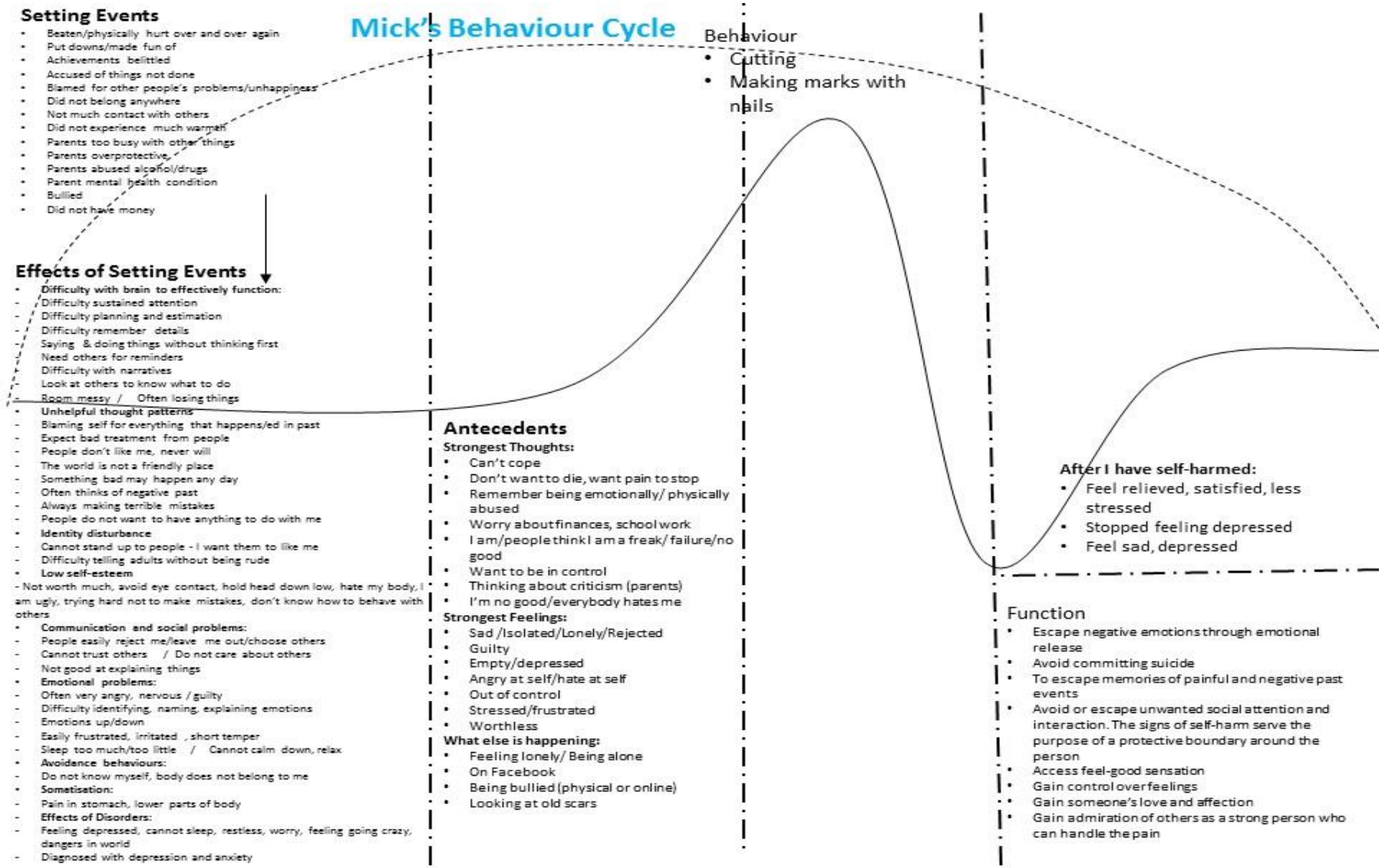
I feel less stressed	✓	✓✓✓	✓✓	✓	7
I feel depressed	✓✓		✓✓		4
I felt physical pain	✓✓		✓✓	✓✓	6
I have not harmed myself					
I was able to get away from a person					
I got distracted from other problems	✓✓		✓		3
I was able to get out of doing a task that I did not want to do			✓		
I got attention from those I wanted it from					
I am disappointed that I have harmed myself again	✓✓	✓✓✓	✓✓	✓✓	9
I have made …. (how many) cuts	2/ 20-30	40/40	20/20	12/20	
I stopped feeling……		Depressed and stressed			
I have (name what you did to harm yourself	Cut myself with a metal ruler	Cut	Cut and burned	Cut my wrist and thigh / Cut	
Additional information					

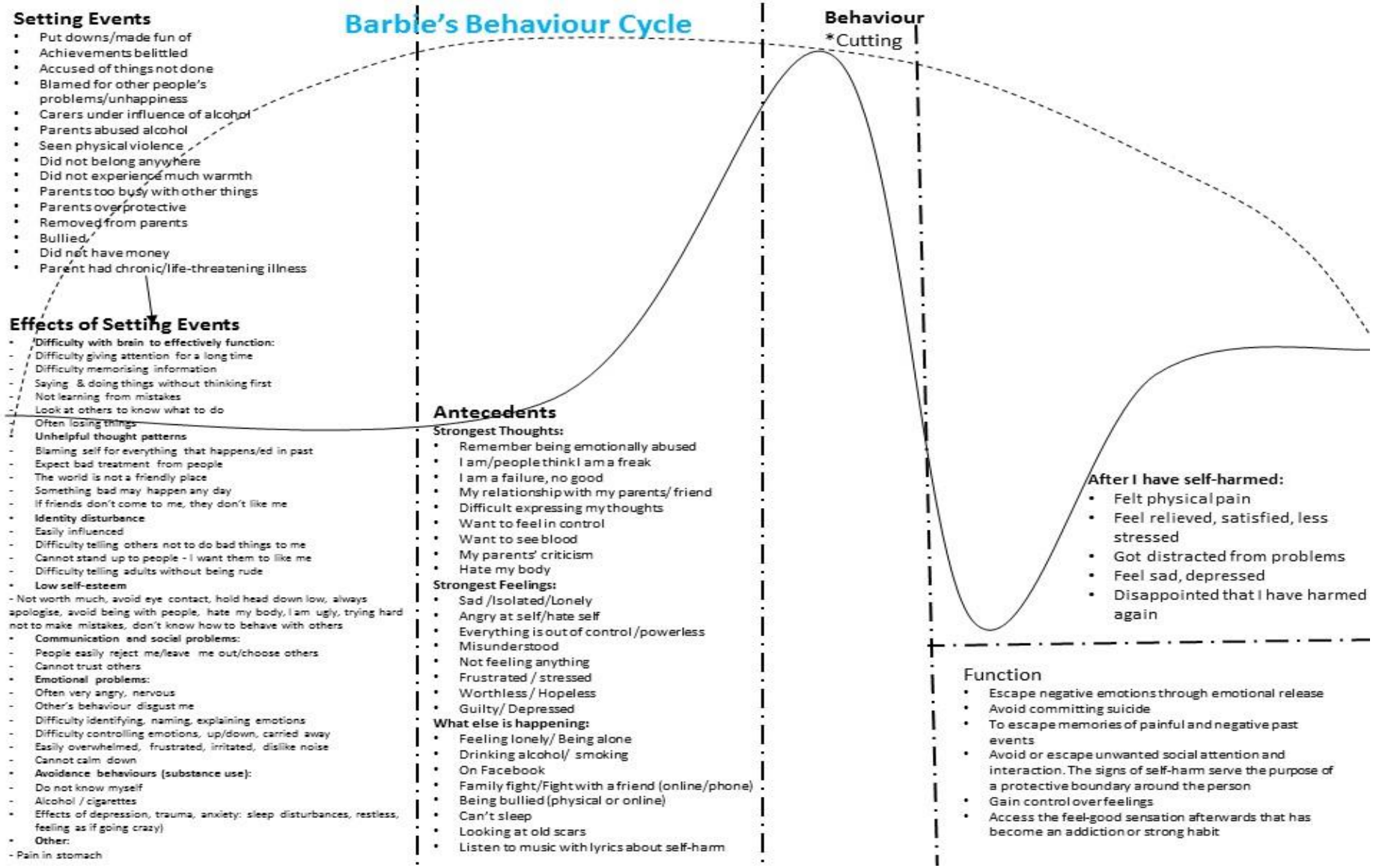
Appendix M: Responses: Functions of Self-Injury

Function of Behaviour	Clare	Mick	Barbie
AVOID /ESCAPE something internal (automatic)			
Escape negative emotions through emotional release	✓	✓	✓
Escape negative emotions by feeling numb afterwards			
Escape from numbness when pain is experienced and blood can be seen			
Avoid committing suicide		✓	✓
Avoid or suppress sexual feelings that make a person feel guilty			
To escape memories of painful and negative past events	✓	✓	✓
AVOID/ESCAPE a social situation			
Avoid or escape unwanted social attention and interaction. The signs of self-harm serve the purpose of a protective boundary around the person		✓	✓
Avoid something unpleasant you don't want to do			
GAIN/ACCESS something internal (automatic)			
Gain control over your own body and life where you feel it has been controlled by other people in the past	✓		
Gain control over feelings	✓	✓	✓
Access the feel-good sensation afterwards that has become an addiction or strong habit	✓	✓	✓
Access or feel good because it is intense, exciting, new, something different, and risk taking that makes a person feel important			
Access the opportunity to care for yourself (wounds) when other people have failed to do so			
Gain satisfaction that you have punished yourself because you feel guilty or to be blamed for something	✓		
GAIN/ACCESS social rewards			
Gain attention because you have not received enough positive attention when you were younger	✓		
Gain someone's love and affection		✓	
Gain (feel) revenge to pay back someone for what they have done to you, usually by hoping to make them feel guilty			
Access help to release the intense negative emotions and the reasons for the emotions			
Gain closeness with friends or to become part of the 'in group'	✓		
Gain admiration of others as a strong person who can handle the pain		✓	

Appendix N: Completed Behaviour Cycles




Mick's Behaviour Cycle
Setting Events
• Beaten/physically hurt over and over again
• Put downs/made fun of
• Achievements belittled
• Accused of things not done
• Blamed for other people's problems/unhappiness
• Did not belong anywhere
• Not much contact with others
• Did not experience much warmth
• Parents too busy with other things
• Parents overprotective,
• Parents abused alcohol/drugs
• Parent mental health condition
• Bullied
• Did not have money
Effects of Setting Events
• Difficulty with brain to effectively function:
- Difficulty sustained attention
- Difficulty planning and estimation
- Difficulty remember details
- Saying & doing things without thinking first
- Need others for reminders
- Difficulty with narratives
- Look at others to know what to do
- Room messy / Often losing things
• Unhelpful thought patterns
- Blaming self for everything that happens/ed in past
- Expect bad treatment from people
- People don't like me, never will
- The world is not a friendly place
- Something bad may happen any day
- Often thinks of negative past
- Always making terrible mistakes
- People do not want to have anything to do with me
• Identity disturbance
- Cannot stand up to people - I want them to like me
- Difficulty telling adults without being rude
• Low self-esteem
- Not worth much, avoid eye contact, hold head down low, hate my body, I am ugly, trying hard not to make mistakes, don't know how to behave with others
• Communication and social problems:
- People easily reject me/leave me out/choose others
- Cannot trust others / Do not care about others
- Not good at explaining things
• Emotional problems:
- Often very angry, nervous / guilty
- Difficulty identifying, naming, explaining emotions
- Emotions up/down
- Easily frustrated, irritated , short temper
- Sleep too much/too little / Cannot calm down, relax
• Avoidance behaviours:
- Do not know myself, body does not belong to me
• Somatisation:
- Pain in stomach, lower parts of body
• Effects of Disorders:
- Feeling depressed, cannot sleep, restless, worry, feeling going crazy, dangers in world
- Diagnosed with depression and anxiety
Antecedents
Strongest Thoughts:
• Can't cope
• Don't want to die, want pain to stop
• Remember being emotionally/ physically abused
• Worry about finances, school work
• I am/people think I am a freak/ failure/no good
• Want to be in control
• Thinking about criticism (parents)
• I'm no good/everybody hates me
Strongest Feelings:
• Sad /Isolated/Lonely/Rejected
• Guilty
• Empty/depressed
• Angry at self/hate at self
• Out of control
• Stressed/frustrated
• Worthless
What else is happening:
• Feeling lonely/ Being alone
• On Facebook
• Being bullied (physical or online)
• Looking at old scars
Behaviour
• Cutting
• Making marks with nails
After I have self-harmed:
• Feel relieved, satisfied, less stressed
• Stopped feeling depressed
• Feel sad, depressed
Function
• Escape negative emotions through emotional release
• Avoid committing suicide
• To escape memories of painful and negative past events
• Avoid or escape unwanted social attention and interaction. The signs of self-harm serve the purpose of a protective boundary around the person
• Access feel-good sensation
• Gain control over feelings
• Gain someone's love and affection
• Gain admiration of others as a strong person who can handle the pain


Barbie's Behaviour Cycle
Setting Events
Put downs/made fun of
Achievements belittled
Accused of things not done
Blamed for other people's problems/unhappiness
Carers under influence of alcohol
Parents abused alcohol
Seen physical violence
Did not belong anywhere
Did not experience much warmth
Parents too busy with other things
Parents over protective
Removed from parents
Bullied
Did not have money
Parent had chronic/life-threatening illness
Effects of Setting Events
Difficulty with brain to effectively function:
- Difficulty giving attention for a long time
- Difficulty memorising information
- Saying & doing things without thinking first
- Not learning from mistakes
- Look at others to know what to do
- Often losing things
Unhelpful thought patterns
- Blaming self for everything that happens/ed in past
- Expect bad treatment from people
- The world is not a friendly place
- Something bad may happen any day
- If friends don't come to me, they don't like me
Identity disturbance
- Easily influenced
- Difficulty telling others not to do bad things to me
- Cannot stand up to people - I want them to like me
- Difficulty telling adults without being rude
Low self-esteem
- Not worth much, avoid eye contact, hold head down low, always apologise, avoid being with people, hate my body, I am ugly, trying hard not to make mistakes, don't know how to behave with others
Communication and social problems:
- People easily reject me/leave me out/choose others
- Cannot trust others
Emotional problems:
- Often very angry, nervous
- Other's behaviour disgust me
- Difficulty identifying, naming, explaining emotions
- Difficulty controlling emotions, up/down, carried away
- Easily overwhelmed, frustrated, irritated, dislike noise
- Cannot calm down
Avoidence behaviours (substance use):
- Do not know myself
- Alcohol / cigarettes
Effects of depression, trauma, anxiety: sleep disturbances, restless, feeling as if going crazy)
Other:
- Pain in stomach
Antecedents
Strongest Thoughts:
Remember being emotionally abused
I am/people think I am a freak
I am a failure, no good
My relationship with my parents/ friend
Difficult expressing my thoughts
Want to feel in control
Want to see blood
My parents' criticism
Hate my body
Strongest Feelings:
Sad /Isolated/Lonely
Angry at self/hate self
Everything is out of control /powerless
Misunderstood
Not feeling anything
Frustrated / stressed
Worthless / Hopeless
Guilty/ Depressed
What else is happening:
Feeling lonely/ Being alone
Drinking alcohol/ smoking
On Facebook
Family fight/Fight with a friend (online/phone)
Being bullied (physical or online)
Can't sleep
Looking at old scars
Listen to music with lyrics about self-harm
Behaviour
*Cutting
After I have self-harmed:
Felt physical pain
Feel relieved, satisfied, less stressed
Got distracted from problems
Feel sad, depressed
Disappointed that I have harmed again
Function
Escape negative emotions through emotional release
Avoid committing suicide
To escape memories of painful and negative past events
Avoid or escape unwanted social attention and interaction. The signs of self-harm serve the purpose of a protective boundary around the person
Gain control over feelings
Access the feel-good sensation afterwards that has become an addiction or strong habit