Hook, Line, and Sinker:

Fishing in the Online Relationship Realm, an Exploration of Addictiveness in Online Romantic Relationships.

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Research Article

Hook, Line, and Sinker: Fishing in the Online Relationship Realm, an Exploration of Addictiveness in Online Romantic Relationships.

by

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Declaration

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Declaration:

I hereby declare that the above-mentioned dissertation is my own work and that is has not previously been submitted for assessment to another University for another qualification.

Signature: ………   …

Date: November 2021

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Dedication

This article is dedicated to Ruby-Rae Robinson.

You teach me things textbooks never could.

Thank-you

Abstract

In an online space where individuals are meeting and creating relationships, it is important to explore and understand the nuanced, complex psychological phenomena that occur. Current psychological research into the phenomena of online addictiveness has gained traction with international studies exploring and expanding on this phenomena. Definitions of internet addiction differ widely, but research indicates that addicts expend large amounts of time online and that using the internet becomes a significant part of their everyday lives. Consequently, exploring individual's experiences of online addiction within a romantic context becomes more relevant. The aim of this study was to explore and describe adults lived experiences of addictiveness in the context of online romantic relationships by expanding on the previous data of Froneman's (2016) study. The present study utilised a qualitative approach and was exploratory and descriptive in design. The sample size of the present study was seven adult participants and semi-structured interviews were utilised as the method of data collection. Themes including motivation for using online dating, spending time online and the Biopsychosocial dynamics were identified through the participant's narratives. These findings ultimately can be used for future research.

Key Words: Cyber-relationship addiction, online addictiveness, online romantic relationships

1. Introduction

The psychological need for connection and belonging can be understood as a core need of the human condition, individuals are fundamentally social creatures and whether it is from the biological, psychological or social viewpoint belonging to a group is essential to survival (Bowlby, 1973).

The paradox of being connected while apart is principally discernible in the current socio and political atmosphere (Turkle, 2013). In this online space where individuals are meeting and creating sustainable relationships which are ever-changing and evolving, it is important to understand the dynamics, nature and nuances of these relationships (Finkel, Eastwick, Karney, Reis & Sprecher, 2012; Henry-Waring & Barraket, 2008; Kemp, 2019; Turkle, 2013). For example, the Netflix documentary, *The Social Dilemma* (2020) highlighted the trend of online addictiveness that researchers have been investigating for over a decade. While this documentary focused on the social media components of internet use, it is important to understand that online relationships are occurring in other avenues. Froneman's (2016) study found that while online romantic relationships do occur and in essence do have the same constructs as traditional relationships, it was highlighted that the process, perception and understanding of the dynamics of these relationships are conceptualised uniquely in this context. One specific dynamic of online relationships is considered the component of addictiveness and what this dynamic constitutes. Exploring and understanding the construct of addictiveness, specifically within online romantic relationships, is imperative in understanding the multifaceted and complex nature of these relationships and thereby understanding how individuals are creating connections.

Considering that online addictiveness is currently being investigated as a diagnosable mental disorder in the DSM-5 (Van Rooij & Prause, 2014), it can be concluded that this topic

within romantic online relationships has significant potential to be explored and has major practical value for practitioners and researchers in the field of cyber psychology.

Current psychological research into the phenomena of online addictiveness has gained traction with international studies (Griffiths, Kuss, Billieux & Pontes, 2016; Ko, Yen, Yen, Chen & Chen, 2010; Murali & George, 2007; Nakaya, 2015; Young, 1998; Vogels & Turner, 2020) exploring and expanding the phenomena. However, much of this research has been done on popular social media sites such as Facebook or Instagram, and not on sites that have the sole function of facilitating romantic relationships. Furthermore, the social context has an international lens with little focus on the South African context.

Literature indicates a complex layered process that occurs in understanding online addiction in general (Ryding & Kaye, 2018). The biopsychosocial approach is useful in conceptualising addictiveness (Griffiths, Kuss, Billieux, & Pontes, 2016). This approach takes the neurobiological components such as the reward centre of the brain, psychological components such as personality, learned behaviour, emotionality and personality dynamics, as well as social factors such as the Triple A and hyperpersonal model of online communication, into account when considering online addictiveness, all of which are deliberated in the current article.

Research has shown online addictiveness to be related to several of additional emotional, relational, health and performance problems (Ryding & Kaye, 2018) and thus understanding whether online dating has the same causes, consequences and remedies are of paramount importance. In essence, the current research seeks to understand whether the process of online romantic relationships displays the same characteristics as researched online addictiveness and if so, how does this differ from the addictiveness experienced when engaging in offline romantic relationships?

This study explored and described the lived experiences of addictiveness in the context of online romantic relationships by expanding on the previous data of Froneman (2016) study. The current study used the participant's words and creations of their online world from Froneman's (2016) study and combined these with new data from in-depth interviews to expand the understanding of the theme of online addictiveness in online romantic relationships. This enabled this multi-faceted theme to be dissected, explored more deeply and embedded in a more comprehensive and thickly layered South African context.

2. Understanding Online Addiction

There is an ongoing debate about whether online addiction categorically exists. Some researchers argue that because there is no consumption of a substance it cannot be considered a diagnosable addictive behaviour (Ryding & Kaye, 2018; Shapira, Goldsmith, Keck, Khosla & McElroy, 2000; Treuer, Fabain & Furedi, 2001; Van Rooij & Prause, 2014; Yellowlees & Marks, 2007) however, with gambling addiction being added to the DSM-5, there is a move toward researching and understanding the internet in relation to behavioural addiction. There is also a scholarly argument about whether there is a generalised internet addiction or whether it can rather be separated into specific addictions such as internet gambling or online pornography (Aboujaoude, 2010; Kuss & Lopez-Fernandez, 2016). Definitions of internet addiction differ widely, but research indicates that addicts expend large amounts of time online and that using the internet becomes a significant part of their everyday lives (Nakaya, 2015; Ryding & Kaye, 2018). Addiction can be associated with constructs such as; an irrepressible impulse, often accompanied by a loss of control, a preoccupation with use, and sustained use regardless of difficulties the behaviour causes (Sim, Gentile, Bricolo, Serpelloni & Gulamoydeen, 2012). Abuse is considered a milder form of addiction that shares similar symptoms such as preoccupation and other difficulties because of the use, however, individual's within this category experience added self-control over the addictive behaviour

and are seen to set positive boundaries and regulate their use more effectively (Young, 2004: LaRose, Lin & Eastin, 2003). Both addiction and abuse of the Internet can produce negative consequences and impact on the daily functioning of individual's lives.

2.1. Internet Addiction Disorder.

Internet Addiction Disorder (IAD) has been defined as the incapability of the individual to control their use of the internet, which results in a negative impact on psychological domains, social activities, and/or work functions, with some user's even experiencing withdrawal and depression when not using the internet (Davis, 2001; Ryding & Kaye, 2018; Young & Rogers, 1998). Researchers have noted that intellectualising excessive behaviours (e.g., problematic smartphone use) as a pathological comportment within the addiction model could result in the pathologising of an individual's normative psychological, functioning which in turn would have limited clinical relevance (Billieux, Philippot, Schmid, Maurage, de Mol, & van der Linden, 2014). It has been argued that a diagnostic-centred methodology to conceptualising problematic online use could produce an inaccuracy of the fundamental psychological processes, which could include; motivational, affective, cognitive, interpersonal, and social developments that sustain the dysfunctional participation in these patterns of behaviour (Dudley, Kuyken, & Padesky, 2011; Kinderman & Tai, 2007).

2.2. Young's (1999) Model.

For the current study, the understanding of online addictiveness and abuse was grounded in the research of Young (1999), who posited a model used extensively throughout literature and was recently reviewed by Griffiths et al., (2016). They propose five types of internet addiction, which include; computer addiction, information overload, net compulsions, cyber-sexual addiction and cyber-relationship addiction. Using this model, the theme of addictiveness, which was highlighted in the study by Froneman (2016) was

expanded upon. In reference to this model, the theme within the context of online dating falls within 'cyber-relationship addiction' as identified by Young (1999).

2.3. Love and Online Addiction

Love and the psychosocial and biological constructs it interprets have significant overlap to the conceptualisation of addiction (Zieki, 2007). Researchers indicate a correlation between social attachment processes and drug addiction, and it has been proposed that these two constructs share a mutual neurobiological mechanism, which in turn could be used as an avenue in understanding the complex dynamics of addiction within the framework of online relationships (de Boer, van Buel & Ter Horst ; Lieberwirth & Wang 2014; Zieki, 2007).

It is important to consider the overlap between the neurobiological constructs of love and addiction and what the impact of this would have for online romantic relationships and online addiction. The dopamine reward system further interacts with other hormones (such as oxytocin and vasopressin), making love a rewarding experience (Zieki, 2007). This is similar to the activation of the reward system within an addictive context (Lieberwirth & Wang 2014). The craving of love produces psychological states of happiness and positive emotions. The regions of the brain that is stimulated in response to romantic feelings are fundamentally parallel with those sections of the brain that comprises of a high concentration of a neuro-modulator that is related to reward and addiction (de Boer, van Buel & Ter Horst, 2014; Zieki, 2007).

3. Aetiology of Online Addictiveness

Scholars have suggested a nuanced methodology to studying technology-related behavioural addictions and abuse due to the collaboration between clinical symptoms and device feedback (Kardefelt-Winther, 2014; Weinstein, Livni & Weizman, 2017). Thus, the present study used an integrated approach when conceptualising the aetiology of addictiveness incorporating a biological, psychological and social understanding of what

constitutes and creates online addictiveness in romantic relationships. The author will start with the biological components and then explore the psycho-social components.

3.1. Biological Understanding of Online Addictiveness.

Psychological occurrences of any kind, whether addictive or not, regularly comprise numerous multifaceted mechanisms and behavioural properties that are better expounded from a biological, psychological, and sociological aetiology, making it problematic to provide unbiased explanations for such phenomena (Griffiths et al., 2016).

The neuropsychological components that contribute in addictive behaviour must be understood to conceptualise online addictiveness holistically. Casha, Raea, Steela and Winkler (2012) explain that it is recognised that addictions stimulate an amalgamation of regions on the brain associated with pleasure, collectively known as the reward centre. When activated, dopamine (in conjunction with opiates and other neurochemicals) is released. Over time, the related receptors may be affected, the brain and consequent behaviour are analogous to a 'high' experienced by individuals who use substances (Weinstein, et al., 2017). A dopamine discharge releases hormones that condition the brain to keep looking for its next 'high' and engage in behaviour to receive this high. If one considers online dating, which always has a potentiality, that is, where there is always the possibility of finding new romantic interests, and this in combination with the accessibility of internet dating and the instant gratification of being able to speak to anyone at any time, accentuates the sensation of the next 'fix' (Froneman, 2016; Henry-Waring & Barraket, 2008).

3.2. Psycho-Social Understanding of Online Addictiveness.

The requirement for attachment with others is considered an essential human need and biological predisposition (Bowlby, 1973). The cognitive-behavioural model of problematic internet use proposed by Davis (2001) moves away from describing behavioural factors associated with online addictions and rather focuses on the maladaptive cognitions that

accompany internet addiction. This theoretical framework has recently received empirical support from several studies (Kuss, Shorter, van Rooij, Griffiths & Schoenmakers, 2013; Kuss, Shorter, van Rooij, van de Mheen & Griffiths, 2014). The cognitive–behavioural model conceptualises the cognitive and behavioural symptoms that characterise problematic internet use and addiction, and provides a description of the possible negative outcomes. If problematic internet use is considered, cognitions comprise of compulsive thoughts about the internet and using the internet, reduced impulse control when engaging in online activities, feeling guilty about online use, and experiencing a bias toward a positive state of mind about oneself online as opposed to offline (Davis, 2001). This provides a useful framework in understanding the phenomenological experiences of users.

Another lens that adds to the complex understanding of the dynamics of online addictiveness is that of the hyperpersonal model. According to the hyperpersonal model (Walther, 1996), social and psychological factors that influence problematic internet use, and this combined with the cognitions that are experienced by these individuals could be used to deepen the understanding of this behaviour. Individuals who demonstrate these maladaptive cognitions may be seen to have a relational advantages, as the ability to share information online is limited to their discretion and interpersonal verbal and non-verbal prompts are not existent in online interactions. When communicating online individuals have greater control over self-presentation since users can construct and manipulate what information they choose to disclose and the aspects they would like to withhold in order to make positive impressions on their potential partners (Papacharissi & Rubin, 2000; Vogels & Turner, 2020Valkenburg and Peter, 2011). This model combined with the Triple A of online relationships, which was correspondingly verified within a theme in Froneman's (2016) study from which the current study expands on, could also be considered a possible component of online addictiveness and includes the social components of online addictiveness. The access, affordability, anonymity

(Triple-A) engine as proposed by Cooper et al. (1999) suggests that there is a tri-factor, namely anonymity, availability and affordability that drives online relationships and individuals find that these aspects contribute toward their problematic use of online platforms (Froneman, 2016; Leiblum, 1997). Individuals with biased thoughts about the self are expected to engage in online communication since it abates possible costs such as the threat of undesirable appraisal and self-presentational disappointment, individuals have the ability to enhance their restricted capabilities (Caplan, 2007; Fioravanti, Flett, Hewitt, Rugai & Casale, 2020)

. An alternative aetiological understanding of online addictiveness is rooted in the self-determination theory (Deci & Ryan, 2006). The idea postulated in this theory, in the online context, suggests that problematic internet use stems from unmet needs, specifically related to social competency, relatedness, and autonomy. The theory posits that by engaging in online relationships, individuals are offered the opportunity to meet unmet needs that are relevant within their daily lives offline (Deci & Ryan, 2006; Knee, Hadden, Porter, & Rodriguez, 2013; Wang, Yuen, Li., 2014). It is hypothesised that the absence of social support from family or significant others and in the current climate, social isolation, exacerbated by the high levels of social remoteness and low psychosocial well-being due to the current Covid pandemic, are significant aspects contributing to the understanding of generalised problematic internet use. Individuals experiencing this engage in online activities to postpone responsibilities and experience difficulties with procrastination (Knee et al., 2013).

A final psychological component that must be considered is the element of egotism present in online dating, which emerged as a sub-theme within Froneman's (2016) study. There is an element of egotism amongst individuals prone to internet addiction and research shows that social media addiction is associated with narcissism in addition to low self-esteem (Anderson, Vogels & Turner, 2020; Mehdizadeh, 2010). Online dating provides an ego

enhancing activity where the individual is the centre of their online world and is rewarded instantly by feedback from potential partners that provide positive feedback in the anticipation of attracting a potential partner (Buffardi & Campbell, 2008), however, this frequently does not represent the reality of the individual (Ranzini & Lutz, 2017).

By constructing an idealised online dating self, the variance between the ideal self and the perceived self leads to high levels of self-depreciation, which consequently leads to a reduction of self-esteem offline (Chan, 2017; Blackhart et al., 2014). Heino, Ellison and Gibbs (2010) found that individuals experienced an enhancement in self-esteem from online dating. Being notified of receiving a message, making an abundance of matches, and receiving compliments were all ways in which participants felt an ego boost from using online dating services (Kallis, 2021).

4. Methodology

To gain a more comprehensive understanding of online addictiveness and what this constitutes in adult online relationships, the following research design, sample procedure and data analysis were utilised.

4.1. Research Design

The current study utilised a qualitative study that was exploratory and descriptive in design. This approach involved research that extracted meaning, experience, or perceptions from participant accounts to holistically study an unknown characteristic in a specific context or location, from a specific perspective (de Vos, Strydom, Fouche, & Delport, 2011).

The adult participants within the current study provided distinct accounts that produced descriptive data that allowed the researcher to identify their values and ideals that underlie the phenomena of online addictiveness in romantic relationships (Giorgi & Giorgi, 2003; Husserl, 1970). The data provided a careful account of the sentient experiences of the participants and it did not endeavour to produce an objective statement of the phenomena.

The process was dynamic with an active role for the researcher (Baker, 2008). The exploratory and qualitative nature of the current study dictated that no direct causal links were inferred.

This study described and answered questions about the multifaceted nature of the occurrence of addictiveness in online romantic relationships, with the participant's perspective underpinning the purpose of describing and understanding the phenomena.

4.2. Participants and Sampling

Due to the descriptive and detailed nature of the research method, purposive, non-probability sampling was used for the current study.

The participants required for the current study where considered challenging to gain access to and demonstrated specific characteristics, therefore snowball sampling was deemed an appropriate sampling method (de Vos et al., 2011). Participants were recruited via a call on a public newsgroup on Facebook, the researcher had no personal connections to this group or the administrators thereof and contacted the administrator of the group and requested access to posting the call. Participants who were interested contacted the researcher via email. The researcher proceeded to send interested participants an email that included a research study information letter, biographical screening questionnaire of questions reflecting the inclusion criteria, and a statement of consent to participate. The participant was then requested to forward the information onto three contacts who they identified as being suitable candidates for the study. These individuals then contacted the researcher via email. This was continued until saturation point was reached.

Theoretical saturation was reached at three new participants combined with the previous four participants to make a total of seven participants. It is important to note that due to the qualitative nature of the study the sample was based on saturation and is

unrepresentative or statistically determined (de Vos et al., 2011). The sample provided data that expanded the understanding of addiction in online romantic relationships.

Participants of any gender, race and sexual orientation were included in the study. Prerequisites of the study included that the participants be 18 years or older, have actively engaged in one or more relationship that originated online. Participants were required to have experienced a sense of addictiveness while engaging in their online relationships, which included spending more time than they felt was 'normal' online talking to their romantic partners and feeling that it impacted on their daily functioning in some way. Participants were required to be proficient in communicating in English, which included reading, writing, and speaking. As the current study looked at online addictiveness in the South African context it was useful to narrow the sample population to South Africans, therefore, participants were required to possess a South African passport or valid ID document. Participants needed to have access to an electronic device with which they could access Zoom to engage in the online interview. Finally, participants needed to have completed high school due to the complex nature of viewing and analysing online relationships and their subjective experience.

4.2.1. Biographical Description of the Participants

Smith (2003) explains that a portrayal of research participants is an essential part of the findings of a qualitative study. Table 1 provides an explanation of the participants in terms of demographic variables. Understanding of each participant's biographical data increases the potential insight and understanding of the meanings that are theoretically attached to individuals who participate in online relationships. This information was gained from the biographical questionnaire. The three participants from the new data set were white South Africans. It is important to note as the beliefs and values of a cultural group could influence the perception of individuals regarding online relationships. All participants had been in one or more online intimate relationships, which were initiated through online dating

sites or apps. The participants spent an average of 21 hours a week online in relation to their online relationships. The participants from the previous data set included four participants. The four participants were white South Africans who had actively engaged in one or more online intimate relationships which were initiated through online dating sites. The participants spent an average of 24 hours a week online in relation to their online relationships. All participants were heterosexual, with their age ranging from 28-59 years.

Table 1. Participants Biographical Description

Participant	Gender	Age	Average Hours Spent Online
1 (New data set)	Female	58	28
2 (New data set)	Female	28	14
3 (New data set)	Male	59	20
4 (Previous data set)	Female	42	21
5 (Previous data set)	Female	43	28
6 (Previous data set)	Female	42	28
7 (Previous data set)	Male	30	21

4.3. Research Collection Procedures

The researcher endeavoured to be cognisant of all ethical guidelines and acquired ethical clearance from all NMU university committees. Once approval was granted the researcher commenced with the study.

Prior to the commencement of the interview the researcher provided the participant with an information letter electronically via email. Once the participant agreed to an interview the researcher ensured that the participant was comfortable with an online interview. The researcher emailed the participants a password protected Zoom meeting link. Because the researcher conducted online interviews the confidentiality of the client in terms of their own personal space while participating was discussed and considered as well as other

possible technical and ethical considerations were discussed. Rapport was established and the researcher reiterated the purpose and goals of the interview and ensured they understood the role of the participant and researcher. Participants consented to the recording of the interviews both verbally and on the consent forms provided.

The interview schedule was modified from Froneman's (2016) study, which included broad questions about online relationships, to include questions pertinent to online addictiveness, but remained flexible enough to allow for a collaboration between both parties that ensured nuanced and in-depth accounts of the phenomena being studied Giorgi & Giorgi, 2003; Moustakas, 1994).

The interviews were recorded using the online application functions to record meetings to ensure that data obtained through these was accurately captured. The duration of the interviews spanned between 40 and 50 minutes. All three conversations from the current data set spanned 131 minutes (2 hours 11 minutes). The previous data set consisted of four interviews. All four conversations spanned 268 minutes (4 hours 46 minutes), with an average interview time of 67 minutes. All data were kept in a password protected folder. Once the interviews were completed, the data was transcribed verbatim into text, which was later used in the data analysis process.

4.3. Data Analysis

The current research study discerned essential meaning and patterns of the participant's experiences therefor, used a qualitative, non-numerical examination of collected data (de Vos et al., 2011).

The researcher firstly transcribed the entire interview, which included the literal statements as well noting to the best of the researcher's ability significant non-verbal and paralinguistic communications. The researcher consequently reread the entire manuscript and gained a full understanding of the phenomena being presented (Hycner, 1985).

The researcher then engaged in phenomenological reduction, which incorporated suspending the researcher's own subjectivity, meanings and interpretations and immersing themselves in the individual experience (Hycner, 1985).

The researcher then identified 'meaning units'. This involved rigorously reviewing every interview and noting significant verbal and non-verbal communication in the transcript to elicit the participant's experience. This was done with as much openness as possible. These meaning units were then reviewed to extract the psychological insight. The researcher determined whether any component of pertinent meaning naturally cluster together. The researcher then determined whether there was a common theme or essence that united several discrete units of relevant meaning. Finally, the researcher cross-examined all the units of meaning generating one or more central themes, which articulate the quintessence of these clusters (Hycner, 1985; Smith, 2003).

Once the new data set had been analysed and written up, the researcher cross referenced the themes that emerged from the new data set with that of Froneman's (2016) themes that emerged to recognise whether these themes of addictiveness had consequently been found in the new data and whether new themes that had emerged were present in the previous data set.

Following data verification, the information obtained through the interviews were simultaneously analysed by the researcher as well as an independent psychologist with expertise in qualitative research methods. The verification of the data by an independent psychologist ensured the integrity of the findings obtained from the researcher's analysis.

Once analysis was complete, the participants were provided with written feedback on the study's findings.

4.4. Qualitative Quality and Scientific Rigour.

Phenomenological research is disposed to establish scientific rigour and trustworthiness by presenting extracts and quotations from the data to demonstrate points made, this allows readers to closely experience the phenomenon (Halling 2002). The researcher integrated Lincoln and Guba's (1985) model of trustworthiness. The model assisted in providing rigorous qualitative findings through the standards of dependability, credibility, transferability, and confirmability (Lincoln & Guba, 1985).

4.5. Ethical Considerations

The researcher established an equilibrium between values, the pursuit of knowledge, and the rights of those involved in the research, which was grounded in research ethics. The researcher maintained integrity throughout the research process and took the necessary steps to prevent scientific misconduct (HPCSA, 2008). A Turnitin report regarding plagiarism is included as Appendix A. Ethical approval was granted from NMU by all relevant and necessary boards.

5. Findings and Discussions

The data analysis produced three main themes in the lived experience of addiction in online relationships. These included, (1) Motivation for using online dating, (2) Spending time online and (3) Biopsychosocial dynamics. Within these three themes, the nuanced sub-themes that emerged provided an essential understanding of the participants' lived experiences of their online usage. The findings of the present study will be discussed according to the sub-themes that emerged within each main theme as illustrated in Table 2.

Table 2: Themes and Sub-Themes

Theme	Sub-Theme	Participants
1. Motivation for using online dating	1. Need for connection/Feelings of loneliness	1,2,3,4,5,6,7

	2. Unmet needs	1,2,3,4,5,6,7
	3. Triple A of online relating	1,2,3,4,5,6,7
Spending time online	1. Profile construction	1,2,3,4,5,6,7
	2. Message construction	1,2,3,4,5,6,
	3. Researching potential partners	1,2,3,4,5,6
	4. Cataloguing/Fishing	1,2,3,4,5,6,7
Biopsychosocial components	1. Anticipation/Potentiality	1,2,3,4,5,6,7
	2. Reward Centre activation-sense of excitement and having fun	1,2,3,4,5,6,7
	3. Ego/Self-esteem	2,3,4,5,6,7
	4. Instant gratification and impulse control.	1,2,3,4,5,6,7

5.1. Motivation for using an online platform to find a potential partner.

The first theme focuses on the motivations for individuals to engage in online platforms to find potential partners, and how these influence their online use and the perception of addictiveness.

5.1.1. Need for Connection/Feelings of Loneliness.

All the participants described a need to engage in enduring intimate relationships demonstrating that a primary motivation for joining an online dating site or using a dating application is a need for connection. As participant one described after her divorce:

> *I decided I didn't want to be on my own...I was quite adamant that I wanted to try find someone else.*

Similarly, participant two, three and five explained that after their previous relationship had ended, the need for companionship is what motivated them to explore online dating.

P5: When I started to feel that I didn't want to spend the rest of my life, all on my own.

P2: So after we broke up… After about of two months, you know, that loneliness sets in, like okay lets try Tinder.

P3: So I got more to the stage where I was alone and that companionship is what was important…

The psychological need for connection and belonging can be understood as a core need of the human condition, individuals are fundamentally social creatures and whether it is from the biological, psychological or social viewpoint belonging to a group is essential to survival (Bowlby, 1973). As found in Froneman's (2016) study, the principal motivation was the need for affiliation, which was influenced by other factors such as; their age, location, marital status, time constraints experienced, as well as the need to increase the dating pool. Participant three explained that because she was working full time and had a close group of friends she couldn't find another avenue for pursuing a romantic relationship.

P2: …it's what motivated me to start chatting to people online. I was just really bored and I wanted to meet new people and ja (yes), see what was out there.

5.1.2. Unmet Needs.

Participants correspondingly reported having 'something missing' from their lives, or having an urge to fulfil a part of their lives that are not achieved in face to face interactions. Participants reported that they wanted to meet people but were uncomfortable finding potential partners in a bar or club, or that due to their age their social circle was intimate and it was inappropriate to find partners within these groups.

P7: Well I live in a small town outside of PE and there is really no options.

P4: .. Generally speaking it's good to meet new people outside of your circle because it's very difficult to do that especially here.

P5: well when was the last time you were single in PE (Port Elizabeth)? There is just no one there and I mean where do you go? Where do you meet people?I mean I am not young I can't meet people in a bar.

P3*: It's difficult to date. It's because of people that are there or either in a relationship or not interested in a relationship because of the circumstances and living.*

P5*: Because I mean, I was 37 years old, living in a small town and all the men that I knew where my very good friends*

The self-determination theory (Deci & Ryan, 2006) posits that problematic internet use originates from unmet needs, specifically related to competency, relatedness and autonomy (Deci & Ryan, 2006; Knee, Hadden, Porter, & Rodriguez, 2013; Wang, Yuen & Li., 2014). The Triple A of the internet explains how the internet meets these needs instantly, this influences individuals screen usage and time online.

P2**:** *Right now I don't need somebody Monday to Saturday and… just the Sunday afternoon*

P1*: We went into the hard lock down… and, subsequently, it was really lonely*

5.1.3. Triple A of online dating and relating.

The Triple A factors namely affordability, anonymity, and accessibility (Leiblum, 1997) emerged in all of the participants accounts of online dating. Anonymity was a major factor in all the participants' accounts of online dating. Having access to potential partners at any time, the ability to remain anonymous, and the ease and affordability of contacting partners, allowed the individual to remain connected.

With the modern methods of internet access individuals are afforded with the accessibility to sustain their relationship by corresponding throughout the day (Cooper et. al, 2000). Communication with online partners was considered easy by all seven participants as they had the accessibility of being able to use laptops and cellphone, there was little effort required, had high controllability and was more rapid than face-to-face communication. From the following it can be seen that the sentiments of the participants showed that online communication corresponded to their lifestyle, and how rapid connections were formed due to the accessibility of this form of communication.

P2: *Because you do chat a lot and obviously you are on your phone a lot more because of it and its easy because your phone is with you.*

P5: *When you just typing to each other, you know, you could. So, you… you could feel yourself, well I was, getting more and more attracted to this person*

P6: *It's harder in real life for an older women to meet people, but online it's so easy.*

P5: *We would talk to each other, text each other 50, 60 times a day …it's so easy you just pull out a phone and type a message.*

The anonymity increased intimacy rapidly and created an environment where individuals where spending a great deal of time forming connections with individuals via online platforms. "In one line of text, an individual can transmit confessional self-disclosure while remaining anonymous" (Lieblum, 1997; p. 2). All participants reported that the capability to construct and control their self-presentation online was important and contributed to their overall online usage.

P1: *This is, it's just so anonymous, you can put yourself out there and if it doesn't work out for you… you can just disappear into the abyss.*

P5: *So it was it was probably prompted by friends saying go online, everybody does it these days you can stay completely anonymous and you're in control*

P7: *You can say whatever you want to say because you behind a screen, you hidden.*

5.2. Spending Time Online.

This theme focused on which nuanced aspects of the participants experience with online dating increased their internet usage, and impacted their daily functioning. All the participants noted that when they first signed up for a dating site or a dating app their day to day functioning was impacted in some way by their internet use. This can be seen by Participant one's account, she explained that her measure of how her usage of screen time had impacted her day was that she found herself reading less.

I definitely did. It was another aspect of my day that hadn't been there before and it definitely took up a lot of my time. So.. so, it was a new thing, you know? Okay. Absolutely. Yeah. I read a lot less. So, now… And, suddenly, I was not reading books as often.

While Participant two explained that it influenced her work in a way she was unaware of until she reflected on what was different in her day-to-day functioning.

> *For instance. I would take longer for instance, because I'm on the road with my job. So, before traveling was a lot quicker between clients. I would sit a lot longer in my car before starting my car, to go online. So, it did take a lot more time. Like time from my work, even though I would get my work done. Before I would spend more time with the clients. I was now rushing my appointments with clients.*

Participants found themselves creating time to engage in online activities, thinking about messaging or checking messages frequently during the day when not online and, anticipating finishing daily tasks or work as quickly as possible to spend time online.

Within this category, four sub-themes emerged explaining by what means induvial used their time online, namely, (1) Profile construction, (2) Message construction, (3) Researching potential partners, (4) Cataloguing. Participants reported that being online and engaging in online dating sites changed their day to day functioning in some way.

5.2.1. Profile Construction.

All participants reported taking time and effort to construct profiles that would present themselves positively when creating their online profile.

Taking photographs, creating a biography and filling in questionnaires was completed with great care and participants took time to ensure that a positive image of themselves was portrayed. All of the current participants described their profiles as an extension of themselves and a way to attract future partners.

> P4: *..your profile is who you are online*

> P6*: ...because you now create this persona you putting yourself out there and what are people going to think? Are they going to see my photo and think ag shame she's such a loser?*

> P7: *Online you have to sell yourself, they can't see you they don't know you*

Whitty (2007) describes the construction of these profiles of the 'self' as a dynamic process that is constantly changing as the individual transforms. This can be seen in how Participant five describes how she evolved during the process of online dating and profile construction.

> *So, you have to think of a name for yourself so my name is Sally because I loved the movie it came from…I felt like I evolved during this whole experience because how it worked out and how I changed as my profile did.*

As found in Froneman's (2016) study, this information, constructed in online profiles is presented to ensure that the individual is perceived positively and uniquely and is what the individual considers most important characteristics of themselves (Bargh, Mc Kenna, & Fitzsimons, 2002; Cooper & Sportolari, 1997). Participant two reported researching how other online dating biographies were written to find a unique way of portraying herself.

> *So, it took me some time to find my confidence and taking my selfies again that I want to post. As well as with the bio. So I Googled Tinder bios. To sort of get an idea. This is a real thing. So my by instead of writing who I am, I would make it look, you know, when there is book reviews. Yes, for instance. Like this girl is the best friend you will ever have and then you'll say they my best friend gave this reference or you know, like is this cute little references that I use as my bio so it took some time. Like 5 stars for being the sweetest daughter.*

Participant six explained that their photos were thought out and that she took a lot of time taking them to portray a "true, but attractive" version of herself.

> *There is a section you fill in describing yourself, you try be a little quirky about what you put on there so that it attracts people*

Participant one reported that the most daunting part of creating an online profile was putting on her photo online as this was the truest depiction of who she was.

> *Okay. So, I wrote the profile….. A long time before I put the photograph so that just like that, that was like the final step. I had to be very brave.*

While the internet offers a platform to form intimate relationships, it is also limited with regard to verbal and non-verbal cues, therefore, individuals use creative methods to identify themselves as 'cool' and trustworthy (Lawson & Leck, 2006). Current participants used words like 'selling' or 'quirky' when describing how they construct their personal profiles, also indicating a positive view toward potential partners who did the same. This process exponentially increased a person's time online. Participant two gave a detailed explanation,

some of which is explained below, explaining that initially it took her a long time to find a balance between posting pictures and creating a profile that showed her in the best light but that was also honest to a certain degree so that she would not 'catfish' (a person who pretends to be someone else online, for personal benefit) anybody. She explained how it was second nature when uploading her Tinder profile, she knows which photographs create the most rewarding profile.

> P2: *Before it took me a long time to create my profile now… we got six photos in mind and choof chuff. Yeah, so now it takes me like maybe five minutes to set up and it does like become an addiction to post the best version of yourself. I always am taking new photos to update it.*

To be perceived positively and uniquely, and the information that is presented is what the individual considers the most important characteristics of themselves, they construct their online profiles carefully and consciously (Bargh, Mc Kenna & Fitzsimons, 2002; Cooper & Sportolari, 1997). Individuals who engage in online relationships are found to attempt to find a balance between being their true selves and trying to appear more attractive and interesting (Froneman, 2016; Van Staden, 2010). This was seen in the descriptions of the current study's participants, who explain that by being able to control their self-presentation online, they could potentially attract the most suitable partner and were aware their potential partners did the same.

5.2.2. Message Construction.

Being able to mediate and control when and how to respond to messages, disclose information, or engage with potential partners was a major factor in the participants online experience. When engaging with online partners the ability to mediate when to disclose negative or potentially sensitive information was also important. Being able to construct messages to deliver information in a way that had the least negative impact took time and was something in which participants regularly engaged. The extracts below detail how being able to reread messages before sending, taking the time to contemplate how to respond and filter

their responses, was a positive aspect of communicating online, however, it also increased the time spent in this activity.

> P7: *it was much easier online. It was awkward face to face and I had to think about what to say next and watch her to see if she liked what I was saying, I couldn't pause or say, 'be right back' and leave and get out of the conversation*

> P6: *…you decide when to send the message and how to send it, face to face you say it and sometimes you can't think about what you saying or how you acting*

> P4: *I mean I can reply whenever I want, I can say, 'I'll be right back' and go think about what to say back and you can delete a message and retype it in a different way... you can't do that with words once it's out its out. It's also very easy to just switch off and get out of the situation, sort of just leave that conversation*

Self- regulating messages before sending them was engaged in regularly by participants. The ability to disconnect whenever they want, particularly when they were uncomfortable was a common theme. The controllability of CMC allows users the time to review and edit their messages and to consider responses (Cooper & Sportolati, 1997; Walther & Parks, 2002). Participants also spent time rereading messages as a way to still feel connected to their online partner when not actively talking to them.

Participants also reported that thinking of ways to respond to messages infiltrated other aspects of their lives. Participant five described having conversations with friends about how to respond, another reported that they researched different emoji's and GIF's to ensure that they seemed attractive.

> P1*: I think it does take a long time to think about, if it's not something that is second nature or, you know, that you've grown up with and it's all fairly new…. Messages were carefully thought out, okay, and that's also something else because you have the opportunity to delete something and rewrite it, you know and reread it. Yes, you know, you sort of know having conversations with friends and you're like, well I need to figure this out. How does this work? What emoji should I send back?*

Participant two carefully considered how they were portraying themselves to appear "decent" in her communication online.

> *So, I would spend a lot of time on Google translate just make sure I'm not sounding like an idiot to this guy*

5.2.3. Researching Potential Partners.

Participants reported that an additional aspect of online dating that required them to engage in a great deal of screen time was researching potential partners.

P4: *...once you know the person's name you can start doing some homework*

P6:*…if you only dating in PE (*Port Elizabeth*) you're in a position to investigate about people, you can find out more about people*

Participants would look for supplementary information via secondary sources to validate the potential partner. These sources included Facebook, mutual friends, and internet searches (Froneman, 2016). Participant two succinctly explained how much time it took and how this was common practice when you engaged in online dating.

Okay, so it takes time and it…Definitely, and especially if it's not like… it's like a very unique name. For instance. Like your Kyle's, your Brians. Those you are going to find billion of them on social media. You can go look on Instagram, get more details, specifically on Facebook. This is purely because I want to find out what your deal is before. I start chatting to you.

This research into their potential partner authenticated the person as 'real' by validating their existence and the information provided on their online dating profile in addition to allowing the participants to gauge whether the individual was being truthful. Couch, Liamputtong and Pitts (2012) noted in their study that the dynamics of engaging in online relationships permitted the user to investigate and screen prospective partners without having to engage in any interaction. Participants reported that by researching they found they became more familiar with the person without having to ask any awkward questions. As can be seen from Participant one, before she engaged in any intimate dialogue with her potential partner she spent a great deal of time investigating his history online. She explained that she went so 'deep' that she landed up looking at his previous relationship.

P1: *So I even went into that previous relationship because they were old photographs of her to Facebook to find out as much as I could about her. You know. And so there is lots and lots of delving …. into trying to find out as much information as I possibly could. I spent hours researching*

5.2.4. Cataloguing/ Fishing.

Participants likened using online dating platforms to shopping or browsing through a catalogue or menu. Online dating sites and dating applications are designed to provide users with an endless supply of opportunities to increase their scrolling time. Froneman (2016) found that individuals who used online dating platforms would browse through a 'catalogue' of profiles and pictures, which the dating site had chosen for them based on the information they had submitted, and choose a potential partner as if they were ordering off a menu, without having to engage with them first. The dating applications and sites also provided notifications that would encourage the users to check their profile.

This browsing increased the participants' screen time and created what some reported as an addiction. This is ascribed to the reward centre receiving a flood of feel-good hormones when the participants see a potential partner they like, as with shopping addiction.

Participants in the current study echoed this notion and reported feeling they were privately allowed to scroll through option after option. Some participants even reported that once they were in a committed relationship they still went back online to see what was there. Which illustrates the loss of control, the preoccupation with use, and sustained use regardless of difficulties that addiction encompasses (Sim, Gentile, Bricolo, Serpelloni, & Gulamoydeen, 2012).

> P1: *You do get, lots and lots and lots of notifications. Okay, they* (the dating site) *keep telling you that, I don't know that James has viewed your profile and so and so has sent you a message. So you do get, you get lots and lots of messages from… from Elite singles and… and you do. And, there is a curiosity, I did go look at people's pictures and profiles. you know, just have a look at people's pictures and things like that, but I wasn't tempted to contact anyone.*

> P3: *Okay, so if you ping me, I can go look at your profile and then I'm like, not really blonde, or brunette, or red, or freckles, or whatever the case may be. I can browse and scroll.*

P5 and P7 used the terms 'looking for fresh meat' and 'fishing' or 'or looking at a menu' to describe the feeling of looking for potential partners online and how addictive it became.

> P5: *I was looking for fresh meat. That's exactly how I felt, I needed to see who had the new profiles, oh 'I'm sick of you, I needed more.'*
>
> P6: *It was like a menu at a restaurant, you can look and decide.*
>
> P7: *It's like fishing. So, you throw your bait in and something nibbles and you get all excited and try and reel it in and see if you can catch it!*

While Participant two likened this behaviour to online shopping and went on to say that it eventually became a habit like the other social media sites she frequented.

> N*ow I've gotten to the point where I'm on tinder swiping left and right but I'm not actually looking for anybody…Its kind of become like social media or online shopping. You've got the app on your phone but you not necessarily going to use it maybe just browse. It's like this online functioning. You on take a lot to browse. You go on face book to scroll. You go Insta and watch videos.*

The metaphor of shopping characterises how users select which potential partners are interesting enough to make it past the profile browsing or cataloguing stage (Finkel et al., 2012). Heino et al., (2010) conceptualised online dating as 'relationshopping'. This process could be likened to paging through a shopping catalogue.

5.3. Biopsychosocial Components.

This theme explored the biological, psychological and social explanation for the participant's experiences. Understanding how these aspects function provides insight into the dynamics that create an addictive environment or problematic internet use. Four sub-themes emerged, namely, (1) Anticipation/Potentiality, (2) Reward Centre activation-sense of excitement and having fun, (3) Ego/Self-esteem and (4) Instant gratification and impulse control. While these sub-themes were explored individually there is a major overlap within the understanding of the function of addictive behaviour within the online context. It is interesting to note that participants used words such as 'fix' or 'needing more' when

describing their experience, this alludes to the addictive nature that these online dating platforms provide.

> P5: *And, you become like obsessed with it and you need to find the next one to get that 'fix' you know.*

> P4: *I went on often to see if anyone was interested.*

> P6: *I was like I need this I need more. I need more…And, you feed off it, you feed off it, and people get needy because they want you.*

> P5: *People would say 'can you just put your phone down' and I couldn't… Every time I heard my message tone I rushed to the phone and got this wave of emotion because I knew it was him.*

5.3.1. Anticipation/Potentiality.

Participants reported that the feeling that there might be a potential partner created a sense of excitement.

> P7: *It's exciting, you feel like … 'oh, something might happen' and that's a nice feeling.*

That anticipatory feeling of either waiting for a message or searching the catalogue of potential partners created a need to keep checking their online dating profile. Participants five echoed what the other participants also described, which was a sensation of potentiality of having a message that they may not have read or having a potential partner liked or swiped on their profile, as well as a feeling of ambiguity of not knowing when they might meet a new relationship interest. This created a feeling of anticipation and probability.

> P1: *I definitely was yes, and yeah, and there was lots of anticipation because yeah because it was it was it was really strange that that you… uhmmm, could I don't know, kind of take…… A relationship a step further when you only talking to each other*

Individuals felt as if online dating always had a potential and combined with the accessibility of internet dating and the instant gratification of being able to speak to anyone at

any time, is congruent with a postmodern lifestyle, emphasising the feeling of the next 'fix' (Henry-Waring & Barraket, 2008).

> P7: *It's like fishing. So, you throw your bait in and something nibbles and you get all excited and try and reel it in and see if you can catch it!*
>
> P5: *I went on often to see if anyone was interested.*
>
> P3: *So, the intention is not to start a relationship, but it's just this habit of fulfilling a need to see.*

5.3.2. Reward Centre Activation-Sense of Excitement and Having Fun.

Participants experienced what they described as 'butterfly' or being 'excited' which in conjunction with constant connection afforded by the internet contributed to the experience addictiveness. Words such as 'exciting', 'giddy', "lots of fun" were used by participants to describe the feeling when contacting a potential partner or being contacted by a potential partner.

> P3: *No, it was always exciting to get home and see. It was always fun.*
>
> P1: *It was great. It was happy and uplifting and yeah, all those crazy things. Yeah, it was great, and it almost wanted it to continue forever.*
>
> P5: *I mean I felt a little giddy, and that with.. like that with a man I have never even seen a picture of.*

This is congruent with the notion of the feedback loop created by online dating platforms that include activing the reward centre of the brain to create a 'high' (Weinstein, et al., 2017). A dopamine discharge releases hormones that condition the brain to keep looking for its next 'high' and engage in behaviours to receive this high. This is a behaviour-reward feedback loop that produces compulsivity through the uncertainty of reward (Weinstein, et al., 2017).

P5: *And, I really had massive feelings for him, my heart would race every time.*

P7: *..getting messages it's exciting*

P3: *..and, you know, it's very exciting*

As can be seen from above there was what could be explained as a neurobiological reaction to being in an online relationship, participants felt the anticipation of looking for a potential partner or being contacted by a potential partner and then received a positive feedback 'hit' when they started communicating with this partner.

P7: *Obviously it's very exciting when some contacts you and you have liked them.*

P5: *It' was wonderful. It was amazing. It was, it was it just great. And yeah, and to say, wow, this is fantastic. To say, 'hey, wow this person thinks I'm interesting.'*

5.3.3. Ego/Self-esteem.

There was a link between the addictiveness experienced by the participants and their self-esteem. Many of participants had just ended previous relationships and explained that their self-esteem was low and online dating increased their confidence exponentially. The external validation from the attention, messages, and flirty comments increased their self-confidence. This egotism made participants want to keep dating online and looking for new potential partners who would provide them with praise and compliments. Participant five aptly explained how addictive the attention was, she also noted that, what the potential partner was telling her may be not true, she still needed that affirmation and external validation.

> *…they say you are so beautiful and it was probably all nonsense but I didn't care because I was like I need this I need more. I need more…And, you feed off it, you feed off it, and people get needy because they want you.*

There was similar feelings by other participants who agreed that the feedback loop of receiving positive compliments from potential partners increased their confidence and provided an ego-enhancement. Online dating provides an ego enhancing activity where the individual is the centre of their online world and is rewarded instantly by feedback from potential partners that usually aim to provide positive feedback in the anticipation of

attracting a potential partner (Buffardi & Campbell, 2008) but which often does not resemble

reality (Ranzini & Lutz, 2017).

> P1: …*it was and lots of affirmation and so that's definitely a bit of a high to get that kind of response*

> P7: *Obviously, it's very exciting when someone contacts you and you have liked them or you have looked at their profile and now they looking at you and then they make contact kind of made you feel good*

> P2: *So, it was quite a confidence boost because here you are you swiping on guys, you wouldn't normally think in your league and uhm… all of a sudden. If he swiped right on me before I swipe right on him, then.. then by the time I swipe, right and he swipes right and it will say it's a match. So a lot of times I would swipe right and then it says it's a match and then, you know, I'm like wow, this guy is like… super sexy and he's like, swiped on me. So that was nice.*

5.3.4. Instant Gratification and Impulse Control.

Participants detailed that the capability to message and connect with their potential

partner any time of the day contributed to their increased online usage. Participants described

talking for hours a day, every day.

> P6: *I mean you must have something to say if you sending 50 or 60 text messages a day. I told him everything*

> P1: *Yes, your screentime grows exponentially.*

When compared to face-to-face communications there is a clear difference that can be noted.

In a new face-to-face relationship the participants would only met and communicate at a

prescribed place and this interaction would only continue for an arranged amount of time as

Participant four explained.

> P7: *...if you meet someone traditionally you might go on a date and then you might go on a date a week later and there is very little interaction in between.*

Individuals who engage in online relationships tend to disclose with greater regularity

(Antheunis, Valkenburg, & Peter, 2007; Joinson, 2001; Tidwell & Walther, 2002) and

intimacy (Jiang et al., 2013; Tidwell & Walther, 2002) than if they had to communicate face

to face. This was described by Participant three

P6: *Whereas online dating you can sit and chat to someone every night for a week the level of sharing of information and learning of the persons characteristic and qualities, you get a lot of that from how they communication online.*

It can be seen that she felt intimate because of the ability to constantly be connected to her partner online.

6. Conclusion

This article demonstrated that within the complex understanding of online relationships and online dating, addictiveness is a factor that is experienced by individuals. The research explored the understanding of what online addictiveness embodies and how this phenomenon is experienced by participants. The understanding of the biological, psychological and social components that influence individuals need to engage in online activities and the consequences thereof are noticeable from the participants' narratives. The need to connect drives individuals to engage in online romantic relationships. The affordability, anonymity, and accessibility allows individuals to make these connections quickly and effortlessly. The unfolding of various components namely, anticipation, ego boosts, activation of the reward centre and the instant gratification of online dating creates a sense of addictiveness within the individual's experience.

The present study allowed for several strengths of the research process to be identified. The researcher gained an in-depth comprehensive understanding of the participant's experience of addictiveness within the online dating environment, which added to the growing body of research within the cyberpsychology field.

To the best of the researcher's knowledge, this study is one of the limited studies conducted in South African focusing on the experience and meaning ascribed to the addictive components within online dating and romantic relationships in the online context. In light of this, it provides useful insights into this nuanced complex phenomena. The themes and relevant sub-themes could potentially provide researchers with findings that will facilitate

further exploration and application in order to create a deep and meaningful understanding of the clinical significance that this construct contains. The current research study therefore intended to make a contribution to new and emerging technological and research advances specifically in the area of addictiveness in online romantic relationships. This expansion could result in the emergence of theoretical knowledge that will enhance the understanding of mental health practitioners and consequently therapeutic interventions. Technology is a fundamental part of modern day life and the ability to understand and conceptualise online romantic relationships is crucial in understanding human behaviour (Couch, Liamputtong, & Pitts, 2012; Froneman, 2016; Ross, 2005; Sprecher, 2009; Whitty, 2003). This understanding could extend itself into academic learning, psycho-education as well as therapeutic contexts. It is recommended that the findings of this study be used to generate further related studies. This study can be replicated in different contexts and with different age groups for more generalisable findings. By including a quantitative element that incorporates the effects of online addictiveness with regard to online romantic relationships, more unambiguous conclusions can be reached.

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Appendix A
Turnitin Similarity Report

Please note that due to the current article exploring a sub-theme within Froneman's (2016) study, previous research participant's descriptions of their experiences was used within this study which meant there was a direct overlap in similarity. The methodology had to remain as close to the original methodology in order to maintain scientific rigour. This increased the similarity scale tremendously. The reference labelled 1 (with a 23% similarity score) within this report is the original study conducted by the researcher.
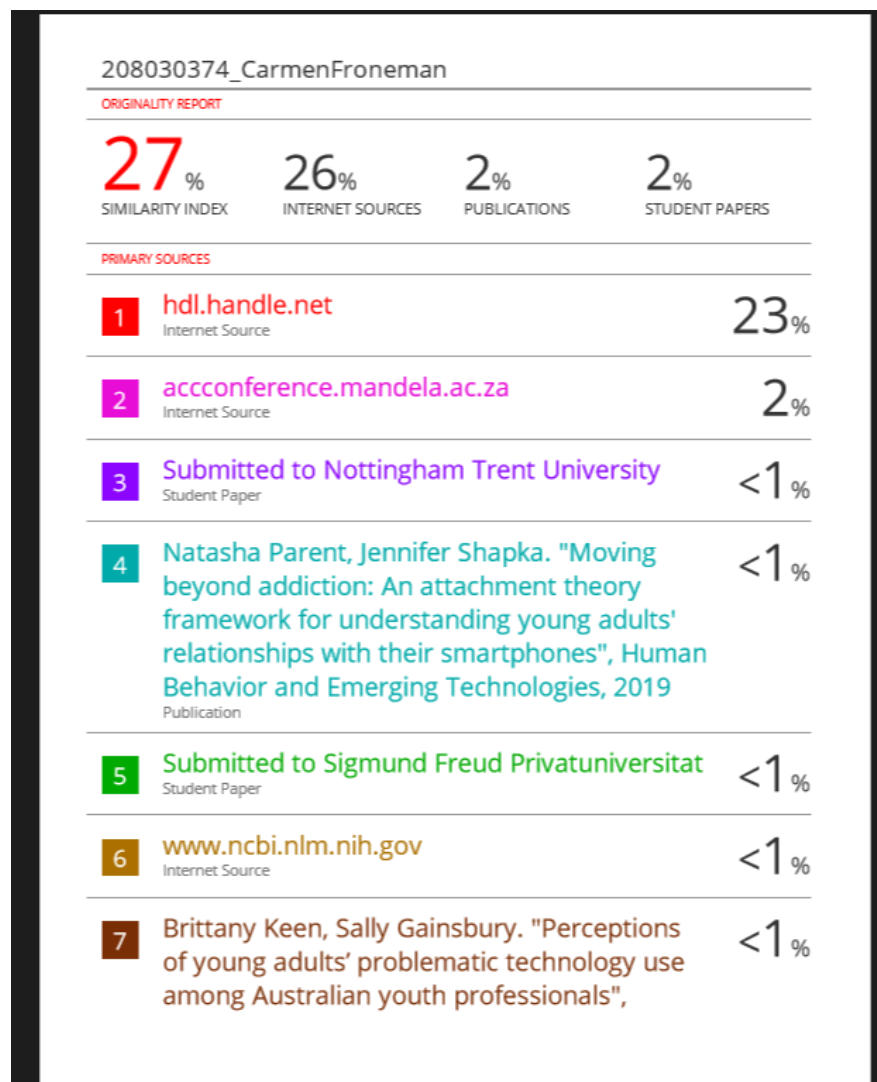
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