SELF-HARM IN YOUNG PEOPLE: RANDOMISED CONTROL TRIAL TESTING MENTALIZATION BASED TREATMENT AGAINST TREATMENT AS USUAL

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Declaration

This thesis is the result of original work by the author Trudie Rossouw. Where information has been drawn from other sources it has been appropriately acknowledged.

This dissertation is not the same as any that has been submitted for a degree or diploma or other qualification at any other university.

No part of this dissertation has already been or is being concurrently submitted for any such degree, diploma or other qualification.

Signed

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ABSTRACT

Objective

This thesis aims to explore self-harm in young people in terms of its epidemiology, longitudinal outcome and treatment. Due to close associations between self-harm and personality disorder (PD) and depression, the thesis also aim to better understand the stability of PD from adolescence into adulthood as well as the links between depression and PD into adulthood. Further this thesis aims to examine the differences between self-harmers and non-self-harmers. The final aim to examine whether mentalization-based treatment for adolescents (MBT-A) will be more effective than treatment as usual (TAU) for adolescents who harm themselves.

Method

Four systematic literature reviews were done to explore the longitudinal outcome of self-harm, the treatment of adolescent self-harm, the stability of adolescent personality disorder into adulthood and the longitudinal outcome and interplay between depression and personality disorder. A cross-section analysis was conducted to compare a self-harming group against two non-self-harming control groups. Finally a randomised control trial (RCT) was conducted, comparing MBT-A against TAU for self-Harming adolescents in terms of reduction in self-harm and depression.

Results

The outcome of literature reviews are discussed in the thesis. The cross-sectional analysis found that the self-harm group demonstrated significantly more borderline personality disorder traits, more avoidant attachment and worse scores in terms of mentalization. The self-harm group demonstrated more personality pathology in general on most of the personality domains as well as more history of childhood abuse.

MBT-A was more effective than TAU in reducing self-harm and depression. This superiority was explained by improved mentalization and reduced attachment avoidance and reflected improvement in emergent borderline personality disorder symptoms and traits.

Word count

Thesis and references: 43 664

Appendix: 26 035

TABLE OF CONTENTS

Measures

Chapter 1
Overview of MBT-A

Chapter 2
What does mentalizing and non-mentalizing look
like in clinical practice?

Chapter 3
Structure and process of MBT-A

Chapter 4
MBT-F

Ethical approval letter

Information sheet and letters

Consent forms

SECTION 3: TOOLS USED

3.1 RTSHI

3.2 MFQ

3.3 BPFS-C

3.4 Demographic questionnaire

3.5 Sample items from CI-BPD

3.6 Sample items from Mill Hill vocabulary scale

3.7 HIF

3.8 Items from the Ravens scale

3.9 ECR

FORWORD

The first few chapters of the thesis is an exploration of adolescent self-harm in terms of prevalence, risk factors and the adult outcome for young people who harmed themselves in adolescence. Evidence about the underlying associations between self-harm and personality disorder in adolescence has been conflicting with some studies indicating strong links between self-harm and personality disorder and other studies indicating stronger links with depression. Strong controversy also exists in terms of the validity of diagnosing personality disorder in adolescents. The next section of the thesis contains a further exploration of the literature in the hope to better understand the controversies. The author conducted a systematic literature review on personality disorder in adolescence, mainly in terms of the longitudinal stability of the diagnosis. The author also conducted an additional systematic review examining the interplay between depression and personality disorder. To further explore the differences between young people with self-harm and those who do not harm themselves, the author conducted a cross-sectional comparison between a self-harming group of young people and two non-self-harming groups.

The next section of the thesis is based on a systematic literature review which the author conducted about the treatment of self-harm in young people. The review found only a handful of studies which found no significant treatment effect over treatment as usual. Given the success of mentalization based treatment in terms of reduction in self-harm in adults with borderline personality, the author decided to conduct a randomised control trial to examine the effectiveness of an adolescent version of mentalization based treatment in comparison to treatment as usual for self-harming adolescents. The theoretical concept of the model will be discussed and the close links between mentalization and attachment will be explored. The manual for the treatment intervention is included in the appendix.

SECTION 1

SELF-HARM IN YOUNG PEOPLE

This section describes the epidemiology and prevalence of self-harm in young people as well as the risk factors associated with it. The second chapter explores the literature in terms of longitudinal outcome for young people who present with self-harm and it aims to describe a potential pathway which leads to either a better or a worse outcome.

CHAPTER 1

INTRODUCTION

1.1 Prevalence of self-harm

Self-harm has been described in the literature in various different ways, but mostly it refers to all acts of harm to oneself, including self-cutting, burning, self-poisoning, overdoses, attempted hanging, jumping from heights or bridges, etc. Acts of self-harm can be performed with or without suicidal intent. Some studies have suggested that there are distinct differences between a non-suicidal self-harming group and a suicidal group, with the suicidal group presenting more with depression and posttraumatic stress disorder (PTSD) and the non-suicidal group presenting more with personality disorder (PD) features (Jacobson et al., 2008). However, other studies found that there is often a great overlap between the groups, with one third of young people who engage in self-harm displaying suicidal feelings or intent during some of their self-harm acts (Brown, et al., 2002; Nock et al., 2006).

Self-harm in young people is common in the UK and across Europe. The estimate for A & E presentations as a result of self-harm in young people annually in England and Wales is 25,000 (Hawton et al., 2003). A national British survey revealed that almost 5% of males and 8% of females aged between 13 and 15 years reported trying to harm, hurt or kill themselves in the previous week (Meltzer et al., 2001). In a large community study in which over 30,000 young people between the age of 15 and 16 completed a questionnaire in 7 EU countries it was found that one in 10 females

had harmed themselves in the previous year (Madge et al., 2008). The most common form of self-harm in the study by Madge and colleagues was cutting, and self-harm was twice as common in females as in males. Most acts took place at home and drugs and alcohol was not involved (Madge et al., 2008). A community study in Sweden found that 40% of 14-year-olds who were questioned engaged in a form of self-harm prior to the interview (Bjärehed & Lundh, 2008). A study of 1,036 young people in the western part of the United States demonstrated rates of self-cutting that ranged from 26% to 37% (Yates et al., 2008).

The incidence of self-harm amongst adolescent psychiatric inpatients is as high as 61% (DiClemente et al., 1991). In their study on affect regulation and self-injury, Nixon and colleagues (2002) found that 83% of their inpatient group of young people harmed themselves at least once a week.

1.2 Suicide

Self-harm is the single greatest predictor of completed suicide (Gunnell and Frankel 1994), with 40–50% of people who die by suicide having a prior history of self-harm (Hawton et al., 2003). In 2002, there were an estimated 877,000 suicides worldwide, of which approximately 200,000 were adolescents and young adults (Barker 2000; Mann et al., 2005). Suicide has been described as the second or third most frequent cause of death among 15–24 year olds in several countries (Centers for Disease Control and Prevention, 1995; Commonwealth Department of Health and Family Services, 1997).

1.3 Family factors

Living apart from parents was associated with an increase in prevalence in suicidal behaviour (Kaltiala-Heino et al., 1999; Rey et al., 1998). No association was found between losing one or both parents to death and an increase in suicidal states (Eskin, 1995; Grossman et al., 1991; Madianos et al., 1993; Reinherz et al., 1995). No association was found for number of siblings and/or birth order (Andrews & Lewinsohn, 1992; Eskin, 1995; Reinherz et al., 1995). Multivariate analyses indicated that if a significant association exists between suicidal behaviour and parental

cohabitation, the relationship is indirect (Bjarnason & Thorlindsson, 1994; Eskin, 1995; Grossman et al., 1991).

Good communication and feeling understood by family members were associated with a lower prevalence of suicidal thoughts (Martin et al, 1995; Rey et al., 1998). There are strong associations between suicidal thoughts and family discord (Bjarnason & Thorlindsson, 1994; Rey et al., 1998; Rubenstein et al, 1989). Some evidence indicated that family harmony has a stronger impact in reducing suicidal thoughts than family discord has in increasing suicidal thoughts (Rubenstein et al, 1989).

Increased rates of self-harm have been associated with family conflict (Bridge et al., 2006), criticism by and alienation from parents (Yates et al., 2008), marital discord (Hawton et al., 2006), single-parent families (Fox and Hawton, 2004), physical abuse (Hawton et al., 2006), sexual abuse (Fergusson et al., 1996), and parental mental health problems (Brent, 1995).

1.4 Associations with psychiatric disorders

In their systematic literature review of suicidal phenomena, Evans and colleagues (2005) found that all studies exploring the link between suicidal phenomena and mental health disorders showed a significant association. Strong links were demonstrated with depressive disorders, hopelessness and suicidal thoughts (Allison et al., 1995; Cole, 1989; Haavisto et al., 2004; Howard-Pitney et al., 1992; Kienhorst et al., 1990; Marcenko et al., 1999; Martin, 1996; Martin et al., 1995; Mazza, 2000; Overholser, 1995; Pilowsky et al., 1999; Rey et al., 1998; Rubenstein et al., 1989). In the studies where anxiety was explored, an association was demonstrated between anxiety and suicide attempts, but it was unclear whether there was an association between anxiety and suicidal intent (Favazza, 1998; Andrews & Lewisohn, 1992; Fergusson and Lynskey, 1995; Keane et al., 1996; Mazza, 2000; Reinherz et al., 1995). Associations were also demonstrated between eating disorders (Andrews & Lewisohn, 1992), substance misuse (Andrews & Lewisohn, 1992), alcohol abuse (Bjarnason & Thorlindsson, 1994; Buddeberg et al., 1996; Choquet, 1989) and suicide attempts.

1.5 Associations with personality disorders

Whether or not self-harm is indicative of underlying personality pathology has been a topic of controversy. Cluster B PDs have been found to convey a greater risk of adolescent suicide, even after controlling for the effect of mood, conduct and substance disorders (Brent et al., 1994). Among adults with self-harm, borderline personality disorder (BPD) has been reported as the most common PD in several studies (Ennis et al., 1989). Among adolescents who engage in non-suicidal self-harm, rates of BPD are also elevated (Jacobson et al., 2008), and BPD has been found to be the PD most highly correlated with suicide attempts in a clinical sample of adolescents (Westen et al., 2003). Longitudinal studies demonstrated that a history of chronic self-harm, dating back to adolescence, discriminated adults with BPD from those with other PDs (Dubo et al., 1997). Levy (2005) found that one third of individuals diagnosed with BPD engaged in self-harm before age 12. In their retrospective study, Zanarini and colleagues (2006) suggests that self-harm, when present in childhood and adolescence, is predictive of an adult diagnosis of BPD, identifying it as an early risk indicator for BPD. In their cross-sectional analysis comparing groups of three young people – a non-suicidal self-harm group, a non-self-harm group, and a suicidal group – Jacobson and colleagues (2008) found that only BPD is predictive of membership of the non-suicidal self-harm group, whereas major depression and PTSD were predictive of membership of the suicidal group.

On the other hand, Siever and colleagues (2002) pointed out that a significant percentage of people who engage in deliberate self-harm during adolescence will not develop BPD in adulthood. They suggested that this may be the case for 25% of adolescent girls and 6% of boys. On a similar line, in young people where suicidality overlaps with non-suicidal self-harm, a very high percentage (88% to 97%) qualify for a wide range of Axis I psychiatric disorders, a rate that appears greater than those who qualify for an Axis II PD, including BPD (Nock et al., 2006; Portzky et al., 2008).

1.6 Other associations

Rumination/negative thinking and a relative absence of positive feelings toward parents were predictors of self-harm independently of general psychopathology

(Bjärehed and Lundh, 2008) In their study on emotional intelligence, Mikolajczak and colleagues (2009) suggested that self-harm may be a way to decrease negative emotions such as rumination, self-blame, and helplessness. Reasons noted for non-suicidal self-injury include efforts to resist thoughts of suicide, express self-anger or disgust, resolve times of dissociation, influence others, or seek help from others (Klonsky, 2007; Walsh, 2007). Self-harm has also been associated with low self-esteem (Marcenko et al., 1999; Overholser, 1995; Simons & Murphy, 1985).

Strong associations were found between suicide attempts and suicide attempts in family members (Buddeberg et al., 1996, Eskin, 1995; Grossman et al., 1991) and in friends with suicidal ideation (Bjarnason & Thorlindsson, 1994; Buddeberg et al., 1996; Grossman et al, 1991). Exposure to self-harm in the media was also significantly associated with suicidal behaviour (Martin, 1996).

In their inpatient study on young people who harm themselves, Nixon and colleagues (2002) found that the two primary reasons for repetitive self-harm were "to cope with depression" or "to release unbearable tension". They also found that over 97% of their sample endorsed addictive symptoms and found the self-harm addictive.

15

CHAPTER 2
LONGITUDINAL OUTCOME OF SELF-HARM: SYSTEMATIC LITERATURE REVIEW

2.1 Introduction

Self-harm is common in community studies of young people (Hawton et al., 2003; Bjärehed & Lundh, 2008) but much more common in inpatient settings (DiClemente et al., 1991). Longitudinal studies suggest that the peak prevalence of suicidal ideation occurs during mid-adolescence and that there is a heightened incidence of individuals reporting suicidal thoughts in the adolescent period (Fergusson et al., 2003). Self-harm is a major risk factor for completed suicide (Gunnell & Frankel, 1994) and Hawton and colleagues (2003) found that 40–50% of people who die by suicide had a prior history of self-harm. In their retrospective study on adults with BPD, Zanarini and colleagues (2006) found that the group of patients who had started to harm themselves as adolescents constituted a more severe group with a high rate of repeat self-harm throughout adolescence associated with multiple suicide attempts. Yet clinical experience also suggests that the prevalence of self-harm decreases from adolescence into adulthood, which raises the question of which factors lead to ongoing self-harm and to a more sinister outcome such as adult pathology or suicide. Would identifying the risk factors that might lead to a more sinister outcome enable us to better identify the risk group in adolescence, which may help services be more able to target this group more effectively with early intervention strategies?
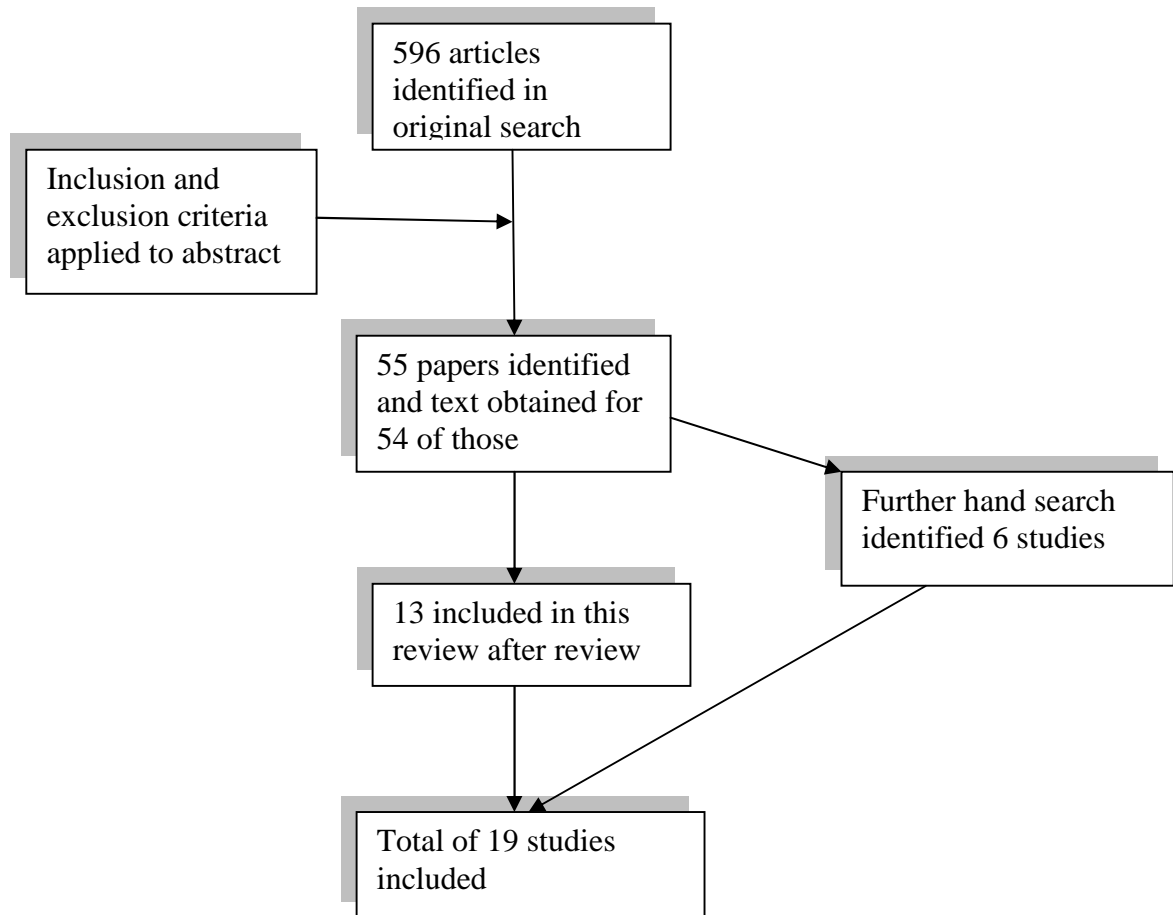
In order to answer this question, the author performed a systematic literature review exploring the longitudinal outcome into adulthood of young people who harm themselves, in the hope that risk factors associated with poorer outcomes, as well as possible pathways to poorer outcomes, may become clearer.

2.2 Methodology

An initial systematic search was made for papers whose title or abstract referred to childhood/adolescence and (* indicates truncation) self-harm*, self poisoning, suicid*, cutting, self injury, using the electronic databases CINAHL, PsycINFO, MEDLINE, and EMBASE. The following search terms were used to identify adolescents: adolescen* or boy* or child or girl* or junior* or juvenile* or teen* or youth* or young*. The search was restricted to articles published in the past 10 years. The search was further limited to those studies which were prospective longitudinal studies from adolescence into adulthood, and terms such as longitudinal, prospective, long term follow-up and outcome were used.

Five hundred and ninety-six articles were identified. After two researchers applied the inclusion and exclusion criteria to abstracts, 55 articles were identified, and the full text was obtained for 54 of them. After review of the papers, 13 papers were included in this review. A hand search revealed another six papers, which made the sum total of papers reviewed here 19.

Diagram 1: Consort diagram of search

596 articles identified in original search

Inclusion and exclusion criteria applied to abstract

55 papers identified and text obtained for 54 of those

Further hand search identified 6 studies

13 included in this review after review

Total of 19 studies included

2.3 Results

With the exception of three community studies (Brezo et al., 2007; Bronisch et al., 2005; Fergusson et al., 2003), all of the studies were clinical samples, usually based on young people presenting to hospital with a suicide attempt. In these studies the most common method of self-harm or suicidal attempt was self-poisoning. Most studies used repeat attempts into adulthood and mortality as outcome measures. Some studies explored risk factors for repeat attempts and some studies suggested a pathway of variables interacting which eventually led to adult outcomes and to further repetition. All studies will be explored in greater detail below.

Six year follow-up study of young people presenting with deliberate self-poisoning:

Three of the studies (Aglan et al., 2008; Byford at al., 2009; Harrington et al., 2006) that met the inclusion criteria of this review were based on a longitudinal study of 158 young people who presented to hospital following deliberate self-poisoning (DSP) and who participated in a randomised controlled trial (RCT) examining a solution focused on family intervention (Byford et al., 1999; Harrington et al., 1998). The average age at the index episode was 14.5 years and the young people were followed up 6 years later. At baseline, participants were assessed in terms of family functioning[1], aspects of the Deliberate Self-Harm Interview Schedule (DSHIS) were used to inquire about child sexual abuse, and major depressive disorder, conduct disorder[2] and hopelessness[3] were also assessed. This group was matched against a non-self-harming group of 49 young people from the general population who were followed up over the same time. Outcomes were measured in terms of social adversity, major depression[4] and mental health in adult life[5]. At first assessment, 19% of the young people had been sexually abused, 47% were bullied at school, 68% had major depression, 9.5% had conduct disorder, 77% reported regular arguments with parents, and 35% had a history of running away from home.

In their study of this sample, Harrington and colleagues (2006) found that the risk of repeat suicide attempts into adulthood was increased in those young people who had higher hopelessness scores, childhood adversity and major depression at baseline. They found that 30% of the young people who presented with DSP made further suicide attempts into adulthood. They found that rates of psychopathology, especially depression, distinguished not only the DSP group from the control group, but also within the DSP group those who self-harmed into adulthood from those who did not. Fifty-six percent of the DSP group had depression at baseline and 87% of those harmed themselves into adulthood. The subjects in the DSP group who harmed themselves into adulthood presented with multiple disorders. The incidence of comorbidity of Axis I disorders in the DSP group in adulthood was 64%, compared

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[1] McMaster Family Assessment Device (FAD); Miller et al., 1985
[2] Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS); Ambrosini, 1988
[3] Hopelessness scale; Kazdin, Rodgers, & Colbus, 1986
[4] Structured Clinical Interview for DSM-IV Axis I Disorders (SCID); First, et al., 1996
[5] Adult Life Phase Interview; Bifulco et al., 2000

with 26% in the group of those who did not harm themselves into adulthood; 56% of the sample had depression, 27% had anxiety, 31% had substance misuse disorder, and 11% had an eating disorder. Harrington and colleagues (2006) further found that economic hardship and child sexual abuse contributed as risk factors that had a marked impact on adult self-harm behaviour. Compared to the control group, the DSP group not only had more childhood adversity, but the adversity lasted twice as long. In their view, childhood adversity, adolescent depression and hopelessness increased the risk of adult depression, which increased the risk of self-harm behaviour in adulthood.

In their study on the same sample, Aglan and colleagues (2008) explored the pathways which linked childhood risk factors to adult outcomes in suicidal adolescents. Similar to the findings above, they found that a substantial proportion of the effects of child sexual abuse and hopelessness on the risk of adult DSH was mediated by adversity and depression. Family dysfunction and conduct disorder seemed to be linked to early drop-out from school, early parenting and, hence, further adversity, which, through the mediating role of depression, is linked with DSH in adulthood.

The same sample was used by Byford and colleagues (2009), who explored the economic impact in adulthood of the DSP group and the control group. They found that the DSP group incurred significantly greater lifetime costs than the controls. They used more service-provided accommodation, special education and hospital services, incurred greater criminal justice costs and received more social security benefits. Higher costs in the self-poisoning group were significantly associated with conduct disorder, hopelessness, previous suicide attempts, being male and being in care prior to the self-poisoning event. The strength of the three studies above lies in the high rate of follow-up of cases and detailed baseline measures as well as the use of a control group. Unfortunately, the study did not measure Axis II disorders at any stage.

A fourteen year prospective study comparing a disruptive group against a control group:

In a longitudinal community study of 4,488 children who were selected from kindergarten, Brezo and colleagues (2007) assessed the children at a mean age of 6 years, between 15 and 18 years, and at 19–24 years. At baseline, the group was divided into two groups: a disruptive group and a control group. At age 15–18,

suicidal ideation, the violence in the ideation, and Axis I disorders[6] were assessed, and at 19–25 Axis I disorders[7] and personality traits[8] were assessed. Further, impulsivity and suicidality were assessed, as well as suicidal intent, stressful life events, and social support. Suicide attempts in adolescence were found to be at the more severe end of the suicidal continuum relative to suicide attempts that start in adulthood. Multiple childhood risk factors, such as sexual and physical abuse, childhood anxiousness, and disruptive disorders in childhood accompanied progression to adolescent-onset suicide attempts. Moderate to strong associations were found between suicidal ideas and attempts.

The authors also found that 20% of the sample admitted to suicidal thoughts at age 15, that 3.5% admitted to making a suicide attempt at 15, that 30% of early attempters became repeat attempters, and that 78% of these were female. Female gender was associated with more repeat attempts, attempts that started earlier, and greater suicidal ideation. They found a mortality rate of 0.17%. The strengths of this study are that it is a large community study with a longitudinal design, the use of a control group, and that it made use of multi-informant-based assessments.

Eleven year prospective study of young people presenting with self-harm under the age of 15:

In their large study of all young people under the age of 15 presenting to hospital in Oxford with self-harm between 1978 and 2003, Hawton and Harriss (2008) followed each subject up over a period of 11 years. The total sample size was 710 young people, of whom the majority were between 12 and 14 years of age. The group consisted of slightly more females than males and in the majority of cases patients presented with overdoses. At the first assessment (T1), information about the type of self-harm as well as socioeconomic and demographic information was collected. From 1993 onwards the Suicide Intent Scale[9] (SIS) was also completed at T1. The outcome measure was mortality and after the 26-year period, the Office of National Statistics

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[6] Diagnostic Interview Schedule for Children (DISC-2); Breton et al., 1998
[7] Diagnostic Interview Schedule for Adults (DIS); Robins et al., 1995
[8] Diagnostic Assessment of Personality Pathology; Livesley et al., 1998
[9] Beck, Schuyler, & Herman, 1974

21

(ONS) was consulted to see whether patients were dead or alive (ONS,2005) . Death certificates were obtained for those who had died. Information about repeat attempts over the 11-year period was also collected.

At T1, the sample displayed the following characteristics: the most frequent problems were difficulties in relationships with family members (77.3%) and with friends (38.9%), and school/study problems (37.9%). A few had a history of prior (7.7%) or current, psychiatric treatment and one quarter had a previous history of self-harm, and almost the same proportion of young people repeated the self-harm attempt during the follow-up period. There was no gender difference in the repeating of self-harm. High suicidal intent was reported in only 16% of cases. The sample also showed a low history of violent behaviour towards others in the past 5 years, and a low history of alcohol consumption within 6 hours before the attempt. In terms of outcome, the long-term risk of suicide seemed low, as only 1.1% died from suicide. Those young people who completed suicide had a high suicidal intent at first assessment. The researchers argued that the risk of suicide in adulthood is lower in a younger adolescent group than the risks in an older adolescent group, but that the risk is high in the group of young people who present with suicidal intent at first assessment.

The strength of this study is in the large sample size and the length of the follow-up period. Unfortunately, psychiatric illness was not measured; given the strong correlation between high suicidal intent in adolescence and increase in risk for repeat of suicidal behaviour into adulthood, could it be that the suicidal intent was an expression of underlying depression?

Eleven year prospective study of young people admitted to adolescent units in Virginia:

Four studies (Goldston et al., 1999, 2001, 2006; Daniel et al., 2009) were based on an original study by Goldston and colleagues (1998). A group of 180 young people (mean age 14.8) who were admitted to adolescent units in Virginia, United States, were followed up twice a year over 11 years. Suicidal behaviour, psychiatric

diagnosis[10], hopelessness[11], depression[12], anxiety[13], reason for living[14] and maladaptive beliefs[15] were assessed. Participants were grouped into those who presented with suicidal behaviour and those who did not. Repeat of suicidal attempts was used as the outcome measure.

At baseline, 42% of the sample presented with suicidal behaviour: 54% of these presented with one attempt only and 17% had more prior attempts. Major depression in the suicidal group was significantly higher than the non-suicidal group. Those who had made one attempt only had significantly higher rates of adjustment disorder. The non-suicidal group had significantly higher rates of externalising disorders than the suicidal group (Goldston et al., 1998).

A history of previous attempts, depression, anxiety, and disruptive behaviour disorders was significantly linked to future attempts over a 5-year follow-up (Goldston et al., 1999). The trait of anger was not related to later attempts. In a later paper, when the sample had been followed up over 6 years, Goldston and colleagues (2001) found that there was a strong correlation between repeat attempts and suicidal ideation. Surviving and coping beliefs reduced the risk of repeat attempt in suicidal youths. After a follow-up period of 11 years, initial trait levels of depression, hopelessness, and anxiety were significantly associated with repeated suicidal attempts later (Goldston et al,. 2006). The authors suggested that treatment programmes for suicidal adolescents should aim not only to address immediate distress, but also to address the underlying traits. The strength of these studies lies in the longitudinal design, the length of follow-up, the use of a control group, and a low drop-out rate of only 9%. A further strength is that some personality traits were assessed at baseline.

Daniel and colleagues (2009) followed up the same group over a period of 11 years. Apart from repeat attempts, they also tried to explore the role of anger, depression, and substance use on suicidal behaviour from adolescence into adulthood.

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[10] Interview Schedule for Children and Adolescents (ISCA); Kovacs, 1985
[11] Beck Hopelessness Scale (BHS); Beck and Steer, 1988
[12] Beck Depression Inventory (BDI); Beck et al., 1988
[13] State-Trait Anger Expression Inventory (STAXI); Spielberger, 1988
[14] Reason for Living (RFL-48); Linehan et al., 1983
[15] Dysfunctional Attitudes Scale (DAS); Weissman, 1980

23

The trait of anger and anger expressed outwardly continued to be associated with suicide attempts irrespective of diagnoses of major depression and/or substance use disorders in males.

Prospective community study following young people up at 16, 18 and 21:

In a community study, Fergusson and colleagues (2003) followed up 1,063 young people, who were members of the New Zealand Christchurch Health and Development Study birth cohort, at ages 16, 18 and 21. Suicidal behaviour was investigated by self-report, depression was measured by using the Diagnostic Interview Schedule for Children[16] in adolescence, and in adulthood depression was measured by using the Composite International Diagnostic Interview[17]. In addition, a large number of assessments were conducted to assess resilience and vulnerability factors.

Young people with major depression had rates of suicidal ideation that were over five times as high, and rates of suicide attempt that were over 10 times as high as the corresponding rates for non-depressed young people. The authors found highly significant relationships between depression and suicide attempts ($p < .0001$) and suicidal ideation ($p < .0001$). However, they also found that the majority of young people with depression did not engage in suicidal behaviour. Their results suggest that, in addition to the role of depression in provoking suicidal behaviours in young people, the vulnerability/resiliency of young people to suicidal behaviours was determined by the nature of childhood experiences, personality factors and peer affiliations in adolescence. The following factors were associated with a high vulnerability for suicidal ideation: childhood sexual abuse, a family history of suicide/suicide attempt, high neuroticism scores, high novelty-seeking scores, low self-esteem, affiliations with deviant peers, and low school achievement. Resilience factors were: absence of childhood sexual abuse, no family history of suicidal behaviour, low neuroticism scores, low novelty-seeking scores, high self-esteem, avoidance of affiliations with deviant peers, and school success.

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[16] Costello et al., 1982
[17] CIDI, Robins et al., 1988

Among those who were depressed and had high vulnerability to suicidal ideation, the majority (64.5%) reported suicidal ideation by the age of 21. However, among those who were depressed but had high resiliency to suicidal ideation, less than one quarter (23.4%) developed suicidal ideation. Among those without depression and with high resiliency to suicidal behaviours, suicide attempts and suicidal ideation were almost non-existent. However, among those who were not depressed but had high vulnerability, a minority exhibited suicidal ideation or attempts.

The strength of this study is that it was a community study with a large sample size, longitudinal design, use of a control group, and that personality factors were assessed prospectively.

Five year prospective study of young people presenting with deliberate self-poisoning:

Reith and colleagues (2003a) conducted a search of the Hunter Area Toxicology Service (HATS) database in New Zealand for all presentations of young people with an episode of self-poisoning from January 1991 to December 1995. They identified a sample of 450 young people (mean age 17) who were then followed up over a 5-year period. The initial assessment included psychiatric diagnosis on Axis I and Axis II, which was based on clinical assessment. Repetition of self-harm over the 5-year period was the primary outcome measure. Repetition commonly occurred within the first few months after the index episode, and 12% of the sample continued with self-harm. Psychotic disorders, PDs, and substance misuse were most highly associated with repeat episodes of self-harm.

Based on the same dataset, Reith and colleagues (2003b) found a suicide rate of 1.8%. Male gender, psychotic disorders, and disorder first diagnosed in childhood or adolescence (the majority of these diagnoses were conduct disorder and attention deficit hyperactivity disorder) had the strongest associations with suicide. The study had a large sample size, a prospective longitudinal design, and it measured psychiatric symptoms on Axis I and Axis II at both time points.

Ten year prospective study of young people admitted with a suicide attempt:

In their 10-year follow-up study of 65 young people (11–19 years) who were admitted to hospital following a suicide attempt, Géhin and colleagues (2009) found

that 87% of the young people were admitted for self-poisoning and 47% had a history of previous attempts. Mood disorders were found in 18% of those who were repeatedly admitted to hospital for suicide attempts. Twenty-one percent continued to have suicidal tendencies and 45% of repeated attempts took place in the first three months after discharge. Repetition shortly after discharge was significantly linked to further repetitions in the next 10 years. The mortality rate was 5%. The study had a high dropout rate (48%) and no standardised assessments were used.

Eight year follow-up study of pre-pubertal young people compared against a matched control:

Pfeffer and colleagues (1993) followed 106 pre-pubertal young people who presented with suicidal behaviour over a period of 6–8 years. They also followed up a matched control group of 101 young people. Although the mean age at T1 was 10.8 years, some of the sample was aged 14, and for that reason it was decided to include the study in this review. Suicidal behaviour[18], psychiatric disorder[19] and life events[20] were measured. The most prevalent Axis I diagnoses at baseline and at follow-up were mood disorders, and disruptive and anxiety disorders. Fifteen percent of the young people in the suicidal behaviour group attempted suicide again at least once in the follow-up period, and 50% of these young people repeated the suicide attempt on several occasions. Poor social adjustment and mood disorder seem to be the risk factors that were significantly linked to the repeat behaviour. Other variables such as demographics, gender, age, or disruptive or anxiety disorders were not significantly linked to an increase in relative risk of repeat. At follow-up, the suicidal patients had at least one psychiatric disorder in comparison to the non-suicidal control group. The suicidal group had a higher incidence of mood, disruptive, anxiety, or substance misuse disorder, as well as schizophrenia. This study found that the suicidal group was six times as likely as the control group to repeat the attempt during the course of adolescence, which suggests a temporal stability for suicide attempts during the course of adolesence.

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[18] Spectrum of Suicidal Behaviour Scale; Pfeffer et al., 1979
[19] K-SADS; Ambrosini, 1988
[20] Coddington Social Readjustment Rating Questionnaire for children and adolelscents; Coddington, 1972

The strenghs of this study are the prospective longitudinal design, the large sample size, and the use of a control group. Further strenghs are the assessment of psychiatric symptoms at baseline and at follow-up. Unfortunately, the study did not measure Axis II disorders and the possible effect they might have had on the results.

Twenty year follow-up of young people presenting with suicidal behaviour:

A further follow-up study of 587 young people (mean age 15) presenting to hospital in France with suicidal behaviour was conducted by Laurent and colleagues (1998). This group was matched against a control group of non-psychiatric patients (*n* = 293) who were followed up over the same time. The avarage age at the time of follow-up was 20 years. The young people and their parents, as well as their GPs, filled in questionnaires about demographics, social adjustment, and general functioning. Mortality and relapse were used as outcome measures. The completed suicide rate in the suicidal group was 1%. Thirty-six percent of the suicidal group made repeated attempts during the course of adolescence. The GP information indicated that the suicidal group had higher rates of alcohol consumption and psychiatric admissions than the matched control group.

The strenght of the study is that it had a prospective longitudinal design and large sample size. Unfortunately, it lacked a more detailed assessment of psychiatric symptoms.

Eleven year follow-up study of young people presenting with suicide attempts:

In their 11-year follow-up study of 265 young people (mean age 16), Granboulan and colleagues (1995) collected retrospective data from hospital records on all admissions for suicide attempts between 1971 and 1980. Data were gathered in terms of demographics, method of attempt, and past discharge diagnosis. The majority of young people were admitted following self-poisoning. Family disturbances at baseline were common, as was a serious life event in childhood and separation from parents or the death of a parent. Ten percent of the sample had a history of childhood sexual abuse. Thirty percent of the sample had a history of running away from home. The most important diagnostic groups were: adjustment reaction to adolescence (29%); conduct and personality (group B) disorders (32%), antisocial PDs (20%), BPD (7%),

and narcissistic PD (5%); affective disorders (27%); and psychosis (9%). These findings were based on clinical assessment.

At follow-up (T2), only 48% of the sample agreed to participate. They were asked about postdischarge hospitalisations, repeat attempts, psychosocial functioning, and symptoms such as anxiety and depression. Follow-up revealed that 31% of the sample had made another suicide attempt between T1 and T2. The suicide rate was 3.9%. A further 6% had died from other violent causes, such as substance abuse, road traffic accident, and one had died as a consequence of a self-performed abortion. The mean age of death was 19 years. Forty-five percent had good social relations in adulthood and 27% had poor or non-existent relationships. Sixteen percent met the DSM-III criteria for a borderline or antisocial PD, and 26% for chronic psychosis.

The data at baseline were gathered retrospectively, which is a downside of the study; however, the baseline data were based on assessment at the time of presentation by clinicians rather than the retrospective memory of the patients, which makes it more reliable. Unfortunately, the study also had quite a high drop-out at follow-up. The strength of the study for this review is that it is one of the only studies in which Axis I and Axis II symptoms were assessed.

Nine year prospective study of young people presenting with deliberate self-poisoning:

In their study of adolescents who presented with DSP, Angle and colleagues (1983) followed up 47 young people (12–18 years) 9 years later. A structured interview at baseline revealed that 65% of the young people were depressed, 52% had made previous attempts, 10% presented with thought disorder and 62% had social difficulties. At 9-year follow-up, questionnaires were sent to the original sample and the researchers conducted a telephone interview as well. The study had a high dropout rate of 69%. Forty-seven percent of the sample had repeated the behaviour at least once more. Almost half of the patients at T2 presented with symptoms of depression, but despite this, the majority of the sample seemed to have adjusted well socially as most of them were employed and in relationships. The weaknesses of the study were the high drop-out between T1 and T2 and the small sample size.

Large multicentre, international follow-up study of young people presenting with suicidal behaviour:

Hultén and colleagues (2001) used data on 15–19-year-olds in seven European countries as part of the WHO/EURO Multicentre Study of Suicidal Behaviour (Bille-Brahe et al., 1993). The sample size was 1,264 and the mean follow-up period was 204 weeks. Information on demographics, the nature of the attempt and the type of follow-up care was recorded at assessment. Outcomes were measured in terms of repetition. Cox regression analysis was used to identify the triggers for repetition. The trigger variables used were demographic variables, lethality of attempt and history of previous attempts.

About one third of the group (37.9%) had previously attempted suicide before the index episode. When life-time analysis was performed, 24% of the individuals who had previously attempted suicide made another attempt within one year after the index attempt, compared with 6.8% of people who had presented with their first attempt. More violent attempts, such as hanging, were associated with a higher rate of repetition. A previous attempt was the best predictor of repeat attempts and those with a prior history of an attempt within 12 months before the index episode were at a higher risk of repetition.

The study benefited from a large sample size, spread over seven countries. Unfortunately, psychiatric symptoms were not assessed and hence it is not clear what role they played in the outcomes.

Follow-up study exploring the links between mania and suicidality:

In their study examining the association between mania, hypomania and suicidality, Bronisch and colleagues (2005) used data from the Early Developmental Stages of Psychopathology Study (EDSP) in Germany. This community study consisted of a baseline survey of 3,021 interviews and two follow-up surveys of the same group. The average age at the first follow-up interview (which was 20 months after the baseline interview) was 14–17 years and the next follow-up was an average of

42 months after the baseline interview. Diagnostic assessments were based on the Munich-Composite International Diagnostic Interview[21]. The authors found that people with mania at baseline had an elevated risk of subsequent suicidal ideation, which could not be explained by the co-occurrence of a major depressive disorder, whereas no association could be proved for hypomania cases and with the onset of suicide attempts. Unfortunately, no other risk factors were assessed.

The strength of this study is the large sample size, and the prospective design, but unfortunately for this review, the study only explored the links between mania, hypomania and suicidality in the sample.

2.4 Discussion

Studies vary in terms of rates of repetition of self-harm behaviour into adulthood, with some reporting rates of repeat of between 12 and 24% of the sample (Gehin et al., 2009; Hulten et al., 2001; Pfeffer et al., 1993; Reith et al., 2003) and others reporting rates of over 30% of their samples (Angle et al., 1983; Brezo et al., 2007; Granboulan et al., 1995; Harrington et al., 2006; Laurent et al., 1998). The author pooled all the data from all the studies above and found that the average rate of repeat of self-harm into adulthood is 27%. Most of the studies found that the repetition of suicidal or self-harm behaviour usually occurs within the first 6 months after the first attempt. Mortality rates varied from 0.17% to 5%, with the majority of studies indicating a mortality risk of between 1 and 2% for their sample.

The results of this review indicate that suicidal intent and history of previous suicide attempts are the largest risk factors associated with repeated attempts into adulthood. Depression, both in adolescence and in adulthood, almost always accompanies the suicide attempt, and some studies have suggested that the pathway to repeat attempts is through depression and hopelessness creating suicidal ideation, which is linked with suicidal action (Fergusson et al., 2003; Goldston et al., 2001). However, Fergusson and colleagues (2003) found that a much larger group of

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[21] DIA-X=M-CIDI; Wittchen and Pfister, 1997

depressed young people did not harm themselves, which led them to explore vulnerability and resilient factors.

Cross-sectional studies examining risk factors for suicidal behaviour identified psychiatric disorder, in particular depression, as the greatest risk (Andrews & Lewinsohn, 1992; Brent et al., 1993). Furthermore, follow-up studies on preadolescent suicide attempts indicated that the attempts occurred mostly during a depressive episode (Pfeffer et al., 1993) and that early-onset depression is predictive of suicidal behaviour during adolescence (Harrington et al., 1994).

In this review, the following risk factors for self-harm in adolescence were identified, which were prevalent at the time of initial assessment:

- *Childhood risk factors*: Child sexual abuse (Brezo et al., 2007; Fergusson et al., 2003; Granboulan et al., 1995; Harrington et al., 2006), physical abuse (Fergusson et al., 2003), domestic violence (Fergusson et al., 2003), family dysfunction (Granboulan et al., 1995; Harrington et al., 2006; Hawton et al., 2003), peer relationship problems (Granboulan et al., 1995; Harrington et al., 2006; Hawton et al., 2008) and school problems (Hawton et al., 2008).

- *Personality factors*: Neuroticism, novelty seeking, low self-esteem (Fergusson et al., 2003), and the traits of anxiousness (Brezo et al., 2007), depressiveness (Daniel et al., 2009; Goldston et al., 2001, 2006). Some studies found a link between the trait of anger and suicidality (Daniel et al., 2009), but Goldston and colleagues (1999) did not find a link to suicidality. PD in adolescence was found to be linked with suicidality in two studies (Granboulan et al., 1995; Reith et al., 2003a).

- *Psychiatric illness*: Depression was the most consistent psychiatric illness in most studies that examined it (Fergusson et al., 2003; Gehin et al., 2009; Goldstone et al., 2001, 2006; Harrington et al., 2006; Pfeffer et al., 1993). Disruptive disorders (Brezo et al., 2007; Granboulan et al., 1995; Harrington et al., 2006; Pfeffer et al., 1993), psychosis (Granboulan et al., 1995; Reith et al., 2003a & b), mania (Bronisch et al., 2005), anxiety disorder

(Brezo et al., 2007), and substance misuse (Reith et al., 2003a; Laurent et al., 1998) have all been linked with suicidality in young people.

Adult outcomes, apart from repeat attempts and mortality, of young people who harm themselves are as follows:

- *Psychiatric illness*: Depression (Angle et al., 1983; Harrington et al., 2006; Pfeffer et al., 1993), anxiety, substance misuse and eating disorder (Harrington et al., 2006), psychosis (Granboulan et al., 1995; Pfeffer et al., 2003; Reith et al., 2003a & b), and mania (Bronisch et al., 2005).

- *PD*: PD was found to be linked with suicidal behaviour that continued into adulthood in the study by Granboulan and colleagues (1995), but the absence of evidence in the other studies may be explained by the fact that none of the other researchers measured for the presence of PD.

- *Adult functioning*: Angle and colleagues (1983) demonstrated good adaptation into adulthood of the majority of their small sample, despite the presence of depressed feelings in some subjects, and Granboulan and colleagues (1995) found that almost half of their sample reported satisfactory social relations at follow-up. Although functioning was not measured in other studies, Harrington and colleagues (2006) found that the incidence of comorbid Axis I disorder in the group that continued to harm themselves into adulthood was 64%, which arguably may have interfered in optimum functioning. Similar findings were made by Pfeffer and colleagues (1993).

Several studies explored the pathway that led to the continuation of self-harm behaviour into adulthood. In summary, the following model can be drawn up from what has been suggested in the studies:

Environmental risk factors, such as childhood abuse and adversity (Brezo et al., 2007; Fergusson et al., 2003; Harrington et al., 2006) and personality factors in the child (Daniel et al., 2009; Fergusson et al., 2003; Goldston et al., 1999, 2001, 2006) interact to create vulnerability or resilience towards suicidal ideation in adolescence (Fergusson et al., 2003). Those young people with high vulnerability towards suicidal

ideation have a much higher risk of suicidal behaviour, which will continue into adulthood. The pathway seems to lead through depression and hopelessness to suicidal intent and suicidal action, and this process seems to be further influenced by previous attempts. Some evidence also seem to indicate that the process is further influenced by antisocial peer groups and dropping out of school.

The model can be schematically portrayed in the following way:

Diagram 2: Mediating factors leading to adult outcome of adolescent self-harm

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┌──────────────┐                                                              ┌──────────────┐
│ Childhood    │                                                              │              │
│ adversity    │──┐                                                           │ No functional│
└──────────────┘  │                                                           │ adult        │
        │         │                                                           │ impairment or│
        │         │                                                           │ repeat       │
        ▼         │                                                           │ attempts     │
┌──────────────┐  │   ┌──────────┐   ┌──────────┐                            └──────────────┘
│ Personality  │──┼──▶│ Vulner-  │──▶│ Adoles-  │──────────────────────▶
│ factors      │  │   │ ability  │   │ cent     │
└──────────────┘  │   │ or       │   │ turmoil  │
        ▲         │   │ resilience│  │          │   ┌──────────┐ ┌──────────┐ ┌──────────┐
        │         │   │          │   │          │──▶│ Adoles-  │▶│ Ongoing  │▶│ Repeat   │
┌──────────────┐  │   │          │   │          │   │ cent     │ │ depres-  │ │ attempts │
│ Genetics     │  │   │          │   │          │   │ breakdown│ │ sion,    │ │ and adult│
└──────────────┘  │   └──────────┘   └──────────┘   │ depres-  │ │ hopeless-│ │ mental   │
                                          ▲         │ sion, or │ │ ness and │ │ illness  │
                                          │         │ other    │ │ suicidal │ │ and PD   │
                                          │         └──────────┘ │ ideation │ └──────────┘
                               ┌──────────────────────┐          └──────────┘
                               │ Other adverse        │
                               │ influence in         │
                               │ adolescence such as  │
                               │ family               │
                               │ dysfunction; deviant │
                               │ peers;               │
                               │ dropping out from    │
                               │ school               │
                               └──────────────────────┘
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Although this review answered some of the research questions about the adult outcome of young people who harm themselves, as well as attempting to describing the risk factors for continuation of self-harm into adulthood and a potential pathway for the continuation, most studies did not systematically measure personality factors at baseline or at follow-up. The review therefore could not address the interplay between childhood adversity, PD symptoms, and depression in adolescence in more depth in order to try to determine the group of young people more at risk of suicidal behaviour into adulthood. What has been shown is that the group of young people with a history of childhood adversity, a history of previous attempts or prepubertal onset of depression should be seen as a higher risk group, and those with personality traits indicative of high neuroticism, high novelty seeking, low self-esteem, anxiety, and depressiveness are at higher risk too. Adverse adolescent influences, in particular antisocial influences, add to the risk. Adolescents presenting for help with suicidal behaviour in whom any of the above factors are prevalent should be followed up over at least a 6-month period as most repeat episodes tend to occur within six months of the index episode. There is also clear evidence that the cases at risk of repeat attempt seem to have longer standing problems, and therefore a short-term, solution-focused approach may not address the underlying difficulties.

Most of the suicidal or self-harm attempts in this review were of self-poisoning. It is not clear whether this represents a skewed evidence base, in that clinical experience in outpatient child and adolescent clinics often indicates that self-harm, such as cutting, is more prevalent. Will the features associated with self-cutting be different from the findings in those who present with self-poisoning? The hope was that the community studies in this review would have included a wider representation of self-harmers and thus been able to cast light on the question, but the majority of self-harm acts in the community studies were self-poisoning, too. Perhaps part of the problem is the fact that cutting is often not detected or reported and hence more difficult to study longitudinally and prospectively.

This review has highlighted a gap in the literature of prospective longitudinal studies of the outcome of young people with self-harm, which requires more detailed assessment of Axis I and Axis II symptoms in addition to the assessment of childhood and family factors. Such studies may help to better identify young people at risk and to develop models to understand protective factors, which may aid in the development

of treatment interventions.

SECTION 2

SELF-HARM, PERSONALITY DISORDER AND DEPRESSION

The previous section demonstrated that the pathway to poorer outcome in adulthood for young people who harm themselves is mediated through an interplay of childhood adversity, negative personality factors as well as adolescent depression. The previous section also discussed the controversy in the evidence with regards to diagnosing personality disorder in adolescence, and whether self-harm can be seen as a risk factor for personality disorder or whether it is an expression of underlying depression. In order to better explore these aspects, the next section will cover a systematic literature review into the stability of personality disorder in adolescence into adulthood. A second literature review in this section will explore the associations between depression and personality disorder from adolescence into adulthood.

Lastly this section will include the results of a cross sectional comparison between a self-harming group and 2 control groups in terms of personality profile, mentalization and attachment.

CHAPTER 3

STABILITY OF PERSONALITY DISORDER DIAGNOSIS AND SYMPTOMS FROM ADOLESCENCE INTO ADULTHOOD: SYSTEMATIC LITERATURE REVIEW

3.1 Introduction

Personality disorders (PD) have been described as a "harmful dysfunction" of the personality structure (Livesley & Jang, 2000). This conceptualisation views PD as the failure to solve life tasks involving the development of integrated representations of self and others, and the capacity for adaptive kinship and societal relationships. PD is defined as follows in DSM-IV (American Psychiatric Association [APA], 2000):

"A Personality Disorder is an enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual's culture, is

pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment" (Section 301.83, p. 685).

DSM-IV (APA, 2000) criteria permit adolescent diagnosis providing that the maladaptive traits have been present for at least 1 year and are pervasive, persistent, and unlikely to be limited to a particular developmental stage or an episode of an Axis I disorder. Adolescence has been characterised as a developmental phase marked by psychological turmoil, impulsivity, dramatic and rapidly fluctuating mood, and heightened vulnerability to breakdown. Over the past three decades, clinicians and researchers (Bleiberg, 2001; Chanen et al., 2004; Winograd et al., 2008) have increasingly reported that a substantial percentage of maladjusted adolescents present with a pattern of symptoms of affective dysregulation, impulsivity, and instability in relationships and in self-image that resembles a diagnosis of BPD in those over the age of 18, raising the question of whether it should be diagnosed in adolescence and whether such a diagnosis would be valid and stable over time. Yet applying the diagnosis of a PD to adolescents is fraught with controversy. Will applying the diagnosis be medicalising what might be a normal developmental phase?

Several studies over the past few years have examined the construct validity of PD diagnosis in adolescence. Investigators doing community studies have suggested both that PDs are prevalent in adolescence and that they have concurrent validity but that they are relatively unstable over time (Bernstein, et al., 1993; Johnson et al,. 2000). Studies on inpatient adolescents found that PDs can be reliably diagnosed (Grilo et al., 1998, 2001) and that the diagnosis displayed a low to moderate stability over a 2-year period. The symptoms of the different PDs overlap one another more in adolescence than in adulthood, suggestive of a more diffuse range of psychopathology in adolescence (Becker et al., 2001)

Only a small number of literature reviews have addressed the stability of adolescent PDs in general (Cohen et al., 2005; Shiner, 2009; Westen & Chang, 2000) none of which are systematic reviews. Symptoms have been shown to be most prevalent in early adolescence, with a linear decline from age 9 to 27 (Cohen et al., 2005). PD symptoms seem to show more stability than PD diagnosis (Cohen et al., 2005).

38

The aim of this systematic review is to gain a better understanding of the stability of PD diagnosis and symptoms from adolescence into adulthood, incorporating prospective longitudinal studies.

3.2 Methodology

An initial systematic search for papers whose title or abstract referred to childhood/adolescence and PD was performed using the electronic databases CINAHL, PsycINFO, MEDLINE, and EMBASE. The following search terms were used to identify adolescents (* indicates truncation): adolescen* or boy* or child or girl* or junior* or juvenile* or teen* or youth* or young*. To identify PD, the terms "personality dysfunct*" or "personality disorder*" or specific types of PD or the PD thesaurus was applied. The search was restricted to articles published between 1998 and 2009, for both cultural relevance and practical considerations.

The search strategy culminated in a total of 4,769 articles. After the removal of duplicate articles and articles that could be excluded conclusively on the basis of title alone, 72 articles remained. These were then subject to the study's inclusion and exclusion criteria. Abstracts were read by the two reviewers, who excluded a further 36 articles. Full texts were then obtained for 35 out of 36 articles and were read by both reviewers. A further 19 papers were excluded at this stage for non-compliance with study criteria.

The studies included concerned prospective longitudinal designs, with PD assessment taking place at least once during adolescence and at least once during adulthood. Retrospective and cross-sectional studies were excluded, as were literature reviews, meta-analyses, individual case studies, and theoretical articles. Studies referring to those with comorbid Axis I and Axis II diagnoses were included, as were non-English-language articles.

Finally, an additional hand search was performed from the references of these papers, which gave consideration to studies published prior to 1998. Ten further papers were identified, of which two met criteria for inclusion.

Diagram 3: Consort diagram of search

```
┌─────────────────────────────┐
│ 4,769 studies identified via │
│       search strategy        │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│ 72 studies identified as     │
│ relevant or possibly         │
│ relevant via title           │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐          ┌──────────────────────────┐
│ 36 studies identified as     │          │ 1 full text article could │
│ relevant or possibly         │          │   not be obtained         │
│ relevant via abstract        │          │                          │
└─────────────────────────────┘──────────►└──────────────────────────┘
              │
              ▼
┌─────────────────────────────┐          ┌──────────────────────────┐
│ 35 full text articles        │          │ 19 further papers excluded│
│ obtained and read by two     │─────────►│ as not meeting study      │
│ reviewers                    │          │ criteria                  │
└─────────────────────────────┘          └──────────────────────────┘
              │
              │                            ┌──────────────────────────┐
              │                            │ Hand search yielded an    │
              │──────────────────────────►│ additional 10 papers      │
              │                            │ within or outside date    │
              │                            │ range, with some          │
              │                            │ relevance to the study.   │
              │                            │ On full text review, two  │
              │                            │ of these met all other    │
              │                            │ study criteria and were   │
              │                            │ included                  │
              │                            └──────────────────────────┘
              ▼            ◄───────────────────────┘
┌─────────────────────────────┐
│ Final number of included     │
│ studies = 18                 │
└─────────────────────────────┘
```

3.3 Results

3.3.1 Samples

All 18 studies reviewed were prospective studies in which there was at least one measurement of PD in adolescence and at least one in adulthood. Fifteen of the 18 studies were community studies (Anglin, et al., 2008; Bornovalova et al., 2009;

Cohen, 1996; Cohen et al., 2005; Crawford et al., 2001, 2008, 2009; Forsman et al., 2007; Johnson et al., 2000, 2008; Kasen et al., 1999, 2007; Lynam et al., 2007; Skodol et al., 2007; Winograd et al., 2008), two studies were based on outpatient groups (Chanen et al., 2004; Meijer et al., 1998), and one study was conducted within a juvenile project population (Washburn et al., 2007).

Twelve studies (Anglin et al., 2008; Cohen, 1996; Cohen et al., 2005; Crawford et al., 2001, 2008, 2009; Johnson et al., 2000, 2008; Kasen et al., 1999, 2007; Skodol et al., 2007; Winograd et al., 2008) described data drawn from the Children in the Community Study (CIC; see details below). The collective sample size of participants from the community-based studies was 3,594 (if the sample of the CIC study is counted only once). The collective sample size of the outpatient studies was 152 and the sample size of the juvenile study was 1,112.

3.3.2 Measures

In the CIC studies (Crawford et al., 2008; Johnson et al., 2008; Kasen et al., 1999, 2007; Skodol et al., 2007), PD diagnoses in adolescence were assessed using elements from two standardised assessment measures, the Personality Disorder Questionnaire (PDQ)[22] and the SCID-II[23]. These instruments were used at baseline to assess the presence of PD symptoms; diagnostic algorithms were then developed and updated in accordance with DSM-IV scales. A diagnostic threshold of five or more symptoms was used to indicate the presence of PD pathology; however, the diagnosis was made only if an individual still exhibited symptoms above the diagnostic threshold at the second assessment interval (T2), 2 years later. This process captured temporal stability of the symptoms, which is a diagnostic requirement for PD. Similarly, in the studies reported by Meijer and colleagues (1998), the Diagnostic Interview for Borderlines (DIB)[24] was utilised at both assessment intervals. This tool used a

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[22] Hyler et al., 1988
[23] First et al., 1997
[24] Gunderson et al., 1981

diagnostic threshold as well as symptom stability to arrive at a diagnosis. The SCID-II was also used by Chanen et al. (2004) at both assessment intervals to inform diagnosis.

<u>3.3.3 Indicators</u>

Seven studies (Anglin et al., 2008; Bornovalova et al., 2009; Cohen, 1996; Cohen et al., 2005; Crawford et al., 2001, 2009; Winograd et al., 2008) examined the stability of "PD symptoms" into adulthood, and one study (Johnson et al., 2000) examined the stability of PD traits into adulthood. (The terms "trait" and "symptom" were viewed as synonymous so these studies were considered together). Seven studies examined the stability of PD diagnosis into adulthood (Chanen et al., 2004; Crawford et al., 2008; Johnson et al., 2008; Kasen et al., 1999, 2007; Meijer et al., 1998; Skodol et al., 2007).

Three studies examined psychopathic or conduct disorder traits in adolescence in order to ascertain their stability into adulthood and to establish whether they are associated with antisocial personality disorder (ASPD) in adulthood (Forsman et al., 2008; Lynam et al., 2007; Washburn et al., 2007). Although psychopathic and conduct disorder traits are not Axis II diagnoses, the studies were included as ASPD cannot be diagnosed below the age of 18 and they therefore represent the best available indicator.

Table 1: Breakdown of studies examining stability of PD diagnosis and PD traits/symptoms

Criterion	Study
Stability of PD diagnosis assessed into adulthood	Chanen et al., 2004
	Crawford et al., 2008
	Johnson et al., 2008
	Meijer et al., 1998
	Skodol et al., 2007
	Kasen et al., 1999
	Kasen et al., 2007

Stability of PD symptoms assessed into adulthood	Anglin et al., 2008
	Bornovalova et al., 2009
Stability of PD traits assessed into adulthood	Cohen, 1998
	Cohen et al., 2005
	Crawford et al., 2001
	Crawford et al., 2009
	Johnson et al., 2000
	Winograd et al., 2008
Stability of psychopathic or conduct disorder traits assessed in terms of diagnosis of ASPD in adulthood	Forsman et al., 2008
	Lynam et al., 2007
	Washburn et al., 2007

3.4 Stability of PD diagnosis from adolescence into adulthood

In 2004, Chanen and colleagues conducted an outpatient study in which 101 young people (mean age 16), referred for emotional and behavioural difficulties, were followed up over a 2-year period. The SCID-II was administered at both assessment intervals. The study reported a high stability rate for PD diagnostic category, with 74% of those young people who were diagnosed at baseline still having the diagnosis at follow-up. This finding was demonstrated independent of Axis I disorder pathology. Cluster A and B PD diagnoses were observed to be moderately stable over this time frame.

The advantages of this study's methodology include: adequate sample size, the use of the same standardised diagnostic instruments at both time frames, the blinding of raters at follow-up, and the measures taken to control for Axis I disorders. A methodological confound was the brevity of the follow-up interval, as the average age at T2 was only 18 years, limiting the scope of any conclusions that can be drawn about persistence of pathology into adulthood.

Three studies reporting the stability of PD diagnosis originated from the CIC study (Crawford et al., 2008; Johnson et al., 2008; Skodol, 2007). Participants in the CIC study were initially recruited in 1975 through stratified random sampling of census data from two New York counties. Mothers with children below 10 years of

age were invited to participate; the mean age of the children selected was 5.5 years (Johnson et al., 2006). Follow-up assessments were conducted at three time points over the next two decades, when the mean ages of the children were 13.8 (1983, $n = 776$), 16.1, and 22.1 years (Johnson et al., 2006). A further follow-up was conducted at mean age 33.

The goal of the study was to examine the predictors of Axis I disorders. The DISC-I[25] was used during interviews with mothers and young people. The researchers also had an interest in exploring the development of PDs in young people and this was assessed by using items from the PDQ. At the ages of 22 and 33, the SCID-II was used to make the diagnosis of adult PD. Axis I disorders were measured at all time points. Adult outcomes were also measured in terms of global functioning and social and employment functioning.

The strength of the CIC study is its large representative sample and the follow-up period of 20 years. Furthermore, assessments were performed at regular intervals and included a range of collateral sources of data, including semi-structured interviews, self-reports, parent reports and official records. One notable limitation was the use of different measures at several intervals creating methodological variance.

In comparing data from 629 young people from the CIC study collected during adolescence and again at 33 years, Crawford and colleagues (2008) observed that adolescents who were eligible for an Axis II diagnosis showed no significant long-term risk of psychiatric disorder 20 years later. The authors argued that this finding is consistent with findings from other studies which suggest that PD pathology declines during adulthood due to normal maturation and socialisation processes. However, they did identify that these individuals had significantly worse scores on eight out of 10 measures of adult attainment, suggesting that the difficulties detected during adolescence were prognostic indicators of wider vulnerabilities. The study also reported that when Axis I and II disorders co-occurred in adolescence the outcomes were worse in terms of adult attainment and adult mental illness than when they

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[25] Diagnostic Interview Schedule for Children (DISC-I); Costello et al., 1984

presented separately. The authors postulated that the comorbidity of Axis I and II disorders in adolescence may interfere in the normal maturation process.

When comparing data from 568 young people in the CIC study at all four assessment points (ages 14, 16, 22, and 33), Johnson and colleagues (2008) found that the point prevalence of any current DSM-IV PD varied between 12.7% and 14.6% across the four diagnostic assessments. The cumulative prevalence of PD (referring to more than one co-occurring PD) increased at each of the follow-up assessments.

In their study based on the CIC data ($n = 658$), Skodol and colleagues (2007) found a decline in point prevalence of PD diagnosis from age 16 to 22, but an increase from 22 to 33. In accordance with Crawford and colleagues (2008), they found that the impairment in psychosocial functioning was more consistent over time than a PD diagnosis, as those cases classified as "PD in remission" still showed significantly lower Global Assessment of Functioning scores than those never diagnosed. They also found that 70% of participants whose PD persisted into adulthood had a comorbid Axis I diagnosis, and 23% of participants whose PDs were in remission at age 33 had an Axis I diagnosis.

An outpatient clinical sample ($n = 51$) with a mean age of 15 was followed up over a 3.3-year period by Meijer and colleagues (1998), whose study focused exclusively on BPD measured using the DIB at both time points. The study reported that 15–33% of young people diagnosable in adolescence still met the criteria three years later. Similar to the study by Chanen and colleagues (2004), many of the young people were only 18 years old at follow-up. Also similar to the study by Chanen and colleagues (2004), this group also received treatment during the follow-up period, which may have affected their outcomes.

When analysing data from the 551 subjects of the CIC study with mean ages 12 at T1, 15 at T2, and 21 at T3, Kasen and colleagues (1999) found that the odds of meeting criteria for a PD diagnosis in young adulthood increased substantially when a participant met criteria for a PD within the same cluster during their adolescence. Fifteen percent of the sample met criteria for a PD diagnosis during adolescence, and 23% met criteria at 21 years. In 2007, Kasen and colleagues analysed the data of 776 young people from the CIC study assessed at each assessment interval (13, 16, 22, and 33 years). Although the subject of this study was treatment use in young people with

comorbid PD over a 20-year period, they demonstrated that those youths who were diagnosed with a comorbid PD and Axis I disorder in adolescence were at high risk of a PD at age 33, as well as an increase of treatment use during adulthood.

3.5 Stability of PD symptoms from adolescence into adulthood

Some studies have reported the stability of a composite score representing the total number of PD symptoms, whereas others focused on symptoms from specific PD clusters. The results are grouped here accordingly.

3.5.1 PD symptoms

Using the data gathered from 776 young people in the CIC study, assessed at 14, 16, and 22 years, Cohen (1996) demonstrated that although there was a gradual decline in PD symptoms from adolescence into adulthood, the symptoms remained stable during adolescence, and the presence of PD symptoms in adolescence was the strongest risk factor for predicting PD symptoms in early adulthood in comparison to other risk factors (including socioeconomic status, family factors such as parental mental illness, death of a parent, and family conflict, and individual factors such as social isolation, cognitive impairment, and Axis I disorders).

Analysing data from a sample of 749 young people in the CIC study at their 14-, 16-, and 22-year assessments, Johnson and colleagues (2000) detected a significant decline in PD trait level from early adolescence to early adulthood. The study indicated that PD trait levels were moderately stable from 14–16 years. However, the stability from 14–22 years ranged from low to moderate. Despite an overall decline in PD trait levels into adulthood, the study found that young people with diagnosable PDs in adolescence still had elevated PD trait levels in adulthood in comparison to those not diagnosed with PD in adolescence.

3.5.2 BPD symptoms

An analysis of data collected from 407 participants in the CIC study at ages 14, 16, and 22 demonstrated that the stability of Cluster B symptoms was high between the ages of 14 and 22; the stability coefficient was .63 for boys and .69 for girls (Crawford et al., 2001). In their 2009 study, the same authors went on to describe data from 766 CIC study participants collected at 14, 16, 22, and 33 years. They reported that PD symptoms decrease from adolescence into adulthood. However, they also found that those young people diagnosed with BPD symptoms in adolescence who had a history of early maternal separation (before the age of 2) tended to have a significantly slower reduction of BPD symptoms into adulthood than their counterparts who had not experienced maternal separation.

Data from 748 CIC participants, assessed at 16, 22, and 33 years, were analysed by Winograd and colleagues (2008), who observed that although BPD symptoms declined from adolescence into adulthood, the mean number of BPD symptoms present over 20 years was moderately stable ($r = .388$). They also found that higher levels of BPD symptoms in early adolescence were associated with higher levels of stability into adulthood, with negative outcomes in terms of adult functioning.

The Minnesota Twin Family community study ($N = 1,118$) followed female twin pairs (over half the sample were monozygotic twins) at ages 14, 17, 20, and 24. The study assessed BPD symptoms using the Multidimensional Personality Questionnaire – Borderline Personality Disorder Scale[26]. The authors found no significant decline between ages 14 and 17 and a moderate decline from 14–20, while the greatest decline occurred between 20 and 24 years (Bornovalova et al., 2009). They also reported moderate rank order stability from 14–24.

3.5.3 Cluster A

Data collected from 766 young people in the CIC study were analysed by Anglin and colleagues (2008) in relation to the predictive value of schizotypal PD symptoms exhibited at 14 years. They found that the mean schizotypal PD symptom

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[26] Bornovalova et al., 2009

level at baseline was 20%, and it declined to 15% in the early twenties. They also observed that participants who had had a period of at least 1 month's separation from their mothers in the first 2 years of life were significantly more likely to show schizotypal PD symptoms.

An analysis of data from 200 CIC study participants collected at ages 16 and 22 indicated that Cluster A PD symptoms at 16 years predicted the presence of all three clusters at 22 (Cohen et al., 2005). The same study reported that the presence of Cluster A symptoms at 16 was also associated with poorer academic attainment later in life.

3.5.4 Stability of psychopathic or conduct disorder traits into adulthood

The data described in the study of Forsman and colleagues (2007) originated from a population-based twin study ($N = 1,450$; the majority of the twins were dizygotic). The sample was assessed using the Youth Psychopathic Traits Inventory[27] at 16 and 19 years. The aim of the study was to explore the stability of psychopathic traits from adolescence into adulthood. They demonstrated that at rank order level the psychopathic personality dimensions (as tested with the Youth Psychopathic Traits Inventory) were of moderate to high stability from 16–19. Male participants were reported to show a slight increase in grandiose/manipulative and callous/unemotional dimensions during this period, while females were unchanged.

In their paper, Lynam and colleagues (2007) describe data collected from the middle sample of the Pittsburgh Youth study; a sample recruited between 1987 and 1988 from a randomly selected sample of 10-year-old boys ($n = 250$). In this study participants were assessed at age 13 and again at 24. At 13 years, psychopathic traits were assessed using the Childhood Psychopathy Scale[28], and at 24 years they were assessed by the Psychopathy Check List: Screening Version[29]. These demonstrated

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[27] Andershed et al., 2002
[28] Lynam et al., 1997
[29] Hart et al., 1995

moderate stability (r = .31) of a total score of psychopathic traits from the age of 13 to age 24.

Data from the North-Western Juvenile Project, a sample of 1,112 arrested and detained youth assessed between the ages of 15 and 18 and again 3.3 years later, were analysed and described by Washburn and colleagues (2007). At their initial assessment, participants were assessed with the DISC-2.3[30]. ASPD was assessed at the follow-up using the DIS-IV[31]. The accumulation of conduct disorder symptoms was linked with more psychopathic symptoms in adulthood. The presence of five or more conduct disorder symptoms in adolescence was significantly associated with ASPD in adulthood.

3.6 Rank-order stability, mean-level change, temporal PD stability

Stability can be described in the following ways:

Rank-order stability refers to the extent to which the relative order of individuals ranked in relation to a measurement of a given trait or symptom is maintained over time. It is calculated through test–retest correlations of dimensional scores of the trait at two time points. PD symptoms from adolescence into adulthood displayed moderate levels of rank-order stability across time and ranged from .42 from age 13–16 and .65 from age 16–22 (Johnson et al., 2000). Cluster A symptoms were observed to have a rank-order stability of .57 from 13–16 years, .49 from 16–22 years, and .56 from 22–33 years (Johnson et al., 2000). The same study identified Cluster B symptoms as having rank-order stability of .65 from 13–16, .50 from 16–22, and .55 from 22–33. Cluster C symptoms had a stability of .48 from 13–16, .42 from 16–22, and .54 from 22–33 (Johnson et al., 2000).

Mean-level change refers to increases or decreases in the average trait level of a population as a whole. In terms of mean-level change, the studies in this review

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[30] Schwab-Stone et al., 1996
[31] Diagnostic Interview Schedule, Version IV (DIS–IV); Robins et al., 1995

indicated that PD symptoms in adolescence peak in early adolescence and decline into adulthood (Anglin et al., 2008; Bornovalova et al., 2009; Cohen, 1998; Crawford et al., 2009; Johnson et al., 2000; Winograd et al., 2008).

Temporal PD stability addresses the continuity of categorical diagnoses over time. This was approached by Chanen and colleagues (2004), who demonstrated a moderate degree (.48) of temporal stability of PD diagnosis from 16–18 years. When calculated for subthreshold diagnosis, temporal stability increased to .57. In Meijer and colleagues' (1998) study it was reported that 15–33% of young people who had a diagnosis of BPD at 15 still had this diagnosis at 18. Several studies have demonstrated that there is a decline in the diagnosis into adulthood (Crawford et al., 2008; Skodol et al., 2007).

3.7 Discussion

The research reviewed indicated that the *rank-order stability* of PD from adolescence into adulthood is moderate across time. The *mean-level change* in PD symptoms concluded that symptoms peak in early adolescence and then decline into adulthood. Similarly, a number of studies reporting s*tability of PD diagnosis over time* demonstrated a decline in prevalence within their samples from adolescence into adulthood. However, the evidence also suggests that those who were diagnosed with PD in adolescence have worse adult outcomes in terms of psychosocial and interpersonal functioning compared with those not eligible for diagnosis. One study (Skodol et al., 2007) also found that 70% of participants whose PD persisted into adulthood had a comorbid Axis I diagnosis and 23% of participants whose PDs were in remission at age 33 had an Axis I diagnosis. This seems to indicate that the presence of a PD in adolescence leaves young people vulnerable to interpersonal and psychosocial difficulties, which may persist long beyond the turbulent adolescent years and continue to plague and disrupt their functioning. Could it be that if the malfunctioning of the personality structure in adolescence is severe and persists beyond a 2-year period, it in itself causes longer term negative consequences, particularly in interpersonal domains?

Several studies reported that, in addition to poorer functioning in adulthood in those young people who presented with diagnosable PD in adolescence (Cohen et al., 2005; Crawford et al., 2008; Kasen et al., 1999, 2007), there was a high rate of co-morbidity with Axis I disorders, which may exacerbate their vulnerability to poorer adult outcomes. For example, Crawford et al. (2008) observed a ninefold increased risk for subsequent psychiatric disorder 20 years later in adolescents with comorbidity.

Although the incidence of PD diagnosis declines into and during adulthood, Johnson and colleagues (2000) argued that the notion that PDs must be highly stable for many years in order to be regarded as valid should be questioned. They argued that PDs may have a variable course that includes asymptomatic periods, and have suggested that it may be appropriate to update the definition of PDs so practitioners recognise that PD traits may have harmful consequences even when they are not immediately apparent or consistently expressed. This rationale could also explain the persistence of poor psychosocial functioning and interpersonal difficulties in the absence of the PD diagnosis.

The evidence above suggests it may be important for clinicians to recognise the presence of PD or PD symptoms in adolescence in order to intervene early to prevent further morbidity. Emerging PD in adolescence should be seen as a risk indicator of poorer adult outcomes, while the combination of an emerging PD with Axis I pathology in young people is an even higher risk indicator. If mental health practitioners working with young people inquire more specifically about PD symptoms, paying particular attention to their severity and duration as well as the presence of Axis I comorbidity, they could more easily identify those young people at risk of poor prognosis as adults.

CHAPTER 4

PERSONALITY DISORDER AND DEPRESSION IN ADOLESCENCE: SYSTEMATIC LITERATURE REVIEW OF LONGITUDINAL OUTCOME AND INTERPLAY BETWEEN DEPRESSION AND PERSONALITY DISORDER

4.1 Introduction

The concept of PDs in adolescence is still very controversial, yet several large community studies have demonstrated evidence that PD symptoms in young people are quite prevalent (Bernstein et al., 1993; Chabrol et al., 2002; Kasen et al., 1999) and argued that PD can be reliably diagnosed in adolescents (Grilo et al., 1998). Further research has cited evidence suggesting that the diagnosis is valid (Bernstein et al., 1993; Kasen et al., 1999; Levy et al., 1999), and although the incidence declines into adulthood, the presence of PD in adolescence has been linked with poorer adult outcomes (Crawford et al., 2008) as was described in the previous section.

Adolescent PDs have been associated with serious psychosocial consequences (Bernstein et al., 1993; Johnson et al., 1999; Kasen et al., 1999), including shorter friendships, limited social activities (Bernstein et al., 1993), impairment of general functioning (Levy et al., 1999), poorer family functioning (Miller et al., 2000) and interpersonal problems (Bagge et al., 2004).

Depression in adolescence is similarly associated with interpersonal difficulties (Hammen, 1992) and cognitive deficits (Drummond et al., 2006; Hammen, 1988; Jacobs et al., 2008; Kuyken & Howell, 2000). In her longitudinal community study of adolescents with depressed and non-depressed mothers, Hammen (1992) found that chronic interpersonal problems were more prevalent at age 15 in adolescents who had an early onset of depression or who had recurrent depression compared with those who did not have early depression. They also found that those adolescents who had depression at age 15 and who did not present with interpersonal difficulties did not experience a further depressive episode in the following five years. As these studies focused on depression alone, and did not measure for the presence of adolescent PD, it is difficult to determine whether the interpersonal difficulties were solely related to the depression or whether they were also influenced by the presence of an underlying PD.

However, the evidence above suggests that interpersonal difficulties can lead to more protracted depression.

Greater understanding of the interplay between depression and PD in adolescence, as well as greater diagnostic clarity, could lead to improved treatment, earlier intervention, and better outcomes in adulthood. As Chanen and colleagues (2004) demonstrated with their study of adolescent outpatients, a high proportion of those meeting criteria for the diagnosis of PD experienced persistent personality dysfunction and depression over the transition into the third decade of life. Studies by Kasen and colleagues (1999) and Johnson and colleagues (1999) also indicated a worse prognosis for young people who presented with comorbid depression and PD in adolescence.

In this review the author has explored the literature examining the link and longitudinal influence between depression and PDs by tracking their course over time. The hope is to arrive at a better understanding of the link and influences the conditions have upon one another in order to consider the implications for clinical practice.

4.2 Method

An initial systematic search for papers whose title or abstract referred to childhood/adolescence and PD was performed using the electronic databases CINAHL, PsycINFO, MEDLINE, and EMBASE. The following search terms were used to identify adolescents (* indicates truncation): adolescen* or boy* or child or girl* or junior* or juvenile* or teen* or youth* or young*. To identify PD, "personality dysfunct*" or "personality disorder*" or specific types of PD or the PD thesaurus were applied. The search was restricted to articles published between 1998 and 2009, for both cultural relevance and practical considerations.

This search found a total of 4,769 articles. After the removal of duplicate articles, four researchers reviewed the abstracts for eligibility. Inclusion criteria were longitudinal designs with patients presenting either with PD symptoms in childhood/adolescence and depression in adulthood, or depression in childhood/adolescence and PD in adulthood. Only studies measuring for both depression and PD at both time periods were included. All qualitative studies,

including single case studies and predominantly theoretical papers, were excluded. Literature reviews were excluded, and only studies that were peer-reviewed and based on original data collection were selected. Studies that included child and adolescent samples combined with samples outside the age range of interest (e.g., ages 15–25) were included at this stage, as were non-English-language papers and retrospective adult studies. This process resulted in 65 studies.

The full text of these papers was obtained and a hand search was conducted from the references of these papers. The inclusion criteria were applied and only those studies with prospective longitudinal designs with a minimum follow-up interval of 3 months were included. Five possibly relevant studies were unobtainable. The final number of included articles was 25.

The following diagram demonstrates the process:

Diagram 4: Consort diagram of search

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│  4,769 relevant studies │
│        identified       │
└───────────┬─────────────┘
            │                          ┌─────────────────────────┐
            ├─────────────────────────▶│   Duplicates removed    │
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┌─────────────────────────┐
│  1793 article abstracts │
│ reviewed by 4 researchers│
└───────────┬─────────────┘
            │                          ┌──────────────────────────────┐
            ├─────────────────────────▶│ Inclusion and exclusion      │
            ▼                          │ criteria applied             │
┌─────────────────────────┐           └──────────────────────────────┘
│ This process culminated │
│       in 65 studies     │
└───────────┬─────────────┘
            │                          ┌──────────────────────────────┐
            ├─────────────────────────▶│ Full texts obtained where    │
            │                          │ possible and retrospective   │
            ▼                          │ studies excluded             │
┌─────────────────────────┐           └──────────────────────────────┘
│  Final number of included│
│      articles was 25     │
└─────────────────────────┘
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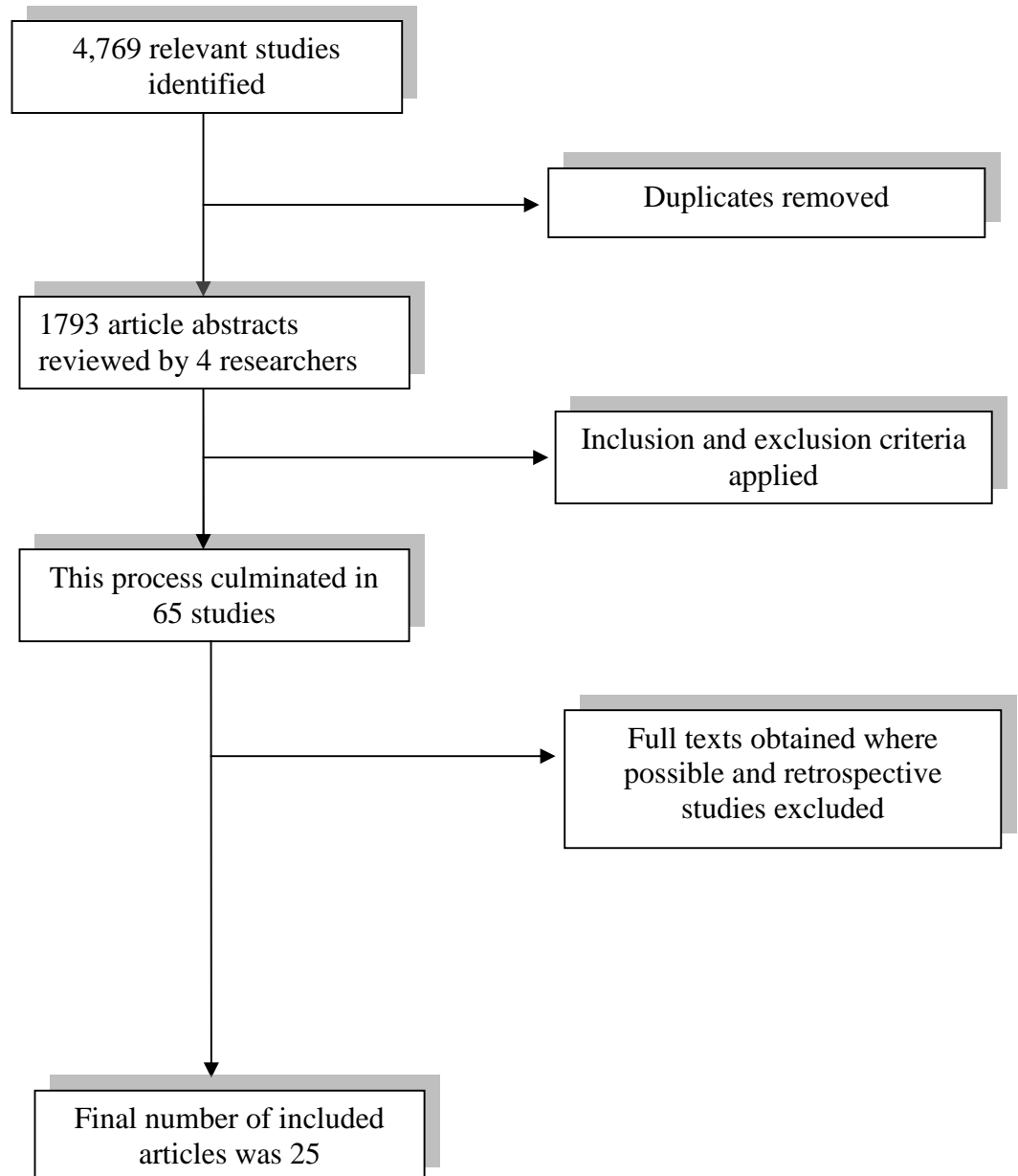
4.3 Results

<u>4.3.1 Is there a link between adolescent PD and depression in adulthood?</u>

A total of seven articles explored the link between adolescent PD and adulthood depression (Daley et al., 1998; 1999; 2006; Johnson et al., 1999; 2005a; 2005b; Levy et al., 1999). All studies were prospective longitudinal studies with follow-up periods ranging from 6 months to 20 years. All studies measured symptoms of depression and PD at each time interval. All studies except one (Daley et al., 2006) were inclusive of all PDs. With the exception of the study by Levy et al. (1999), all the studies were drawn from community samples, none of which used a control group for comparison.

Each of the community studies demonstrated that the presence of PD in adolescence significantly increased the likelihood of depression in adulthood. All studies controlled for depression in adolescence. The following studies demonstrated that depression in adulthood was differentially associated with specific PDs in adolescence. The studies by Daley and colleagues (1999; 1998; 2006) reported a link between Cluster B PDs in adolescence and depression later in life. They demonstrated that ratings of BPD psychopathology in adolescence predicted clinician-rated and self-rated depression in early adulthood. Interestingly, this association was stronger than that observed for depressive symptoms at baseline. Johnson and colleagues (1999; 2005a) also found that Cluster B PDs in adolescence were independent predictors of depression in early adulthood.

The studies by Daley and colleagues (1998, 1999) also demonstrated a link between Cluster A PDs in adolescence and depression in adulthood after controlling for depression in adolescence. Johnson and colleagues (1999) reported that in their sample paranoid PD was the only Cluster A PD in adolescence that was linked with adult depression. However, they reported later (Johnson et al., 2005a) that schizotypal PD was the only Cluster A PD that was significantly linked with depression after a period of 20 years.

The only study that demonstrated a link between Cluster C PDs in adolescence and depression in adulthood was by Johnson and colleagues (1999), who found, after controlling for depression in adolescence, that dependent PD in adolescence was

linked with adult depression. The same authors (Johnson et al., 2005b) also explored the category "Personality Disorder Not Otherwise Specified" in adolescence. This category refers to young people with a mixed PD diagnosis or passive-aggressive or depressive PD. They found that this diagnostic cluster was more prevalent than Clusters A, B, and C in adolescence and that it was associated with depression in adulthood after controlling for depression in adolescence.

The above results seem to indicate that the presence of PD in adolescence is associated with an increase in the likelihood of subsequent depression in adulthood. There is evidence that this may apply to some PDs more than others; the PDs that seem to create the greatest vulnerability are those in Cluster B, as well as paranoid, dependent, passive-aggressive, and depressive PD, and also the presence of more than one PD.

These findings originate from a few community research projects, one of which is the well-known CIC study. This study has a number of notable strengths: it is based on a large sample, has a prospective design, uses multiple informants and multiple waves of assessment over many years, and assessed for both PD and depression since adolescence at all time frames.

Two of the reports of Daley and colleagues (1998, 1999) describe data from a longitudinal study of women leaving high school. One drawback of this study is that the sample consists entirely of females from middle-class backgrounds. A methodological strength of the study is that multiple assessment measures were employed and these drew on multiple informants, enhancing the reliability of the conclusions that could be drawn. Their later paper (Daley et al., 2006) describes data gathered from a mixed-gender school group from a lower socioeconomic background. In this study, depression was measured at both time frames using self-report questionnaires; in addition, the girls in the group underwent an interview to assess depression. Only Cluster B PD was measured at both time frames, and again, the girls were assessed with both interviews and self-report questionnaires. The authors argued that they focused solely on Cluster B PD symptoms due to their greater association with depression reported elsewhere in the literature. Likewise, they justified administering additional assessments only to female participants due to their greater vulnerability to developing depression, according to the existing literature.

The one study reporting data from an adolescent inpatient sample (Levy et al., 1999) did not replicate the clear link described above. This study explored the level of functioning of inpatient adolescents with PDs 2 years after their inclusion in the study. As it was only a 2-year follow-up study and the mean age at T1 was 15.5 years, some of the young people were still under the age of 18 at follow-up. However, the study was included in this review as some participants would have been adults at follow-up. Levy and colleagues (1999) compared inpatient adolescents with PD against inpatient adolescents without PD. PD symptomatology and functioning were assessed at baseline and at follow-up. At baseline, adolescents with PD were significantly more depressed than those without PD ($p < .01$). However, the level of depressive symptoms was reduced in both groups at follow-up. At follow-up, the adolescent PD group had higher rates of drug use and psychiatric hospitalisations than the non-PD group. The study did not aim to examine a link with depression as such, and hence no specific tools were used to measure depression. The depression scores were obtained from data collected using the SCL-90-R (Derogatis et al., 1983), which measures functioning, hence the validity of the results for depicting depression is questionable. As this was not a community study, it is also possible that some of the changes at follow-up could be explained as a result of the treatment we assume was provided.

4.3.2 Is there a link between adolescent depression and PD in adulthood?

A total of 14 articles explored the link between adolescent depression and adulthood PD. All studies had a prospective longitudinal design with follow-up periods ranging from 6 months to 28 years. Eight studies measured depression and PD at both time points, and six measured depression alone at the first interval and depression and PD at the later time periods. Although there will be a brief reference to the findings of the six latter studies, more emphasis will be placed on the eight studies that measured both depression and PD at both baseline and follow-up.

Five out of these eight studies reported no link between adolescent depression and PD in adulthood (Chanen et al., 2004; Crawford et al., 2001, 2008; Cohen, 1996; Daley et al., 1999; 2006). In their 3-year prospective community study of 155 late-adolescent females, Daley and colleagues (1999) demonstrated that depression diagnosed at baseline did not predict PD in adulthood when controlling for initial PD.

The same authors replicated this finding at a later stage (Daley et al., 2006) when they conducted a similar study of both males and females from a lower socioeconomic sample than the earlier study. In their large-scale outpatient study, Chanen and colleagues (2004) found that mood disorder in adolescence did not have a significant impact on the course of later PD. A large proportion of the sample had diagnosable PD in adolescence, which for the most part remained stable throughout the follow-up period.

Crawford and colleagues (2001) examined data from the CIC study collected over an eight-year period and demonstrated that internalising symptoms at ages 12–17 were not significant risk factors for the development of subsequent PD at ages 17–24. In their later paper, Crawford and colleagues (2008) reported that depression as a singular diagnosis in adolescence was not associated with PD 20 years later.

In contrast, Kasen and colleagues (1999) demonstrated that, over a 10-year follow-up period, data from the CIC study suggested that major depression in adolescence increased the odds of Cluster B and Cluster C PD in adulthood sixfold and eightfold, respectively. They also found that depression and PD symptomatology in adolescence were independent risk factors for adult PD. Following on from this paper, Kasen and colleagues (2001) used the same sample and adjusted for the potentially confounding influence of pre-existing PD in adolescence, in addition to a number of other childhood risk factors. This time they demonstrated that major depression in adolescence increased the risk for dependent, antisocial, passive-aggressive, and histrionic PD in adulthood. No statistically significant association was found between BPD or avoidant PD and depression in adolescence. Using prospective data from the CIC study, Cohen (1996) found that depression in adolescence was a modest predictor of PD in adulthood after controlling for PD in adolescence (OR = 4.45 in women and 5.08 in men).

The strength of the studies described above is that they all measured PD and depression both in adolescence and in adulthood. A further strength of these studies is their large sample sizes. With the exception of Chanen and colleagues (2004), they are all community studies, and measured all PD clusters.

Lewinsohn and colleagues (1997) used the data of the Oregon Adolescent Depression Project, in which 299 patients from a community sample were followed up

over 10 years. This is one of the few studies reviewed where a control group was used. They compared three groups of young people: those with major depressive disorder (MDD), those with other Axis I pathology, and healthy controls. This study demonstrated that participants diagnosed with MDD in adolescence were four times as likely to have an elevated rate of overall PD symptoms as participants with no history of MDD. The authors suggested that a more pernicious course of MDD was associated with the presence of elevated PD symptomatology. High PD symptom scores were associated with (a) longer total duration of the MDD episode; (b) greater likelihood of recurrent MDD; (c) greater depression severity; (d) greater mental health treatment utilisation; and (e) greater likelihood of suicide attempts. The authors also found that adolescent MDD was significantly associated with Cluster A PD. In a further study, the authors found that adolescents diagnosed with MDD exhibited elevated rates of antisocial and borderline PD in adulthood when the follow-up period was extended by two years (Lewinsohn et al., 1999). In a study of a sample of adolescents that included outpatients, inpatients, and those in residential care settings, followed up over 6 years, Thatcher and colleagues (2005) found that MDD in adolescence was linked to BPD in adulthood.

A methodological limitation of these studies for the purposes of this review is that they did not measure PD symptoms at baseline. Given the absence of data on whether or not the PD symptoms were present in adolescence, it is difficult to know whether the association between the pernicious course of MDD and later PD was the result of adolescent PD influencing the course of the depression, or whether a more pernicious depression in adolescence leads to longer term dysfunctional changes in personality structure.

In the following studies, not only were PD measurements not taken at baseline, but also the main line of investigation was restricted to whether the presence or absence of ASPD in adulthood was associated with adolescent depression. The absence of PD measurement at baseline was attributed to the DSM-IV stipulation that ASPD cannot be diagnosed before the age of 18. Conduct disorder, which is a pre-requirement for the diagnosis of ASPD in adults, is not seen as a PD in adolescence and in the literature is mostly referred to as a behavioural disorder. As this review explores the links between depression and adult PD, studies were included only where they discuss a link between adolescent depression and later ASPD.

In their clinical sample of 158 adolescent males followed up over 6 years, Loeber and colleagues (2002) found that depression in adolescence was a significant predictor for ASPD in adulthood. Similarly, in their study with detained youths followed up over three years, Washburn and colleagues (2007) found that adolescent depression increased the risk of ASPD later. In contrast, research by Kim-Cohen and colleagues (2003) with a community sample of 976 young people followed up over a 15-year period demonstrated that the association between adolescent depression and ASPD did not reach statistical significance.

As these studies did not control for PD symptoms in adolescence, they cannot be as definitive as the studies described previously in helping to differentially determine the type of psychopathology in adolescence that may predispose an individual to ASPD. To lend support to the interpretation that depression in adolescence predisposes to ASPD in adulthood, the study by Kasen and colleagues (2001) demonstrated that depression in adolescence was linked with ASPD in adulthood even after adolescent PD was controlled for.

In summary, some of these studies found a correlation between adolescent depression and adult PD as an outcome and other studies did not find such a correlation. The studies by Lewinsohn and colleagues (1997) went some way towards addressing this issue, as their methodology allowed them to conclude that there is a stronger association between more pernicious depression in adolescence and PD in adulthood. Unfortunately, they did not measure PD symptoms at baseline, which renders these findings less conclusive.

4.3.3 Adult outcomes of co-morbid adolescent PD and depression

In their 20-year follow-up study, based on the CIC sample, Crawford and colleagues (2008) found that the comorbid occurrence of adolescent depression and PD was linked to a more insidious course over time and the presence of psychiatric disturbance, including depression and PD, in adulthood. The same study also found that comorbid depression and PD in adolescence was associated with a worse long-term prognosis for general functioning in comparison to the presence of either diagnosis on its own during adolescence.

4.4 Discussion

This aim of this review was to explore the longitudinal influence of depression and PD on one another. Amongst the studies included in this review, evidence was presented in support of both developmental trajectories proposed at the outset. Namely, there were data to suggest that PD in adolescence predisposes individuals to depression in adulthood, as well as data to suggest that depression in adolescence predisposes to PD in adulthood. The evidence was greater for some specific PD diagnoses; however, an association in one direction or the other was noted for most PD classifications. The evidence reviewed also indicated that if PD and depression are comorbid during adolescence there is an associated predisposition for both disorders in adulthood, as well as a general tendency towards poorer functioning and outcomes when compared with those individuals with unitary presentations in adolescence.

How can this link between the two disorders, in which they both seem predictive of the other, be understood? In studies of young people with PDs, Daley and colleagues (1998, 1999, 2006) suggested that they are more exposed, due to their personality difficulties, to experiences of interpersonal stress. They hypothesised that this may have a mediating role in the subsequent development of depression. The study by Hammen (1992) also suggested that young people who develop depression and experience interpersonal difficulties are more likely to develop a severe depression with more frequent depressive episodes. These ideas are suggestive of a possible model in which interpersonal difficulties, caused by either PD or depression during adolescence, predispose the young person to particular vulnerabilities, which in turn play a mediating role in the development of the other condition. Furthermore, in accordance with an accumulation or severity hypothesis, when both conditions are present in adolescence they appear to create a cumulative effect on one another, which perpetuates the symptoms and leads to a devastating derailment of the developmental pathways, with consequences into the third decade of life, as has been illustrated by Crawford and colleagues (2008) and Kasen and colleagues (1999).

Evidence suggests that interpersonal difficulties during adolescence are associated with presentations of depression (Hammen, 1992) and PD (Bagge et al., 2004; Bernstein et al., 1993; Levy et al., 1999; Miller et al., 2000). Hammen (1992)

found that episodic depression in the absence of associated interpersonal difficulties did not lead to a recurrence of depression. This may imply that episodic depression in adolescence is not sufficient to create the types or severity of interpersonal difficulties that mediate poorer outcomes.

Could it be that more sustained experiences of social maladjustment, hopelessness, despair, and negative self-concept, or experiences such as emotional dysregulation, impulsiveness, and other difficulties with personality dysfunction have a devastating impact on these young people through repeated failures to manage the stresses and complexities of emotional and interpersonal life during adolescence? Could this then create the vulnerability that predisposes them to personality malfunction and depression, both of which then, as they interact with each other, derail significant developmental achievements of adolescence? Perhaps these derailments are further underpinned by neurobiological developmental changes that are in themselves hampered by depressive episodes (Rao & Chen, 2009).

Many other relevant questions are also important for future research to consider. First, what predisposes some young people to develop depression, some others PD, and some both conditions? Secondly, what differentiates young people who have a PD in adolescence and develop depression and/or PD in adult life from those likely to grow out of their difficulties in adulthood? Likewise, what differentiates young people who traverse adolescence with depression and develop PD and/or depression as adults from those young people for whom adolescent depression is likely to signify a period of temporary difficulties that will not be carried over into adulthood? From a developmental psychopathology perspective, what is of most interest is the different pathways that may lead to similar manifest outcomes in adulthood (depression, PD, comorbid conditions or adaptation). On the other hand, the various risk and protective factors and their interplay, which may lead young people with similar psychopathological conditions, or equivalent levels of adaptation, to a number of different outcomes, also require attention.

As this discussion has illuminated, the issue of comorbidity raises key questions about what the co-occurrence of different forms of psychopathology means. The high co-occurrence between depression and PD implies that the presence of one form of psychopathology may, through its effects, constitute a risk mechanism for

another form of psychopathology, but at other times they may both derive from the same set of intercorrelated biological, psychological, and social-contextual risk factors. Certainly, more longitudinal research is required to delineate the unfolding of comorbidity over time. The studies reviewed have also shown that there are both continuities and discontinuities between depression and PD, and further longitudinal research is necessary to track individuals across time, in order to profile the risks for those who will develop a more serious disturbance and to differentiate between personal effects on the environment and environmental effects on the person (Rutter & Sroufe, 2000).

Perhaps the clearest implication from these studies is the prognostic importance of comorbid PD and depressive symptoms, as this dual presentation may be a risk indicator of a more protracted depressive illness and the possibility of PD symptoms persisting into adulthood. This adds to a growing awareness of the need to attend to co-occurring mental disorders (Crawford et al., 2008) and is in line with the research agenda prepared for DSM-V (Kupfer et al., 2002) emphasising the need for a better understanding of the origins of PDs (Crawford et al., 2008).

Clinically, there is a need for better screening for PD symptoms in depressed adolescents as well as for treatment programmes that are not restricted solely to the alleviation of depressive symptoms but which also acknowledge the wider range of difficulties.

In conclusion, although a meta-analysis was not feasible given the methodological heterogeneity of the included studies in terms of sampling, design and, most importantly, clinical measurement, this review is a first step towards illuminating complex developmental pathways, primarily through the inclusion of prospective longitudinal designs.

CHAPTER 5

LOCAL CROSS-SECTIONAL ANALYSIS: COMPARISONS BETWEEN YOUNG PEOPLE WHO HARM THEMSELVES AND THOSE WHO DO NOT IN TERMS OF PERSONALITY PROFILE, MENTALIZATION AND ATTACHMENT.

5.1 Introduction

As has been described earlier in this thesis, self-harm in young people is common. Self-harm rates in the UK are the highest in Europe (Hawton et al., 1998) with an estimated annual presentation of 25 000 in England and Wales (Hawton et al., 2000a) and as high as 26–37% in a community study in the United States (Yates et al., 2008). Inpatient settings have a higher rate, as high as 83% (Nixon et al., 2002). Self-harm has been associated with family dysfunction, psychiatric disturbance, and emotional turmoil (see the review of epidemiology in chapter 1). Whether or not self-harm is indicative of underlying personality pathology has been a topic of controversy. Increased rates of borderline personality disorder (BPD) were found by Jacobson and colleagues (2008) in young people who engage in non-suicidal self-harm, a finding supported by the studies of Westen and colleagues (2003). Longitudinal studies have demonstrated that a history of chronic self-harm, dating back to adolescence, discriminated adults with BPD from those with other PDs (Dubo et al., 1997). In their cross-sectional analysis comparing three groups of young people – a non-suicidal self-harm group, a non-self-harm group and a suicidal group – Jacobson and colleagues (2008) found that only BPD is predictive of membership of the non-suicidal self-harm group, whereas major depression and PTSD were predictive of membership of the suicidal group. In their retrospective study, Zanarini and colleagues (2006) suggested that self-harm, when present in childhood and adolescence, is predictive of an adult diagnosis of BPD, identifying it as an early risk indicator for BPD.

Other researchers, however, found that a significant percentage of people who engage in deliberate self-harm during adolescence will not develop BPD in adulthood (Siever et al., 2002). They suggested that this may be the case for 25% of adolescent girls and 6% of boys. On a similar line, in young people in whom suicidality

overlapped with non-suicidal self-harm, a very high percentage (88–97%) qualify for a wide range of Axis I psychiatric disorders, a rate that appears greater than those who qualify for an Axis II PD, including BPD (Nock et al., 2006; Portzky et al., 2008).

The author and her research team conducted a cross-sectional analysis, comparing a self-harming group of young people against two control groups, in the hope that it will answer the following research question: Can evidence be systematically found to support the hypothesis that self-harm is related to BPD, mentalization deficits and attachment dysfunction in an adolescent population? This study aims to explore the differences between the self-harm group and the control groups in terms of BPD, depression, mentalization and deficits in attachment.

5.2 Methodology

5.2.1 Participants

This study took place over an 18-month period and involved three groups of adolescents (aged 11–18 years). The groups included a clinical self-harming group, a clinical non-self harming control group, and a school control group. Both clinical groups were recruited through clinicians in Child and Adolescent Mental Health Services (CAMHS) in the catchment area of the North East London Foundation Trust. The school group was recruited from secondary schools in the same areas.

The participants in the self-harming group were simultaneously recruited for the RCT comparing a mentalization-based treatment (MBT) approach to TAU, which will be discussed in section 5 of this thesis.

5.2.2 Recruitment

The recruitment of the self-harm group ($n = 59$) is discussed in detail in section 5. The non-self-harming group of young people presenting to CAMHS with other difficulties ($n = 19$) was recruited after they had been assessed by a clinician in a Tier 3 CAMHS outpatient team. All teams were given regular information about the inclusion and exclusion criteria of the study, and clinicians were asked to identify

suitable patients for the trial. Referring clinicians were asked to discuss the study with the young person and their parent/guardian and ask if they would be happy to be contacted by a researcher. At this stage, a researcher contacted them and provided more information. Once participants had opted into the study they were asked to sign consent forms explaining the anonymity processes and their right to withdraw at any stage.

In the school group ($n = 65$) recruitment was done through a presentation to whole classes of students. The students were then given a written summary of the information for themselves and a letter explaining the study for their parents. The letter to parents gave them the opportunity to contact the school should they wish to object to their child's participation.

Participants were not paid for their participation, but they were given a small summary of their results as a reward for participation. All summaries were written by the author.

5.2.3 Ethical permission

The study received ethical approval from the Research Ethics Committee, REC 3. Trial registration number: ISRCTN95266816.

5.2.4 Assessments and measures

As the battery of assessments took approximately 1.5 to 2 hours to complete, it was usually administered over two separate sessions. For the clinical groups, this took place either in clinic spaces or during home visits depending on the participants' preference. In the school group the "pen and paper" measures were completed as group in a classroom, and the interviews were conducted in private office spaces or vacant classrooms provided by the school.

The measures used in this study were the same measures used in the RCT discussed in section 5, and they are described in detail in section 5. In summary, the following domains were assessed with the following measures:

(1) Self-harm:
- o Risk-Taking and Self-Harm Inventory (RTSHI; Vrouva et al., 2010)

(2) Depression:
- o Short Mood and Feelings Questionnaire (MFQ; Angold et al., 1995)

(3) Personality profile:
- o Millon Adolescent Clinical Inventory (MACI; Millon, 1993)

(4) Borderline personality traits:
- o Borderline Personality Features Scale for Children (BPFSC; Crick et al., 2005)
- o Childhood Inventory of DSM-IV Borderline Personality Disorder (CI-BPD) (Zanarini, 2007) adapted from the Revised Diagnostic Interview for Borderlines (Zanarini et al., 1989)

(5) Mentalization:
- o How I Feel (HIF; Sandell et al., 2008)

(6) Attachment:
- o Experience of Close Relationships (ECR; Brennan et al., 1998).

5.2.5 Inclusion and exclusion criteria

The inclusion and exclusion criteria for the groups were as follows:

Table 2: Inclusion and exclusion criteria

	Self-harm group	Clinical non-self-harm group	School group
Inclusion criteria	Age 12–17 Presenting to services with a history of self-harm	Age 12–17 Presenting to services with clinical problems but no history of self-harm	Age 12–17 Volunteers with no history of self-harm
Exclusion criteria	Moderate to severe LD; ASD;	Moderate to severe LD; ASD;	Moderate to severe

	Psychosis; Eating disorder without additional self-harm	Psychosis	LD

LD, Learning disability; ASD, Autistic spectrum disorder

5.2.6 Power and systematic group differences

The power calculation was based on the results of a previous study (Fonagy et al., unpublished) comparing adults diagnosed with BPD with controls on their performance in the mentalization measure "Reading the Mind in the Eyes" (Baron-Cohen et al., 2001). Using these data with an effect size of 4.25, and a pooled standard deviation of 5.4 at a .05 level of significance, Zuma Stat 2.3 calculated that 27 participants would be needed in each group to achieve a power of 0.81.

5.2.7 Missing values

In order to maximise the usefulness of the data, an analysis was run to highlight the presence of missing values in the data set. For several measures a significant number of participants had missing data as a result of omitting just one or two items on a measure. In order to make the best use of the data they had provided a decision was made to impute missing values for all those who had answered at least 70% of the items.

For those assessments that measured a specific skill without altering the level of difficulty, and those that looked at just one type of psychopathology, the imputed values used were the individual's average score on that measure. For those measures where items enquired about whether or not an individual had had a particular experience or acted in a particular way, a value of zero (to denote "never") was imputed in the place of a missing value.

The data were analysed using SPSS version 16. T-tests were used to establish the effects of gender, age, and IQ on self-harm, and an ANOVA was used to determine between-group variations in age.

In order to compare the groups with regard to the clinical and psychosocial measures, a mixture of analyses of covariance (ANCOVAs) and multivariate analyses of covariance (MANCOVAs) were employed. In all of these age was used as a covariate and planned contrasts were adopted based on the model that the school group represents a baseline and the difference between the two clinical groups should indicate the unique variance associated with the self-harm profile. Post hoc pairwise comparisons adopting the Bonferroni correction were also considered for several of the analyses.

In order to calculate correlations between variables both Pearson's r and Spearman's rho were calculated. The results found that in all instances when one of these statistics was significant so was the other, suggesting that the results were robust to influences of skew and kurtosis. Once those variables significantly correlated to self-harm had been identified, a final hierarchical regression model was run to establish independent effects.

Due to the number of comparisons included in the analysis, the alpha level was set as $p < .001$ to control for inflation of the type I error rate. One exception to this criterion was the selection of variables for the final regression model. In order to allow all those factors that were outlined in the hypotheses and showed some association with self-harm to be explored, the more lenient level of $p < .05$ was utilised when identifying variables to include based on their bivariate correlations with self-harm.

5.3 Results

5.3.1 Demographics

One hundred and forty-three participants were recruited into the study: 59 formed the self-harm group, 65 the school control group and 19 the clinical control

group. There were significantly more female than male participants recruited, (t(141) = 3.19, p < .002, r = .26), representing approximately two thirds of the sample (68.5%). The mean age of the participants was 15.76 years (SD 1.47). There was a significant difference in average age between the three groups, with the school group being older than the two clinical groups (F(2, 130) = 21.65, p < .0001 , r =.50).

5.3.2 Assessments and measures

Both clinical groups were significantly more depressed as measured on the MFQ than the school group (self-harm group M = 17.59, clinical group M = 9.37, school group M = 5.17). When comparing the school group with the self-harm group, the effect size was large (t(128) = 10.94, p < .0001 (1-tailed), partial η^2 = 0.48). There was no significant difference between the groups in terms of anxiety.

A significant correlation was detected between age and self-harm as measured on the RTSHI self-harm scale (r =.-24, p < .006). As the groups were known to vary significantly in relation to age (discussed above), each analysis performed included age as a covariate in an attempt to control for the effects of the relationship between age and self-harm.

In comparing the different personality styles of the three groups, the self-harm group displayed significant differences in comparison to the control groups in terms of borderline traits, BPD, introversive, inhibited, doleful, dramatising, and self-demeaning scales. No significant difference was detected between the two control groups. This supports the hypothesis that the self-harm group may have specific personality features that distinguish them from non-self-harming adolescents.

In line with the hypotheses, the majority (73%) of participants in the self-harm group met criteria for a diagnosis of BPD on the CI-BPD, whilst the majority of those in the clinical and non-clinical control groups did not (0% and 3.62%, respectively).

Table 3 *Percentages of participants meeting the three levels of diagnostic criteria for BPD set out in the*

   CI-BPD.

Group	Percentage (Frequency)					
	Definitely present		Probably present		Absent	
Self-harm	73.08	(42)	10.44	(6)	15.66	(9)
Clinical control	0	(0)	17.64	(3)	82.32	(14)
Non-clinical control	3.62	(2)	3.62	(2)	92.31	(51)

On all continuous measures of BPD symptoms (i.e., the BPFSC, Borderline tendency scale and the "number of present features" on the CI-BPD), the self-harm group's mean scores were significantly higher than those of both control groups and no significant differences were found between the control groups (Fig 1).

Figure 1: Group comparison in terms of borderline personality features
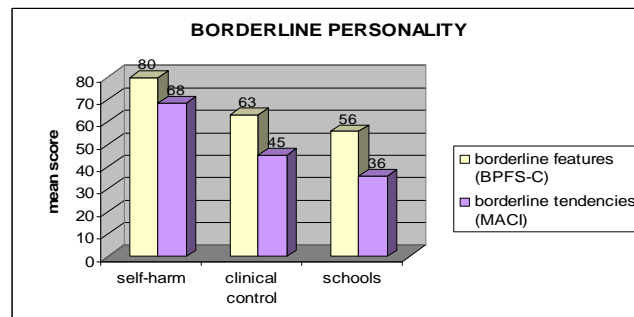
The self-harming group displays significant higher scores for borderline features in comparison to the control groups ($p < .001$)

The self-harm group was significantly more introversive/avoidant (Fig 2) and self-demeaning (Fig 3) than the control groups. Interestingly, the control groups were significantly more dramatising, submissive ($p < .001$ between self-harm and schools, and $p < .05$ between self-harm and clinical control), egotistic, and conforming ($p < .001$) than the self-harm group (Fig 4).

Figure 2: Group comparison in terms of introversive, inhibited and doleful traits
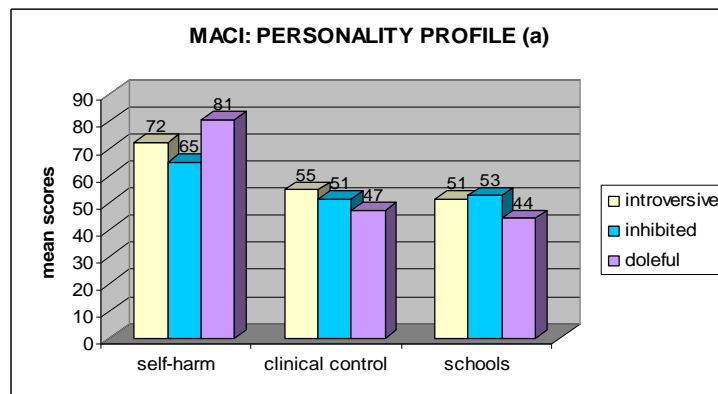
The self harm group demonstrated significantly more ($p < .001$) introversive, inhibited and doleful traits than the control groups.

Figure 3: Group comparison in terms of conforming, oppositional and self-demeaning traits

MACI: PERSONALITY PROFILE (c)
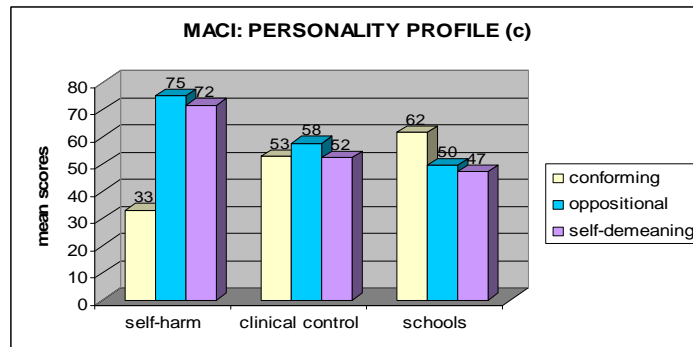
The self-harm group is significantly more (*p* < .001) oppositional and self-demeaning than the control groups, and significantly less conforming.

Figure 4: Group comparisons in terms of submissive, dramatising and egotistic traits.

MACI: PERSONALITY PROFILE (b)
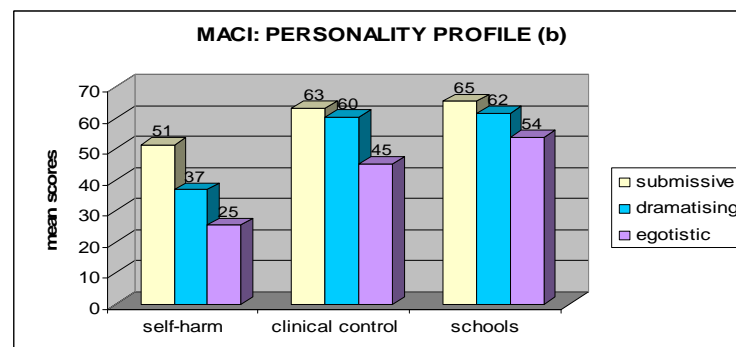
The self-harm group is significantly less egotistic and dramatising than the control groups. (*p* < .001)

Figure 5: Group comparison in terms of depression
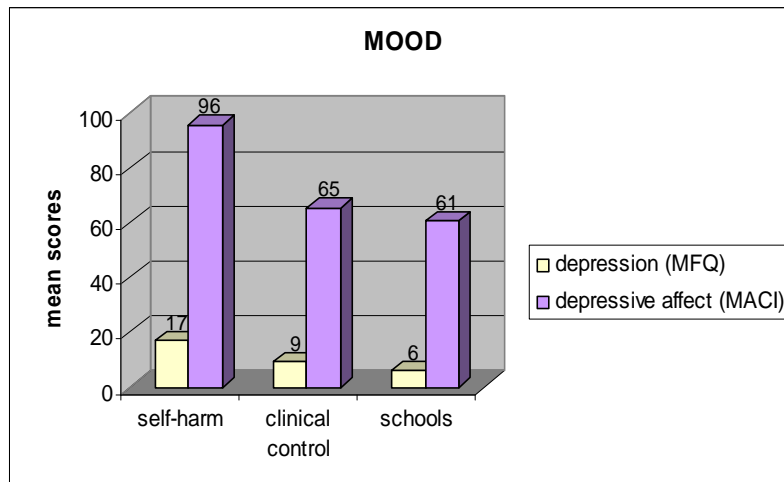
The difference between the three groups is measured with 2 scales, and on both scales the self-harm group is significantly more depressed ($p < .001$) than the control groups.

Along similar lines, the HIF scale demonstrated that the school group was significantly better ($p < .01$) at mentalizing than the self-harm group (Fig 6). The self-harm group also showed significantly more anxious and avoidant attachment patterns as measured with the ECR (Fig 7). The feeling of alienation from parents was significantly higher in the self-harm group than in the control groups.

Figure 6: Group comparisons in terms of mentalization
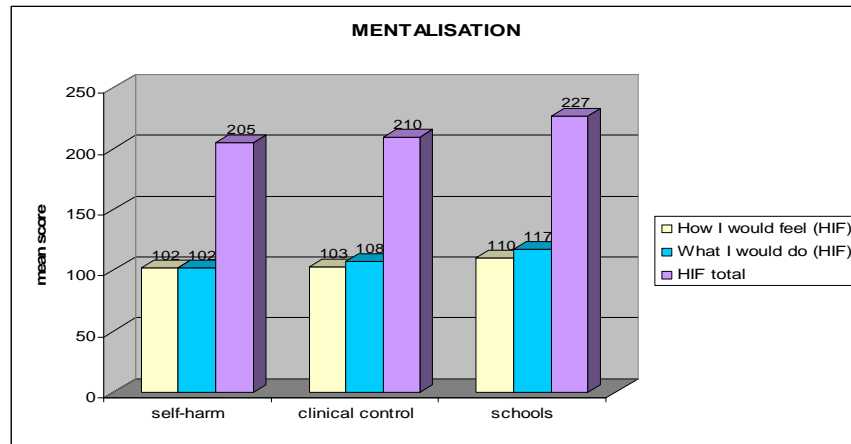
Figure 7: Group comparison in terms of attachment
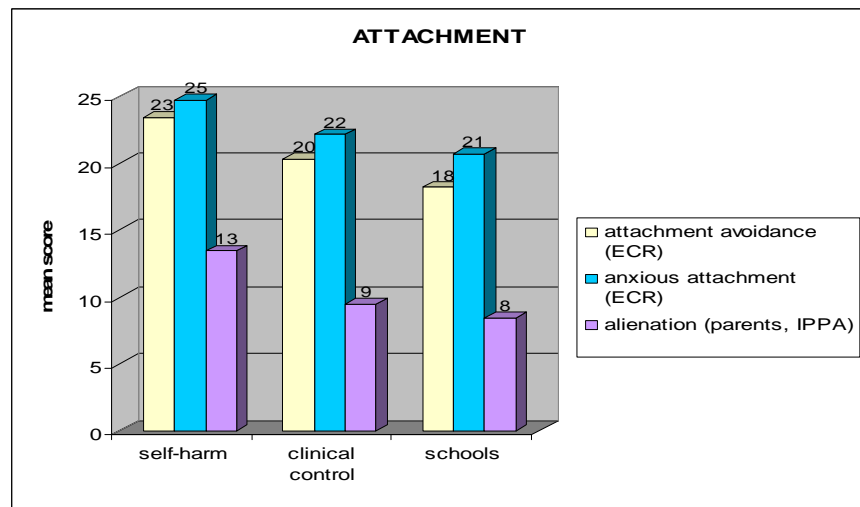
The self-harm group showed significantly more anxious ($p < .01$) and avoidant ($p < .01$) attachment as well as more alienation from parents ($p < .001$) than the control groups.

The self-harm group also displayed a significant higher level of childhood abuse as measured on the MACI (Fig 8).

Figure 8: Group comparison in terms of childhood abuse.
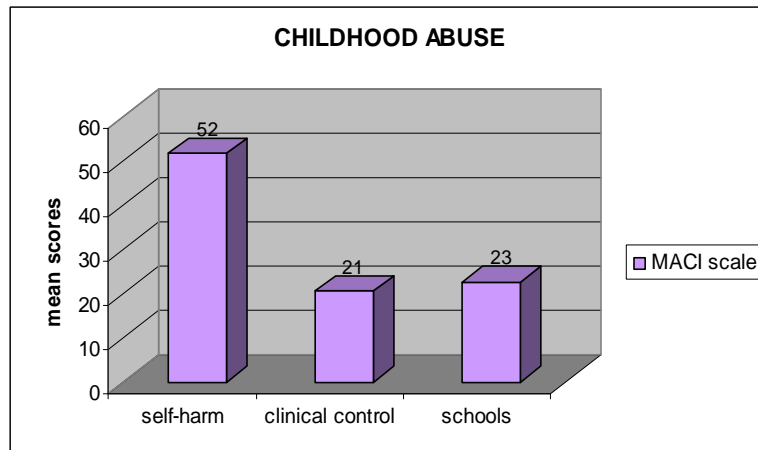
The difference between the self-harm and the control groups was significant. ($p < .001$)

A series of analyses of covariance indicated that group membership was significantly associated with all the clinical variables hypothesised to be associated with self-harm, that is, borderline personality traits and depression.

The main group differences identified are summarised in Table 4.

Table 4 *Significant between-group differences identified using clinical measures, after controlling for participant age*.

Measure	F	df	η^2
MFQ	63.16*	2,128	.50
MACI depressive affect	45.28*	2,124	.42
SHI Self-harm scale	71.99*	1,129	.53
SHI Risk-taking scale	8.510*	2,128	.12
BPFSC	33.72*	2,129	.34
CI-BPD	77.15*	2,123	.56
MACI borderline scale	23.60*	2,124	.28

* $p < .0001$

5.4 Discussion

The self-harm group seemed significantly more troubled in terms of depression and history of childhood abuse. This group also seemed to have distinct differences in terms of personality profile compared with the other two groups: they displayed more BPD traits as well as more BPD symptoms, and they were more avoidant, doleful and self-demeaning and less dramatising and submissive. The self-harm group also displayed significantly more attachment avoidance than the other two groups and had poorer function in terms of ability to mentalize.

This study confirmed the hypothesis that self-harm in adolescence is related to BPD, and mentalization difficulties as well as attachment dysfunction. The findings further demonstrated that the self-harm group was more depressed and had higher levels of childhood abuse.

The controversy about whether self-harm in young people could be seen as indicative of personality pathology or whether it is expressive of an underlying depression has been highlighted in the previous section. Brent and colleagues (1994)

found that BPD have been found to convey a greater risk of adolescent suicide, even after controlling for the effect of mood disorders. In a similar vein, Jacobson and colleagues (2008) and Westin and colleagues (2003) found that self-harm in adolescence was linked to higher levels of BPD than those who do not self-harm. Zanarini and colleagues (2006) suggested that self-harm in young people should be viewed as a risk indicator for adult BPD. On the other hand, Nock and colleagues (2006) and Portzky and colleagues (2008) both found that self-harm in young people was an expression of an underlying Axis I disorder, such as depression rather than BPD. Depression was positively correlated to self-harm in most studies examining self-harm in young people (Fergusson et al., 2003, Harrington et al., 2006, Hawton et al., 2008).

This study was a small sample size comparison study and the findings indicated that depression and BPD were significantly more prevalent in the self-harm group. Of note is that the self-harm group was compared not only against a non-clinical self-harming group, but also against a clinical non-self-harming group. The limitations of the study are the small sample size as well as the fact that the self-harming group in this study was the self-harming group for the RCT which is discussed later in the thesis. This means that the self-harm group is representative of those who consented to the study and who entered the RCT. Those who were not interested in treatment or not willing to participate in the RCT were not assessed. This may reflect a bias in the self-harm group.

The self-harm group in this study also displayed distinctive differences with regard to other personality traits as well. It is possible that the higher prevalence of avoidant attachment in the self-harm group as well as the increase in prevalence of self-demeaning personality trait can be understood in the light of the increase in childhood abuse in this group. A further interesting finding was that the two control groups were significantly more dramatising and submissive. These traits could be seen as social seeking traits and could be understood as indicative of someone's perception that they can elicit help from those around them – in other words, a more benign perception of the world around them.

Given the higher incidence of depression and BPD in the self-harm group, as well as an increase in mentalizing difficulties and attachment avoidance, the author

wanted to explore whether a treatment intervention, aimed at relationships and mentalization will improve self-harm as well as depression and BPD in this group. In order to explore this hypothesis, a randomised control trial which is discussed later, was conducted.

SECTION 3

TREATMENT OF SELF-HARM

CHAPTER 6

TREATMENT OF SELF-HARM IN YOUNG PEOPLE: LITERATURE REVIEW

6.1 Introduction

The author conducted a review of the literature of treatment for self-harm in adolescence over the past 10 years as well as a hand search of papers. Three databases, CINAHL, PsychINFO, and PubMed, were searched with the use of the following search terms: "self-harm" OR "self injury" OR "self mutilation" OR "self poisoning" OR "suicide attempt" AND adolescen* AND treatment. Case studies, literature reviews or mainly theoretical discussions, as well as more than one paper on the same study, were excluded. Only RCT's and control trails were included. Only 12 studies were eventually included for full review and these will be discussed below. In 2001, Hawton and colleagues conducted a Cochrane review of treatment of deliberate self-harm; they identified only two trials involving psychosocial interventions directed to adolescents. Since their review in 2001, a few more studies have been conducted. With the exception of one study, all the interventions investigated did not perform better than treatment as usual (TAU).

Various treatment modalities were investigated including group interventions, cognitive analytic therapy (CAT), dialectical behaviour therapy (DBT), cognitive behavioural therapy (CBT), multisystemic therapy (MST), solution-focused family work, token for readmission, rapid response, and psychoeducation for the social support system of self-harming young people. All treatment interventions were short-term, varying from four sessions to 6 months, and the longest follow-up period was 2 years. Outcomes in all studies were reported in terms of reduction in suicidal thoughts and behaviour, and most studies also reported outcomes in terms of depression and functioning. Only one study reported outcomes in terms of Axis II pathology. None of the studies reported quality of life measurements. Detailed economic evaluation

was done in two studies. Byford and colleagues (1999) performed an economic evaluation based on the family intervention conducted by Harrington and colleagues (1998) and found no difference in cost-benefit of the intervention in comparison to TAU. The group therapy intervention studied by Green and colleagues (2011) also included an economic evaluation in which the group therapy was not found to be more cost-effective.

Engagement of young people in therapy in general is usually challenging. A drop-out rate of 25–50% in the treatment of young people who present with self-harm has been demonstrated (Granboulan et al., 1995). In a meta-analysis, Ougrin and Latif (2011) argued that the lack of response to treatment is due to lack of engagement. In their meta-analyses on treatment engagement for young people with self-harm, they found that there is no evidence of specific psychotherapeutic treatment leading to a better engagement than TAU in adolescents who have self-harmed (Ougrin & Latif, 2011).

6.2 Results

6.2.1 Multisystemic therapy (MST)

A group of 156 young people (mean age 12) who presented to hospital with a psychiatric emergency were randomly allocated to either MST or hospitalisation. Although this study was not exclusively for young people with self-harm, the majority of the patients did present with self-harm, and suicidal thoughts and behaviour were part of the outcome indicators, and it has therefore been included in this review. MST consisted of an intensive home-based intervention that targets the multiple systems in which the youth and family are embedded. The treatment lasted for 3–6 months. MST was significantly more effective than psychiatric hospitalisation at reducing attempted suicide ($p < .001$). However, this finding was based on only the parent questionnaire and not the youth self-report. Using a linear model, significance was demonstrated for depression ($p < .001$) and hopelessness ($p < .001$); however, this was not demonstrated with a quadratic model (Huey et al., 2004). The strengths of the study are the large sample size and the RCT design.

In their RCT comparing group therapy plus usual care against usual care alone, Wood and colleagues (2001) included a group of young people ($n = 63$; aged 12–16 years) who had harmed themselves more than once in the past year. The group therapy consisted of six acute sessions, which were organised around specific themes (based on CBT principles), followed by a weekly open group (based on interpersonal therapy and group therapy principles) for as long as was needed. Follow-up was conducted 7 months after randomisation. Adolescents allocated to the group therapy had fewer episodes of deliberate self-harm (mean = 0.6) than adolescents allocated to routine care (mean = 1.8). There was no significant effect of the intervention on depressive symptoms or suicidal thinking, and the groups did not differ with respect to global outcome.

The same group intervention described by Wood and colleagues (2001) was repeated by Hazell and colleagues (2009) over three different sites in Australia. Seventy-two young people (aged 12–16 years) were randomly allocated to either the group therapy or routine care and followed up at 6 months and 12 months. Outcome measures were: self-harm, suicidal thinking, depression, substance misuse, global rating of psychiatric symptoms, and global functioning. Unlike the study by Wood et al. (2001), more adolescents allocated to the group therapy harmed themselves by 6 and 12 months than the control group. At six months, 88% of the experimental group and 68% of the routine care group had harmed themselves ($p < .04$), and at 12 months 88% of the experimental group and 71% of the routine care group had harmed themselves ($p < .07$). The K-SADS data obtained after 6 months showed no statistically significant difference between the experimental group and the routine care group for depression. The results obtained from the Mood and Feelings Questionnaire (MFQ), Strengths and Difficulties as well as from the Children's Global Assessment Scale showed improvement in all areas, but no significant difference between the groups. The strength of this study was in the sample size and that it was repeated over several sites.

In their RCT comparing developmental group therapy against routine care for a group of young people presenting with self-harm behaviour as part of the Assessment

of Treatment in Suicidal Teenagers study (ASSIST), Green and colleagues (2011) found that both groups showed general improvement in all outcome measures, and that there was no difference between the two groups in terms of outcomes. The sample was 366 young people who presented with at least two episodes of self-harm 12 months before baseline. The developmental group therapy combined principles from CBT, DBT, and group therapy, and the average duration of treatment was 10 sessions. On the primary outcome of frequency of self-harm, the proportional odds ratio of group therapy versus routine care, adjusting for relevant baseline variables, was 0.99 (95% CI [0.68, 1.44], $p < .95$) at 6 months and 0.88 (95% CI [0.59, 1.33], $p < .52$) at 1 year. Total 1-year costs were higher in the group therapy arm (£21,781) than for routine care (£15,372) but the difference was not significant ($p = .132$). The group therapy did not prove to be a cost-effective addition to routine care. The strength of the study is in the large sample size and the high rate of follow-up, as well as the use of standardised measures at both time points.

6.3.3 Cognitive analytic therapy (CAT)

Chanen and colleagues (2009) examined the efficacy of CAT compared against TAU. Their sample was 110 young people (15–18 years) presenting with PD symptoms. Although they focused on PD symptoms and not self-harm, per se, the study was included in this review because 91% of their sample had a history of self-harm. The young people were followed up 6-monthly over a period of 2 years.

Axis I and Axis II pathology were measured with SCID-I and SCID-II at both time frames. The subjects were randomly allocated to CAT or good clinical care (GCC) and a historical TAU was also included in the study. The CAT group and the GCC group had one element in common in that the diagnosis of BPD was known from the outset and families were provided with four sessions of psychoeducation at the outset. Both groups also had access to crisis admissions and the staff had individual and group supervision. At the 24-month follow-up, both CAT and GCC models were superior to historical TAU in terms of externalising and internalising pathology. There was no significant difference between groups in their rates of change over time for BPD total scores and for frequency of self-harm behaviour. The strength of this study is in the large sample size, the longitudinal design, and the use of standardised assessments at all time points, as well as measuring of Axis I and Axis II pathology.

6.3.4 Brief solution-focused family intervention

In an RCT, Harrington and colleagues (1998) randomly allocated a group of 165 young people who presented with DSP either to a family intervention or to TAU. The family intervention consisted of social workers conducting four home visits to deliver solution-focused family intervention. The outcome measures were suicidal ideation, hopelessness, family functioning, and depression. The groups were followed up at 2 and 6 months. None of the groups showed an improvement in primary outcomes after treatment and at 6 months. A subgroup of young people without depression at baseline who were treated with the family intervention showed a reduction in self-harm at 2 and 6 months.

6.3.5 Dialectical behaviour therapy (DBT)

Katz and colleagues (2004) compared DBT conducted in one inpatient unit for 30 young people (mean age 15 years) admitted with suicidal thoughts and behaviour against TAU conducted in another inpatient unit for 30 young people, and followed the subjects up one year later. Outcome measures evaluated depression, hopelessness, and suicidal thoughts and behaviour. Results indicated a significant main effect for time for depression on the BDI ($p < .001$), for hopelessness on the Kazdin Hopelessness Scale ($p < .001$), and the Reynolds Suicidal Ideation Questionnaire ($p < .001$) for both groups. There was no difference between the groups.

Similarly, Rathus and Miller (2002) conducted a quasi-experimental study comparing DBT against TAU in 111 young people presenting with suicidal thoughts and borderline features. The DBT programme offered 12 weeks of twice-weekly therapy consisting of individual therapy and a multifamily skills training group. The TAU group received 12 weeks of twice-weekly supportive-psychodynamic individual therapy plus weekly family therapy. At baseline, the DBT group had more Axis I diagnosis, with 2.6 ($SD = 1.0$) diagnoses per adolescent versus 1.5 ($SD = 0.68$) in the TAU group ($p < .001$) Eighty-eight percent of the DBT group and 15% of the TAU group had a diagnosis of BPD. There was no difference between the groups in terms of suicidal behaviour. The DBT group had had twice as many hospitalisations prior to

treatment. Outcomes were measured in terms of suicidal behaviour, hospitalisations, and treatment completion. There was no difference between the two groups in terms of reduction in suicidal behaviour, but the DBT group had fewer hospitalisations and more treatment completions.

Neither of these studies was an RCT. Although the Rathus and Miller study (2002) had a large sample size, the two groups were not well matched.

6.3.6 Cognitive behavioural therapy (CBT)

In a pilot study, Donaldson and colleagues (2005) randomly allocated a group of 39 young people (12–17 years) who presented to hospital with suicidal behaviour to either supportive individual therapy or skills-based CBT targeting problem-solving and affect management skills. Both the supportive therapy and the CBT were conducted over six individual sessions and one family session; all the therapists who participated in the trial delivered both therapies, which were both manualised. Outcomes were evaluated in terms of Axis I diagnosis, suicidal ideation and behaviour, problem-solving and anger expression. Although both groups showed decreases in suicidal ideation and depressed mood at 3- and 6-month follow-ups, there were no differences between treatment groups. Given that this was a pilot study, the sample size was small, and a further downside of the study is that the same therapists delivered both modes of intervention.

6.3.7 Readmission token

In a study examining whether the use of tokens for readmission would reduce suicidal behaviour, Cotgrove and colleagues (1995) conducted an RCT in which 105 young people (mean age 14) were followed up one year after admission for suicidal behaviour. One group was given a readmission token, which they could use at any time, and a second group did not receive the token. The token group had fewer repeat suicide attempts but the difference between the two groups was not significant. No standardised assessments were used at any of the time points.

6.3.8 Rapid response

In an RCT examining whether a rapid response following hospital presentation with suicidal behaviour would reduce future repeats, Greenfield and colleagues (2002) followed up 286 suicidal adolescents (aged 12–17 years) over 6 months. One group received the rapid response intervention and the other group received TAU. No between-group differences were observed in levels of suicidality or overall functioning over the follow-up period. However, the rapid-response group showed less hospitalisation. Although the study had a large sample size and an RCT design, the follow-up period was very short.

6.3.9 Social networking support

In their RCT, which compared a psychosocial networking intervention (Youth-Nominated Support Team-Version 1; YST-1) against TAU, King and colleagues (2006) followed a group of 289 young people (12–17 years) over a 6-month period. YST-1 provides psychoeducation for support persons whom young people nominate from within and outside their family, and facilitates the supportive weekly contact of these support persons with the suicidal adolescent. YST-1 was combined with TAU for those who received YST-1. Outcomes were measured in terms of suicidal thoughts and behaviour, depression, and functioning. No intervention effect was demonstrated.

6.3 Discussion

Given the high prevalence of morbidity indicators associated with self-harm, it is surprising that there are so few RCTs examining treatment efficacy in this self-harming young people. RCTs examining the treatment effect for the various interventions failed to show superiority of interventions over TAU, with the exception of the study by Huey and colleagues (2004) in which MST was associated with less repetition of self-harm behaviour and a reduction in depression in comparison to TAU. The study by Wood and colleagues (2001) showed an improvement in self-harm in the group therapy group, but when the study was repeated over multiple sites, the results were not replicated. Except for two studies (Harrington et al., 1998; King et al., 2006) all other studies showed an improvement in primary outcomes, which for most studies

were reduction in self-harm and depression, but the improvements were not superior to TAU.

How can this outcome be understood? All the studies had some elements in common – they were all short-term, and the majority of them investigated a single intervention modality. The MST study made use of more than one modality of intervention and, although the intervention was delivered in the short term, it had a high frequency of sessions. Similarly, the CAT study (Chanen et al., 2009) involved treatment of the young person and the parents as well as crisis admissions when needed. Is there possibly an argument from this that treatment for self-harm should at best consist of a combination of family and individual intervention and be delivered over a longer term than 6 months? More research is necessary to explore these aspects. More research is also necessary to examine improvement over both Axis I and Axis II domains and not just in terms of reduction in self-harm behaviour. This thesis aims to address some of these gaps.

SECTION 4

MENTALIZATION AND ATTACHMENT

The review in the previous chapter highlighted the absence of evidence that any specific treatment intervention is more effective than treatment as usual. The author became interested in the findings from adult studies on BPD patients treated with MBT showing a significant reduction in self-harm sustained eight years after treatment (Bateman and Fonagy, 2008). Given that MBT therapy is rooted in attachment research and given the higher prevalence of avoidant attachment in the self-harm group, described in the chapter 5, the author decided to examine whether a modified version of MBT will yield better results than the current studies on the subject. The chapters of this section will describe the theoretical mentalizing model in brief[32] as well as the evidence for the link between mentalization and attachment. A mentalizing model in order to understand self-harm will also be discussed.

CHAPTER 7

DEFINITION AND DEVELOPMENT OF MENTALIZATION

7.1 Definition

Fonagy (2006), Fonagy and Bateman (2006,2007, 2008) and Fonagy and colleagues (2002) defined mentalization as "the capacity to differentiate the self from the other; the capacity to be able to perceive one's own mental states and the mental states of others; the capacity to see oneself and others as agentive and that internal mental states, such as feelings, beliefs, desires, drive what is outwardly observable in terms of behaviour". It includes "the capacity to ascribe mental states to others so their behaviour can make sense and be predictable".

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[32] For a more detailed description of MBT-A, please consult the appendix.

Effective mentalization has the following features (Bateman & Fonagy, 2004):

- Curiosity about the mental states of others, as well as self-inquisitiveness about one's own mental state.
- Awareness of the impact of one's own mental state on others.
- Awareness that mental states are opaque.
- Acknowledgement of the possibility of different perspectives
- A non-paranoid attitude.

7.2 Development

Mentalization is a skill that develops in the context of an attachment relationship. At birth, the human infant is unable to regulate its emotions itself (Fonagy, 2000); to acquire this capacity the infant requires the caregiver to accurately understand and respond to the moment-to-moment changes in its emotional state (Fonagy, 2000). This is thought to be achieved through the caregiver mirroring back to the baby their emotional experience in a marked way, which labels it, and communicates that it is controllable. The markedness of the mirroring signals that it is symbolic of the baby's emotion, and not the caregiver's own emotional state, and forms what has been termed a "secondary representation" of the experience in the baby's mind (Bateman and Fonagy, 2004). This forms the "core self" in the baby. The core self, therefore, is a representation based on the caregiver's understanding of the infant's feelings as well as their perception of the infant as an intentional being. This leads to an inner representation in the infant of itself as an intentional/agentive being and this is thought to generalise to the representation of others, leading to the development of a mentalizing model of the world. These capacities help the child to manage the complexities of social reality (Bateman and Fonagy , 2004).

When the caregiver's representations of the infant are based on misattuned attributions, the infant will internalise these representations of itself, and hence the secondary representation in its mind will be alien to the authentic mental state and intentionality of the infant. This alien representation, however, becomes part of the inner self concept and has been labelled the "alien self" by Bateman and Fonagy (2004). Repeated experiences of this kind will finally lead to a situation where the

infant or young child's mind is dominated by the alien self. The inner experience of the alien self is akin to the experience of an inner tormentor – it is the constant experience of inner criticism, self-hatred, lack of internal validation, and expectation of failure. The self is hated and, through the projected lens of the alien self, the external world can be perceived as potentially hostile, humiliating, and attacking.

As was stated earlier, the internal representations in the baby of itself as an intentional being contributes to the ability to form representations of others as intentional beings, which leads to the capacity to mentalize oneself and others. This growing ability will lead to a greater sense in the infant that the relational world is meaningful and predictable. Mentalizing has been considered an important interpersonal resilience factor (Fonagy et al., 1994; Fonagy & Target, 1997).

In an internal state dominated by the alien self, where the inner representations are alien to the self, representations of others that are generated will, similarly, be inaccurate and will therefore lead to the experience that the relational world does not make sense and is not predictable. In this way, the alien self will interfere in the development of mentalization.

CHAPTER 8
CATEGORIES OF NON-MENTALIZING

8.1 Introduction

In general, when an individual is in a non-mentalizing mode of functioning they tend to focus on concrete factors when explaining behaviour; for example, they may attribute a behaviour or event to "tiredness", "laziness", "the school", "the neighbours", etc. In such states individuals can exhibit a preoccupation with rules such as "should's" or "should not's", and they may deny any personal involvement with the problem at hand whilst casting the blame elsewhere. These modes of functioning are typified by a general culture of blame and fault finding. Another manifestation of non-mentalizing is the expression of certainty about the thoughts and feelings of others. The various forms of non-mentalizing are outlined below; the concepts included here were originally developed and described by Bateman and Fonagy (2004, 2006).

Non-mentalization manifests in the following categories:

- Concrete mentalizing, which includes psychic equivalence and teleological thinking, i.e., thinking styles commonly associated with earlier developmental stages.
- Pseudomentalizing:
  - Pretend mode;
  - Intrusive mentalizing;
  - Overactive mentalizing;
  - Inaccurate mentalizing.
- Misuse of mentalization.

8.2 Concrete mentalizing

Concrete mentalizing is the most commonly observed category of mentalization failure. It refers to an inability to understand mental states. In this mode

of thinking, behaviour is often understood in concrete terms. Two forms of thinking dominate this category, psychic equivalence and teleological thinking, which can be described as follows:

8.2.1 Psychic equivalence

Psychic equivalence is a state of mind in which the internal state is equated with external reality, that is, where thoughts or feelings are treated as facts. For example, someone with panic disorder has a thought that they may have a panic attack, but the thought is then experienced as a fact, which brings about a full-blown panic attack. Another example would be a young woman who feels afraid that her boyfriend may be unfaithful, but the next minute feels convinced that he has been unfaithful – the feeling of fear changes from a feeling to a concrete fact.

8.2.2 Teleological thinking

Teleological thinking is often observed through the insistence on concrete acts to represent emotions; examples might be a young woman who can only know her boyfriend loves her when he sends her a text message, or the young person who will only know that the staff care about her when they touch her, to examine her or apply dressings to her wounds, for example.

A hallmark of concrete mentalizing is the absence of flexibility and the use of generalisations, such as constant blame or self-blame; for example, statements such as: "this is so typical of you", "this is because of your genes", "this is because of your father", "he is just lazy", "you always . . .", or "you never . . .". Other common examples of concrete mentalizing demonstrate the inability to see one's impact on others and a difficulty in seeing how one thing leads to another.

Case examples

Below is an example of a session with a 15-year-old young man who was referred to our service with a history of cutting himself, taking overdoses, and having great difficulty in managing relations at school. He also had a strong history of violent outbursts and impulsive behaviour, including one incident in which he was reprimanded by the police for attacking another young man. He grew up with his mother and two half-siblings from different fathers. His mother had a past history of drug abuse. The young man experienced life as unpredictable; he grew up surrounded by volatile relationships and experienced consistently inconsistent boundaries. This upbringing meant he had very little ability to manage his own feelings and hence frequently fell back on concrete ways of trying to reassure himself of his safety and concrete ways of managing his feelings. This small vignette from one of his sessions illustrates both his concrete mentalizing style and the therapist's attempts to mentalize his feelings.

P: I broke up with Michelle. You remember I wanted to see her last Friday and she said she was busy. Later I found out that she was only busy for 1 hour and I could have seen her. So Saturday I thought I am not having it, I may as well end it with her rather than wait around for her. I sent her a text and said, "if you do not call by 5 o'clock it is over". She texted straight back saying "I am sorry but I am a happy person and you are always moaning and it brings me down". So I thought, ok whatever, and just left it.

T: Gosh, what did that make you feel?

P: I felt nothing. I just don't understand, I was always happy when I was with her. I don't see how she could say I am always moaning. The only thing I moaned about was that she just never answered her phone. Any boyfriend would want that, isn't it?

T: So when she did not answer her phone, what was happening inside you?

P: It felt as if she did not care. Jenny always answered her phone and that is how I knew she cared.

T: And when you felt she did not care, what did you do?

P: I would phone her non-stop and I would text and leave messages. It is not right to ignore me like this. Sometimes I called her 20 times and she would ignore me. I then think she's met someone else. And I sort of saw it coming, so Friday evening when I went dancing I flirted with people and then I met this new girl. So I thought I'd like to take her out, so I pretended to be drunk and then said to her that I would like to take her out. I thought if I pretend to be drunk and if she says no, then I will just say the next day that I was drunk and that I do not remember anything. Then I won't have to feel embarrassed. So she did not do that, but said she'd like to go out with me. So Saturday when I dumped Michelle I already had the other one lined up, so I did not really care about Michelle any more. So now life has moved on and this weekend I will go out with her for the first time. And this week I felt really happy. This girl is really special. We have so much in common, she is pretty . . .

T: Can I just slow things down a bit to try and catch up?

P: Yes, it is a bit fast isn't it? I always do that, I always have one in reserve. The minute I see trouble coming I get one in reserve.

T: It seems to me all of this action about phoning her so many times and getting another girl in reserve are all ways in which you try and manage being ripped apart by strong feelings inside you?

P: Yes, but now I don't feel it because the new girl answers her phone all the time, just like Jenny did, so it helps me.

T: So when Michelle did not answer her phone, what did you feel?

P: I felt anxious that she was seeing another guy and then I phoned again and again.

T: If I think someone I like is seeing someone else, it would make me feel angry.

P: Yes, I felt I could smash my phone up. I wanted to break her door down.

T: So part of phoning her so many times was also an angry thing?

P: Yes I suppose it is a bit smothering, maybe that is why she said I was moaning. But any guy will be upset if he is ignored….

In a further example of concrete mentalizing, John, who is 16, came to his outpatient session stating that he was upset about his girlfriend being unfaithful to him and that he was going to "dump" her after the session. The evidence of her unfaithfulness, he told the author, was in a text he received from her. He then read the text to the author and it said something about her wish to be with him and that she was going to break it off with her previous boyfriend. She ended the text with the sentence "I will tell him that". The author did not understand what was upsetting to him about the text, so asked for clarification. He explained that if she had said "I will tell him that when I see him next", it would mean she was going to see him in the future, but instead, her saying "I will tell him that" meant she was with him when she sent the text. In John's mind, if his girlfriend was with her ex-boyfriend then she was being unfaithful to him. In his rage, and driven by his impulsivity, he wanted to send her an immediate text to tell her never to contact him again. With careful work, the author stopped him from acting out, slowed him down, and helped him to see his distortion and how in his distortion he missed the true message of the text, which was about her love for him. Only after he calmed down, and after he became less impulsive and more in touch with her as a person with feelings towards him, could he explore his deep fear that she would leave him.

8.3 Pseudomentalizing

Pseudomentalizing is linked with **pretend mode** functioning. It describes a state of mind where there is an apparent interest in mental states, but this is disconnected from reality.

Common forms of pseudomentalizing include:

8.3.1 Intrusive mentalizing

This arises when the separateness or opaqueness of minds is not respected, and is often characterised by certainty about the thoughts and feelings of others. Intrusive mentalizing is commonly observed in family sessions, for example, when parents incorrectly ascribe mental states to their children's behaviour without any attempt to try to understand what a child is actually feeling. An example of this was a mother who complained that her child was deliberately behaving in an angry way because the child's father was aggressive and, hence, the child was like his father. In this instance, very careful work revealed that the child's anger was related to him feeling blamed and misunderstood by his mother, and his feeling that whatever he did seemed to make her angry. A few sessions alone with the mother revealed her unresolved anger at her ex-husband for leaving her for someone else and her deeper feelings of humiliation and rejection. Once her feelings were understood, she was more able to notice how in her mind she was confusing her son with her ex-husband.

8.3.2 Overactive mentalizing

This form of pseudomentalizing is characterised by excessive effort to try to understand what people think and feel without actual connection with true state of the person in question. Such explanations can be confusing and obscure.

8.4 Misuse of mentalization

This form of non-mentalizing occurs when someone has an accurate understanding of the mental state of someone else, but they use this exploitatively for their own gain. This is sometimes seen in hostile divorce cases. The far extreme of misuse of mentalization is seen in sexual perpetrators who accurately perceive a child's vulnerability and use this to foster a relationship with the child for the sole purpose of abusing the child. Bateman and Fonagy (teaching slide) describe the following example:

"You are such a bastard. You never think about how the children feel when you are late! Johnny was really upset and disappointed because he had been waiting to show you his soccer trophy. When you did not come, he felt you did not really care about him anymore. Maybe it would be better if you did not bother to come at all!"

The misuse of mentalization is often present in the face of coercion and threats in order to try to control someone else. It is also present in examples of deliberate attempts to humiliate or induce painful feelings in someone else.

CHAPTER 9
MAKING SENSE OF SELF-HARM: A MENTALIZATION-BASED FRAMEWORK

Bateman and Fonagy (2004) argue that self-harm is symptomatic of a deficit in the capacity to mentalize. The authors also demonstrated in their study of adults with BPD that there is a strong link between impaired mentalizing and BPD. They described self-harm as an attempt to liberate the self from the alien self (Fonagy et al., 2002). Thus, self-harm represents a concrete way of managing strong emotions in the context of a breakdown in the ability to attend to mental states in the self and others. In this non-mentalizing mode, "parts of the body may be considered equivalent to specific mental states and can thus be literally physically removed" (Bateman & Fonagy, 2006, p. 27).

In strong affective states that overwhelm the young person's ability to process the affect, their capacity to mentalize breaks down. This will result in an inability to make sense of their own feelings as well as the feelings and intentions of those around them. In this state of mind, the alien self is likely to dominate, which will result in the young person being overwhelmed with feelings of self-hatred and self-judgement. As a result of these strong emotions induced by the alien self, and in the face of an inability to make sense of anything else, young people often resort to certain behaviours to try to escape from the mental anguish. In this state they may self-harm and may report that they feel better once they have harmed themself.

This "feeling better" as a result of self-harm may be explained in the following way: The physical pain may satisfy the relentless need for punishment by the alien self and hence lead to a moment's relief; the act of cutting may be an act in which the young person is in identification with the alien self; under teleological thinking, the young person may cut themself because the physical pain will represent mental pain and the concretisation of it makes it more manageable, and makes it more possible to get concrete help, too. Another example of teleological thinking in the face of self-harm is: "If I cut myself and bleed, then you will see what you have done to me and you will feel sorry for what you did". Under another force of concrete mentalizing, the

anger that is meant or felt for someone else is turned against themselves and acted out on their body.

Schematically, a self-harm state can be represented as follows:

Diagram 5

The Alien self's impact on relationships
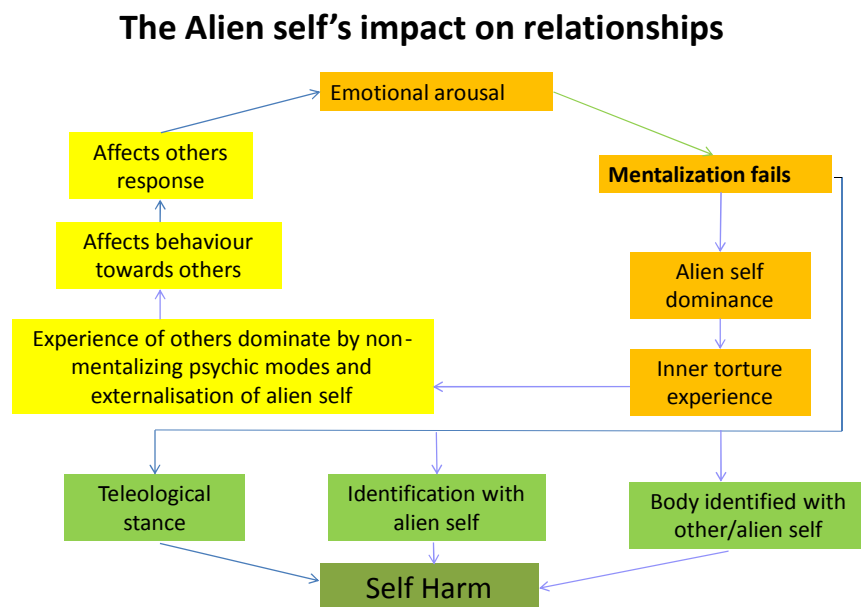
CHAPTER 10

ATTACHMENT AND MENTALIZATION

Vrouva (2009) explored the link between mentalization and attachment in her large community study of 1,141 young people from secondary schools in London. She found that there were clear gender differences in attachment. She found that girls scored higher than boys on peer attachment and peer communication, and that boys displayed a trend towards higher scores on attachment avoidance. Similar differences have been described in other studies (Armsden and Greenberg, 1987; Gullone and Robinson, 2005). She found no sex differences in relation to parent attachment, but she did find a trend in which younger adolescents were more strongly attached to their parents and older adolescents showed stronger attachment to their peers.

In terms of exploring the link between mentalizing and attachment, Vrouva used the following measures to measure mentalization: the Empathy Quotient (EQ; Baron-Cohen & Wheelwright, 2004); Mentalizing Stories for Adolescents (Vrouva, 2009); Reflective Function Questionnaire (RFQ; Fonagy & Ghinai, 2007), and the Trait Emotional Intelligence Questionnaire-Adolescent Short Form (TEI-Que ASF; Petrides et al., 2006). For the attachment measures she used the the Inventory of Peer and Parent Attachment (IPPA; Armsden and Greenberg, 1987) and the Experience in Close Relations scale (ECR; Brennan, et al., 1998).

She found that attachment was closely correlated to mentalization, and similar trends existed in mentalizing patterns as have been found in the attachment patterns described above. For girls, she found significant positive correlations between the EQ and the IPPA in terms of peer attachment, and negative correlations between the EQ and the ECR avoidant scale. Similarly, the correlations between the RFQ and IPPA peer communication and total peer attachment subscales were substantial (.36 and .28, respectively). In boys, she found a negative link between the RFQ and IPPA parent and peer communication and trust subscales, and positive correlations between the RFQ and parent and peer alienation subscales. She also found large correlations between the TEI-Que ASF and all the IPPA parent subscales. The Mentalizing Stories correlated negatively with the ECR avoidant scale in the total sample and negatively

with parent communication and parent attachment subscales in boys. In girls, the Mentalizing Stories showed an opposite direction to the results obtained for boys.

The mentalizing-related gender differences found by Vrouva (2009) are in accordance with long-established hypotheses that women have superior mentalizing and related abilities, and replicate the findings of other studies reporting superior mentalizing in females (e.g., Baron-Cohen & Wheelwright, 2004; Campbell et al., 2002; Hall, 1978; Thayer & Johnsen, 2000).

In her study, Vrouva also found that the differences between IQ and attachment were negligible, but she found modest correlations between most mentalizing ability measures and verbal ability and performance IQ.

SECTION 5

**MENTALIZATION-BASED TREATMENT FOR SELF-HARM IN YOUNG
PEOPLE: A RANDOMISED CONTROL TRIAL**

CHAPTER 11

INTRODUCTION

Self-harm can be defined as any act of deliberate self-harm, regardless of
whether it is accompanied by suicidal thoughts (Brent 2011; Wilkinson et al, 2011).
Self-harm is common in community samples (Madge et al, 2008) but associated with
negative outcomes in clinical samples (Wilkinson et al, 2011). One representative
sample of British adolescents found that 5% of males and 8% of females aged between
13 and 15 years reported trying to harm, hurt, or kill themselves in the previous week
(Meltzer et al, 2001). Suicide is the third leading cause of death, being responsible for
the deaths of approximately 4,000 young people (15–24 years of age) in 2002 in the
US (Kochanek et al., 2004). The rate of engagement in non-suicidal self-injury
(NSSI), that is, purposefully hurting oneself without the conscious intent to die (such
as self-cutting or burning) among children and adolescents is less clear due to the
absence of assessments of NSSI in most large epidemiological studies (Jacobson &
Gould, 2007). However, initial research findings suggest that engagement in NSSI is
on the rise among adolescents (Muehlenkamp & Gutierrez, 2004; Olfson et al., 2005).
Self-harm is common amongst young people with treatment-resistant depression and a
significant predictor of future suicide (Asarnow et al., 2011) Thirty percent of young
people with self-harm continue to harm themselves into adulthood (Brezo et al, 2007;
Harrington et al, 2006). A population-based sample in the United States found that the
prevalence of self-harm in youths was as high as 17% (Nixon et al, 2008). When self-
harm in adolescence is present together with depression it is of greater clinical
concern, given the close association in this group between self-harm and suicide
(Asarnow et al., 2011; Wilkinson et al, 2011). The ADAPT study of 164 young people
also reported that continuing high levels of depressive symptoms were associated with
self-harm but suicidal behaviour predicted by self-harm recurred independently of

depressive response. This suggests that depression and suicidal behaviour are not completely isomorphic and may need different treatment approaches (Huey et al, 2004; Wilkinson et al, 2011).

As yet it not clear what the appropriate treatment for suicidal behaviour is; reduction of depression appears not to be sufficient. Very little evidence exists about effective treatment for young people who harm themselves. A promising specific pilot treatment programme designed by Wood and colleagues (2001) in which they combined concepts of CBT DBT, social skills training and psychodynamic intervention delivered in a two-phase group format and showed a marked reduction of self-harm behaviour in adolescents over 12 months of treatment in comparison to TAU (either family work or supportive therapy). However, two large-scale replications in Australia (Hazell et al, 2009) and the UK (Green et al, 2011) failed to demonstrate similar benefits. In their study of multisystemic therapy (MST), Huey and colleagues (2004) reported that MST, conducted over 6 months, was more effective than TAU in terms of reduction in "suicide attempts" over the time period but not more effective than TAU in terms of reducing suicidal ideation, depression, or hopelessness (TAU in this study consisted of hospitalisation with an emphasis on behaviour modification). In their study on young people with BPD, where 91% presented with self-harm, Chanen and colleagues (2009) found that CAT was no more effective than TAU in terms of reducing self-harm behaviour, depression and changes in BPD symptoms (TAU in this study was general interventions in specialist child psychiatric clinics). Similarly, two open trials with DBT reported that DBT yielded no additional benefit when added to inpatient treatment (Katz et al., 2004) or when delivered on an outpatient basis in comparison to psychodynamic psychotherapy (Rathus and Miller, 2002). A pilot study of specifically developed CBT for self-harm compared with a generic supportive relationship therapy yielded comparable improvement in response to both treatments (Donaldson et al., 2005). Brief solution-focused family intervention was not effective in reducing self-harm or depression (Harrington et al., 1998). Treatment trials for depressed adolescents (including self-harming and non-self-harming adolescents) have shown limited effectiveness in reducing self-harm (Brent et al., 2009, Vitiello et al., 2009, Wilkinson et al., 2011). Further studies also failed to demonstrate superiority of specifically developed therapies modifying the contingencies of self-harm, such as a token to gain admission to a hospital bed without

the need for self-harm (Cotgrove et al. 1995), an accelerated response following self-harm (Greenfield et al., 2002), or the provision of social networking support (King et al., 2006). This pattern of null-results was confirmed by a meta-analysis, using engagement in treatment as a primary outcome (Ougrin & Latif, 2011), which found no difference between specifically developed therapies and TAU.

Most of these self-harm-focused treatments that proved not to be superior to TAU had a number of characteristics in common: (1) they were all brief (6 months or less); (2) they were single-modality interventions using either individual, group, or family intervention, but not a combination of these; (3) they were mostly focused on self-harm behaviour rather than the subjective and social experiences that surrounded it; and (4) intensive clinical supervision was mostly not part of the treatment framework. The relatively successful MST trial (Huey et al., 2004) and the CAT study (Chanen et al., 2009), to some degree bucked this trend, as they both made use of a combination of individual and family work and tended to keep the young people engaged with treatment over a slightly longer period of time.

In trying to conceptualise self-harm behaviour in depressed adolescents in order to generate a more effective model for intervention, the researcher drew on the work of Bateman and Fonagy (1999, 2008) with patients with severe BPD, where two RCTs showed a psychodynamic model, mentalization-based treatment (MBT), to be effective in reducing self-harm behaviour in adult patients. Mentalization has been defined as the generic capacity to make sense of actions in mental state terms (thoughts and feelings). This applies both to actions observed in others and ideas and feelings about one's own behaviour (Fonagy, 1998) It has been suggested that self-harm in adolescents occurs in response to relationship stress when the individual fails to represent the social experience in terms of mental states (Bleiberg et al., 2012). When mentalizing is compromised, self-related negative cognitions are experienced with far greater intensity, leading to both intense feelings of depression and an urgent need to find distraction. Further, in non-mentalizing states of mind the individual feels disconnected from the experience of others and needs to experience a sense of reconnection though manipulating their behaviour (Bateman & Fonagy, 2004). Failures of mentalization of social experience can generate impulsive (poorly regulated) behaviour as well as contributing to a range of subjective states often reported to be associated with self-harm, for example, to create a distraction from

unbearable intensity of psychic pain (Zanarini et al., 2006), to deal with self-blame linked to shame and guilt of unusual intensity, or serve to generate desired psychological experiences in others that the individual is unable to engender in a more adaptive ways, or simply to create a feeling of being accepted by a social group.

A clear inverse relationship exists between emotional arousal and failure in mentalization (Bateman & Fonagy, 2004). In young people, this is exacerbated by significant brain remodelling, which takes place during adolescence (Gogtay et al, 2004, Sowell et al, 2007) leaving young people vulnerable to mentalization failures (Bleiberg et al, 2012; Blakemore 2011), which in turn leads to some of the behavioural, cognitive, and affective attributes characteristic of this age group. Given what we now understand to be the relationship between emotional arousal and mentalization, it is likely that adolescents who are depressed or who have chronic difficulties of affect regulation may be at greatest risk of a temporary loss of mentalizing, making self-harm a solution to problems of adaptation.

In the light of the limited success of self-harm-specific psychological interventions in helping young people with comorbid psychiatric problems resolve these behaviours, this research tested the assumption that a mentalization-focused intervention may be helpful in reducing incidents of self-harm in adolescents. Given the usefulness of this approach for adults when administered in a dual (individual and group) modality and the limited success of single-modality treatments with adolescents, the treatment programme for adolescents included both individual and family therapy over a period of 1 year. The MBT model (MBT-A) combined a version of individual MBT modified for adolescents (Bleiberg et al., 2012) and family therapy with a strong mentalization focus (MBT-F) (Asen & Fonagy, 2012). The therapy was developed and piloted over several years by the researcher and evaluated here with adolescents referred for self-harm.

The research was hoping to address the following questions:

1.   Will an MBT-A treatment programme be more successful than TAU in reducing self-harm in young people who present with self-harming behaviour?

2. Given that self-harm is a symptom associated with both depression and BPD, will MBT-A be an effective intervention for depression and BPD, in comparison to TAU?

3. Could difficulties with mentalization and attachment dysregulation possibly be mediators contributing to self-harm behaviour?

The primary outcome of the trial was self-harm. Secondary outcomes included risk-taking behaviour, mood disorder symptoms, BPD diagnosis, and features of borderline personality. Mentalization and attachment were also investigated as hypothesized mechanisms of change.

CHAPTER 12
METHODS AND RESEARCH DESIGN

12.1 Setting and population

The RCT took place within the geographical area of North East London NHS Foundation Trust (NELFT; Redbridge, Barking and Dagenham, Havering, and Waltham Forest), which covers a population of 1 million people, of which 202,370 are under the age of 18. Some boroughs of NELFT have very high deprivation indices and all have communities from diverse ethnic backgrounds. Each borough has a Tier 2 and Tier 3 CAMHS. A service audit and needs analysis conducted by the researcher in 2005 (and repeated in 2008) showed that the highest rate of referrals to CAHMS in the 14–16-year-old age group are young people with a history of self-harm.

12.2 Ethical approval

The study received ethical approval from the Research Ethics Committee, REC 3. Trial registration number: ISRCTN95266816.

12.3 Study design

The study was a pragmatic small-scale randomised superiority trial comparing MBT-A with TAU for young people with self-harm (all cases of self-harm, regardless of whether it was associated with suicidal ideation). Allocation was by minimisation, controlling for past hospital admissions, gender, and age. Minimisation was felt to be necessary to limit the impact of factors that could easily influence treatment response. The treatment period for each case was 1 year with measurement points at 3, 6, 9, and 12 months post randomisation. The primary outcome measure was self-harm in the previous 3 months. Key secondary outcomes included symptoms of BPD, risk-taking and measures of mood. Assessors and participants were blind to assignment. There

was no difference in the literature given to participants during the consent process that would have allowed them to guess which intervention they were receiving.

12.4 Recruitment

The target population for participants in this study was adolescents aged between 12 and 17 presenting to CAMHS services or A & E with self-harm. There is a well-established case-identification procedure in NELFT in which all young people who present to GPs, in schools, to social services or to A & E with self-harm or a history of self-harm are invariably referred to their local Tier 3 CAMHS. The Operational Plan calls for an assessment, normally within 24 hours of receipt of the referral, by a duty clinician, who carries out a mental state and risk assessment with the young person and the family. Cases with risks judged to be so high that they needed containment and close supervision were referred for admission. All other cases were referred for Tier 3 outpatient treatment and at this point they were invited to participate in the trial. Those who agreed to participate in the trial were contacted by the research assistant and given written and verbal information about the trial. Written consent was obtained from the young person and their parents[33]. They were informed of the right to withdraw from the study without jeopardising their treatment and informed about the conditions of confidentiality.

12.5 Inclusion and exclusion criteria

As this was a pragmatic trial, inclusion criteria were broad and exclusion criteria were minimal. All those between the ages of 12 and 17 years who presented to services with at least one episode of confirmed self-harm within the past month, where self-harm was the primary reason for referral and was established as intended, were considered eligible. Self-harm for the purposes of this trial was defined as any intentional self-inflicted injury (including poisoning) irrespective of the apparent

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[33] See Appendix for a copy of the consent forms.

purpose of the behaviour (however, if poisoning appeared to be the result of excessive use of recreational drugs the episode was not considered eligible). Individuals with a comorbid diagnosis of psychosis, severe learning disability (IQ < 65), pervasive developmental disorder, or eating disorder in the absence of self-harm were excluded. Concurrent substance misuse was not an exclusion criterion but chemical dependence was.

12.6 Sample size

Eighty participants (40 in each arm) were recruited. The sample size calculation was motivated by observed success rates of this approach with adult samples (Bateman & Fonagy, 2008) and the degree of change that would be considered clinically significant. Sample size was determined using the Risk and Self-harm Inventory (RSHI) dimensional score of self-harm. A magnitude of 3 points difference between the two treatment groups was considered clinically important. Past research data from the programme of Bateman with adults with BPD gave a standard deviation of 3.6 for this score, producing an expected effect size of 0.8 (3/3.6). Therefore, we sought to detect a medium to large effect size (i.e., 0.6–0.8) and, with alpha set at 0.05 and power at 0.8, a sample size of 26–45 in each group would be needed (Cohen, 1988). We therefore aimed to have a sample of 40 in each group. As MBT-A is a combination of individual therapy and family therapy, and assuming an intraclass correlation of 0.02 for within-therapist correlations of outcomes in the MBT-A arm, the power would reduce to 83%.

12.7 Randomisation

Eligible consenting participants were randomised once they had completed their assessments, by an independent statistician working off-site using a computer-generated randomisation, which was sent in separate envelopes to an administrator who opened the envelopes and informed the relevant clinicians. The computer-generated adaptive minimisation algorithm incorporated a random element with the following stratification factors: gender, age band (12–14 or 15–17) and number of past

admissions (≤1 or ≥2). Minimisation ensured that there was an even distribution of severity across the two arms of the trial. The adolescent was informed by a letter from the clinician in either arm inviting them to their first session. Patients were not informed and remained unaware which arm of the trial they were in. Treatment allocation was also successfully concealed from the outcome assessors.

12.8 Participant adherence

Patient flow through the trial is presented in Figure 8. Dropping out of treatment is common during interventions for self-harm. In the current trial a 5% dropout at each measurement point was assumed, totalling 15% attrition overall that would affect analysis of secondary outcomes. One third of those assessed either declined participation (25%) or failed to meet eligibility criteria (8%). Twenty-five percent of the young people in each arm took up less than 8 weeks of treatment and a further 25–33% took up 6 months of treatment or less. The remaining sample is considered to have completed the treatment. All those randomised were included in the statistical analysis.

Figure

9

120 patients screened for eligibility

40 patients excluded:
30 declined participation
5 did not meet inclusion criteria
5 met exclusion criteria

80 randomized

40 patients allocated to MBT-A

40 patients allocated to TAU

10 attended < 2 months
10 attended 3-6 months

10 attended < 2 months
13 attended 3-6 months

20 completed treatment

17 completed treatment

40 included in analyses

40 included in analyses

CHAPTER 13
STRUCTURE OF TREATMENT PROGRAMMES

13.1 MBT-A

The MBT-A programme is a year-long manualized psychotherapy programme[34] involving weekly individual MBT sessions and monthly MBT-F. MBT-A is a psychodynamic psychotherapy with roots in attachment theory. Treatment is divided up into four phases with expectations of what may be achieved in each. Techniques are described to deal with common crisis situations characteristic of each treatment phase. Following the assessment phase, each MBT-A patient received a written formulation, which contained a crisis plan for the young person and their families. The aim of subsequent sessions of the therapy is to enhance the patient's capacity to represent their own and others' feelings more accurately in situations that entail intense emotions (activation of attachment feelings by rejection, interpersonal conflict, etc.). The MBT-A sessions were on the whole unstructured, focused on the young person's current and recent interpersonal experiences, and maintained a constant focus on the mental states likely to have been evoked by these. The aim of the family sessions was to improve the family's ability to mentalize, particularly in the context of family conflict (both conflicts that concerned the designated young person and those involving mainly other family members). The individual and family sessions were both 50 minutes long and all sessions were audiotaped. As in other psychodynamic psychotherapy based on ideas from attachment theory, the final phase of the therapy addressed separation issues along with managing anticipated challenges in a mentalizing manner.

Twenty-two child and adolescent mental health workers from different professional backgrounds such as child psychiatry, psychology, psychotherapy, family therapy, nursing, and social work, all underwent 6 days of training in MBT-A and MBT-F delivered by the researcher. Additional training was provided through weekly

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[34] See Appendix A for a copy of the manual

group supervision, facilitated by the researcher. The supervision sessions included listening to audiotaped sessions for discussion of adherence. Those therapists who appeared not to be adherent to the manual were offered further individual training and supervision. Young people who were severely depressed were offered antidepressant medication.

13.2 TAU

Routine care was provided by community-based adolescent mental health services and was monitored via the self-report resource use survey completed at outcome assessment points and the collection of information from electronic health records used in each site. All TAU treatments were delivered by fully qualified child mental health professionals. Routine care was varied but generally consisted of individual counselling (using a variety of therapeutic approaches), family sessions, medication assessment and review, and other care coordination activities. The treatments offered to the TAU group are presented in Table 5, contrasted with treatments received by the MBT-A group. There was no statistically significant difference in the modality (individual, family, psychiatric, or other) or duration of the treatments between the groups. In the TAU group, the type of intervention was determined by diagnoses secondary to self-harm (mostly depression, eating disorder, and anxiety disorder). The majority of cases received either an individual therapeutic intervention on its own (28%) or in a combination of individual therapy and family work (25%), or psychiatric review on its own (27.5%). Those who received individual therapy in the TAU condition received humanistic counselling (38%), generic supportive interventions (24%), CBT (19%) or psychodynamic psychotherapy (19%).

Although there was no difference between the groups in terms of the services offered, a notable difference between the MBT-A and TAU arms was the fact that the MBT-A therapists had a structured weekly peer supervision, which functioned as an ongoing learning experience, and a mentalizing forum for the containment of anxiety, especially in the context of high risk, which was mostly absent in TAU.

Table 5: *Therapeutic services received by 80 participants in the MBT-A trial.*

	TAU (N=40)	MBT-A (N=40)
Individual therapy: N (%)	23 (58%)	34 (85%)
CBT %	19%	
Psychodynamic therapy %	19%	100%
Counselling %	38%	
Generic/supportive therapy %	24%	
Number of sessions mean: **Mean (*SD*) Range**	9.1 (10.9) 10–40	13.8 (12.5) 0–48
Family work: N (%)	13 (33%)	25 (63%)
Number of sessions mean: **Mean (*SD*) Range**	3.1 (7.2) 0–37	3.8 (4.8) 0–18
Medication: N (%)	17 (43%)	16 (40%)
Psychiatric review sessions: **Mean (*SD*) Range**	3.5 (4.0) 0–17	2.1 (3.1) 0–14
Other interventions: **Mean (*SD*) Range**	1.7 (5.3) 0–32	0.6 (1.3) 0–6

CHAPTER 14

MEASURES

14.1 Measures used

The following domains were assessed with the following measures:

(1) Self-harm:

- Risk Taking and Self-Harm Inventory (RTSHI; Vrouva et al., 2010)

(2) Depression:

- Short Mood and Feelings Questionnaire (MFQ; Angold et al., 1995)

(3) Borderline personality traits:

- Borderline Personality Features Scale for Children (BPFSC; Crick et al., 2005)

- Childhood Inventory of DSM-IV Borderline Personality Disorder (CI-BPD) (Zanarini 2007) adapted from the Revised Diagnostic Interview for Borderlines (Zanarini et al., 1989)

(4) Mentalization:

- How I Feel (HIF; Sandell et al, 2008)

(5) Attachment:

- Experience of Close Relationships (ECR; Brennan et al., 1998).

The primary outcome was self-harm and it was assessed by self-report at baseline and 3-monthly until 12 months following randomization using the self-harm scale of the RTSHI (Vrouva et al., 2010). Self-reported self-harm was confirmed with interview at baseline and 12 months (part of the CI-BPD;, Zanarini 2007).

Secondary outcomes included depression measured 3-monthly by the 13-item MFQ (Angold et al., 1995), risk-taking measured using the risk-taking scale of the RTSHI, and emerging BPD. Borderline diagnoses were based on CI-BPD (Zanarini, 2007), a semi-structured interview developed to assess BPD in latency-age children and adolescents. A continuous measure of borderline features based on self-report was

provided by the BPFSC (Crick et al., 2005). Interviews and the BPFSC were conducted at baseline and at 12 months.

Two measures related to hypothesised mechanisms of change were also administered pre- and posttreatment. Mentalization was assessed using the HIF (Sandell et al., 2008) questionnaire. Attachment status was assessed using the ECR (Brennan et al., 1998)

14.2 More detailed discussion of measures

14.2.1 Self-harm

The RTSHI (Vrouva et al., 2010), a 38-item self-report questionnaire, has been adapted from the Adult Self-Harm Inventory (SHI; Sansone et al., 1998) for use with adolescents. The measure requires the adolescent to rate the frequency with which they have participated in self-harm or risk-taking behaviours using a 4-point Likert scale. The measure produces an index of self-harm and of risk-taking behaviours. The measure includes one item examining suicidal ideation and one item examining past suicidal attempts.

The RTSHI has been successfully piloted and shown to have an inter-item reliability of 0.89 (Cronbach's alpha) and a test-retest reliability of 0.93 (Vrouva et al., 2010). When comparing the measure with the suicidal tendencies scale on the Millon Adolescent Clinical Inventory (MACI; Millon et al., 1993), a construct validity of 0.58 was achieved (Vrouva et al, 2010). The RTSHI is attached in the Appendix.

14.2.2 Depression

The short form of the child version of the MFQ (Angold, et al., 1995) was employed as the primary measure of depression in the study. The MFQ is a 13-item self-report scale for children and adolescents used to rapidly assess core depressive symptomatology and to screen youth in epidemiological studies. The response format is straightforward, with possible responses of *not true*, *sometimes true*, and *true* in the past 2 weeks. The short version comprises the highest loading 13 items from the original 33-item MFQ (Angold, 1989). The MFQ has been found to correlate well to

the Children's Depression Inventory ($r = .67$; Angold et al., 1995) and discriminates well between clinical and non-clinical samples (Angold et al., 1995). The MFQ is presented in the Appendix.

14.2.3 Personality

The BPFSC (Crick et al., 2005), is a modified version of the borderline personality disorder scale of the Personality Assessment Inventory (PAI; Morey, 1991). The BPFSC is a 24-item self-report measure including items adapted from the original PAI considered age-appropriate for an adolescent population. The domains of the BPFSC include cognitive sensitivity, emotional sensitivity, friend exclusivity, and aggression. Participants rate items on a 5-point Likert scale to denote how often the experience described is true for them. Responses on each of the 24 items are summed to yield a total borderline personality features score.

The internal consistency of the BPFSC is reported to be 0.76 (Cronbach's alpha). Evaluation of the construct validity of the BPFSC showed that the indices (cognitive sensitivity, emotional sensitivity, friend exclusivity, and aggression) of four of the five indicators of borderline pathology in childhood identified by Geiger and Crick (2001) tracked together with children's borderline personality features as assessed by the BPFSC over the course of a year. Furthermore, each of the four indicators uniquely predicted borderline personality features over time, above and beyond the longitudinal association between borderline features and the other three indicators. The scale is attached in the Appendix.

The CI-BPD (Zanarini, 2007), provided through personal correspondence with the author, is a semi-structured interview developed to assess BPD in latency-age children and adolescents. The measure has been adapted from the Revised Diagnostic Interview for Borderlines (Zanarini et al., 1989). It consists of nine domains/symptoms: (a) difficulty with anger, (b) affective instability, (c) chronic feelings of emptiness, (d) identity disturbance, (e) stress-related paranoid ideation or severe dissociative experiences, (f) difficulties with real or imagined abandonment, (g) self-mutilation and suicidality, (h) impulsivity, and (i) difficulties with interpersonal relationships. These correspond to the nine DSM-IV-TR diagnostic criteria for BPD

(APA, 2000). These domains/symptoms are rated by the interviewer as *absent* (level 0), *mild or moderate* (level 1) and *serious or severe* (level 2). When three or fewer symptoms are rated at level 2, no BPD diagnosis is ascribed. When four symptoms are rated at level 2, the BPD diagnosis is considered probable. When five or more symptoms are rated at level 2, the BPD diagnosis is considered present. The scale can be used both categorically and dimensionally. In this study, the alpha for the dimensional scale was .90, and the inter-rater agreement (intraclass correlation coefficient) was .95. The CI-BPD is copyrighted and only two items are presented in the Appendix as an example.

14.2.4 Mentalization

Mentalization as a construct is more difficult to characterise and capture through assessment by the nature of it being a psychological process/mechanism that draws on multiple overlapping faculties, including mental flexibility, emotional vocabulary and recognition, attention, and learning. Another feature that adds to the complexity is the fact that mentalizing ability waxes and wanes in individuals, and usually it is in the context of high emotional arousal that mentalizing ability is at its worst. As psychometric tests are not performed during those times, these results will never be a true reflection of the mentalizing deficits when they are at their worst.

The HIF (Sandell et al., 2008)is rooted in the emotional intelligence tradition and was developed as a performance test in the context of the Social Emotional Training (SET) project (Kimber et al., 2008) in Sweden. It is mainly an ability type of measure, using brief vignettes where the protagonist (in some vignettes "you", in others "he" or "she") is described in situations of intrapersonal or interpersonal dilemma. After each vignette there are two questions, "What do you feel, and why?" (the "Feel" items), and "What do you do?" (the "Do" items), and each question has three response options. Initially, there were 15 vignettes or situations, and 30 items. After psychometric analysis, 14 vignettes with 28 items remained. The scoring of each item was based on expert judgments, using a Thurstone type of scaling procedure (Crocker & Algina, 1986). Vrouva (2009) found Cronbach's alpha to be .60, .62, and .74 for the HIF "Feel" scale, "Do" scale, and total scale, respectively. The measure is attached in the Appendix.

Attachment status was also assessed using the widely used ECR (Brennan et al., 1998). The ECR contains 12 statements on how the respondent acts and feels in their close relationships. It yields two independent scales of attachment insecurity: attachment anxiety and attachment avoidance. The ECR is considered psychometrically to be the best self-report measure of attachment (Mikulincer & Shaver, 2007).

14.2.6 Confounding/control variables

All participants were asked to fill out a short, non-standardised, demographics questionnaire (see Appendix) to gather data regarding gender, race, religion, socioeconomic status, age, etc., which would allow the sample to be adequately described.

In order to control for IQ, participants completed the Ravensberg Progressive Matrices (Raven et al., 1998), a performance IQ/non-verbal reasoning measure that consists of 60 visually based problem-solving tests arranged in blocks of increasing complexity. For verbal IQ, the Mill Hill Vocabulary assessment was also included (Raven et al., 1998). This is a verbal comprehension measure in which the adolescent's understanding of words of decreasing frequency is assessed to obtain a measure of verbal ability. For the analysis a composite IQ score was created combining the two measures using z-scores.

Service use associated with the treatments (requirement for additional psychotherapy sessions, pharmacotherapy, and hospitalisation) was recorded by the resource use survey and information collected from the patient's electronic health record.

14.3 Inter-rating of measures

120

All open-ended tasks and the semi-structured interviews were subject to an inter-rater scoring check due to the potential for subjectivity in scoring. For each of these a random sample of 15 assessments was selected and marked separately by three independent researchers. When comparing the scores, discrepancies between raters were discussed and, where necessary, criteria were created through consensus for how to interpret certain ambiguous responses. Data extraction was independently carried out by two research assistants; reliability between them was found to be above 90%. The small number of disagreements was resolved by consensus.

CHAPTER 15
STATISTICAL ANALYSIS

All analyses were carried out using Stata Statistical Software Release 12 (Statacorp, 2011). Data analysis was by intention to treat. Missing values were not as great a problem as has often been reported in studies of self-harm (Green et al., 2011; Hazell et al., 2009), with primary outcome observations available for 92% of primary outcome variables and around 85% (90–65%) of secondary outcome or mediator variables. Treatment differences and changes over time were analysed by using the XTMIXED procedure in Stata version 12 for Windows for the continuous variables including RTSHI scores, MFQ scores, and BPFSC scores, and by using the XTMELOGIT package for the ordinal categorical self-harm behaviour. RTSHI scores were highly positively skewed and a log transform was applied to all scores. The five time points were coded as -4, -3, -2, -1 and 0 in all models where 3-monthly data were available, thereby implying that regression coefficients involving time measured the linear rate of change from baseline to 12-month follow-up and that regression intercepts referenced group differences at the last follow-up point. There was evidence of strong non-linear change effects in both the MBT-A and TAU groups in preliminary models, and therefore a quadratic time variable was included in all models but was removed if the likelihood ratio test yielded insignificant indication of improvement in fit. A linear random intercept model best fitted the pre-post-treatment measures, whereas the RTSHI and MFQ outcomes were best represented by a linear random intercepts and slopes model. Diagnosis of BPD features using the CI-BPD was best fitted by a logistic proportional odds random intercepts model. Effects for all outcome measures were adjusted by additionally incorporating into all fitted models covariates for age as the TAU group was slightly, but statistically significantly, younger despite minimization and random assignment.

Only primary model parameters directly relevant to the study objectives are presented here. These are: first, the overall significance of the model (Wald χ^2 statistic); second, group differences at 12 months (indicating whether MBT-A was better or worse than TAU at the 12-month time point); third, the linear rate of change from baseline to 12 months for both groups combined (indicating the extent to which

young people improved or deteriorated over the year of the study); and fourth, differential rate of change for the MBT-A group (indicating whether the rate of improvement or deterioration in this group was substantially stronger than that of the TAU group).

All model parameters for continuous outcome measures are presented here as partial standardised effects, whereas those for the categorical measures of BPD diagnosis are presented as conditional odds ratios.

CHAPTER 16

RESULTS

16.1 Sample

The characteristics of the sample are shown in Table 6. The age range of the participants was 12–17 years (mean 14.7 years) and 85% of the sample was female. While the TAU group was slightly younger in age there was no difference between the groups in term of pubertal staging (18% vs. 28% postpubertal); 64% of the total sample was coded as advanced pubertal. Seventy-five percent of the sample was white or white British, 10% was Asian/Asian British, 5% was black/black British, 7.5% was mixed race, and 2.5% was "other". Around half the sample had started self-harming 5 months ago or less. The group was quite severe in terms of mental disorder diagnoses, with 97% meeting criteria for depression and 73% meeting criteria for BPD. In addition, 28% reported substance misuse and 44% alcohol problems. Slightly more of the TAU group (53%) than the MBT-A group (30%) had a prior history of involvement with mental health services but the difference did not reach statistical significance.

Table 6. *Characteristics of the sample.*

Characteristics at baseline	TAU	MBT-A	Test statistic	p=
Female, *n/N* (%)	35/40(87.5%)	33/40 (82.5%)	$\chi^2(1)<1$	n.s.
Age, y, mean (*SD*)	14.8 (1.2)	15.4 (1.3)	t(78)=2.01	0.04
Pubertal status, advanced pubertal, *n/N*	27/38 (71%)	22/39 (56%)	$X^2(1)=1.78$	n.s.
Black and ethnic minority *n/N* (%)	10/40 (25%)	10/40 (25%)	$\chi^2(1)<1$	n.s.
Verbal ability, Mill Hill score, mean (*SD*)	42.1 (10.2)	41.9 (12.2)	t(78)< 1	n.s.
Non-verbal ability, Raven's Matrices, mean (*SD*)	41.4 (9.0)	42.5 (9.2)	t(77)< 1	n.s.
Started self-harming			$\chi^2(1)<1$	n.s.
Less than 3 months	16/40 (40%)	16/40 (40%)		
3–5 months ago	4/40 (10%)	7/40 (17.5%)		
6–11 months ago	6/40 (15%)	2/40 (5%)		
1–2 years ago	11/40 (27.5%)	12/40 (30%)		
over 2 years ago	3/40 (7.5%)	3/40 (7.5%)		
Prior history of mental health service use	20/40 (50%)	12/40 (30%)	$X^2(1)=3.33$	0.07
Incident(s) of medication overdose, n/N (%)	26/40 (65%)	25/40 (64%)	$\chi^2(1)<1$	n.s.
Incident(s) of deliberate self-cutting, n/N (%)	39/40 (98%)	37/40 (93%)	$\chi^2(1)<1$	n.s.
Living with two parents, *n/N* (%)	15/40 (38%)	17/40(43%)	$\chi^2(1)<1$	n.s.
Not enrolled in formal education, *n/N* (%)	2/40 (5%)	0/40(0%)	$\chi^2(1)<1$	n.s.
Alcohol problems, *n/N* (%)	15/40 (38%)	20/40(50%)	$X^2(1)=1.27$	n.s.
Substance misuse, *n/N* (%)	9/40 (23%)	13/40(33%)	$X^2(1)=1.00$	n.s.
Depression (MFQ≥8), *n/N* (%)	38/40 (95%)	39/40(98%)	$\chi^2(1)<1$	n.s.
BPD (CI-BPD ≥5), *n/N*	28/40 (70%)	30/40(75%)	$\chi^2(1)<1$	n.s.

CI-BPD: Childhood Interview for DSM-IV BPD; MFQ: Moods and Feelings Questionnaire.

16.2 Details of the self-harm

Participants presented with a variety of self-harm methods; 95% had a history of or were currently cutting, 64% had taken an overdose at least once, 55% reported having deliberately burnt themselves, and 61% reported banging their heads or punching themselves. Eighty percent reported attempting to kill themselves either with the index episode or in the past. Arms (90%) and legs (35%) were the areas of the body mostly used in self-harm.

16.3 Treatment received

Patient flow, presented in Figure 8, illustrates adherence to the treatment protocol, and Table 5 presents the therapeutic services participants received in the course of the trial. Overall there was no difference in the amount (number of hours) of clinical attention received by the two groups (mean $_{TAU}$ = 17.3, SD = 14.6; mean $_{MBT}$ = 20.3, SD = 17.7; z = 0.55, $n.s.$). The mean number of appointments attended declined significantly from 6.3 in the first quarter to 3.3 in the last 3 months of the trial when modelled with a mixed effects model with time and group as fixed effects (β=-0.61, 95% CI [-0.94, -0.28], z = 3.61, p = .0001) but rate of decline did not significantly differentiate the groups (β=-0.4, 95% CI [-0.87, 0.06], z = 1.68, p = .093). Most of the patients who discontinued treatment continued with the research. There was no difference between the percentage of patients completing treatment in the two arms of the trial (50% MBT-A and 43% TAU). Significantly fewer participants in the TAU group (33%) received family-based intervention than in the MBT-A group (63%) (χ^2(1)=7.2, p = .003). The one third of cases in the MBT-A group where no family sessions were attended despite it being on offer were mostly linked to the family's refusal to participate in the young person's treatment, and to a few cases where the young person wished the family not to be involved or decided to terminate early. Table 5 also reveals non-significant differences in psychiatric review sessions (t(78)=1.69, p=0.10) and in hours of "other" interventions (t(78)=1.29, $n.s.$) which were mostly associated with parenting sessions.

16.4 Primary and secondary outcomes

Observed means and standard deviations for all four time points for the two groups are presented in Table 7a and 7b for the continuous and categorical primary outcome measures, whereas Table 8 contains outcome and mediator variables, which were measured at only two time points.

Table 7.A includes continuous measures and coefficients of slopes derived from mixed effects random regression models. Table 7.B displays percentage of those self-harming and above cut-point on the depression screening measure; coefficients are odds ratios derived from a multilevel mixed effects logistic regression models. Baseline covers the 3 months preceding study entry.

* $p < .05$
** $p < .01$
***$p < .001$

A. Continuous measure	**Self-harm (RSHI)**: log mean (s.e.)		**Risk-taking (RSHI)**: log mean (s.e.)		**Depression (MFQ)**: mean (s.e.)	
	TAU ($n = 40$)	MBT-A ($n = 40$)	TAU ($n = 40$)	MBT-A ($n = 40$)	TAU ($n = 40$)	MBT-A ($n = 40$)
Baseline	3.08 (0.10)	3.12 (0.09)	1.92 (0.14)	2.29 (0.11)	16.32 (0.74)	17.46 (0.843)
3 months	2.19 (0.18)	2.02 (0.19)	1.45 (0.17)	1.69 (0.15)	12.89 (1.01)	12.11 (1.22)
6 months	2.21 (0.20)	1.98 (0.17)	1.59 (0.14)	1.67 (0.14)	12.79 (1.15)	12.34 (1.08)
9 months	2.04 (0.21)	1.37 (0.20)	1.46 (0.14)	1.25 (0.16)	11.66 (1.17)	7.76 (1.01)
12 months	2.01 (0.21)	1.33 (0.22)	1.66 (0.14)	1.6 (0.16)	11.54 (1.14)	9.26 (1.27)
	Coefficient (95% CI)		Coefficient (95% CI)		Coefficient (95% CI)	
Model: Wald χ^2(df=5)	150.25***		70.37***		65.02***	
Linear change (both groups)	-0.92*** (-1.18, -0.66)		-0.56*** (-0.75, -0.37)		-4.12*** (-6.00, -2.24)	
Quadratic change (both groups)	0.11*** (0.07, 0.15)		0.08*** (0.05, 0.11)		0.51*** (0.21, 0.80)	
Differential linear change (MBT-A)	-0.19** (-0.32, -0.07)		-0.13** (-0.21, -0.04)		-0.93* (-1.82, -0.05)	
Group differences at 12 months	-0.74** (-1.32, -0.15)		-0.21 (-0.60, 0.19)		-3.31* (-6.49, -0.12)	

B. Categorical measure	Self-harm (RSHI): *n/N* (%)		Depressed (MFQ): *n/N* (%)	
	TAU	MBT-A	TAU	MBT-A
Baseline	40/40 (100%)	40/40 (100%)	38/40 (95%)	39/40 (98%)
3 months	33/37 (89%)	29/35 (83%)	29/37 (38%)	22/35 (63%)
6 months	31/36 (86%)	33/39 (85%)	25/34 (74%)	27/38 (71%)
9 months	28/34 (82%)	22/35 (63%)	23/33 (70%)	14/34 (41%)
12 months	29/35 (83%)	20/36 (56%)	25/37 (68%)	19/39 (49%)
	Odds Ratio (95% CI)		Odds Ratio (95% CI)	
Model: Wald χ^2(df=5)	9.76*		22.17***	
Linear change (both groups)	1.20 (0.46, 3.06)		0.18** (0.05, 0.65)	
Quadratic change (both groups)			1.25* (1.04, 1.52)	
Differential linear change (MBT-A)	0.29* (0.10, 0.89)		0.68 (0.41, 1.14)	
Group differences at 12 months	0.24** (0.08, 0.76)		0.21* (0.05, 0.98)	

Table 8. Mean values for BPD diagnosis interview and self-reports for borderline traits, mentalization, dissociation, attachment anxiety, and avoidance scores.

Outcome Measure	Pretreatment		Posttreatment		Wald	Change over time		Group difference over time	
	TAU (*n*=40)	MBT-A (*n*=40)	TAU (*n*=30)	MBT-A (*n*=29)	$\chi2$(df=3)	OR/IRR	95% CI	OR/IRR	95% CI
CI-BPD (proportional OR)	0.70 (0.07)	0.75 (0.07)	0.58 (0.09)	0.33 (0.09)	9.11*	0.42	0.1, 1.71	0.07*	0.01, 0.91
Mean BPFSC (s.e.)	3.30 (0.08)	3.33 (0.08)	3.06 (0.12)	2.79 (0.10)	34.86***	-0.21*	-0.39, -0.03	-0.29*	-0.54, -0.03
Mean total HIF (s.e.)	208.0 (6.25)	201.2 (5.65)	202.7 (7.94)	219.4 (6.22)	18.1**	-3.71	-13.8, 6.35	17.9**	3.54, 32.3
ECR – mean Avoidance (s.e.)	23.88 (1.14)	22.88 (1.19)	22.93 (1.29)	17.72 (1.04)	27.9***	-0.81	-2.86, 1.23	-3.84**	-6.76, -0.91
ECR – mean Anxiety (s.e.)	24.93 (0.84)	24.45 (0.89)	25.03 (0.71)	24.21 (0.93)	0.41	-0.12	-1.8, 2.04	-0.33	-3.07, 0.91

CI-BPD: Childhood Interview for DSM-IV BPD; BPFSC: Borderline Personality Features Scale for Children; HIF: How I Feel Questionnaire mean total score; ECR:

Experiences in Close Relationships Scale – Avoidance and Anxiety scales. Coefficients and significance of mixed effects regression models.

*p < .05

** p < .01

***p < .001

16.4.1 Self-harm and risk

The groups in combination showed significant improvements in reduction of both self-harm and risk-taking behaviour following both a linear and a quadratic pattern. The interaction term for group × time was also significant for both variables, indicating that the linear decrease in RTSHI scores was significantly greater for the MBT-A group on both variables. At the 12-month point, self-harm scores were significantly lower for the MBT-A group. There was no difference in risk-taking at 12 months. However, the MBT-A group reported significantly more risk-taking at baseline (t=2.1, df=78, $p < .03$), which accounts for differential linear effects. When the first observation of risk was entered into the model as a covariate the significance of the differential linear change between the groups became only marginally significant (group differential rate of change: β= -0.098, 95% CI [-1.34, -0.71], t(159)= -1.79, $p < .073$, $d = 0.28$). Self-report categorical measures of self-harm reflected a similar pattern, although the quadratic time predictor was excluded as it prevented the convergence of the mixed effects logistic regression model. The odds of reporting at least one incidence of self-harm in the last 3 months was reduced only for the MBT-A group and reflected significant difference at 12 months ($\chi^2(1)$=5.0, $p = .01$). Interview data on self-harm confirmed the self-report result. In the TAU group, 68% of participants were rated as definitely self-harming by the blind assessor compared with only 43% of the MBT-A group (Fisher's exact test [one-way] $p < .05$).

16.4.2 Depression

The level of self-rated depression decreased for participants in both groups following both quadratic and linear paths (see Table 7). The linear rate of decrease was somewhat greater for the MBT-A group ($p < .04$) and the model yielded a significant difference at 12 months. The size of the mean difference was greatest at 9 months, with the difference between the two groups apparently decreasing toward the end of treatment, in line with expectations associated with the impact of termination of a psychodynamic treatment. Using the cutpoint of 8 on the MFQ for probable clinical depression, at 9 months 41% (14/34) of the MBT-A group and 70% (23/33) of the TAU group scored in the clinical range ($p < .02$). Adopting the last value carried forward approach for the six participants who provided 9 months but not 12 months of MFQ data, we observed that at treatment end 68% (25/37) of TAU and 49% (19/39) of MBT-A scored in that range ($p < .08$).

16.4.3 Borderline features

The number of participants meeting BPD criteria is shown in Table 8. The mixed effects logistic regression indicated a significant differential change in proportional odds ratios across the two measurement points (group differential rate of change: β=0.072, 95% CI [0, 0.91], $t(140)$=-2.03, $p < .042$, $d = 0.34$). By 12 months, 58% (18/31) of the TAU group but only 33% (10/30) of MBT-A participants met CI-BPD criteria for BPD diagnosis (Fisher's exact test, $p < .05$). Scores on the BPFSC are also shown in Table 4. The reduction in self-reported borderline personality features was significant for the combined group but was significantly greater for the MBT-A group than the TAU group ($d = 0.36$).

16.4.4 Process measures

The mean HIF total scores are shown in Table 8, reflecting a combined score for accurate recognition of affect and prediction of action in hypothetical scenarios, which was used as a measure of mentalization. Scores were unchanged in the TAU group and increased in the MBT-A group as might be expected on the basis of the intervention ($d = .38$). Scores on the self-report measure of dissociation were not significantly changed over the course of the study in either group. Attachment style was measured on the ECR scales. Attachment avoidance ratings decreased pre- to post-test in the MBT-A group only, and substantially more than in the TAU group ($d = 0.42$). Overall, the correlation between ECR avoidant scores and self-harm scores at the end of treatment was highly significant ($r(59)$= -0.55, $p < .001$), as was the correlation between change in HIF total scores between beginning and end of treatment and self-harm ($r(59)$= -0.48, $p < .001$). A multiple linear regression predicting self-harm scores at the end of treatment from these two variables was highly significant ($F_{2,56} = 22.81$, $p < .001$, $R^2 = 0.43$), with both ECR avoidance and HIF total scores independently contributing to the variance (β= 0.62, 95% CI [0.30, 0.94], $t(58)$= 3.88, $p < .001$ for ECR avoidance, and β= -0.17, 95% CI [-0.23, -0.10], $t(58)$= -4.73, $p < .001$ for HIF). Figure 9 shows that the path analytic model meets the Baron and Kenny (1986) criteria, and once changes in HIF total score and ECR avoidant scores were controlled for the effect of MBT-A on self-harm was no longer significant. We applied the Hayes (2009) modification of Sobel's test (Sobel 1986) using bootstrapping to estimate indirect effects and test the significance of the indirect paths. Both indirect paths were significant (β= -5.95, 95% CI [-6.45, -1.03], $z = 2.36$, $p < .01$ for ECR avoidance, and β= -2.84, 95% CI [-6.08, -0.35], $z = -1.97$, $p < .03$ for HIF).

Figure 10

133

ECR avoidance

-5.2 (1.67)**

0.60 (0.17)***

-6.92 (2.7)**

MBT-A

Self-harm

0.97 (2.41)

16.7 (7.58)*

- 0.17 (0.38)***

HIF total
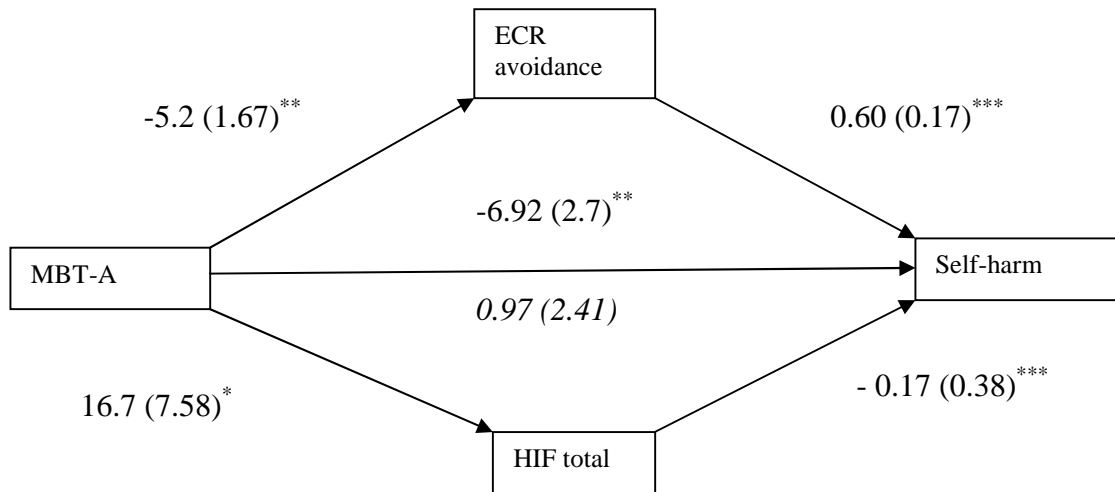
Mediation of effect of MBT-A on self-harm scores at the end of treatment. Path coefficients (s.e.) are shown with the association of MBT-A on self-harm controlling for specific indirect effect of ECR avoidance and HIF change shown in italics.

134

CHAPTER 17

DISCUSSION

The researcher was hoping to explore whether a modified form of MBT originally developed for adults with BPD would be more effective than routine care in reducing the recurrence of self-harm in a clinical sample of adolescents. In this treatment model, individual MBT and MBT for families was used in combination (whereas in the adult model a combination of group MBT and individual MBT was used), and maximum treatment length was reduced from 18 months in the adult group to 12 months. In general, both groups benefitted from treatment in terms of self and observer reports of self-harm. The effect size of linear change across the two groups was around 0.40. Recovery was not complete in either group, with 69% of the sample still self-harming at the end of the 12-month intervention. The relatively modest recovery rate across the two groups confirm the view that incidence of self-harm is hard to shift during adolescence (Asarnow et al., 2011; Wilkinson et al., 2011).

Compared with the young people in the TAU group, those receiving MBT-A fared relatively better, with recovery rates (no report of self-harm in the previous 3 months) at 44% compared with 17% in the TAU group. Interview-based assessments blind to group assignment confirmed the differential effectiveness of the treatments, although they estimated recovery somewhat higher (57% vs. 32%). To the researcher's knowledge this is the first time that a specialised treatment intervention for self-harm has been shown to be significantly more effective than TAU. In previous trials, specialist treatments could not be shown to be superior to routine care in terms of reduction in self-harm – this is true both for studies where self-harm was the inclusion criteria and studies where the inclusion criteria was either BPD or depression (where the majority of the patients had self-harm behaviour as well). This is notable as, unlike in some of the other trials, the comparison was with treatment of similar complexity and frequency as the specialist treatment arm. Nor can the difference in the outcome of the present trial be attributed to an inferior comparison group in terms of outcome. The standardised mean difference (SMD) between baseline and posttreatment self-harm scores for the TAU group alone was 1.06 ($r = 0.47$), which would be considered a substantial gain and is comparable to those observed in other treatment studies (Chanen et al., 2009). The SMD for the MBT-A group was substantially larger at 1.62 ($r = 0.63$), which of course accounts for the differential rate of change between the two groups. It should also be noted that the vast majority of this self-harming group presented with comorbid depression (96%), a combination that other recent studies have identified as strongly indicative of subsequent suicide attempts (Wilkinson et al., 2011).

135

A further important result observed in this trial concerned changes in self-reported depression scores on the MFQ. No previous study of the treatment of self-harm in adolescence has observed a reduction in depression along with decrease of self-harm (Chanen et al., 2009; Huey et al., 2004; Wood et al., 2001) Fifty-one percent of young people in the MBT-A group were no longer depressed at 12 months, in comparison to 32% of the TAU group. The SMD between baseline and posttreatment depression scores for the MBT-A group was 1.12 ($r = 0.49$), indicating a clinically significant change. It has been suggested that depression is central in triggering self-harm, and the significant correlation between MFQ and self-harm scores (r(n=80) = 0.41, $p < .001$) may give grounds for optimism that in at least those young people whose depression was substantially reduced the decrease in self-harm will also be maintained beyond the end of the trial. Sadly, the long-term effects of most interventions on depression tend to be less compelling than the short-term reductions (Wilkinson et al., 2011), and the hope for this intervention has to be the reduction of recurrence in both arms of the trial relative to the natural history of the disorder.

The results of the trial are hard to interpret in relation to risk-taking because of the significant difference between the groups on this dimension at the start of the trial. Both groups improved substantially of the risk scale of the RTSHI. The improvement of the MBT-A group was greater in terms of linear change than the TAU group, but this may be associated with a regression to the mean in the former. Controlling for the initial differences only partially moderated the differential group effect, and the pattern of scores suggests that MBT-A may make a contribution to the reduction of risk-taking behaviour at least as such behaviours are reported by young people. None of the other studies evaluating the treatment of self-harm reported risk-taking behaviour independently of self-harm. The high correlation between the two behavioural indicators at baseline (r(n=80) = 0.45, $p < .001$) suggest a common underlying mechanism, which in turn calls for treatment protocols capable of addressing both these behavioural problems. From the current results it is hard to mount a compelling case for MBT-A as definitely meeting this challenge, but neither do the results indicate that it unsuitable for such dually focused clinical intervention.

Although this was not a study aimed at recruiting individuals with BPD, nearly three quarters of those referred met DSM-IV criteria for BPD on Zanarini's interview, specifically modified for adolescents (CI-BPD). This was unexpected and, in view of the often observed reduction in symptomatology during the course of adolescence, should perhaps be treated with caution (Johnson et al., 2000) Those in MBT-A treatment were somewhat more likely to lose the diagnosis at the end of treatment. However, given that self-harm and suicidality are two separate criteria included in the interview, controlling for self-harm substantially reduces this effect. Nevertheless, a reduction associated with MBT-A was also observed on the BPFSC scale, which

covers a broader range of symptomatology, suggesting that the treatment may have influenced a broader range of personality features. Given that MBT has been shown to be effective for adults with this diagnosis (Bateman & Fonagy, 1999). it may be reasonable to expect that it may have the same effect in this population group.

The study explored the impact of MBT-A and two potential mechanisms that may mediate change: attachment and mentalization. Self-rated attachment avoidance changed in association with MBT-A, and mentalization as measured by the HIF improved specifically in this group as well. The change in mentalizing did not account for attachment avoidance, and the regression including both terms suggested strong independent associations with self-harm. Mediation analysis confirms that both paths remained significant and that the effect of treatment condition was removed when changes in mentalizing and attachment avoidance were included in the path analysis. Positive change in mentalizing would be expected in terms of the theoretical framework to bring about a reduction in self-harm. Being able to represent negative affect states reduces their impact and the need to act in order to achieve control of negative subjective experience. In the past, attachment has been considered to be an essential precondition to changes in mentalizing; in particular, it has been suggested that a secure attachment relationship creates the necessary trust for intersubjective processes key to the acquisition of mentalization to take place (Fonagy, 1998). At first sight the current findings contradict this assumption.

More recently, Bateman and Fonagy (2006) have considered mentalizing as a multidimentional construct incorporating attention to internal and external cues of mental states; a balance of attention to cognitive and emotional concerns; mentalizing in relation to the self as well as in relation to the other and, perhaps related to all these dimensions, explicit (reflective) and implicit (intuitive) mentalizing. The items on the HIF are more likely to address explicit mentalizing, while the quality of attachment relationship may be more strongly related to intuitive processes associated with representing mental states. Thus, the two paths of change demonstrated in this study may suggest the involvement of different processes that are engaged by a therapeutic process focused on mentalization. Improved understanding of neural development in adolescents offers a potential biological framework for interpreting why an approach focused on enhancing understanding of mental states may be particularly helpful for adolescents.

While the findings of the study are promising, there are several key limitations to this investigation that qualify the conclusions. The sample size is small, with only 80 participants randomized. The effect sizes observed were statistically significant but modest, with the effect sizes of the difference between groups never reaching 0.5 (Cohen's definition of large effect size). In addition, the results concerning risk-taking behaviour are somewhat difficult to interpret, given the

137

substantial difference between the groups at the start of treatment. The comparison treatment was not manualised, and thus it is possible that some of the difference arose out of the disorganising impact that adolescents with self-harm can have on treatment planning and case management. It should be noted, however, that the TAU group was offered equal amounts of treatment. While these treatments were more likely to be focused on the primary psychiatric symptoms rather than self-harm, all interventions would have been evidence-based following guidelines established by the UK National Institute for Health and Clinical Excellence. The fourth limitation is that the results were delivered by a single provider organisation, although three separate clinical teams were involved in the delivery; nevertheless, given that the researcher was the supervisor of all the teams, the generalisations are limited beyond this study. The intervention requires additional training and is of relatively long duration, and we do not yet know whether the gains will be maintained after the end of treatment.

While this is a preliminary study, given the absence of successful therapeutic interventions for self-harm in adolescents supported by RCTs in the literature, this initial demonstration of the usefulness of MBT-A in reducing self-harm both as reported by young people and as assessed at independent interview blind to treatment allocation, larger scale studies evaluating MBT-A for a population comorbid for depression and self-harm may be warranted.

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140

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149

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APPENDIX

SECTION 1: MBT-A MANUAL

SECTION 2: ETHICAL APPROVAL, LETTERS, INFORMATION SHEETS, CONSENT FORMS

SECTION 3: TOOLS USED

SECTION 1   MBT-A MANUAL

Chapter 1   Overview of MBT-A

1.1   Development of mentalization

Fonagy (2006), Fonagy and Bateman (2006,2007, 2008) and Fonagy and colleagues (2002) defined mentalization as "the capacity to differentiate the self from the other; the capacity to be able to perceive one's own mental states and the mental states of others; the capacity to see oneself and others as agentive and that internal mental states, such as feelings, beliefs, desires, drive what is outwardly observable in terms of behaviour". It includes "the capacity to ascribe mental states to others so their behaviour can make sense and be predictable".

Mentalization is a skill that develops in the context of an attachment relationship. At birth the human infant is unable to regulate their emotions themselves (Fonagy, 2000), to acquire this capacity the infant requires the caregiver to accurately understand and respond to the moment-to-moment changes in their emotional state (Fonagy, 2000). This is thought to be achieved through the caregiver mirroring back to the baby their emotional experience in a marked way, which labels it, and communicates that it is controllable. The markedness of the mirroring signals that it is symbolic of the baby's emotion, and not the mother's own emotional state, and forms what has been termed a 'secondary representation' of the experience in the baby's mind (Bateman and Fonagy, 2004). This forms the "core self" in the baby (Fonagy, 2000). The core self therefore is a representation based on the caregiver's understanding of the infant's feelings as well as their perception of the infant as an intentional being. This leads to an inner representation in the infant of itself as an intentional/agentive being and this is thought to generalise to the representation of others leading to the development of a mentalizing model of the world (Fonagy, 2000).   These capacities help the child to manage the complexities of social reality (Fonagy, 2000).

When the caregiver's representations of the infant are based on misattuned attributions the infant will internalise these representations of itself and hence the secondary representation in its mind will be alien to the authentic mental state and intentionality of the infant. This alien representation however becomes part of the inner self concept and has been labelled the "alien self" by Fonagy

163

(2000). Repeated experiences of this kind will finally lead to a situation where the infant or young child's mind is dominated by the alien self. The inner experience of the alien self is akin to the experience of an inner tormentor – it is the constant experience of inner criticism, self hatred, lack of internal validation and expectation of failure. The self is hated and through the projected lens of the alien self, the external world can be perceived as potentially hostile, humiliating and attacking.

As it was stated earlier, the internal representations in the baby of itself as an intentional being contributes to the ability to form representations of others as intentional beings which leads to the capacity to mentalize oneself and others. This growing ability will lead to a greater sense in the infant that the relational world is meaningful and predictable. Mentalizing has been considered an important interpersonal resilience factor (Fonagy, Steele, Steele, Higgitt, & Target, 1994; Fonagy & Target, 1997)

In an internal state dominated by the alien self where the inner representations are alien to the self, representations of others which are therefore generated will similarly be inaccurate and will therefore lead to the experience that the relational world does not make sense and neither is it predictable. In this way the alien self will interfere in the development of mentalization[35].

1.2 The Basic principles of MBT-A

The primary aim of MBT-A is to help young people and their families improve their awareness of their own mental states and the mental states of others through the enhancement of mentalization capacity. The emphasis is on improving their understanding of the mental states and processes that drive behavior and relational patterns, as opposed to exploring the unconscious content driving these states, or applying behaviorally derived management strategies to specific behavioural symptoms of distress.

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[35] The origin of mentalization failures can arise from the alien self formation, as has been described, or from other causes such as constitutional factors, causes that interfere in brain development or any other organic factors.

164

The underlying assumption fundamental to practicising MBT is that certain maladaptive behavior patterns and/or escalating family conflicts regularly result from a failure in mentalization. Central to this assumption is the suggestion that mentalization failure impacts on emotional regulation. MBT proposes that failures in mentalization can instigate affect dysregulation within an individual, which in turn produces further mentalization failure as affect storms further derail thinking capacity. Such emotional dysregualtion in one individual rarely exists in a bubble of isolation in which all others are spared, instead the mounting dysregulation and mentalization failure migrates into the individual's interpersonal world, where many relationships fall prey to mentalization failure, characterized by escalating interpersonal misunderstanding and conflict. Furthermore the spread of mentalization failure often culminates in some form of concrete act, or 'acting out' behavior, exhibited by one or more of the individuals involved – be it through self harm, physical violence, slamming doors, breaking things, taking drugs, or running away. It is because of this process that the emphasis of MBT is not on managing the symptomatic, overt behaviors, but rather on understanding the multitude of ways in which mentalization has broken down, and the ways in which this affects the people within an individual's social system. To this end an important MBT endeavour is to track back to the moment before the breakdown in mentalization in order to explore and understand the emotional and interpersonal context in which the failure originated.

The second point to bear in mind in this work is the developmental phase of adolescence. Young people are exceptionally vulnerable to difficulties with mentalization due to the extensive neurochemical changes they are undergoing, in addition to the sudden influx of sexual hormones both of which occur in conjunction with the individual's interpersonal world becoming increasing more complex. Practitioners working with young people should be acutely aware of their vulnerability and sensitivity to sudden changes in affect and remind themselves that this may be indicative of prior loss in their ability to mentalize. As described above, in MBT the practitioner's aim in such circumstances is to notice this, to explore the emotional and interpersonal context in which the failure occurred, and then to attempt to help the young person mentalize the experience.

1.3   General Principles

To achieve these goals there are a few principles an MBT therapist follows. The first principle is for the therapist to maintain a mentalizing stance, the characteristics of which will be discussed later in this section. For a therapist to maintain such a stance, a mentalizing structure around the therapist is necessary. Key elements of this structure include; a mentalizing clinical team, a theoretically

165

coherent treatment approach, and consistent application of the approach over time. In dealing with young people and their families where the currency of communication and the management of emotions has become action and acting out behavior, the therapist may be invited, and expected, to take part in some form of action in order to intervene. Many of us will be familiar with how easy it is to give a knee jerk response, usually involving some form of action, in order to manage the immediate anxiety or provocation of particular forms of acting out behavior. As described above highly aroused states in an individual easily induce aroused states in those around them, the therapist and the treatment team are not immune to this experience, and along with others will at these times face challenges to their ability to mentalize, as mentalizing abilities are often impaired in the face of increased emotional arousal. It is for this reason that a thinking, and mentalizing, team, who are not sitting in the flames of the heat of the arousal, can help the therapist restore their own mentalizing abilities before they act impulsively.

In the context of this work it is also helpful for therapists to hold onto the basic assumption that affective states are usually aroused in interpersonal contexts. Frequently we encounter young people who inform us that they feel depressed and wish to die, and who report that their feelings are not related to anything, it is just the way they feel – "it is just the way I am". In such instances this assumption can help us identify a way through this senseless state in order to mentalize their experience of meaningless distress through identifying links with recent interpersonal encounters. Thus this work is intrinsically relationship focused.

When families and young people present to our services family life is often dominated by painful experiences and coercive, non-mentalizing, styles of relating, that leave everyone in the family feeling overwhelmed and incompetent, as if whatever they try results in failure and experiences of hopelessness. Our role is to try and help shift families away from the non-mentalizing cycles towards mentalizing discussions that promote trust, understanding and effective communication. This will enhance mastery and control in the family and ultimately aims to convert passivity, helplessness and lack of reciprocity into agency and connectedness, through promoting reflection and elaboration of mental states in oneself and others.

The final principle, given the proneness to mentalization failures amongst young people, is our role in creating a mentalizing scaffold to protect against the young person's vulnerabilities. This is achieved in the following ways:

1) Be sensitive in what you say and when you say it. It is important for the therapist to be empathically attuned to the patient as this guides mentalizing dialogue. Deep interpretations about unconscious drives or unfamiliar aspects of a person's psyche rarely feature within this model. If the therapist refers to aspects of a patient that they are not in touch with, or do not understand, they are likely to feel misunderstood and as such may withdraw or become angry. When the patient is aroused long, or complicated, interpretations will be lost even if they are accurate. When the heat of the arousal is high, interpretations should be short, empathic, supportive, and affect focused; when the patient is in a calmer state, further exploration may be possible. These guiding principles highlight the need to acknowledge that patients are not static – in certain states of mind their ability to listen and interact is very limited and at other times much less so. It requires the therapist to be light on their feet and alter interventions according to the patient's mental state which can change moment to moment. The approach also calls for therapists to be sensitive to their own contributions to the patient's state of mind. Misunderstanding of the patient by the therapist, or miscommunication in the clinical team, can result in a patient being treated with inconsistency, and may lead to mentalizing failures. Therefore it is important that therapists and teams spot their own contributions to the process and take responsibility for mistakes in order to prevent the escalation of these mentalizing breakdowns. The underlying principle outlined here is that the therapeutic relationship is a two way relationship – the patient's mental states can impact powerfully upon the therapist's, and the therapist too can impact upon their patient. It is inevitable that misunderstandings will happen, the challenge is to be aware of it when it happens, to take responsibility for it, and try to repair it; in other words to understand misunderstanding.

2) In exploring moments of mentalization failure in young people, or in families, we work our way back to try and mentalize with them at the moment when things broke down. This process allows them to develop a more accurate understanding of what others felt which returns them to a position of reflection and openness. Consistent re-experiencing of this in the therapeutic process ultimately strengthens a client's own mentalizing ability.

1.4   The role of the alien self

The development of the alien self has been discussed above. The diagram below is an attempt to illustrate the role of the alien self in non-mentalizing cycles in families. Clinically it is important for clinicians to be aware of the potential presence of the alien and its ability to elicit non-mentalizing cycles of interaction when present.

With the following diagram we are hoping to demonstrate a non-mentalizing cycle:

```
┌──────────┐                ┌────────┐              ┌──────────┐
│ Strong   │                │        │              │ Impact   │
│ feelings │ ─────────────► │ Action │ ───────────► │ on others│
│ in one   │                │        │              │          │
│ person   │                └────────┘              └──────────┘
└──────────┘                                              │
     ▲                                                    │
     │                                                    ▼
     │          ┌────────┐                          ┌──────────┐
     │          │        │                          │ Strong   │
     └───────── │ Action │ ◄─────────────────────── │ feelings │
                │        │                          │ in second│
                └────────┘                          │ person   │
                                                    └──────────┘
```
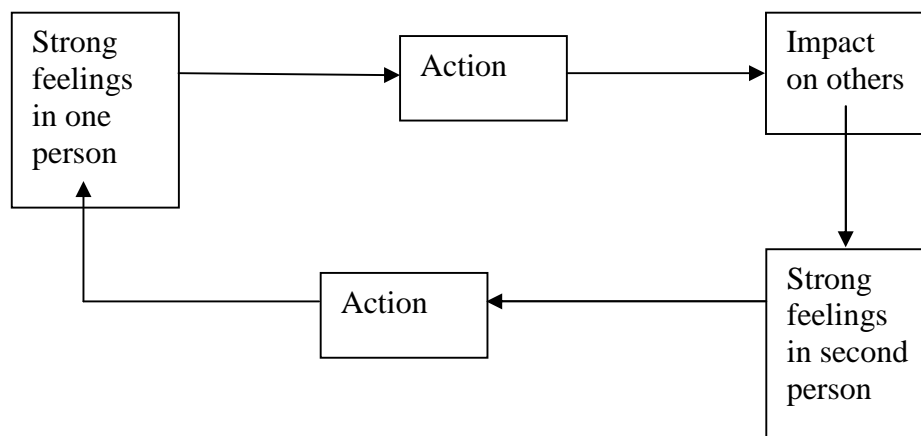
 To illustrate this with an example:

Feeling: Sally starts to feel anxious because she had a bad day at school and felt bullied by the other children. When she feels anxious she starts to believe that there is something wrong with her body, such as that she might be having a heart attack, she then feels terrified that she may die.

Action: She rushes to her Mom and insists on being taken to hospital.

Impact: Her mother feels irritated by this demand as she has learned over time that there is nothing physically wrong with Sally, and no matter how many times she and the doctor have told Sally that she does not listen. Her mother thinks Sally is just attention seeking.

Action: Sally's mother tells her to go away and that she is imagining it.

Feelings: This makes Sally feel that her mother was not listening to her and this makes her furious.

Action: Sally goes to her room and starts throwing things out of the window.

Impact: Sally's mother gets angry and frightened that the situation is going to get out of hand.

Action: She tells Sally to go into the garden and locks her out of the house.

Impact: Sally feels that her mother does not love her and she feels desperate. She feels horrible, bad and unlovable and she starts to panic.

168

Action: Sally starts throwing bricks at the window to be let in.

Impact: Now Sally's mother starts to feel frightened of her. She is frightened Sally will break a window and hurt her two younger children; she feels helpless and unable to know what to do, she starts to panic and finally calls the police. At this stage she feels incompetent as a parent, helpless and frightened.

At the crescendo moment of such an escalating cycle both parties feel like victims. Not only do both parties feel attacked by the other, but both feel terribly bad feelings about themselves. They feel bad, incompetent, unlovable, etc. This is an example of how activation of the alien self gets expressed during interpersonal interactions. If we as clinicians intervene in a situation where the alien self is activated, it is extremely important to be aware of the proneness under these circumstances for people to feel blamed or attacked. The golden rule is to form an empathic alliance with the experience of people in this state, acknowledging how hard it is to feel as if whatever they try fails. In that way we make empathic contact with the authentic self, this in turn creates an experience of safety in the alliance and a reprieve from the onslaught of the alien self. This alliance will create the opportunity for reflection which will set the stage to try and mentalize where things went wrong. Once mentalization is restored, the influence of the alien self will be reduced.

1.5 Remoralization, remediation and rehabilitation of mentalizing

When family life is dominated by non-mentalizing interactions people fail to make sense to one another. when under the influence of the alien self, as illustrated above, all parties often end up feeling bad or blamed and attacked. At the start of our work we provide families with a formulation (see below) which explains our understanding of their difficulties in a mentalizing and empathic framework. The aim of the formulation is for family members   to see themselves and the others in the family from a different perspective that can allow a 'remoralization' of their experience, i.e. one which describes behaviours and interactions as understandable responses to mental states , and mental states as understandable responses to other's behaviours etc. This remoralization is supported by interventions that aim to remediate the specific neuropsychiatric and addictive disorders that exacerbate mentalizing problems and, in turn, are made worse by breakdowns in mentalizing. These two steps serve as the launching pad of the longer-term process of rehabilitation

169

of the mentalizing capacities that generate agency, reflection and connections with others and promote more effective means to manage stress, adversity and vulnerability (Bateman and Fonagy, 1999).

Chapter 2

What does mentalizing and non-mentalizing look like in clinical practice?

2.1   Effective mentalization has the following features:

- Curiosity about the mental states of others, as well as self-inquisitiveness about one's own mental state.
- Awareness of the impact of one's own mental state on others.
- Awareness that mental states are opaque.
- Acknowledgement of the possibility of different perspectives
- A non-paranoid attitude.

(Bateman & Fonagy, 2004)

2.2   Examples of non-mentalizing thinking:

In general when an individual is in a non-mentalizing mode of functioning they tend to focus on concrete factors when explaining behavior, for example they may attribute a behavior or event to 'tiredness', 'laziness', 'the school', 'the neighbours', etc. In such states individuals can exhibit a preoccupation with rules such as shoulds or should nots and they may deny any personal involvement with the problem at hand whilst casting the blame elsewhere. These modes of functioning are typified by a general culture of blame and fault finding. Another manifestation of non-mentalizing is the expression of certainty about the thoughts and feelings of others. The various forms of non-mentalizing are outlined below; the concepts included here were originally developed and described by Batman and Fonagy (2004, 2006).

Non-mentalization manifests in the following categories:

171

- Concrete mentalizing, which includes psychic equivalence and teleological thinking; i.e. thinking styles commonly associated with earlier developmental stages.
- Pseudomentalizing:
    o Pretend mode
    o Intrusive mentalizing
    o Overactive mentalizing
    o Inaccurate mentalizing
- Misuse of mentalization

2.2.1   Concrete mentalizing:

Concrete mentalizing is the most commonly observed category of mentalization failure, it refers to an inability to understand mental states. In this mode of thinking behaviour is often understood in concrete terms. Two forms of thinking dominate this category: psychic equivalence and teleological thinking, which can be described as follows:

Psychic equivalence is a state of mind in which the internal state is equated with external reality, i.e. where thoughts or feeling are treated as facts. For example, someone with panic disorder who has a thought that they may have a panic attack, but the thought then is experienced as a fact and not a thought and hence this brings about a full blown panic attack, in other words, the content of the mind has been equated with external reality. Another example will be a young woman who feels afraid that her boyfriend may be unfaithful, but the next minute she feels convinced that he has been unfaithful – the feeling of fear changes from a feeling to a concrete fact.

Teleological thinking is often observed through the insistence on concrete acts to represent emotions, for example a young person who can only know her boyfriend loves her when he sends her a text; or the young person who will only know that the staff care about her when they touch her, such as examine her or apply dressings to her wounds.

A hallmark of concrete thinking is the absence of flexibility and the use of generalizations, such as constant blame or self blame. For example statements such as: "this is so typical of you", "this is because of your genes", "this is because of your father", "he is just lazy", "you always….", "or "you never…..".   Other common examples of concrete mentalizing demonstrate the inability to see one's impact on others and a difficulty in seeing how one thing leads to another.

172

Case Examples:

Below is an example of a session with a 15 year old young man who was referred to our service with a history of cutting himself, taking overdoses and having great difficulty in managing relations at school. . He also has a strong history of violent outbursts and impulsive behavior including one incident in which he was reprimanded by the police for attacking another young man. He grew up with his mother and two half siblings from different fathers. His mother has a past history of drug abuse. The young man experienced life as unpredictable; he grew up surrounded by volatile relationships and experienced consistently inconsistent boundaries. This upbringing meant he had very little ability to manage his own feelings and hence frequently fell back on concrete ways of trying to reassure himself of his safety and concrete ways of managing his feelings. This small vignette from one of his sessions illustrates both his concrete mentalizing style and the therapist's attempts to mentalize his feelings.

P: I broke up with Michelle. You remember I wanted to see her last Friday and she said she was busy. Later I found out that she was only busy for 1 hour and I could have seen her. So Saturday I thought I am not having it, I may as well end it with her rather than wait around for her. I sent her a text and said, 'if you do not call by by 5 o'clock it is over'. She texted straight back saying 'I am sorry but I am a happy person and you are always moaning and it brings me down'. So I thought, ok whatever, and just left it.

T: Gosh, what did that make you feel?

P: I felt nothing. I just don't understand, I was always happy when I was with her. I don't see how she could say I am always moaning. The only thing I moaned about was that she just never answered her phone. Any boyfriend would want that, isn't it?

T: So when she did not answer her phone, what did you feel?

P: It felt as if she did not care. Jenny always answered her phone and that is how I knew she cared.

T: And when you felt she did not care, what did you do?

P: I would phone her non-stop and I would text and leave messages. It is not right to ignore me like this. I sometimes I called her 20 times and she would ignore me. I then think she's met someone else. And I sort of saw it coming, so Friday evening when I went dancing I flirted with people and then I met this new girl. So I thought I'd like to take her out, so I pretended to be drunk and then said to her that I would like to take her out. I thought if I pretend to be drunk and if she says no, then I will just say the next day that I was drunk and that I do not remember anything. Then I won't have to feel embarrassed. So she did not do that, but said she'd like to go out with me. So Saturday when I dumped Michelle I already had the other one lined up, so I did not really care about Michelle anymore. So now life has moved on and this weekend I will go out with her for the first time. And this week I felt really happy. This girl is really special. We have so much in common, she is pretty….

T: Can I just slow things down a bit to try and catch up?

173

P: Yes it is a bit fast isn't it? I always do that, I always have one in reserve. The minute I see trouble coming I get one in reserve.

T: It seems to me all of this action about phoning her so many times and getting another girl in reserve are all ways in which you try and manage a terribly anxious feelings inside you.

P: Yes but now I don't feel it because the new girl answers her phone all the time, just like Jenny did, so it helps me.

T: So when Michelle did not answer her phone what did you feel?

P: I felt anxious that she was seeing another guy and then I phoned again and again.

T: If I think someone I like is seeing someone else, it would make me feel angry.

P: Yes I felt I could smash my phone up. I wanted to break her door down.

T: So part of phoning her so many times was also an angry thing?

P: Yes I suppose it is a bit smothering, maybe that is why she said I was moaning. But any guy will be upset if he is ignored….

In a further example of concrete mentalizing John, a 16 year old man came to his outpatient session stating that he was upset about his girlfriend being unfaithful to him and that he was going to "dump" her after the session. The evidence of her unfaithfulness, he told me, was in a text he received from her. He then read the text to me and it said something about her wish to be with him and that she was going to break it off with her previous boyfriend. She ended the text with the sentence "I will tell him that". I did not understand what was upsetting to him about the text, so asked for clarification. He explained that if she had said "I will tell him that when I see him next", it would mean she was going to see him in the future, but instead her saying "I will tell him that" meant she was with him when she sent the text. In John's mind if his girlfriend was with her ex-boyfriend then she was unfaithful to him. In his rage, and driven by his impulsivity, he wanted to send her an immediate text to tell her never to contact him again. With careful work I stopped him from acting out, slowed him down and helped him to see his distortion and how in his distortion he missed the true message of the text, which was about her love for him. Only after he calmed down, and after he was less impulsive and more in touch with her as a person with feelings towards him, could we explore his deep fear that she would leave him.

2.2.2 Pseudomentalization:

Pseudomentalization is linked with **pretend mode** functioning, it describes a state of mind where there is an apparent interest in mental states, but this is disconnected from reality.

Common forms forms of pseudomentalization include:

Intrusive mentalization:

This arises when the separateness or opaqueness of minds are not respected. Statements made about mental states in this mode are improbable and based on little evidence. This state of mind is often characterized by certainty about the thoughts and feelings of others.

Intrusive mentalization is commonly observed in family sessions, for example when parents incorrectly ascribe mental states to their children's behavior without any attempt to try and understand what a child is actually feeling. An example of this was a mother who complained that her child is deliberately behaving in an angry way because the child's father is aggressive and hence the child is like his father. In this instance very careful work revealed that the child's anger was related to him feeling blamed and misunderstood by his mother, and his feeling that whatever he does seems to make her angry. A few sessions alone with the mother revealed her unresolved anger at her ex-husband for leaving her for someone else and her deeper feelings of humiliation and rejection. Once her feelings were understood she was more able to notice how in her mind she was confusing her son with her ex-husband.

Overactive mentalization:

This form of pseudomentalizing is characterized by excessive effort to try to understand what people think and feel without actual connection with true state of the person in question, such explanations can be confusing and obscure.

2.2.3   Misuse of mentalization:

This form of non-mentalizing occurs when someone has an accurate understanding of the mental state of someone else, but they use this exploitatively for their own gain. This is sometimes seen in hostile divorce cases. The far extreme of misuse of mentalization is seen in sexual perpetrators who

175

accurately perceive a child's vulnerability and use this to foster a relationship with the child for the sole purpose to abuse the child. Bateman and Fonagy (teaching slide) describes the following example:

"You are such a bastard. You never think about how the children feel when you are late! Johnny was really upset and disappointed because he had been waiting to show you his soccer trophy. When you did not come he felt you did not really care about him anymore. Maybe it would be better if you did not bother to come at all!"

The misuse of mentalization is often present in the face of coercion and threats in order to try and control someone else. It is also present in examples of deliberate attempts to humiliate someone else or to induce painful feelings in someone else.

Chapter 3

Structure and process of MBT-A

3.1   Introduction

Mentalization based treatment for adolescents, MBT-A, is a modification of the adult MBT program developed by Bateman & Fonagy (2004). MBT-A is usually delievered as a combination of individual MBT and mentalization-based family therapy (MBT-F). In day patient, inpatient and partial inpatient client groups the structure also includes MBT group interventions in addition to various skills based groups described later in this manual. MBT-A programs have been developed in two different settings; these included intensive outpatient treatment as well as inpatient, partial inpatient or day patient program. The specific application of MBT-A in these settings will be described later in the manual.

 MBT-A includes the following phases, all of which are derived from the original adult model:

- Assessment
    - Diagnostic
    - Cognitive
    - Mentalization
- Initial phase
    - Formulation
    - Contract
    - Crisis plan
    - Psycho-education
- Middle phase
    - Enhance mentalization
    - Gain impulse control
    - Enhance awareness of mental states of others
- Final phase
    - Increase independence and responsibility

- Consolidate stability
- Develop follow-up plan
- Understanding and processing of the meaning s of the ending and a focus on affective states associated with loss
- Discharge planning and liaison with partner organizations.

3.2   Assessment

The goals of the assessment phase is multitude; one the one hand it leads to a diagnostic formulation which includes a cognitive assessment in some cases; it also includes the evaluation the adolescent's mentalizing capacity as well as the inter-relational family functioning and identification of stressors that impinge upon their parents mentalizing capacity. This assessment integrates clinical evaluations, (observations and interview), with standardised measures[36] chosen to incorporate each of the domains specified above.

The average duration of the assessment phase is approximately two weeks. The assessment often involves a session or two with the individual therapist as well as a session or two with the MBT-F therapist. The psychometric assessments are conducted by research assistants/assistant psychologists.

3.2.1   Assessing Psychiatric Disorders

By the assessment of psychiatric disorders we refer to the assessment of both Axis I and Axis II conditions. This assessment combines clinical evaluation and a number of standardised measures which are listed in appendix... The goal of assessing psychiatric disorders is threefold: Firstly, some conditions may require specific additional interventions, such as anti-depressants for depressed

[36] Measures used were measures such as the following: : (1) SH Risk: Taking and Self-Harm Inventory : RTSHI (Vrouva et al, 2009), (2) BORDERLINE PERSONALITY TRAITS: Borderline personality features scale for children (BPFSC) (Crick et al, 2005); Childhood Inventory of DSM-IV Borderline Personality Disorder (CI-BPD(Zanarini 2007) Adapted from the Revised Diagnostic Interview for Borderlines (Zanarini et al, 1989), Millon Adolescent Clinical Inventory (MACI): borderline scale (Millon et al, 1993); (3) MOOD Short Mood and Feelings Questionnaire (MFQ) (Angold et al, 1995) ; How I feel (HIF) (Sandell et al, 2008) (4) MENTALISATION: Computerised child version child version of the Reading the Mind in the Eyes Test - RMET (Baron-Cohen et al., 2001) Mentalisation stories test for Adolescents (MSA) (Vrouva et al, 2008 unpublished)   Levels of emotional awareness scale (ALEAS) (Pratt, 2006) and (5) ATTACHMENT: Experiences in close relationships Scale (ECR) (Brennan et al, 1998); Inventory of Peer and Parent Attachment (IPPA, short version) (Armsden et al, 1987). Control variables: We include a short demographics questionnaire, gathering information about gender, race, religion, socio-economic status and IQ using paper and pencil measures (Ravensburg Progressive Matrices (Raven et al, 1998), Mill Hill Vocabulary (Raven et al, 1998).

mood or stimulants for ADHD. Secondly it is important to be aware of co-morbidities; longitudinal studies have indicate that young people who present with multiple diagnoses in adolescence are at increased risk for pathology in adulthood, and those who present with co-morbid Axis I and Axis II disorders in adolescence are have been demonstrated to have a nine fold increase in their risk of developing subsequent psychiatric illness, and more severe overall psychopathology (Crawford et al., 2008; Kasen et al., 1999). Thirdly it is helpful to have an awareness of the presence of psychiatric conditions which can impact on mentalization. One component of successfully mentalizing the experience of the young person and their family is to develop an understanding of how certain psychiatric symptoms interfere with the ability to mentalize.

3.2.2   Assessing Cognitive and Executive Functioning and Emotional Regulation

Not all treatment programs undertake formal IQ testing as standard. In one of our programs assessment of IQ was routinely carried out for the purposes of research. More commonly formal IQ assessment is only undertaken when the collateral information, i.e. the clinical assessment or screening measures (see appendix..) indicate that an individual may have a learning disability. The purpose of these tests, similar to the diagnostic tests described above, is to ascertain whether cognitive impairment may also influence mentalization capacities and to help mentalize the experience of the young person and their family in a way which incorporates these difficulties.

As an example, Susan, aged 15, was admitted to hospital following an overdose taken with suicidal intent. Susan also has a history of smoking cannabis and abusing solvents since the age of nine. Her school attendance has been poor and, due to behaviour difficulties, she has had multiple expulsions. Susan is somewhat of a loner. She is covered with tattoos and has several piercings on her face including three rings in her bottom lip. Her language is littered with expletives and she has shown a general disinterest in any program offered to date. When asked about her mood on admission, she stormed out of the room and shouted "of course I am F..ing depressed" before she slammed the door. Her parents are very worried about her, but feel that they are not able to help or to understand where things might have gone wrong. They tried to stop her from smoking when she was nine, but she remained defiant until they eventually gave in. They claim not to have been aware that she was smoking cannabis.

Following a thorough assessment it became clear that Susan had an undiagnosed learning disability and was barely able to read or write. This helped the team to understand her difficulties at school and her social isolation from a different perspective. It also helped to understand how her armour of aggression and verbal abuse was a way of holding herself together and protect a very vulnerable internal state where she often struggled to make sense of the relational world around her.

179

Measures which assess executive functioning give an indication of a young person's impulsivity and as such can inform the evaluation of risk and severity of related symptoms. Assessing a young person's ability to emotionally regulate themselves at the outset of the therapeutic process is useful in helping the young person and their family to find a way of understanding emotional storms which in the absence of such understanding can leave all involved feeling perplexed. The effectiveness of these assessments was illustrated in the case of Emily, a 15 year old adolescent who was admitted to hospital following a series of self harming episodes and overdoses. Emily and her mother's account of the difficulties was that Emily was mad and suffered from mood swings. They explained that Emily will be perfectly normal the one minute and for no reason be threatening to kill herself the next minute. Assessment indicated the presence of emotional storms, but not of bipolar affective disorder. In trying to understand the emotional storms described we asked for recent examples. It unfolded that each storm was precipitated by intense emotional experiences in Emily, such as jealousy, anger or humiliation which arose in an interpersonal context. It became clear that these emotional reactions triggered dissociative states in her which were accompanied by failures in her ability to mentalize; the combination of these experiences left her feeling confused and unable to make sense of herself and others. At such times Emily's mind reverted back to psychic equivalence mode, where concrete solutions and actions seemed the only possible way for her to manage her mental state.

3.2.3   Assessing Mentalization

Mentalization failures can be persistent or intermittent. Persistent failures are commonly observed in young people with autistic spectrum disorders and other neuro-developmental conditions. However, intermittent failures are the more commonly associated with adolescent turmoil, specifically with emotionally arousing situations that arise in the context of an attachment relationship. An individual may in fact mentalize very well in general circumstances but in the face of extreme emotional arousal will develop a temporary inability to understand, or even pay attention to, the feelings and experiences of others. Mentalization is therefore assessed in the context of the attachment relationships in the young person's life. It is important to explore current and past relationships, and to focus on both relationships within the family and relationships with peers. It is helpful to examine in detail how relationships are connected to the young person's symptoms, such as self harm or suicidal behaviour.

Mentalization in a family can be assessed by observing the interpersonal interactions during a session, but it can also be elicited with the use of mentalizing questions such as those listed below:

180

- What do you think you felt inside you when you did that?

- Do you think that your life now is affected by things that happened to you earlier in your life?

- Why do you think your Mom did that?

- What do you think your Mom felt when she said that?

- When your Mom said that, what happened inside you?

In the assessment process it is useful to try and get an idea of the quality and style of someone's relationships over a longer time frame, such as over the last year. When listening to the patient's dialogue a therapist should be asking themselves; Do relationships tend to be stable or do they have a tendency to fluctuate from being very intense to very distant; are relationships dominated by a culture of paranoia?; are they inflexible? Similarly when observing family sessions therapists should ask themselves, what patterns of interaction do the family get stuck in?

Although the assessment explores the influence of the past on present relationships and feelings, the therapeutic aim in MBT-A is not to explain the present through the lens of the past in the hope that this will lead to insight and change. Whilst there is value in mentalizing the pain of the past, the crux of the work is to mentalize current events in the here and now as they unfold. This focus helps young people have new experiences of themselves which will create a break with the influence of the past. Thus assessment questions regarding how the past influences a patient's current life are not asked with the aim of creating an exploratory focus and insight into the present-past link, but instead to act as a way to assess the young person's ability for self reflection and mentalization about self and other.

3.3   Initial phase

3.3.1   Formulation

The assessment phase is followed by a session with the young person during which they receive a copy of their formulation to read, following by a discussion of the formulation. This process is replicated in MBT-F where a formulation of the difficulties is discussed in a formulation session with the family. The formulation discussion sessions also include setting out the crisis plan, treatment plan and treatment contract.

The aim of the formulation is to explain the diagnosis in mentalizing and relational terms. It is also to present an understanding to the young people and their families that will make them feel understood and help them to see themselves objectively as well as the subjective experience of the others. This experience often helps families towards remoralisation and away from blame or guilt. The formulation also provides a springboard to outline a treatment pathway that highlights the specific ways in which treatment interventions can assist the young person and their families to gain a sense of control. The family formulation refers to the family members' understandings of one another as well as of how they feel affected by each other. The formulation forms the basis for discussion. For example, 16 year old Jason, and his parents, were provided with a formulation that pointed to the diagnosis of major depression, a diagnostic picture that was consistent with the boy's self-report and the mother's view, yet at odds with the father's perspective. Jason's father viewed him as a spoiled, provocative, angry, attention-demanding brat, a view which contrasted with his mother's perception of a desperately miserable, sensitive, and tormented youngster, afraid of losing control. The formulation invites both parents to enter a collaborative endeavour, with each other, with the family as a whole, and with the diagnostic and treatment team, suggesting that the exploration of the differences in their views of their son is a step for each of them to consider alternative views.

Jason's individual formulation referred to his personality style, it pointed to his maladaptive pattern of regulating his emotions and coping with intense emotions and relationships in which he shows a disposition to dissociation and to lose contact with reality. It described how he is particularly prone to this experience in the face of intense arousal, stress, and feelings of vulnerability. He is highly intelligent and frequently escapes into a world of words and web-based images as well as using drugs, all of which helps him to numb himself.

Assessment of executive functioning and mentalizing capacity further indicated how susceptible Jason was to impulsive action and to a breakdown in mentalizing when exposed to feeling of vulnerability, dependency or neediness. In these moments Jason would quickly escalate to feeling out of control which he in turn felt enormously ashamed and humiliated about it. Jason's "solution" was to go into pretend mode, seeking to "trick" others and ultimately himself with the illusion that he could control his own feelings and mind, and the availability and reactions of others. (Bleiberg et al., 2012)

The formulation describes the young person's problems in the context of mentalizing breakdowns. These breakdowns are explained in the context of interpersonal relationships and perceived threats to the continuity and safety of the self and attachment. Mentalizing failures often give rise to coercive patterns of behavior which can undermine effective use of treatment. The notion of

182

coercive cycles, driven by emotional arousal and mentalizing breakdown, helps parents appreciate the interpersonal nature or the youngster's, and their own, problems. Discussing the formulation with the family plays a crucial goal: it enlists the parents as partners and it helps to shift from discussing behaviors that need to be controlled or eliminated – the "dialogue of the deaf" between caregivers who bemoan their child's "out of control" behavior while the young person bristle and reject their parents efforts to control them – to a mentalizing conversation that enables family members to grasp each other's point of view and convey their own perspective.

Framing the goals of treatment along these lines focuses the therapeutic process on first assisting the parents in achieving or maintaining mentalizing in the face of the very pressures that have prompted their own retreat from mentalizing, so they can, in turn support their children's mentalizing. Such an approach involves inviting parents to collaborate in identifying what experiences and interactions lead to their feeling buffeted by emotional turmoil and unable to adopt a mentalizing position in respect to themselves, the other parent and their children. A major focus of the work with the parents, therefore, is to identify stressors impinging on the parents that affect their mentalizing and parenting capacity and help them access support and/or treatment for themselves. (Bleiberget al., 2012)

3.3.2 Crisis Plan

A detailed crisis plan is included in the formulation. The example below is an illustration of a formulation and a crisis plan. Crisis plans aim to highlight factors which may trigger an emotional storm or impulsive behaviour. The plan aims to try and kickstart mentalization again, and failing that, the plan sets out clear alternatives which can be followed instead of dangerous solutions driven by the derailment of mentalization. A written crisis plan, which the young person takes home also fulfils a slight teleological function (this means that it provides young people and their families with a concrete, written plan which can help to contain some initial anxiety and leave them with a concrete representation of hope, help and care) which is often necessary in the beginning phase of work.

3.3.3 Example of a formulation.

<u>Background Information</u>

183

When you were referred to this service you reported a two year history of feeling depressed and harming yourself. At times you have felt so depressed that life did not feel worth living. You thought your parent's divorce three years ago, your mother's subsequent depression, your father's drinking and his recent violent relationship with his girlfriend all played a role to make you depressed. You spoke about feeling guilty as if it was all your fault. Before you came to us for help you entered into a relationship in which you allowed someone to treat you in a disrespectful manner, almost as if you were being punished. All of this made you feel terrible about yourself.

Personality Style:

Form what you told us and based on the tests you completed, it seems as if you tend to be an introverted person and that you value time on your own as it helps you to feel calm. When you are with friends you can feel very worried that you will be hurt or that you will not be liked. When you feel like that, you hold yourself back but in doing so you do not give people a chance to like you which in turn reinforces for you that they do not like you.

It also seems that at times you are able to form passionate attachments to others, but then you can become suspicious and anxious that you may be rejected. It seems that relationships can at times make you feel a rollercoaster of different feelings, from love to anger. Sometimes your mood can also swing from sad to happy. Sometimes you can feel so overwhelmed emotionally that your mind goes blank and then you can feel numb. The problem with this coping strategy is that it then makes you feel disconnected from what you or other people feel and then it is sometimes difficult to understand what is going on and then action feels the only thing available to you - it is at these times that you have a tendency to harm yourself.

You often relate to others in a self sacrificing manner and at times even allow others to take advantage of you. You also at times tend to present yourself in a negative light to others. You can feel deep pain as your mind often dwells on past pain and misfortunes. This is very sad, because then you are not able to see your own good qualities.

Treatment Plan:

We propose to offer you a treatment in which we suggest a combination of individual therapy once a week and family therapy once or twice a month delivered by the community team.

Crisis Plan:

Trigger factors that you and I identified are times when you feel rejected, humiliated or bad about yourself. As we have discussed , these feelings do not just arrive out of the blue, they are likely to

have been triggered in a close relationship. When you have those feelings you tend to rush into an action to take the feelings away. When you feel like that again, I would like you to try and stop the action by trying to delay it for 10 minutes. Then use the 10 minutes to try and reflect on what was happening a few moments before you had the bad feeling. That might help you to understand more clearly what it is that you feel as well as what might have happened in a close relationship which may have contributed to the feeling. Once you have this understanding more clearly it may be easier to think about a solution or to see things from a different perspective. Once that has happened you may not feel as if you need to rush into action anymore. If that fails and you still feel at risk to harm yourself, try to explore alternatives to self harm:

Do something physical and strenuous like going for a run, try and distract yourself or talk to a friend or someone you trust or try and think about a person you know who loves you and imagine what that person would feel and say to you if you were to talk to them

Sometimes you harm yourself when you numb yourself emotionally. When you get into such a state of mind, try to remember that it is not a good state of mind for you to be in and it is harmful to you. Try and bring yourself back to reality – do something to occupy you, like talking to someone, playing a game, writing a poem, painting or watching something that can hold your attention on TV. Don't just sit and stare into space with your mind full of negative thoughts about yourself.

If all else fails, call the clinic and ask to speak to me and I will call you back when I can.

3.3.4 Contract

The contract is an agreement about the treatment plan, including the duration of treatment, and commitment required of all those participating, it can be written or simply discussed in an early session.   From experience it is not uncommon for some parents to view the young person as the only one in need of help and consequently believing they do not need to attend sessions themselves. Therefore it is recommended that the contract explains the importance of everyone's engagement and the process of working together. The contract also explains expectations regarding the behaviour of patient's, staff, and families, such as respect for confidentiality, the exclusion of violence and drug use. In/day patient settings have additional rules such as the avoidance of sexual relations within the setting and access to the internet. It is useful to have a general leaflet available to all patients at the start of their therapy that explains the rules in a straightforward manner as well as explaining why they are important, this can include references to how certain behaviours and practices can interfere with mentalizing and the treatment program. For instance, violence controls minds through fear and closes them down rather than opening them up; drugs and alcohol suppress
185

the parts of the brain involved in the mentalizing process (Bateman & Fonagy, 2006). The rules also protect the integrity of the treatment program and define boundaries of professional involvement.

Despite these benefits Bateman et al (2006) remind us to be mindful of the negative impact of contracts as they can at times be perceived as punitive and lead to concrete mentalizing in the treatment team if adherence to a contract gets perceived as the aim of their work. This can be particularly problematic when coercive cycles of behaviour become challenging and provocative towards staff leading to a mentalizing failure in the treatment team and a premature discharge due to non-adherence to the program.

Medication Review

At times young people receive medication during their treatment program. Medication review forms part of good medical care and, in the outpatient group this often requires that the patient is seen by a child psychiatrist who can provide a regular review of medication. In the in/day patient group the mediation review will take place during the regular reviews on the ward.

3.3.5   Psychoeducation

The formulation session with the family is followed by a psycho-educational session (see MBT-F chapter for example of psycho-education handout). In some settings this session has been delivered to groups of families together. The aim of psycho-education is to help families take on board the principle that behaviour has meaning, that feelings arise in a relational context, and that people have a powerful emotional impact on one another. The format of the psycho-education session can vary, in some settings it is delivered as an informal discussion with the family making use of examples from their everyday life to illustrate the key principles. In the multi-family group it can involve the use of discussion and games, role plays and video material.

3.4   Middle Phase

The aim of the middle phase is to enhance mentalization in the young person and their family through developing their ability to become more aware of mental states in themselves and in others. The ultimate aim is to transform non-mentalizing states and the coercive interactions that ensue into a more mentalized way of being, where there is more understanding of one another, more trust and clearer communications, and where helplessness and passivity can be turned around into mastery. Helping the young person and the family gain better impulse control is another aim of this phase, as the lack of impulse control continuously undermines the development and use of mentalizing abilities. This work facilitates the introduction of specific interventions to manage suicidal, parasuicidal, and other harmful or impulsive behaviors, such as substance abuse, binging and purging, or fits of rageful, threatening behavior. The middle phase can be seen as the remediation and rehabilitation phase of mentalization. The length of this phase is 9 - 10 months long.

3.4.1   The mentalizing stance of the therapist

It is crucial for the therapist to maintain a mentalizing stance in which the primary concern of the therapist is the state of mind of those in the therapeutic session. The therapist continually constructs and reconstructs an image of the patient in his mind to help the patient apprehend what he feels and why. In this way the patient finds himself in the therapist's mind and the therapist finds himself in the patient's mind; the two together develop a mentalizing process. (Bateman & Fonagy, 2006) In the first instance the therapist aims to establish a therapeutic alliance with the patient which is often underpinned by an empathic attitude towards the struggles of the young person and their family. The mentalizing stance involves an awareness of the opaqueness of mental states and hence in order to understand what someone else is feeling the therapist uses active questioning which helps to create reflection and the opportunity to explore the relational context. The therapist also actively highlights alternative perspectives.

The mentalizing stance does not involve a neutral therapist with a still face; it involves a therapist who engages actively with a young person and their family. At times this may even involve the writing of letters for housing, or meetings with other agencies such as education. During a time of crisis it may involve a telephone call in between sessions to help the young person or family manage a difficult situation.

As was discussed earlier, the mentalizing stance involves sensitivity to our own errors and the giving of an apology when we have made an error, such as forgetting a session etc. It also involves a level of self reflection about one's own contribution to a patient's mental state. Questions to oneself, such as: "Have I missed something?", "what is happening now?", "why am I feeling like I do?" can help to create such a reflective stance.

Useful guidelines to follow in order to maintain a mentalizing stance is as follows:

It is important to keep the focus of the work on what is current. This would mean that if a young person is experiencing a state of distress, it is not useful to try and link it to the past or a distant event. It will be much more useful to try and understand what happened in the present just before the emotion was triggered. Rewinding a present situation to what happened just before and to try and understand the interpersonal context just before the break as well as all the nuances of emotions which may have contributed to the young person experiencing a loss of ability to mentalize. Focussing on what is current is more likely to feel real to the young person and help them feel understood as well as enable them to mentalize the moment where their mentalizing abilities derailed.

Interpretations which are long or full of too many complex concepts will not be effective. Interpretations which aim to give long explanations are likely to be ineffective too. Short interpretations which are affect focussed is more likely to be heard and more likely to make the young person feel understood.

In summary, a pathway for intervention will have the following components:

> ➢ Identify affect
> ➢ Explore emotional context
> ➢ Define interpersonal context
> ➢ Examine broad interpersonal theme

(Bateman & Fonagy, 2004)

3.4.2   Mentalizing technique

Apart from the mentalizing stance which acts as a constant orientation of the therapist, the following techniques are used throughout the therapeutic work:

188

a) **Supportive and empathic interventions** – the MBT therapist will spend most of the time making use of this technique. The purpose of this technique is to establish emotional contact; to try and identify the affect and the interpersonal context and to establish a therapeutic alliance. This intervention is not a form of passive agreement with everything a patient says, instead it is an active process which often includes active questioning or making sure with the young person one has understood what they said correctly, such as " let me just check that I understood what you said..." At the start of therapy this technique is used almost exclusively. It is used as a backdrop or springboard during the remainder of the therapy – only once the alliance is established and the young person is in a state of mind where they are not over aroused, will other techniques be useful. At any stage in therapy when the young person gets aroused or when the young person's mentalizing capacities fail, it is important to return to the supportive and empathic stance and to try and empathise with the aroused affect with the aim of trying to mentalize it with the young person. The effectiveness of the mentalizing technique lies in the therapist's ability for empathic connection with the young person and to differ their interventions depending on the young person's affective state. Complex interpretations or comments about unconscious motives are not part of this intervention. Telling patients what they feel is also not part of this intervention.

An example of this is the following:

Charlotte, a 16 year old in our inpatient unit with a history of self harm and anorexia threatens to discharge herself, saying that she wanted to leave because she wanted to go home and kill herself. She seemed angry and upset and she was not making eye contact with anyone or able to hear anything anyone was saying to her. She constantly said over and over again – 'let me go, let me go, I need to go, I need to kill myself. Her state of agitation evoked anxiety and agitation in those around her and very soon non-mentalizing cycles ensued where all communication was reduced to communication about action – she was going to leave to kill herself and the inpatient team was considering restraining her or sedating her to prevent her from leaving. The correct mentalizing technique would be to avoid jumping to action, but rather to try and make empathic contact with her to try and understand what she feels, what happened and what was the interpersonal context in which her mentalizing abilities broke down.

T: Can I just try and understand what you are feeling?

P: I want to leave, I want to die.

T: You seem very upset, what happened?

P: Nothing, I just want to leave. I will not get better and I had enough. I want to die.

T: I hear that. You seem to feel very desperate.

P: I have to die.

T: Why, what have you done, it sounds like a death sentence?

P: I killed my mother.

T: How do you think you killed your mother?

P: I gave her stress and that caused her cancer and that is why she is dead.

T: It is also her cancer which caused you stress and like she did not deliberately have cancer to cause you stress, you did not deliberately have stress to cause her cancer. You must have felt very scared, perhaps like you are feeling now?

P: It was all my fault. I think I should call the police and tell them I killed my mother.

T: Maybe sometimes one should also be able to call the police to stop cancer taking one's mother away.

P: I really don't want to be alive. Cries.

T: It is so, so sad to loose one's mom.

P: I don't know how to go on.

She became desperately sad and allowed herself to be consoled. She was no longer angry and threatening to kill herself. We moved from action mode to mentalizing mode where feelings could be understood, shared and contained.

b) Clarification and elaboration

Clarification is the technique which is frequently used to try and understand or make sense of behaviour. Therapists will be quite active whilst using this technique and be asking many questions to help clarify. The aim is to try and reconstruct events so that they are clearer. This is followed by or used in conjunction with affect elaboration in which the therapist tries to elicit feeling states. This is often difficult for young people and it is frequently helpful to

them if the therapist reflect on what it must feel like to be in that situation. Often young people have mixed feelings and it can be helpful to explore deeper feelings they may have underneath what appears obvious on the surface, for example a young person may appear to be angry, like in the example above, but careful exploration revealed the sense of guilt and the deep sense of loss underneath the guilt. Other times a patient may seem in a state of rage, but careful exploration could reveal a sense of humiliation or feeling of failure.

Clinical work in adolescence has frequently revealed the presence of a malignant alien self which leads to such severe internal attacks causing terrifying internal states in which the young person feels useless, like a failure, unlovable, hopeless, etc. The ferocity of the internal attack is such that it is unbearable and what particularly makes it unbearable is that due to the lack of a capacity to mentalize their experience, the experience is felt, not as a feeling, but a fact. Therefore the flight into action.

Clarification and affect elaboration act as mechanisms that can slow the action down and it tries to identify the feelings on the surface, but also the more painful feelings underneath those whilst also trying to identify the interpersonal context in which the feelings were triggered. By doing so, the therapist helps the young person to mentalize what they feel and what happened. Once mentalization is "turned on" again in the young person, the influence of the alien self is reduced.

Clarification and affect elaboration does not happen as techniques on their own. Implicit in this technique is the supportive and empathic therapist's stance.

c) Basic Mentalizing

Basic mentalizing techniques have been described by Bateman et al (2006) as 'stop, listen and look' and 'stop, rewind and explore'. This helps both the patient and the therapist to pause and to replay something that happened in the session in order to try and understand it better. This may refer to something the patient said which seemed a bit glossed over in the narrative or something that happened in the session. Often in a session when a patient responds with "whatever", it is a good indication to the therapist that something happened between them in which the patient feels misunderstood. This is a good time to stop and to rewind and to try and find the moment where mentalization was lost. This technique is frequently used in MBT-F when non-mentalizing interactions are taking place between members of the family. The purpose of this technique is to try and restore mentalizing in the

191

session or in the family. The technique is frequently used in combination with clarification and affect elaboration.

In practice when a therapist becomes aware of non-mentalization being at play in the session, then the therapist need to stop what is happening and try and explore at what point things went wrong and why it did. In a family session clarifies who feels what and tries to see things from different perspectives. Exploratory questions such as " I wonder if ..." can help to highlight feelings or in family sessions, questions such as " what do you think he/she is feeling....... would you like to ask them?" can be used to open feeling states up.

d) Challenge

When mentalization breaks down in a session, it is important to be aware of it and to pause and explore or use challenge to kick start mentalization again.

An example of this technique is a session with a young person, Denise, who cut her face and neck prior to her mother picking her up for weekend leave. She was doing well in the week with no episodes of self harm. She tends to see herself as an innocent victim in interpersonal interactions and she often has a constant mantra in her mind of herself as unlovable and a firm belief that others do not like her, despite clear evidence of the opposite. She constantly feels her mother does not understand her and that her mother is in the wrong for getting upset when she harms herself – instead of her mother's distress being seen as a sign of her care, Denise sees it as evidence of her mother's lack of care.

When her mother arrived to pick her up, she was faced with Denise's face and neck looking like a road map. She was so distressed and shocked that she ran to the toilet and threw up. Denise innocently waited outside for her mother with a large piece of art in her hand with the words " I love you Mommy" written on it. In an emergency session with them, Denise was trying very hard to convince her mother that she cut herself because she hated herself. She could not elaborate on it or draw any links to anything that happened or any other feeling in her. She seemed unable to understand the impact of her behaviour on her mother and she mostly felt that her mother was being an uncaring and selfish for being upset – could her mother not notice her love for her with the card she's made?

T: I think what your mom said is that she heard the message on your card that you love her, but I think she is battling at the moment with another message – she feels there is another message carved into your face and she is struggling to understand it.

P: But it has nothing to do with her. I did it because I hate myself and when I do, I need to cut. It is the only way in which I can feel better.

T: I don't know Denise, the whole week you did not cut and then just before your mom comes, you cut yourself where she would be able to see it straight away. What did you think she was going to feel when she saw you?

P: I knew she would be upset, but that is not why I did it. I hate myself, that is why I did it.

T: Do you want to ask your mom what she felt when she saw you?

P: What did you feel?

M: I felt angry, I felt devastated and upset and I feel powerless. It so hurts me to see you in pain and I do not know what to do to make it better.

P: You are always angry with me and blaming me, but you don't understand, this is not my fault, I can't help it, I hate myself.

T: I did not think your mom was blaming you, Denise, but I think what it looks like is that things can now easily turn into an argument between the two of you, is that right?

M: Yes at this stage we will start to accuse one another and then we argue and then Denise storms off and I then worry about what she will do to herself.

T: Did you realise when you were cutting yourself this afternoon that it was creating a scenario that was going to lead to a fight?

P: No, I just hated myself and I did it.

T: It seems as if what you did set you and your mom up for a fight. That makes me wonder whether it may have been about any feelings you may have about going home?

In this example the patient was in a concrete mentalizing mode in which behaviour does not have meaning and she hangs on to a non-mentalizing filler by saying I did it because I hate myself. She is also not noticing her impact on those around her and she is hoping that the concrete card of I love you, will obscure the far more scary message. The challenge in the session is used to try and turn mentalizing back on in the hope that the more difficult underlying feelings could be expressed and mentalized, which would de-escalate the non-mentalizing crescendo of acting out.

e) Transference tracers

The use of the word transference in this sense is a bit misleading as it implies a reference to deep unconscious material from the patients past and internal object relations which are transferred onto the relationship with the therapist. In MBT however the word is used slightly differently. It is seen in a broader context than just in the context of the therapeutic relationship, in other words, it refers to all other relationships in the patient's life. Secondly it is restricted to the here and now and not seen and understood in the context of the past, in other word it is not seen as projection of unconscious material. In that sense the emphasis is on understanding the interpersonal interaction and feeling states are seen as in response to current interpersonal interactions.

When during a session it becomes clear that a patient has particular ways of expressing or experiencing specific feelings, one could make a transference tracer comment. This means a comment which draws the patient's attention to a non-mentalzing distortion which seems to re-occur in several interactions – both in the therapy as well as in relationships outside the therapy. An example of this will be:

"It seems that whenever you have to share your dad's attention with someone else, you feel angry and then you feel he does not care. Perhaps that may mean that sometimes when you have to wait to speak to me, you may have similar feelings."

f) Interpretive mentalizing

Like with transference tracers, the term interpretation can be misleading and be mistaken for referring to interpreting deep unconscious conflict or material. Instead the emphasis here is on interpretive *mentalizing,* in other words, making an interpretation in the service of mentalizing and not making the unconscious conscious. The basic structure of this technique involves presenting alternative perspectives. This has to be done carefully in order to avoid the patient feeling dismissed by the therapist. Usually the therapist will use clarification and affect elaboration first with an empathic stance and only after that wonder about the possibility of different perspectives. Examples would be such as: " I see that what you say about what you think about your mother's motives is a possibility, but I wonder if there may be other possibilities too" or " yes I can see that you feel you need to kill yourself, but I wonder if there may be other options too".

g) Mentalizing the transference

The transference in MBT refers to the hear and now interaction between the therapist and the patient. In that sense it refers more to the interpersonal domain than a projection of an intrapsychic object relationship. In other words if a patient in a session respond with a comment such as " you don't care" the therapist could try to mentalize the transference by trying to explore what it was that the therapist had said or done that made the patient feel like that. In this way we, as therapists, take responsibility for the emotional impact we have on our patients, particularly if there are moments where we misunderstood them. Bateman et al (2006) described it as follows:

"Whilst we might well point to similarities in patterns of relationships in the therapy and in childhood or currently outside of therapy, the aim of this is use to control their behaviour pattern, but far more simply as just one other puzzling phenomenon that requires thought and contemplation, part of our general inquisitive stance aimed to facilitate the recovery of mentalization." (p. 139)

Mentalizing the transference is supporting the patient to think about another mind, their impact on someone else, another mind having another perspective and how they are impacted upon by someone else or by their thoughts about the other's mind, feelings or thoughts. The techniques described earlier about clarification and affect elaboration which are used to mentalize other relationships are used in the same way in mentalizing the transference relationship too.

The following steps can be followed to mentalize the transference:

- Validate the feeling: " Gosh I can see that me frowning could make you feel that I am angry"
- Clarification and affect elaboration: " Could it be that I am not angry but that I may be feeling other feelings?" Patient respond: " You don't believe me" Therapist: " I am trying to understand what you are feeling at the moment and I am trying to understand why you are feeling like that – I don't know if I am right, but you suddenly seem scared of me, can we try and go back to when the feeling started, I want to see if I did or said something that made you feel like that" Patient: " When I spoke about the abuse, you frowned and it scared me because I thought you were angry with me and you do not believe me" Therapist: " But my face showed that I was gripped by what you said and I was affected by what you said – why on earth would I be angry?" Patient: " I don't know, maybe I am scared that I will shock

and that you will feel disgusted" Therapist: " I wonder if this is perhaps about a very painful and deep feeling of disgust inside you which was caused by the disgusting thing he did" Patient: " I do feel such disgust" Therapist: " and then it is hard to imagine that someone else may be feeling compassion and not disgust"

- Accept enactment (if any): Bateman et al (2006) stated that most of the patient's experiences in the transference are likely to be based on reality in the sense that the therapist may have been drawn into the transference and acted in a way consistent with the patient's perception. For example: " Yes I can see that I looked a bit angry. I think I did feel a bit frustrated when you said again and again that you were going to run away and kill yourself and when I felt you did not want to allow any thinking or talking – I think I felt a bit pushed away by you and a bit helpless."

3.4.3 Specific issues

a)   Child protection:

When there are child protection concerns, the normal child protection procedures should be followed

b)   Suicidal risk:

When a patient is felt to be posing a real suicidal risk, then a brief crisis admission may be needed. It is advisable that this is kept brief so that the therapeutic work is not affected. The admission should not terminate the therapeutic work and after the admission, it may be necessary to mentalize the admission with the patient as they may feel angry that they were admitted, or may feel that you were trying to abandon them, etc.

c)   Hallucinations:

In the author's experience it is not uncommon for young people who have been abused to develop hallucinations in the absence of other psychotic symptoms. The hallucinations often come in the context of dissociative states. The content of the hallucinations is often trauma related, for instance a voice expressing disgust or hatred – as if those feeling states in the young person become so split off from the self experience that it feels so alien to the self that it is experienced as the voice of someone else who is experiencing the feeling. In the author's experience, antipsychotic medication is of little help. It is of more help to validate the frightening experience of the hallucinatory experience and to provide a mentalizing

narrative which tries to make sense of the hallucination in the context of the overwhelming experience of trauma.

d)   Trauma and flashbacks:

Those young people who suffered severe abuse and who are constantly flooded with flashbacks and dissociative experiences and confusional episodes where the past and the present is interchanged presents a particular technical difficulty. Unless the emotional impact and experience of the trauma has been fully mentalized, it will remain unintegrated and hence continue to present in unintegrating ways such as flashbacks and dissociative states. In the MBT technique the aim is always to work in the here and now and to understand mental states in the context of the immediate interpersonal attachment relationships. However if there has been overwhelming trauma in the not too distant past which so floods the present experiences, then to spend time trying to mentalize the present experiences only will not lead to integration of the traumatic experience. Only focussing on mentalizing the traumatic experience, on the other hand, runs risks of its own in that it may border on pseudomentalization, particularly if there are some here and now mental states that do not arise out of the abuse.

e)   Affect storms:

This term has been used by Bateman et al (2004) to refer to highly arousing affective states, such as a state of rage, self harm states or other states of highly impulsive behaviour. As these are states of high emotional arousal, it can very easily lead to an impulsive enactment on the part of the therapist or family members. During these states the following principles of MBT would be helpful – don't aim to focus on the behaviour or feel pressured to *do* something to change the behaviour. Try and understand what happened; what does the patient feel and what happened a few moments ago. Then be empathic and use the techniques of clarification and affect elaboration to try and mentalize the moment. It will not be correct to make deep interpretations or complex interpretations in the height of the arousal. At the height of the arousal, do the following:

Maintain a dialogue – stay calm and keep an empathic stance; keep thinking about what might be going on; continue to try and make emotional contact with the patient. In a patient who may be confused between past and present, it may be useful to help reassure them that they are in the present, re-orientate them and assure them that they are safe. Then:

197

Clarify the feeling – try and help the patient describe the feeling, try and label the feeling. The feeling expressed may be a wish to kill themselves or to kill someone else, etc. Try and help the patient think about the consequences if the feeling is acted out, including the consequences on others.

Then try and understand what caused the arousal – what are the feelings underneath the affect storm, for example does the patient feel angry, or sad, or frightened or hopeless, etc. Validate the feeling if identified and then try and explore the interpersonal context in which it arose. Try and identify deeper feelings which may be beneath the manifest feelings. Is there a link to previous or present relationships? Try and explore different alternatives.

4 Final Phase

During the final phase the aim is to increase the patients' independence and responsibility, and to consolidate the relational stability and sense of mastery in the young person and their family. It also involves creating a coping plan of what to do in the future if difficulties return. The final phase in the outpatient program is about 2 months long.

So much of the developmental battle of adolescence involves the struggle between dependence and independence, their desire to be in control of themselves and their fear of the responsibility that comes with it. A further battle is the battle for mastery both academically and in a social context. Any anxiety with the latter can easily push them into a regressive position of dependence or into a defiant denial of the anxiety and regressive pull of dependence that it pushes them into impulsive risk taking behaviour, which often results in an enactment in the environment around them in which their independence gets limited. In this way the internal battle becomes an externalised one and unless the internal anxieties which are at play in the battle is understood, the battle may be perpetuated in the externalised form and may get acted out and enacted upon as each new anxiety or insecurity with its associated lack of self confidence arrives.

For example, Aisha who was a 15 year old girl, could only be discharged after the deeply seated battle between her and her mother was worked through in which Aisha's mother tried to control and restrict Aisha's time with her friends in responds to her fear of what Aisha may do to herself in the absence of her mother. The more control her mother exerted the more defiant and risk taking Aisha was. Underneath this battle was Aisha's fear that she would not fit in with her friends, feelings of failure and her feeling that she does not have a future due the excessive amount of school she has

198

missed. It was only until such time that her self esteem was restored; that she was re-integrated back into the education system with a renewed sense of competence and until the battle over dependence vs independence were all worked through that she could be discharged successfully.

In the authors experience it is often useful for young people and families when the termination phase includes a tapering off of sessions at the end. For families it is helpful to come back a few months after the "discharge" to have one last session.

Chapter 4

MBT-F

MBT-F stands for mentalization-based family therapy. The aim of the work is to enhance mentalization in family relations and to reduce impulsive enactments, coercion, non mentalizing interactions and escalating affective storms. The first phase of this work involves psycho-education, like with MBT-A. In order to avoid this phase feeling like a lecture, we have found that it is often easier to make use of a multi-family group in which the input given is varied with activities and interactive learning experiences. The main aim of the exercise is to help families understand that behaviour has meaning and that mental states which can be understood underlie behaviour. Once they have reached this understanding, the work in the MBT-F sessions will make more sense to them and they are less likely to drop out prematurely from treatment.

At the start of MBT-F families are provided with a following psycho-education handout:[37]

Therapeutic stance

The basic features of the therapist stance in MBT-F are similar to the therapist stance in MBT. It is important to have real interest and curiosity about what every member of the family feels and to maintain a stance of warmth and respect for every member of the family. Make sure that all family members present will feel included in the session and encourage family interaction in the session. In the author's experience it is important to mentalize the family as they arrive to the first session as

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[37] Please see end of section for an example of the handout.

family members often come with an expectation to be blamed by the therapist and it may be helpful to address this and provide reassurance about our intentions in the first session.

In the family work the following the following 4 basic principles apply: (Fonagy and Bevington, training material)

- Inquisitive stance
- Holding the balance:
  - Holding a balance between observing the natural family interaction and the need to intervene to bring about a change.
- Intervening to terminate non-mentalizing interactions:
  - Non-mentalizing interactions are unlikely to produce positive change, so once the therapist has a clear idea of the nature of the mentalizing problems and once there is a good example of non mentalizing in the session, then it is essential to stop the interaction and to use the techniques discussed later to try and reinstate mentalizing in the family.
- Highlighting and reinforcing positive mentalizing:
  - Whenever there is a good example of mentalizing happening, it is essential for the therapist to stop interaction and to explicitly focus on the good mentalizing.

Fonagy and Bevington (teaching material) describes the following technique, which is called the MBT-F-Loop:

Core Features
The MBFT-Loop

Notice And Name

Checking

Checking

Generalise (and Consider Change)

Checking

Mentalize The Moment
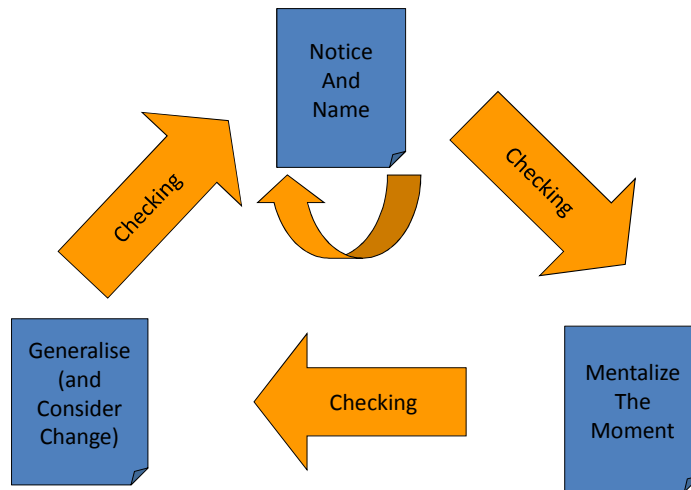
The **notice and name technique**:

Once the therapist notices a non mentalizing interaction which seems like a repetitive one, the therapist pauses the family. The therapist then introduces their observation and checks with the family to see if they agree with the observation and whether there is consensus that this sort of interaction commonly happens. In checking with the family for consensus, the therapist invites them as collaborators in this technique and it helps to move away from blaming and persecutory anxieties. Once the problematic interaction has been noticed and focussed upon, then the family are invited to name it.

An example of this is:

In a family session it soon became clear that Mom had a tendency to blame others and also to blame herself. Each time difficult emotions arouse, it was followed by blame or self blame. Jimmy, her son would respond to this by getting angry and acting in defiant ways and Dave, her husband responded to this by becoming withdrawn. When this interaction became apparent in the session, the therapist said:

" Correct me if I am wrong, but it seems to me each time there is an anxiety around, then, Sally, you feel as if you need to find a solution for it and then you try to sort things out by either feeling someone else made a mistake or you made a mistake, is that right?"

The therapist then checks with everyone to see that they agree with the observation. Then the therapist comments to Dave:

" and, Dave, when Sylvia becomes worried about mistakes, then it seems as if you tend to feel you want to keep out of it, is that right?" And after the therapist checked out that their understanding is correct, then the therapist checks in with Jimmy as follows: " and for you Jimmy, it seems that it makes you feel cross when your mom worries about mistakes, is that right?"

Once the family has agreed to the understanding of this sequence, then the therapist asks: " so does this sort of thing happen a lot?" After the family agrees, then the therapist says: "If this is something that happens a lot, lets give it a name so that we all know what we are talking about. Shall we call it this worry-about-mistake-thing."

The **next step is to mentalize** the "worry-about-mistake-thing" that was identified in the family. In this the therapist uses the family to try and ask of one another what they feel during the "-thing". In this case it may highlight that mom feels very anxious and also feels she has to "fix" the problem and really what underlies that is her deep worry that she has not done enough or that is a failure. It may also reveal that when she gets anxious and blames others or herself that Jimmy feels furious and that underneath his fury he feels his mother does not see his attempts to get things right and that he ends up feeling it does not help to try. It may reveal that underneath his anger he is actually feeling quite sad. With Dave it may be revealed that he withdraws as he sometimes feels Sally excludes him and does not talk things over with him. This may reveal that it makes him feel unwanted and angry.

The next step is to generalize from this and look at other examples where something similar happened and, more importantly to look at ways in which the worry-about-mistake-thing can be different for each person in the future. Here it is important to look at something each of them can do that might make a difference.

MBT-F therapeutic manoeuvres

Coaching

202

This technique is often used when it seems necessary to see a young person/ a parent or both parents on their own in order to help them with mentalizing their own feelings in the absence of the family meeting. This is often used when a parent gets very angry and hostile in sessions and overbearing for those present. Sometimes it is necessary to mentalize and understand the underlying feelings first before the work can continue. In working with very angry and hostile parents, the therapist at times have to use themselves and their own experience to help the parent be able to mentalize their impact on the other. An example is a mother who became so overwhelmingly angry at her daughter's display of distress that it terrified her daughter each time into a silent withdrawal, followed by a suicidal attempt later. In sessions it was impossible to explore the suicidal state as the mother was stuck in her fury and anger with its resultant fearful withdrawal in the daughter. In meeting the mother on her own to try and mentalize her aroused state, she started the session crying and screaming:

"I am so angry, look at what she is doing to me, I am a nervous wreck. She is doing this deliberately to me. Why can't she just stop?"

Therapist: "you feel she is doing this to you?"

Mom: "She is, I know she is, and why do you not make her better, she comes here all the time and she is just the same. I have had enough – nothing is working. I cannot take it anymore. I don't want her home if she is going to carry on like that. I am not taking her home; you can keep her here till she is better."

Therapist: "I really want to know what you feel, but if you are so angry and threaten so much, I cannot think. Shall we just try and slow things down and then think together about what you are feeling so that I can understand better."

In this way the therapist used herself to try and get the mother to mentalize her immobilizing impact on the therapist (which is similar to her immobilizing impact on her daughter). In helping her to mentalize the impact of her threatening stance, the therapist is trying to kick start a mentalizing stance which would lead to some containment of the emotional eruption and make the mother more able to have curiosity about what her daughter feels. In this case it was important for the therapist to uncover some of mother's difficulties in hearing her daughter's feelings as the daughter's feelings about having been raped by a stranger triggered traumatic memories for mother which triggered the episodes of rage each time. Mixed in with the episodes of rage were also her feelings of deep guilt

203

that she was not able to protect her daughter from a similar abusive episode to what she experienced as a child. This made her feel it was her fault and when this painful feeling was understood, she was more able to separate her past experience from that of her daughter and that enabled her more to listen to her daughter in a calm way. This process of working with one individual (or couple) in a family to "coach" them mentalizing skills is used in families such as these where it would be impossible to proceed with the family work in the presence of constant affect storms in the sessions.

Mentalizing games

Sometimes these games are used in the psycho-education sessions, but these games can also be used in working with families. The aim of the game is to help people think about mental states in the others, rather than make assumptions based on behaviour. Various games can be used, such as role plays; feeling bubble games in which family members have to fill in feeing bubbles of what they think some feels; brain scan game in which family members have to fill in the brain scan on the drawing board what they think important things are, for instance in mom's brain. Other games include a ball game in which family members throw a ball at one another with feelings written on the ball and whoever catches the ball has to show others what they think they look like when they have the feeling and perhaps they can also say what makes them feel like that. It does not matter what games are used as long as it gets to the main aim, which is to help family members to become aware of one another as feeling beings who are affected by those around them and who's behaviour is based on feelings inside them.

Example of psycho-education handout.

Making sense of relationships

Why do people what they do? Why do you not listen to me when I tell you not to do something? Why does he drink so much? Why does she cut herself? Why do we always fight?

Have you ever wondered how to make sense of what happens? If you have, well done, you are already showing signs of being to be a scientist, wanting to understand the mind and relationships. We hope that through our journey together your interest in minds and relationships will develop further and we hope that we will all learn and benefit from our work together.

Firstly, we belief that people do what they do because of feelings or thoughts or beliefs that they have inside them. This means that behaviour can be seen as communication. It is telling us something about what someone is feeling. This seems a simple fact and you may wonder why we even mention it as it may seem so obvious. Obvious it may seem as you read it in a calm state of mind, but in reality this gets much more complicated, because the moment we are in situations where we are not calm, like for instance where we have strong feelings, then it is very easy to interpret the behaviour of someone else based on our own feelings. For instance, when we are angry, it is not uncommon to read the behaviour of others as angry too, or when someone is feeling paranoid and suspicious, then they very easily see the world around them as dangerous. This means that we sometimes when we have strong feelings can confuse our own feelings for the feelings of others and in that way, instead of thinking they do what they do because of feelings *they* have inside them, we start to ascribe *our* feelings to them.

This is often where things in relationships start to go wrong. If we make incorrect assumptions about what people feel, then we start treating people based on our assumptions. For example if I think someone does not like me, then I am likely to avoid the person or give the person the cold shoulder. The person may then experience me as cold and rejecting and the person may then think that I don't like them and start to give me a cold shoulder back. I will then read that as confirmation that the person does not like me, and so the story goes on...In that way our assumptions can subtly influence how others feel about us.

We have a name for this business. We call it mentalization. It is a big word for something we all do automatically. Mentalization is the skill to be able to tune into what you feel, in others words, to be able to be aware of your own feelings and the skill to be aware of the feelings of other people. When you think to yourself: " I feel anxious" or whatever the feeling is that you are becoming aware of, you are mentalizing. When you think about what someone else might be feeling, you are mentalizing. When you look at someone else's behaviour and you find yourself thinking: " What was he feeling when he did that?" you are mentalizing. When you empathise, you are mentalizing.

You see what we mean, you do this all the time, don't you? And you do this quite automatically. So what is the issue then, you may ask. If I can mentalize like that, why do we still get into arguments in the family or why do I not get on with my friends or why do I sometimes feel as if I just want to cut myself or get drunk?

The problem is, as we have said earlier, the things that are easy for us to do when we are calm, becomes more difficult when we are having strong feelings. When emotions are high, our ability to mentalize goes down and it is then that we start to behave in non-mentalizing ways and then things can start to go wrong in the following ways:

```
┌─────────────────────────┐
│  Strong emotions        │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│  Loss of ability to     │
│  mentalize, ie loss of  │
│  ability to understand  │
│  others                 │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│  Making assumptions     │
│  about what others are  │
│  feeling or thinking    │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│  Start behaving in ways │
│  based on the assumptions│
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│  Behaviour has an effect│
│  on the way others feel,│
│  which affect the way   │
│  they behave            │
└─────────────────────────┘
```
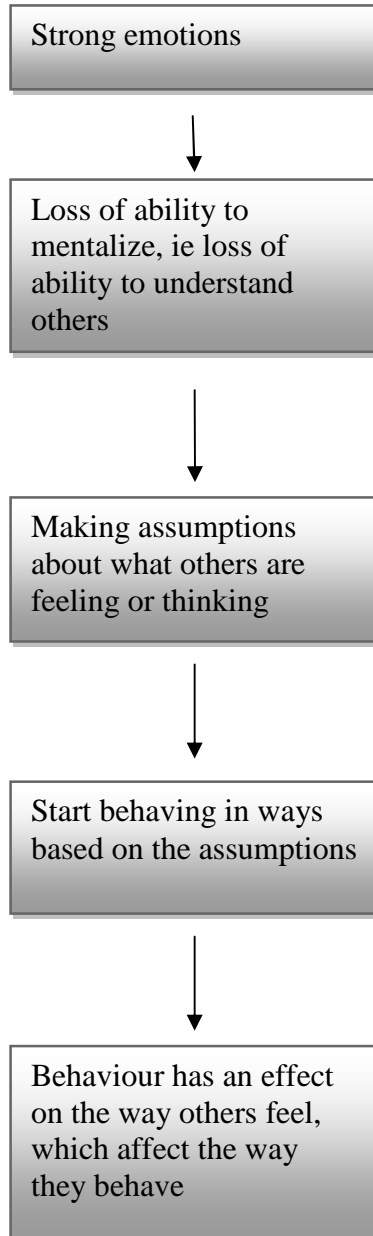
It can be portrayed as follows:
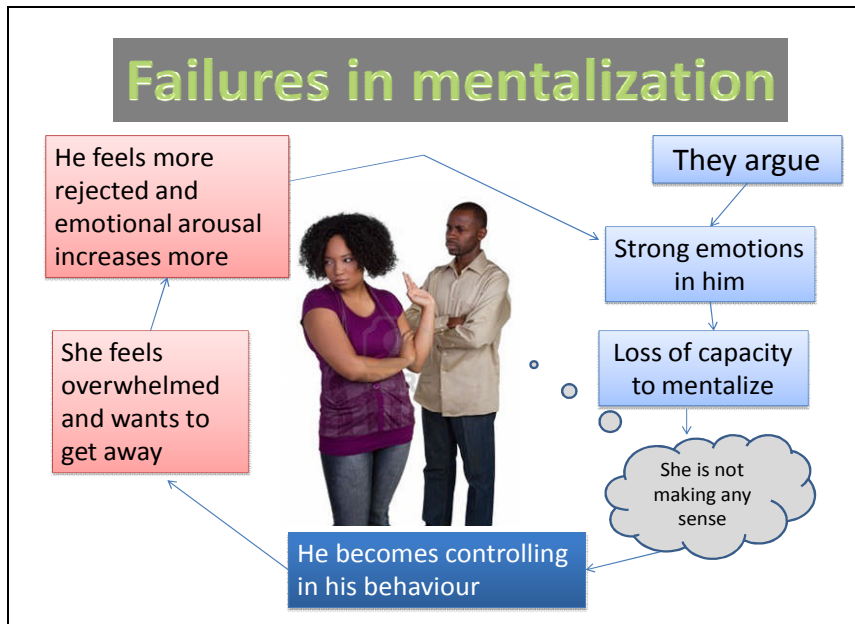
What is non-mentalization?

It is a complicated word for saying something we are all well familiar with. It is describing the state of mind we are in when we are in the grip of strong feelings and when we misread other people, which usually makes us feel worse and usually it leads to a big rupture in the relationship where we misread matters. So the outcome is never pleasant, a bit like the picture above.

What does it look like?

There are various forms of non-mentalizing. The most common form of non-mentalizing is when we do not relate to someone as a person with unique feelings, thoughts and believes inside them and when we treat people almost as if they are some sort of a label. Examples of such labels are: " he is just lazy" or " he is just deliberate, he wants to annoy me" or " she is just spoiled" or " he is ADHD" Further examples are the following: constantly blaming others; constantly blaming yourself; thinking of yourself as ugly or fat or stupid or thinking of others in similar terms. " He is getting angry because he is like his dad" is another example and in this example, instead of trying to think, " why is he angry?" the anger was ascribed to a label which may not have anything to do with his angry feelings at the time.

Further examples are when we treat our thoughts or feelings as if they are facts – for example if I am scared my boyfriend will cheat on me, the next minute I start believing he has been unfaithful and the next minute I send him a text and dump him. Another example is being scared that I will have a panic attack on the train and then having one, just because the thought is in my mind. How many times have we not felt that we should not say something, because saying it makes it real. Similarly if we do stuff to make thoughts and feelings go away, like cut ourselves or do something risky, we are replacing what is in the mind and what is a difficult feeling with something concrete.

207

Sometimes we also rely on concrete "evidence" as a form of not understanding people, for example, you will know someone loves you because they replied to your text, or they cleaned their room or did this or that. Or similarly, the young man who told me he knew his girlfriend did not like him anymore when she did not answer her phone straight away.

One very important point about the mind is that it is opaque. It always amuses us when we meet people and they say: " ah, you're a shrink, so now you will read my mind". Well the surprise is that we cannot read minds and no-one can. If someone does not tell us what they are feeling or thinking, we do not know for sure. We may be able to wonder, based on someone's behaviour and based on our empathy with them, what they are feeling, but we can wonder and we can ask, we do not know with any sense of certainty.

This brings us to another common non-mentalizing example – the assumption problem. Many times we make assumptions about what other people are feeling or thinking and we ascribe incorrect motives to people's actions. " You did that deliberately to make me angry"; " he wanted me to hit him, he was asking for it". "I know what you are feeling, you just...." What all these examples have in common is the fact that there is a slight intrusiveness in all of them where we tend to tell people what they feel or why they do what they do, as if we have the ability to mind read. This can very frequently lead to misunderstandings and although the word misunderstanding is so often used, we forget how painful and upsetting it is when we are misunderstood. When we are misunderstood we tend to get angry or feel hopeless or we can even start to feel confused as if we do not understand ourselves.

How do we mentalize then?

If we wonder what someone else is feeling, we are mentalizing. But is that not making assumptions? If we tell them what they are feeling, then yes it is, but if we say " what are you feeling right now" or " You look a bit upset, is that how you are feeling?" then we inquire with curiosity which is a very mentalizing thing to do – it shows that we really have an interest in getting to know what is in someone's mind.

SECTION 2   **ETHICAL APPROVAL, LETTERS, INFORMATION SHEETS, CONSENT FORMS**

Ethical approval letter

Redbridge & Waltham Forest Local Research Ethics Committee

Board Room A
2nd Floor
Becketts House
2/14 Ilford Hill
Ilford
Essex
IG1 2QX

Telephone: 0208 9265025
Facsimile:

14 February 2006

Dr Trudie Rossouw
Consultant Child Psychiatrist
North East London Mental Health Trust
Loxford Hall
Loxford Lane
Ilford
IG1 2PL

Dear Dr Rossouw

Full title of study:	**The emergence of Personality Disorder traits in adolescents who deliberately self harm and the potential for using a Mentalization Based Treatment approach as an early intervention for such individuals: A randomized control trial**
REC reference number:	**06/Q0601/9**

Thank you for attending the meeting of the Redbridge & Waltham Forest Research Ethics Committee on the gth February 2006 to describe the aims and methodology of this study and to respond to queries raised by Members.

Ethical opinion

[
The members of the Committee present gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation.

Ethical review of research sites

The favourable opinion for the study therefore applies to the above site

Conditions of approval

The favourable opinion is given provided that you comply with the conditions set out in the attached document. You are advised to study the conditions carefully.

Approved documents

The documents reviewed and approved at the meeting were:

Document	Version	Date
Application	1	06 January 2006

Investigator CV	1	06 January 2006
Protocol	1	06 January 2006
Covering Letter	1	05 January 2006
Interview Schedules/Topic Guides	1	12 January 2003
GP/Consultant Information Sheets	1	
Participant Information Sheet	1	23 December 2005
Participant Consent Form	1	23 December 2005
Letter Of Intention To Appeal Debriefing information control groups	1	23 December 2005
Debriefing information treatment group	1	23 December 2005
Bibleography	1	23 December 2005
Peer review	1	16 December 2005
Bckground questions	1	23 December 2005
Self harm inventory	1	23 December 2005
Assessment tools	1	23 December 2005
SCIENTIFIC REPORT	1	06 January 2006
Patient information sheet for parents	1	23 December 2005
Consent form for control_grour>.s	1	23 December 2006
consent form for video recording	1	23 December 2005
letter to teacher	1	23 December 2005

Research governance approval

The study should not commence at any NHS site until the local Principal Investigator has obtained final research governance approval from the R&D Department for the relevant NHS care organisation.

Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

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os/Qoso1/9   **Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project

Yours sincerely

Janett Carter

Rev. Dr Joyce Smith Ch
Chair

Email: janet.carter@redb ridge-pet.nhs.uk

Enclosures: List of names and professions of members who were present at the meeting and those who submitted written comments
Standard approval conditions [SL-AC1 for CTIMPs, SL-AC2 for other

studies]
Site approval form (SF1)

Copy to: *North East London*
Mental Health Trust
Tantallon House
Barley Lane
[R&D Department for NHS care organisation at lead site]

Copies of information sheets

The following information sheets are included:

- For the school groups the following is included: Letter to schools, letter to parents, information sheet
- For the clinical control group the following is included: Information sheet
- For the self-harming group the following is included: Information sheet

Dear Sir/Madam

Re: CAMHS (NELMHT) Research Project

We are writing to invite 14 – 16 year old pupils in your school to participate in a study in which we want to try and learn more about the way young people think and feel. The study has received ethical approval from the strategic health authority's research ethics committee. The purpose of this study is to enable us to improve our service delivery to this age group. We are hoping to recruit up to 10 participants from your school.

The study will involve asking the young people to complete a number of tests and questionnaires. Their parents will also be included in the study in that they will also be asked to complete a number of questionnaires and assessment measures. Prior to assessing any children their parents will receive a letter informing them of the study and giving them the opportunity to say if they would not like their child to participate.

For convenience to the participants we would very much like to meet with the participants and carry out the assessments within the school.

If you agree to take part in the study we would like to ask to visit your school to address a group of young people to present the study to them and to answer any questions they may have. Those that are then interested to participate will be given a consent form, followed by a set of questionnaires. Following that, one of our researchers will visit the young people at home to complete the rest of the tests. Consent will also be obtained from the young person's parent who will also be invited to participate in the study. The young people will benefit from the study in that they will be given their results in confidence after the tests are completed. Those interested in studying psychology would be particularly interested in participating and learning about themselves and their coping skills. It may also be possible for us to arrange visits to UCL for those students interested in studies in psychology.

214

These assessments are not a route into treatment. Those young people who are in need of mental health services will still need to be referred via the usual routes i.e. to your local CAMHS teams.

Following receipt of this letter we would like to invite you to phone Dr Trudie Rossouw Associate Medical Director for Specialist Services in NELMHT on 020 8478 7211 to discuss the research as you may have questions you wish to raise. If you would like to participate in the study we can make further arrangements at this point.

Thank you for your consideration.

Yours sincerely,

Dr Trudie Rossouw

Consultant Child and Adolescent Psychiatrist

Associate Medical Director for Specialist Services NELMHT

Dear Parent /guardian

Thank you for reading this letter. Today your child has attended a brief talk from our research team. We spoke with them and their class about stress in young people's lives and ways of coping with stress. We are hoping to learn from young people and their parents what it feels like to be a young person, or a parent of a young person, facing all the stressors of life as it presents itself to young people nowadays.

In learning from young people and families who seem to cope with stress without experiencing serious difficulties we hope to be better equipped to deal with and understand those young people and their families who seem less able to cope and often present to our services for help.

Your child expressed interest in participating in the study and understands that they would benefit from the study through receiving a summary of their results which gives them information about themselves and their coping strategies.

The research involves questionnaires, exercises, an interview and a computer task. As part of the research project we also want to meet the parents of young people to invite them to participate too and make sure they consent to the study. Parents will also receive a summary of their results at the end of the study. All feedback will be given in confidence and all data will be stored anonymously.

We're writing to you now in the event that if you are unhappy about your child participating in the study we would appreciate it if you would let us or the school know.

If you are happy for your child to take part we will complete the first group of assessments with your child at school. Following this we would like to meet you to discuss the study and answer any questions you may have. If you are willing to participate we will then give you a set of questionnaires to fill in, along with a short computer task to complete. Your child will also need to complete a second set of questionnaires at this stage. Thereafter you will be given the results.

If you are willing to help us, we would be very pleased to include you in our research. The attached letter will tell you more about the research and what it will entail. We will be in telephonic contact to arrange the first meeting. In case you have questions at this stage you can contact Katarina Kovacova; Research Assistant, on 0208 4787211.

Thank you again for the time you took to read the letter and for considering participation in the project.

With best wishes

Dr Trudie Rossouw

Consultant Child and Adolescent Psychiatrist

INFORMATION

Aim

The aim of this research is to improve our understanding of the mental health of young people and their families with the aim to improve our services.

We are hoping to learn more about how young people feel and think so that it can improve the services we deliver. We are also hoping to learn about how parents of young people feel and think about being parents, so that we will be more able to provide adequate services to families.

Steps of the research.

1   Meeting the researcher

A group of researchers will visit the school and present the study to young people. Those young people that are interested in participating will be given a chance to discuss any questions they may have. They will be given a letter to take home that explains the research to their parents and gives their parents an opportunity to express their concerns with should any arise.

2   What will happen next?

The young people will sign a consent form and complete the first set of questionnaires. This will be followed by the researcher meeting with the parents to explain the study and to answer questions and get parental consent. Parents are then invited to participate in the study and will be given a set of questionnaires. The young people will complete a second set of questionnaires and a computer task.

3   What happens with the data?

The data collected will be analysed and information gained from that will be stored anonymously. The young people and their parents will be given their results confidentially.

4.   How confidential is this?

Nobody other than the researchers would have access to the data. If the research gets published, it would not contain any names or identifiable material. All the data will be destroyed once the research project has been completed.

5   What if I agreed to the research and then change my mind?

Any participant can decide to opt out of the research at any stage.

6   What if the research stirs up feelings inside me?

If you find that the research stirs up feelings inside you, you could discuss this with one of the researchers who would be more than happy to put you in touch with a clinician with whom you could discuss your feelings privately.

INFORMATION ABOUT RESEARCH PROJECT

Aim

The aim of this research is to improve our understanding of how young people cope.

We are hoping to learn more about how young people feel and think. We also are hoping to learn about how parents of young people feel, think and cope.

Steps of the research.

1 Phone call from researcher

All young people who present to our service will be contacted by our researcher, Katarina. She will contact young people and their families by phone and explain the research study and arrange a time to meet.

2 What will happen next?

Katarina will meet with the young person and their family to explain the research and to answer any questions. If the young person and the family are interested in a research project, they will be given a consent form to sign. The young person and one of their parents will then complete a set of questionnaires which will be followed by a second visit from Katarina and a few more questionnaires and a computer task to complete. The participants will benefit from the study in that they will be given the results of their tests which will help them to learn about themselves and their coping skills. The results will be given to them in confidence. The parents who participate in the study will be given their results in confidence too.

3 How confidential is this?

Each individual's information, parents and young people, will be known only to themselves and the researcher. In other words, your parents won't know your result and you won't know theirs, neither will your school or anyone else know your results.

The information gathered by the researcher will be given an anonymous identity; a code instead of your name, so as it is not recognisable as yours.

4 What happens with the data?

Nobody other than the researchers would have access to the data. If the research gets published, it would not contain any names or identifiable material. All the data will be destroyed once the research project has been completed.

5   What if I agreed to the research and then change my mind?

Any participant can decide to opt out of the research at any stage.

6   What if the research stirs up feelings inside me?

If you find that the research stirs up feelings inside you, you could discuss this with the researcher or the therapist whom you see in the service.

PLEASE KEEP IN MIND THAT YOUR PARTICIPATION IS VOLUNTARY AND YOU CAN CHOOSE TO WITHDRAW FROM THE STUDY AT ANY STAGE.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT KATARINA KOVACOVA, RESEARCH ASSISTANT, ON 078 5271 7183.

INFORMATION

Aim

The aim of this research is to improve our understanding of the mental health of young people and their families with the aim to improve our services.

This research will focus on young people who present to our services with a history of self-harm. Self-harm is often a way in which young people express how they feel. We are hoping to learn more about how young people feel and think in this research. We also are hoping to learn from the parents of young people who present with self-harm about how they feel and think.

Young people who are interested to participate in the study will be assigned to one of 2 treatment groups. Both treatment groups will aim to help young people in distress as well as helping their families. Both forms of intervention are effective. The study has been granted ethical approval by the strategic health authority.

Steps of the research.

1   Phone call from researcher

All young people who present to our service with a history of self harm will be contacted by our researcher, Katarina. She will contact young people and their families by phone and explain the research study and arrange a time to meet.

2   What will happen next?

Katarina will meet with the young person and their family to explain the research and to answer any questions. If the young person and the family are interested in a research project, they will be given a consent form to sign. The young person and one of their parents will then complete a set of questionnaires which will be followed by a second visit from Katarina and a few more questionnaires and a computer task to complete. The participants will benefit from the study in that they will be given the results of their tests which will help them to learn about themselves and their coping skills. The results will be given to them in confidence. The parents who participate in the study will be given their results in confidence too.

3   Treatment

Young people who have agreed to take part in the research will be offered treatment by local mental health services. Qualified mental health professionals will provide all treatment. Participants will be randomly assigned to two treatment groups. Both groups will receive therapeutic input that represents current thinking about effective treatment in this area. The range of treatments offered may include individual therapy, group therapy, family therapy or a combination of the above. Psychiatric monitoring and intervention will happen as indicated on a case-to-case basis.

4   Follow-up

In order for us to know how the treatment has helped we will be asking participants to fill out a couple of short questionnaires once every three months during treatment which will take about 20 minutes. At the end of treatment we shall also be asking participants and their parents to fill out questionnaires and complete several tasks, which will take a bit longer but will only happen on this occasion.

It would be useful for us know if the effect of the treatment is sustained over time. To test this, we would like to meet with people 12 months after the end of treatment to ask them questions about how they are feeling.

5   What happens after treatment?

If at the end of the research people are still in need of treatment this will be offered. The young people and their families will have the opportunity to discuss their needs with the clinicians with whom they have been working at the end of treatment.

6   What happens with the data?

The data collected will be analysed and information gained from that will be stored anonymously.

7   How confidential is this?

Nobody other than the researchers would have access to the data. If the research gets published, it would not contain any names or identifiable material. All the data will be destroyed once the research project has been completed.

8   What if I agreed to the research and then change my mind?

Any participant can decide to opt out of the research at any stage.

PLEASE KEEP IN MIND THAT YOUR PARTICIPATION IS VOLUNTARY AND YOU CAN CHOOSE TO WITHDRAW FROM THE STUDY AT ANY STAGE.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT KATARINA KOVACOVA, RESEARCH ASSISTANT, ON 078 5271 7183.

Copies of consent papers

The following consent papers are included:

School group

Clinical non-self-harming group

Self-harming group

Consent for video/audio recording

Consent for research (control groups)

Name of project: A research project to learn how young people and their parents think and feel with the aim to improve service delivery to young people and their families.

1   I/we have read and understand the information sheet and have had the opportunity to ask questions.

2   My/Our participation is voluntary and confidential and I/we are free to withdraw at any time, without giving any reason.

3   I/we understand that all data are collected in the research will be destroyed at the end of the research.

4   I/we understand that any publication resulting from the research will not identify me or my family in any way.

5   I/we agree to take part in the above study.

Name of young person:_____Date: _____Signature:

Name of parent(s):_____Date: _____Signature(s):

Name of researcher:_____Date: _____Signature:

Consent for research (clinical control group)

Name of project: A research project to learn how young people and their parents think and feel with the aim to improve service delivery to young people and their families.

1 I/we have read and understand the information sheet and have had the opportunity to ask questions.

2 My/Our participation is voluntary and confidential and I/we are free to withdraw at any time, without giving any reason, without my treatment or legal rights being affected.

3 I/we understand that all data are collected in the research will be destroyed at the end of the research.

4 I/we understand that any publication resulting from the research will not identify me or my family in any way.

5 I/we agree to take part in the above study.

Name of young person:_____Date: _____Signature:

Name of parent(s):_____Date: _____Signature(s):

Name of researcher:_____Date: _____Signature:

Consent for research (treatment groups)

Name of project: A research project to learn how young people and their parents think and feel with the aim to improve service delivery to young people and their families.

1   I/we have read and understand the information sheet and have had the opportunity to ask questions.

2   My/Our participation is voluntary and confidential and I/we are free to withdraw at any time, without giving any reason, without my treatment or legal rights being affected.

3   I/we understand that all data are collected in the research will be destroyed at the end of the research.

4   I/we understand that any publication resulting from the research will not identify me or my family in any way.

5   I/we agree to take part in the above study.

Name of young person:_____Date: _____Signature:

Name of parent(s):_____Date: _____Signature(s):

Name of researcher:_____Date: _____Signature:

Consent for video or audio recording

Your individual sessions will be audio taped and on a random basis some of the family sessions will be selected to be videotaped. The purpose of the taping is to rate the therapist's technique in order to ensure that the technique used by all therapists fulfil standardised criteria. The material will only be seen and heard by a supervisor and an independent rater. The names and details of patients will be kept anonymous from the supervisor and rater.

The video recordings will be carried out according to guidelines issued by the Royal College of psychiatrists (Council report CR 79, April 2000).

Any tapes will be stored in a locked cabinet when not in use and are subject to the same degree of confidentiality and security as medical records. All tapes will be erased at the end of the research process.

If you consent to being taped, please sign below.

Thank you for your help.

Signed participant: date:

Name of participant:

Parents/carers: date:

Signed researcher: date:

Name of researcher:

-

SECTION 3

TOOLS USED

3.1   The Risk–Taking and Self–Harm Inventory for Adolescents (*RTSHIA*)

INSTRUCTIONS: This questionnaire asks about a number of different things that young people sometimes do. Please do not be concerned if some statements seem unusual. They are included to provide us with greater understanding and knowledge about these behaviours and the best way to help young people.

- Please complete this questionnaire on your own.
- If a statement is not applicable to you, please circle *Never*.
- **You** do **not** have to **answer any** questions that **you prefer not to answer**.
- Please try to answer as truthfully as possible.
- All your answers are kept strictly confidential.

1. Have you ever taken chances while doing your hobbies (e.g. not wearing your helmet and other safety gear, riding risky stances on your skateboard, etc)?	Never	Once	More than once	Many times
2. Have you ever deliberately crossed the road dangerously or driven recklessly (e.g. raced, did not fasten your seatbelt, drove while intoxicated or drunk)?	Never	Once	More than once	Many times
3. Have you ever put yourself in a risky situation (such as classroom cheating, travelling without a valid ticket, shoplifting etc) knowing that you may get caught?	Never	Once	More than once	Many times
4. Have you ever been suspended (i.e. punished with exclusion) or dropped out of school?	Never	Once	More than once	Many times
5. Have you ever stayed out late at night, without your parents knowing where you are?	Never	Once	More than once	Many times

			More than once	Many times
6. Have you ever participated in gang violence, physical fights or held a weapon?	Never	Once	More than once	Many times
7. Have you ever been promiscuous (i.e. had many sexual partners within a short period of time)?	Never	Once	More than once	Many times
8. Have you ever had sex avoiding precautions against sexually transmitted diseases or pregnancy?	Never	Once	More than once	Many times
9. Have you ever put yourself at risk of sexual abuse?	Never	Once	More than once	Many times
10. Have you ever had so much alcohol that you were really drunk?	Never	Once	More than once	Many times
11. Have you ever used drugs (such as marijuana, cocaine, LSD etc)?	Never	Once	More than once	Many times
12. Have you ever smoked tobacco?	Never	Once	More than once	Many times

Please say yes to the following questions only if you did the behaviour intentionally, or on purpose, to hurt yourself. Circle *Never* if you did something only accidentally (e.g. you tripped and banged your head on accident).

			More than once	Many times
13. Have you ever intentionally cut your skin?	Never	Once	More than once	Many times
14. Have you ever intentionally burnt yourself with a hot object (such as a cigarette)?	Never	Once	More than	Many times

			once	
15. Have you ever intentionally bitten yourself, to the extent that you broke the skin?	Never	Once	More than once	Many times
16. Have you ever intentionally banged your head against something, hit or punched yourself, to the extent that you caused a bruise to appear?	Never	Once	More than once	Many times
17. Have you ever intentionally prevented wounds from healing or picked at areas of your body to the point of drawing blood?	Never	Once	More than once	Many times
18. Have you ever intentionally scraped, scrubbed or scratched your skin to the point of breaking your skin or drawing blood?	Never	Once	More than once	Many times
19. Have you ever intentionally rubbed a sharp object (such as sandpaper) or dripped anything toxic (such as acid) onto your skin?	Never	Once	More than once	Many times
20. Have you ever exercised an injured part of your body intending to hurt yourself?	Never	Once	More than once	Many times
21. Have you ever deliberately broken a bone in your body either by making yourself fall or in another way?	Never	Once	More than once	Many times

22. Please choose A or B

…...…A. I've never deliberately injured myself

…...…B. I have at least once deliberately injured myself

If you answered B, which body parts did you deliberately injure?

Please tick one (or more) of the following options.

.…….... Torso, belly, buttocks   …….Hands, arms, fingers, nails

233

……. ..Head   …….Legs, feet, toes

…..…..Face   …….Other (please write)……………….

…..…..Neck

	Never	Once	More than once	Many times
23. Have you ever intentionally pulled your hair out?	Never	Once	More than once	Many times
24. Have you ever deliberately inhaled something harmful (excluding cigarette smoke or drugs) or swallowed something inedible?	Never	Once	More than once	Many times
25. Have you ever starved yourself to hurt or punish yourself?	Never	Once	More than once	Many times
26. Have you ever used laxatives to hurt or punish yourself? *Laxative*: a drug that makes you go to the toilet	Never	Once	More than once	Many times
27. Have you ever forced yourself to eat too much to hurt or punish yourself?	Never	Once	More than once	Many times
28. Have you ever stayed in a friendship or a relationship with somebody who repeatedly hurt your feelings on purpose?	Never	Once	More than once	Many times
29. Have you ever tried to make yourself suffer by thinking horrible things about yourself?	Never	Once	More than once	Many times
30. Have you ever taken an overdose? (i.e. taken an excessive amount of medication without having been prescribed this dosage)	Never	Once	More than once	Many times

			More than once	Many times
31. Have you ever seriously thought about harming a part of your body?	Never	Once	More than once	Many times
32. Have you ever seriously thought about killing yourself?	Never	Once	More than once	Many times
33. Have you ever tried to kill yourself?	Never	Once	More than once	Many times
34. Have you ever intentionally hurt yourself in any of the above mentioned ways so that it led to hospitalisation or injury severe enough to require medical treatment?	Never	Once	More than once	Many times

35. Have you engaged in any other self–destructive behaviours not asked about in this inventory? If so, please describe below

……………………………………………………………………………………………………
……

……………………………………………………………………………………………………
……

……………………………………………………………………………………………………
……

36. Please choose A or B
……A. I know no one well who has deliberately injured himself/herself
……B. I know someone well who has deliberately injured himself/herself

37. If you answered B, why do you think he/she did this?
……………………………………………………………………………………………………
…

38. If you answered A or B, why do you think some young people harm themselves?

....
...

....
......

3.2   **The Short Mood and Feelings Questionnaire (*SMFQ*; Angold et al., 1995)**

INSTRUCTIONS: This form is about how you might be feeling <u>in the past two weeks.</u> If a sentence was *not true*, tick the bubble for *not true*. If it was *sometimes true*, tick the bubble for *sometimes*. If it was *true most of the time*, tick the bubble for *true*.

	0	1	2
	Not true	Sometimes	True
1. I felt miserable or unhappy.	O	O	O
2. I didn't enjoy anything at all.	O	O	O
3. I felt so tired I just sat around and did nothing.	O	O	O
4. I was very restless. (*restless* means being unable to relax)	O	O	O
5. I felt I was no good anymore.	O	O	O
6. I cried a lot.	O	O	O
7. I found it hard to think properly or concentrate.	O	O	O

8. I hated myself.   O   O   O

9. I felt I was a bad person.   O   O   O

10. I felt lonely.   O   O   O

11. I thought nobody really loved me.   O   O   O

12. I thought I could never be as good as other
    young people.   O   O   O

13. I felt I did everything wrong.   O   O   O

3.3   The Borderline Personality Features Scale for Children (*BPFS–C*; Crick et al., 2005)

How I Feel About Myself and Others

INSTRUCTIONS: Here are some statements about the way you feel about yourself and other people. Put an X in the box that tells how true each statement is about you.

1. I'm a pretty happy person.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

2. I feel very lonely.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

3. I get upset when my parents or friends leave town for a few days.

Not at All	Hardly Ever	Sometimes	Often	Always

True	True	True	True	True

4. I do things that other people consider wild or out of control.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

5. I feel pretty much the same way all the time. My feelings don't change very often.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

6. I want to let some people know how much they've hurt me.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

7. I do things without thinking.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

8. My feelings are very strong. For instance, when I get mad, I get really really mad.
When I get happy, I get really really happy.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

9. I feel that there is something important missing about me, but I don't know what it
is.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

10. I've picked friends who have treated me badly.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

11. I'm careless with things that are important to me.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

12. I change my mind almost every day about what I should do when I grow up.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

13. People who were close to me have let me down.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

14. I go back and forth between different feelings, like being mad or sad or happy.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

15. I get into trouble because I do things without thinking.

Not at All	Hardly Ever	Sometimes	Often	Always

True	True	True	True	True

16. I worry that people I care about will leave and not come back.

Not at All	Hardly Ever	Sometimes	Often	Always
True	True	True	True	True

17. When I'm mad, I can't control what I do.

Not at All	Hardly Ever	Sometimes	Often	Always
True	True	True	True	True

18. How I feel about myself changes a lot.

Not at All	Hardly Ever	Sometimes	Often	Always
True	True	True	True	True

19. When I get upset, I do things that aren't good for me.

Not at All	Hardly Ever	Sometimes	Often	Always

True	True	True	True	True

20. Lots of times, my friends and I are really mean to each other.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

21. I get so mad I can't let all my anger out.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

22. I get bored very easily.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

23. I take good care of things that are mine.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

24. Once someone is my friend, we stay friends.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

3.4 Demographic Questionnaire

INSTRUCTIONS: Please tick or fill in the gaps as appropriate.

1. Gender   **Male**......   **Female**......

2. Age   **Years**........ **&** **Months**........

3. Which ethnic background do you belong to?

  White – UK heritage …..   White – other …..   Black/Black British….

  Asian/Asian British ….   Mixed Race….   Other (please write)

  ……………

4. Which religion do you belong to, if any?........................

5. Do you practice this religion?   Yes …   No …

6. Is English your first language?   Yes …   No …

7. If not, for about how many years have you been speaking English?............

8. In which country were you born? ………………………

9. Do you live….… (please tick *one* of the following options)

with your parents …   with your mother …   with your mother & her partner …

with your father…   with your father & his partner …

in another living arrangement (e.g. with relatives) …

10. How many brothers and sisters do you have? ………

11. Number of brothers and sisters older than you............

12. Number of brothers and sisters younger than you……

13. To what level is your *mother's* highest educational qualification?

Primary School   ☐

Some High School   ☐

High School diploma or equivalent   ☐

Some college   ☐

First University degree (e.g. Bachelor's)   ☐

Postgraduate degree (e.g. Master's, PhD)   ☐

I don't know   ☐

Other (please write) ....

14. To what level is your *father's* highest educational qualification?

Primary School   ☐

Some High School   ☐

High School diploma or equivalent ☐

Some college ☐

First University degree (e.g. Bachelor's) ☐

Postgraduate degree (e.g. Master's, PhD) ☐

I don't know ☐

Other (please write) ....

3.5   Two sample items of the Childhood Interview for DSM–IV Borderline Personality Disorder (*CI–BPD*; Zanarini, 2007)

During the Past two years, have you....

4. ... often been unsure of what kind of person you are?

Frequently gone from feeling sort of OK about yourself to feeling that you're bad or even evil?

Often felt that you had no consistent or steady sense of yourself?

How about that you had no identity?

That you had no idea of who you are or what you believe in?

That you don't even exist?

(Identity disturbance: markedly and persistently unstable self-image or sense of self: 2=definitely present, 1=probably present, 0=absent)

9. ... often gone from loving and admiring someone to feeling that you can't stand him or her?

Often gone from feeling like you couldn't live without someone to needing to get away from him or her?

Had any stormy relationships or relationships with a lot of ups and downs?

Any relationships with a lot of very intense arguments?

How about times when you stopped talking to one another or seeing one another? (IF YES) And then got back together again?

(A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation: 2=definitely present, 1=probably present, 0=absent)

3.6   Two example items taken from the Mill Hill Vocabulary Junior scale (*MHV*; Raven et al., 1998)

Set B. Item 7. Continue

    clash   clutter

     tilt   bewail   (easy)

    read   keep on

Set B. Item 33. Recumbent

  fugitive   cumbersome

  unwieldy   repelling

  penitent   reclining

              (difficult)

3.7 The How I Feel Questionnaire (*HIF*; Sandell et al., 2008)

INSTRUCTIONS: Please read the following stories and choose the answer that fits you best

> *1. You want to be nice and help your mother with the dishes. When she goes out of the house, you start doing the dish–washing.*
>
> *You dry the glasses, but when you put one away you drop it, and it breaks.*

What do you feel and why?

Tick
here

I'm angry at the stupid glass	
I'm angry with myself because I've been so clumsy	
I'm disappointed because I wanted to do something good but everything went wrong	

What do you do?

Clear up and tell my mother about it	
Clear up and hope it's not noticed	
If my mother gets very upset, I'll offer to buy her a new glass	

2. You are watching TV. Your father tells you to go to bed although it's not that late.

What do you feel and why?

I don't feel anything because it's my father who decides	
I'm angry because it's unfair	
I'm surprised because I can usually stay up longer	

What do you do?

Tick

here

Go to bed	
Ask to stay up for a while	
Become tearful	

3. A friend of yours has borrowed your bicycle. When you get it back, you find that the saddle is broken.

What do you feel and why?

Tick

here

I'm disappointed because my friend hasn't told me about it	
I don't care, accidents happen so easily	
I'm sad because my bike isn't as nice as it used to be	

What do you do?

Tick

Destroy my friend's saddle	
Mend the saddle	
Tell my friend that I was upset	

4. You are out playing with your dog. You know that your mother has told you not to let it off the lead. But you do it anyway so as to play basketball.

Suddenly, you see your dog running towards a big dog. The big dog bites your little dog in the leg. Your dog is bleeding.

What do you feel and why?

Tick
here

I'm worried that my mother will get angry	
I'm angry at my dog, since it doesn't obey	
I'm disappointed at myself since I let the dog loose	

What do you do?

Become tearful	
Go home and make up a story that I didn't let the dog loose	
Go home and say what happened	

5. You have borrowed a CD from a friend. Before you give it back you notice that there is a scratch on it.

What do you feel and why?

I feel stupid because I scratched the disk	
I feel sad because my friend may not trust me anymore	

I feel angry because they make such poor–quality disks	

What do you do?

Nothing, it isn't so serious	
Tell my friend about the scratch and apologize	
Offer to buy a new one	

6. John is out playing. His mother then tells John to come in although his friends are allowed out longer.

What does John feel and why?

He feels nothing, because his mother decides	
He is surprised because he's usually allowed out just as long as his friends	
He is ashamed because his mother let friends hear what she said	

What does John do?

Tries to discuss the chance of staying out longer	
Decides to play with his friends the next day instead	
Ignores what his mother says and carries on playing	

7. Mathew has been throwing rubbers at Bill throughout the lesson. In the end Bill gets angry and throws one back.

Their teacher looks at Bill at just that moment. She gets angry and says: 'What have I told you about throwing these things; stop it immediately'.

What does Bill feel and why?

258

Nothing in particular; what he did wasn't so serious	
He feels stupid because the teacher caught him out	
He's disappointed with his teacher, who blames him without knowing the whole truth	

What does Bill do?

Says that both he and Mathew have been throwing the rubbers	
Tells the teacher that Mathew started it	
Nothing	

8. A student you don't know particularly well is being bullied by a group of other students in the schoolyard.

What do you feel and why?

Nothing in particular; it's not my problem	
I'm sad that people can do that kind of thing to each other	
I'm angry because bullies are stupid	

What do you do?

Nothing, because I'm afraid of getting involved	
Nothing, the student only has himself to blame	
Go up to them and tell them to stop	

9. You and your friend are playing volleyball. Your friend wants to carry on with the game, but you want to go home.

You go away; your friend then kicks the ball at you, but it misses you and hits Lisa on the head. She starts to cry.

What does your friend feel and why?

My friend feels nothing in particular; it wasn't so serious	
My friend is sorry to have hurt Lisa	
My friend is afraid that Lisa will get angry with him	

What does your friend do?

Tick

here

Tells Lisa not to get in the way	
Runs away	
Says sorry	

10. Suppose that you heard in the dining hall that your best friend told lies about you to another classmate.

What do you feel and why?

I'm sad because I thought we were best friends	
I'm worried that the classmate will believe what was said	
I feel nothing in particular; what my friend says isn't right anyway	

What do you do?

Get revenge by saying mean (i.e. bad) things about my friend	
Talk to my friend to get an explanation	
Become tearful	

11. Lena and Maria are friends. Lena has got a new down jacket. Maria borrows it. When she is about to give the jacket back, she notices a tear in it. It can hardly be seen. If she mentions it to Lena she might have to buy a new one.

262

What does Maria feel and why?

She feels nothing in particular; it's not so serious	
She feels sad at having ruined one of her friend's things	
She feels angry since she might have to pay for something she hasn't done on purpose	

What does Maria do?

Does not mention the tear	
Tells Lena about it and asks what they should do	
Says that she will buy a new jacket	

**12. A group of boys in Eric's class have broken a
pane of glass in the gymnastics hall.**

When Eric goes up and looks at the broken window, the gym teacher comes in and starts shouting at him.

What does Eric feel and why?

Feels nothing in particular; he wasn't the one who did it	
Feels angry, because the teacher is stupid	
Feels insulted at being unjustly accused	

What does Eric do?

Tells the gym teacher it wasn't him who broke the glass	
Says who broke the glass	
Screams out that the gym teacher is a fool	

13. You see another student stealing a mobile phone from a bag in the changing room.

What do you feel and why?

I'm worried because I might get the blame myself	
I'm disappointed that one of my schoolmates would do such a thing	
I feel nothing in particular, because it doesn't concern me	

What do you do?

Tell the teachers, so they can put a stop to theft in school	
Nothing	
Tell the one who owns the mobile, so he or she can deal with the problem	

14. Your class is to collect money for a school trip on Saturday. Your teacher has said that it's very important for everyone to take part.

The same day your parents want you to go with them to a restaurant, where they say there will be a surprise for you.

What do you feel and why?

Tick
here

I feel sad, because I'd like to do both things	
I feel relieved at not having to get money for the class trip	
I feel worried that someone will be angry whatever I choose	

What do you do?

Tick
here

Go out with my parents and ignore the class trip	
Ask my parents to speak to the teacher	
Ask my parents if we can go to the restaurant some other day	

15. There is a group of popular students in Martin's class. Martin would love to hang out with them. They are going to have a party next week.

One of these students asks Martin if he wants to come along. 'You'll have to fix a bit of booze, of course,' one of them says. Martin takes some out of a bottle at home.

A week later, Martin's elder sister is unhappy. Her pocket money has been suspended since their parents think she has taken alcohol from them. She has done this once before.

What does Martin feel and why?

He feels worried that his parents and sister will realize that it was him and get angry	
He feels guilty because he has done wrong and his sister has got the blame	
He feels nothing in particular; he's not the one with whom the parents are angry	

What does Martin do?

Tick

here

Admits that he was the one who took the alcohol	
Compensates (i.e. repays) his sister for her pocket money	
Nothing	

**3.8   Two example items taken from the Ravens Progressive Matrices (*RPM*;
Raven et al., 1998)**

(easy item)

(difficult item)

270
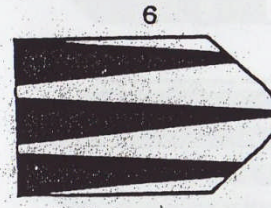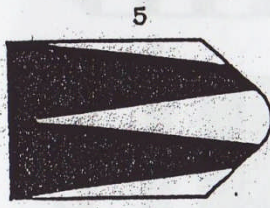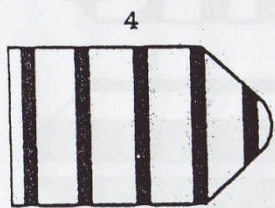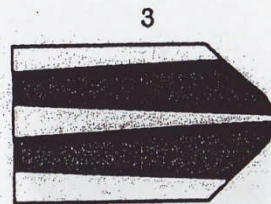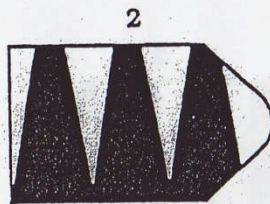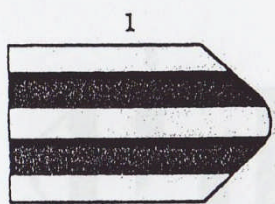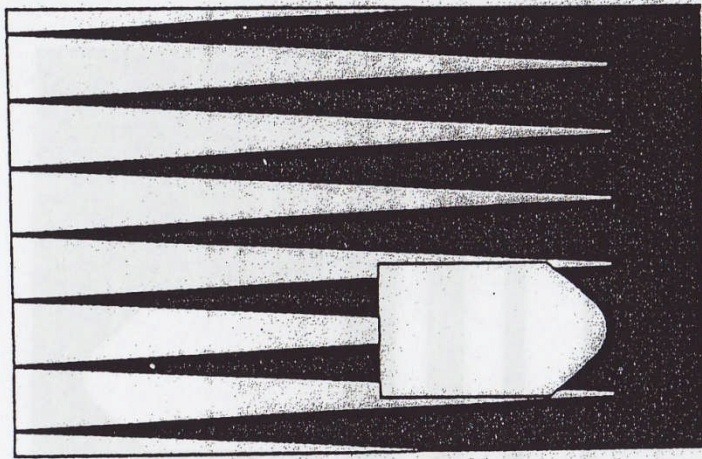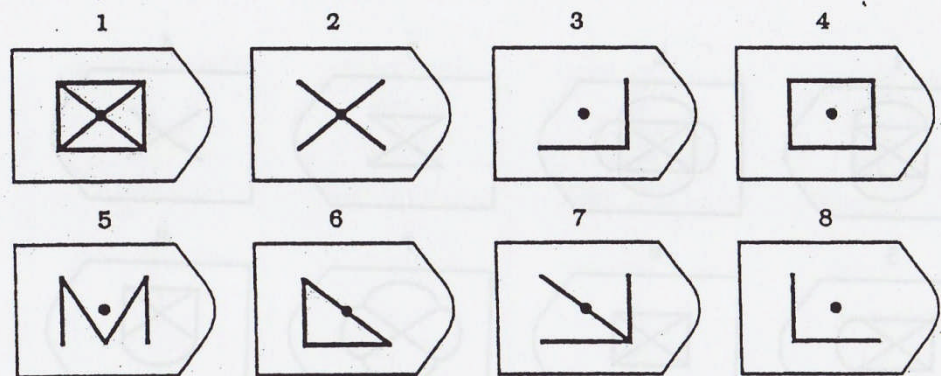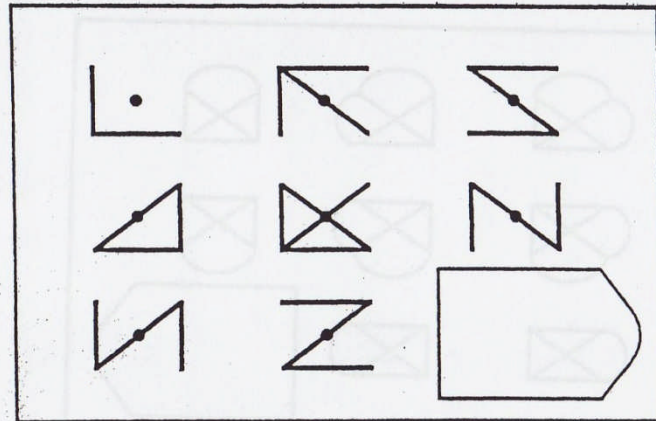
3.9   The Experiences in Close Relationships scale (*ECR*; Brennan, Clark, & Shaver, 1998)

INSTRUCTIONS: The following statements concern how you generally feel in close relationships (e.g., with close friends, family members, boyfriends/girlfriends, etc). Please respond to each statement by circling a number between 1 (disagree strongly) and 7 (agree strongly) below each statement.

1. I prefer not to show other people how I feel deep down.

1	2	3	4	5	6	7
Disagree *Strongly*	*Disagree*	*Disagree* *Slightly*	*Neutral* *Mixed*	*Agree* *Slightly*	*Agree*	*Agree* *Strongly*

2. I don't worry about being rejected or abandoned.

1	2	3	4	5	6	7
Disagree *Strongly*	*Disagree*	*Disagree* *Slightly*	*Neutral*	*Agree* *Slightly*	*Agree*	*Agree* *Strongly*

👎👎👎		👎	*Mixed*			

3. I am very comfortable being close to other people.

1	2	3	4	5	6	7
Disagree Strongly 👎👎👎	*Disagree* 👎👎	*Disagree Slightly* 👎	*Neutral* 😊 *Mixed*	👍 *Agree Slightly*	👍👍 *Agree*	👍👍👍 *Agree Strongly*

4. I don't worry much about my friendships and relationships.

1	2	3	4	5	6	7
Disagree Strongly 👎👎👎	*Disagree* 👎👎	*Disagree Slightly* 👎	*Neutral* 😊 *Mixed*	👍 *Agree Slightly*	👍👍 *Agree*	👍👍👍 *Agree Strongly*

5. Just when someone starts to get close to me I find myself pulling away.

272

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

6. I worry that other people won't care about me as much as I care about them.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

7. I get uncomfortable when someone wants to be very close to me.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

8. I worry quite a lot about losing people I feel close to.

273

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

9. I don't feel comfortable opening up to other people.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

10. I often wish that people I feel very close to also felt very close to me.

1	2	3	4	5	6	7

Disagree Strongly	**Disagree**	**Disagree Slightly**	**Neutral** **Mixed**	**Agree Slightly**	**Agree**	**Agree Strongly**

11. I want to get close to other people, but I keep pulling back.

1	2	3	4	5	6	7
Disagree Strongly	**Disagree**	**Disagree Slightly**	**Neutral** **Mixed**	**Agree Slightly**	**Agree**	**Agree Strongly**

12. I want to get very close to other people, and this sometimes scares them away.

1	2	3	4	5	6	7
Disagree Strongly	**Disagree**	**Disagree Slightly**	**Neutral** **Mixed**	**Agree Slightly**	**Agree**	**Agree Strongly**

13. I am nervous when another person gets too close to me.

275

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

14. I don't worry about being alone.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

15. I feel comfortable sharing my private thoughts and feelings with other people.

1	2	3	4	5	6	7

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral / Mixed	Agree Slightly	Agree	Agree Strongly

16. My desire to be very close sometimes scares people away.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral / Mixed	Agree Slightly	Agree	Agree Strongly

17. I try to avoid getting too close to other people.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral / Mixed	Agree Slightly	Agree	Agree Strongly

18. I need a lot of reassurance that people I feel close to really care about me.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

19. I find it relatively easy to get close to other people.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

20. Sometimes I feel that I try to force my friends/boyfriends/girlfriends to show they care about our friendship or relationship more than they otherwise would.

1	2	3	4	5	6	7

			Neutral			
Disagree Strongly	Disagree	Disagree Slightly	Mixed	Agree Slightly	Agree	Agree Strongly

21. I find it difficult to allow myself to depend on people I feel close to.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral / Mixed	Agree Slightly	Agree	Agree Strongly

22. I do not often worry about being abandoned.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral / Mixed	Agree Slightly	Agree	Agree Strongly

23. I prefer not to be too close to other people.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

24. When I can't get a close friend/boyfriend/girlfriend to show interest in me, I get upset or angry.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

25. I tell people I feel close to just about everything.

1	2	3	4	5	6	7
Disagree	Disagree	Disagree Slightly	Neutral	Agree	Agree	Agree

Strongly	👎👎	👎	😊	Slightly		Strongly
👎👎👎			Mixed			

26. I find that my friends/boyfriends/girlfriends don't want to get as close as I would like.

1	2	3	4	5	6	7
Disagree Strongly 👎👎👎	Disagree 👎👎	Disagree Slightly 👎	Neutral 😊 Mixed	👍 Agree Slightly	👍👍 Agree	👍👍👍 Agree Strongly

27. I usually discuss my problems and concerns with people I feel close to.

1	2	3	4	5	6	7
Disagree Strongly 👍👍👍	Disagree 👍👍	Disagree Slightly 👍	Neutral 😊 Mixed	👍 Agree Slightly	👍👍 Agree	👍👍👍 Agree Strongly

28. When people I feel close to are not around, I feel anxious and insecure.

1	2	3	4	5	6	7
Disagree Strongly	Disagree 👍👍	Disagree Slightly 👍	Neutral 😊	👍 Agree Slightly	👍👍 Agree	👍👍👍 Agree Strongly

281

			Mixed			

29. I feel comfortable depending on other people.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral / Mixed	Agree Slightly	Agree	Agree Strongly

30. I get frustrated when people I feel close to are not around as much as I would like.

1	2	3	4	5	6	7

Disagree Strongly 👎👎👎	**Disagree** 👎👎	**Disagree Slightly** 👎	**Neutral** 😕 **Mixed**	👍 **Agree Slightly**	👍👍 **Agree**	👍👍👍 **Agree Strongly**

31. I don't mind asking people I feel close to for comfort, advice, or help.

1	2	3	4	5	6	7
Disagree Strongly 👎👎👎	**Disagree** 👎👎	**Disagree Slightly** 👎	**Neutral** 😕 **Mixed**	👍 **Agree Slightly**	👍👍 **Agree**	👍👍👍 **Agree Strongly**

32. I get frustrated if people I feel close to are not there for me when I need them.

1	2	3	4	5	6	7
Disagree Strongly 👎👎👎	**Disagree** 👎👎	**Disagree Slightly** 👎	**Neutral** 😕 **Mixed**	👍 **Agree Slightly**	👍👍 **Agree**	👍👍👍 **Agree Strongly**

33. It helps to turn to people I feel close to in times of need.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

34. When other people disapprove of me, I feel really bad about myself.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

35. I turn to people I feel close to for many things, including comfort and reassurance.

1	2	3	4	5	6	7

Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

36. I don't resent it when my friends/boyfriends/girlfriends spend time away from me.

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral Mixed	Agree Slightly	Agree	Agree Strongly

When completing this questionnaire, how often did you have any of the following people in mind? Please circle one word each time.

Mother (please circle below)

0. Never	1. Rarely	2. Sometimes	3. Mostly	4. Always

Father (please circle below)

0. Never	1. Rarely	2. Sometimes	3. Mostly	4. Always

Brother(s)/Sister(s) (please circle below)

0. Never	1. Rarely	2.Sometimes	3. Mostly	4. Always

Other relative(s) (please circle below)

0. Never	1. Rarely	2.Sometimes	3. Mostly	4. Always

Same sex friend(s) (please circle below)

0. Never	1. Rarely	2.Sometimes	3. Mostly	4. Always

Opposite sex friend(s) (please circle below)

0. Never	1. Rarely	2.Sometimes	3. Mostly	4. Always

Boyfriend/girlfriend (please circle below)

0. Never	1. Rarely	2.Sometimes	3. Mostly	4. Always

Note. Items 6, 11, 13, 16, 17, 18, 22, 26, 27, 32, 33, 35 were included in the ECR shortened version (*ECR–S*; Wei, Russel, Mallinckrodt, & Vogen, 2007)