Emotion dysregulation and suicidality: an investigation into entity beliefs, emotion dysregulation and suicidality and a critical review of the literature on trauma, emotion dysregulation and suicidality

A thesis submitted to The University of Manchester for the degree of Doctorate in Clinical Psychology (ClinPsyD) in the Faculty of Biological Medicine and Health

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Thesis Abstract

This thesis forms part of the examination for the degree of Doctor of Clinical Psychology (ClinPsyD), in the Faculty of Biological Medicine and Health at the University of Manchester. The thesis has been written by Meryl Anne Kilshaw and submitted in July 2016 for examination in December 2016.

The thesis focusses on associations between emotion dysregulation, emotion regulation strategies and suicidality. The thesis also aimed to investigate other important psychological factors which may be associated with suicidality.

Paper 1 provides a comprehensive literature review of the available research on trauma, emotion dysregulation and suicidality. The review aimed to examine the association between trauma, emotion dysregulation and suicidality, and explore whether specific emotion regulation strategies were associated with trauma and suicidality. Paper 1 also aimed to identify if there were any particular types of trauma specifically associated with emotion dysregulation and suicidality. The findings indicated that there is an overall relationship between trauma, emotion dysregulation and suicidality. More specifically, there is a stronger relationship indicated between trauma, dissociation and suicidality and childhood trauma is particularly indicated in this relationship. There is less of a consistent relationship between trauma, impulsivity and suicidality. The review illustrated that more research is required to explore the overall relationship between trauma, overall emotion dysregulation and suicidality, as well as less well researched regulation strategies such as alexithymia, emotion coping, thought suppression, rumination and cognitive avoidance.

Paper 2 describes an investigation into the role of entity beliefs about emotion, emotion dysregulation, specific emotion regulation strategies and suicidality. A total of 101 participants from mental health inpatient and community mental health settings completed questionnaires for the study. The results indicated that entity beliefs about emotion were not associated with suicidality once depression and hopelessness were controlled for in the analysis. Entity beliefs about emotion were also not associated with emotion dysregulation and the specific emotion regulation strategies of impulse control difficulties and non-acceptance of emotions when depression and hopelessness were taken into account. Entity beliefs were associated with limited access to emotion regulation strategies. Emotion dysregulation and the specific strategies of non-acceptance of emotions, limited access to emotion regulation strategies and impulse control difficulties predicted suicidality over and above depression. The clinical and research implications, and limitations of this research are discussed within the paper.

Paper 3 provides a critical reflection of Paper 1 and Paper 2, including the strengths and limitations of these papers. Personal reflections of the research process are also provided within this paper.
Declaration statement

No portion of the work referred to in this thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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I would like to thank my supervisors, Daniel Pratt and Gillian Haddock for all their help, support and guidance throughout the whole research process. I would also like to thank Maria Panagioti who was a great support for my Systematic Review.

I would also like to show my appreciation for all the people who took part in the study. The time they took to meet and participate is invaluable, and without them the study would not have been possible. I would also like to thank all the service users of mental health services with whom I have worked with over the past fifteen years and who have motivated me to try and find more effective ways to help them.

Thank you to all my family and friends who have tolerated and understood my absence over the past three years. I would especially like to thank my husband, Steve, who has been the greatest support, providing unconditional encouragement and comfort along this journey.
1. The role of emotion dysregulation on suicidality amongst people who have experienced trauma: A systematic review

The following paper has been prepared for submission to the Journal of *Clinical Psychology Review*. The guidelines for authors can be found in Appendix A1. Formatting changes have been made to the current paper to aid readability.

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(Excluding abstract, tables, figures and references)
ABSTRACT

There is a growing literature focussing on the inter-relationships between trauma, emotion dysregulation and suicidality. This review aimed to investigate these relationships and ascertain the most pertinent emotion regulation strategies in this relationship, identify types of trauma associated with emotion dysregulation and suicidality and provide a narrative synthesis of the literature to date. The review identified 25 studies. Overall the review found that emotion dysregulation was important in the relationship between trauma and suicidality. A number of emotion regulation strategies were identified with dissociation and impulsivity the most frequently investigated in people with experiences of trauma and suicidality. There was strong evidence to suggest that dissociation was particularly important with fewer studies identifying impulsivity as significant in the link between trauma and suicidality. The findings highlighted that childhood trauma is indicated in the relationship between dissociation and suicidality. There is also preliminary evidence that overall emotion dysregulation, alexithymia and emotion coping are also important in the relationship between PTSD or childhood trauma and suicidality. Further research is strongly recommended to continue to examine the exact pathways from trauma through emotion dysregulation to suicide.

Keywords: Trauma, Emotion dysregulation, dissociation, impulsivity, suicidality
1.1 Introduction

1.1.1 Emotion Dysregulation
There have been difficulties in comprehensively defining emotion dysregulation due to the breadth and complexity of the construct (Carpenter & Trull, 2013). Nevertheless, emotion dysregulation is viewed as a process incorporating multiple interacting components which involves difficulties in the ability to regulate emotions through the use of emotion regulation strategies (Werner & Gross, 2010). Emotion dysregulation is also characterised by an inability to accept emotions, an inability to control impulsive behaviour, difficulties in meeting individual goals, a lack of awareness or understanding of emotions, and a reduction of available strategies to be able to regulate emotions (Gratz & Roemer, 2004; Paulus, Vanwoerden, Norton & Sharp, 2016). In contrast, emotion regulation has been defined as a multi-dimensional concept which involves the ability to flexibly respond to emotions including the inhibition of negative emotions along with cognitive and behavioural responses to the emotion in an attempt to manage the emotion (Cole et al, 2004).

Several emotion regulation strategies have been argued to be adaptive, whereas others have been associated with the maintenance of psychological disorders (Aldao & Nolen-Hoeksema, 2010). For example, cognitive reappraisal is believed to be a helpful emotion regulation strategy and is recognised as the reframing of emotions to change the intensity, duration and expression of the emotion. A persistent inability to be able to reappraise leads to difficulties in regulating emotions (Kudinova, Owens, Burkhouse, Barretto, Bonanno & Gibb, 2016). Emotion regulation strategies recognised within the literature as unhelpful include dissociation (Barnow et al., 2012) and alexithymia (Dubey, Pandey & Mishra, 2010). More specifically, dissociation has been identified as a way of avoiding overwhelming or adverse experiences to reduce emotional and physical pain (Briere, 2006), and alexithymia is recognised as the inability to recognise and understand emotional experiences and is associated with difficulties in processing emotions (O’Driscoll, Laing & Mason, 2014).

It is questionable whether concepts like alexithymia and dissociation can be considered as strategies to regulate emotions, or whether they are separate entities. As separate entities, alexithymia has been found to be highly related to emotion regulation, for example, emotion awareness and specification has been found to be a requirement for adaptive emotion regulation (Philippot, Boleyens & Douillez, 2006; van Rijn et al., 2011). Where it has been conceptualised as a strategy (Darrow & Follette, 2014), it is likely to be

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1 Topic selection is further discussed within the Critical reflection on Page 69
a form of experiential avoidance of subjectively threatening emotions and an avoidance of expressing emotions (Luminet, Rime, Bagby & Taylor, 2004), akin to the strategy of suppression within a multi-dimensional model of emotion regulation (Gratz & Roemer, 2004; Laloyaux, Fantini, Lemaire, Luminet, & Larøi, 2015). Similarly, dissociation has been identified both as separate to emotion regulation (e.g. Moulton, Newman, Power, Swanson & Day, 2015), and a strategy to regulate emotions. Where regarded as a strategy dissociation can be viewed as an adaptive strategy as a way to avoid painful emotions (Briere, 2006; Freyd, 1996), also similar to experiential avoidance (O’Driscoll, et al., 2014). For the purposes of the paper, these concepts will be identified as emotion regulation strategies so as to include all potential ways of regulating emotion in the scope of the literature.

Both dissociation and alexithymia, in addition to impulsivity have been treated within research as unitary constructs, which has been met with criticism (Ginley, Whelan, Meyers, Relyea & Pearson, 2014; Holmes et al., 2005; Vorst & Bermond, 2001). Alexithymia is believed to have both cognitive and affective dimensions (Bermond et al., 2007) and may have up to five subtypes (Moormann, Bermond, Vorst, Bloemendaal, Teijn & Rood, 2008), dissociation has been found to have a detachment and compartmentalisation component (Holmes et al., 2005; Brown, 2006), and impulsivity is thought to be a multidimensional construct (Kraplin, Buhringer, Oosterlaan, Brink, Goschke & Goudriaan, 2014), for example the UPPS model of impulsivity (Lynam et al., 2006; Whiteside & Lynam, 2001) includes five distinct pathways to impulsive and risky behavior (positive and negative urgency, lack of premeditation, lack of perseverance, and sensation seeking). It is conceivable that the differing dimensions of each of these strategies result in a different relationship to suicidality, for example, in impulsivity, negative urgency, lack of premeditation and lack of perseverance, but not sensation seeking have predicted suicide attempts (Lynam, Miller, Miller, Bornovalova & Lejuez, 2011; Yen et al., 2009).

The different emotion regulation strategies, along with overall difficulties in regulating emotions have been found to be present in many psychological disorders, for example, depression, anxiety, eating disorders and Posttraumatic Stress Disorder (PTSD) (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Bradley et al., 2011). A recent meta-analysis found the emotion regulation strategies with a strong relationship to psychopathology were thought suppression, experiential avoidance and rumination (Seligowski, Lee, Bardeen, & Orcutt, 2015). Thought suppression is the attempt to suppress distressing unwanted thoughts or memories (Magee, Harden & Teachman, 2012) and experiential avoidance involves an aversion to the experience of internal events; thoughts, emotions and physical sensations (Hayes, Wilson, Gifford, Follette & Strosahl, 1996). Rumination is known as the repetitive focus on the causes and consequences of one’s psychological distress (Nolen-Hoeksema, 2000; Nolen-Hoeksema, Wilson & Lyubomirsky, 2008). The
impact of life events such as childhood trauma, has been shown to be linked to the
development and use of unhelpful emotion regulation strategies.

1.1.2 Trauma
Childhood trauma includes emotional abuse, physical assault, sexual abuse and both
emotional and physical neglect (Bernstein et al., 2003). Numerous studies have
demonstrated that exposure to childhood trauma affects the developing brain of children
and adolescents leading to neurobiological changes (Kaufman & Charney, 2003; Kendall-
Tackett, 2002; Penza, Heim & Nemeroff, 2006) which can contribute to difficulties in
several developmental domains including emotion regulation (Cloitre, Koenen, Cohen &
Han, 2002; Ford, Courtois, Steele, van der Hart & Nijenhuis, 2005). Childhood trauma is
a world-wide problem (Carr, Martins, Stingel, Lemgruber & Juruera, 2013) and increases
vulnerability to psychological disorders throughout the lifespan (Tofoli, Baes, Martins &

PTSD can occur at any time in the lifespan defined as the development of psychological
distress following exposure to a traumatic event (American Psychiatric Association (APA),
2013). Overall PTSD is characterised as the development of symptoms of re-
experiencing the trauma, avoidance of stimuli associated with the trauma and increased
arousal (Gillies, Taylor, Gray, O’Brien, D’Abrew, 2013). It is a complex and chronic
disorder that interferes with social, educational and occupational functioning (APA, 2013;
Trickey, Siddaway, Meiser-Stedman, Serpell & Field, 2012) and has a high prevalence
resulting in both personal and public cost (Lewis, Roberts, Bethell & Bisson, 2015;
Vickers, 2005). Lifetime prevalence for PTSD of 8.5% has been reported in the United
Kingdom (Northern Ireland Centre for Trauma and Transformation, 2008). In addition,
there is evidence in the literature indicating a link between emotion regulation deficits and
PTSD symptomatology (Eftekhari, Zoellner, & Vigil, 2009; Ehring & Quack, 2010).

1.1.3 Trauma and emotion dysregulation
Childhood abuse and neglect can cause detrimental psychological consequences on
behavioural, emotion and cognitive pathways (Braquehais, Oquendo, Baca-Garcia &
Sher, 2010; Meaney & Szyf, 2005). This may mean that experiences of trauma result in
the child not learning to self-soothe or communicate their emotions to others, and
therefore may use strategies to cope with their emotions which become maladaptive in
the longer term (Crowell, Beauchaine & Linehan, 2009; Linehan, 1993). In addition,
adults with a history of childhood trauma have been found to have greater emotion
dysregulation than those who have experienced a traumatic event in their adulthood
(Cloitre, Scarvalone & Difede, 1997; Kulkarni, Pole & Timko, 2013).

Different types of emotion regulation strategies have been found to be related to
childhood trauma. Impulsivity has been shown to be a consequence of trauma and an
acquired inability of the brain to inhibit negative reactions (Kendall-Tackett, 2002). People who have been shown to demonstrate impulsivity have reported a history of trauma (Bornovalova, Gratz, Delaney-Brumsey, Paulson & Lejuez, 2006; Hunt, 2007). Impulsivity has also been shown to be associated with PTSD in people who have experienced childhood trauma (Beers and De Bellis, 2002). There is also a strong association between chronic childhood abuse and dissociative disorders (Brand, Classen, McNary & Zaveri, 2009; van Ijzendoorn & Schuengel, 1996). Continual use of dissociation to cope with the sensations, emotions and memories of the trauma during childhood may develop into chronic dissociation in adulthood (Somer, Ginzberg & Kramer, 2012). In addition, alexithymia has also been shown to be connected to early childhood trauma (van der Kolk, McFarlane and Weisaeth, 1996; Wise, Mann & Sheridan, 2000).

Childhood trauma is a predictor of PTSD in both children and adults (Cloitre et al., 2010; Kearney, Wechsler, Kaur & Lemos-Miller, 2010). Adult onset PTSD has been shown to be related to emotion dysregulation (Ehring & Quack, 2010; Tull, Barrett, McMillan & Roemer, 2007), and may not be uniquely related to childhood trauma. Specific emotion regulation strategies have been found to be associated with PTSD and emotion dysregulation has been associated with being a maintaining factor for PTSD. In a meta-analysis, people with PTSD were found to have increased difficulties with alexithymia when compared to people without PTSD (Frewen, Dozois, Neufiled & Lanius, 2008). Other difficulties associated with PTSD are the tendency to suppress negative emotions (Lowery & Stokes, 2005; Moore, Zoellner & Mollenholt, 2008) and elevated use of experiential avoidance (Kashdan, Morina & Priebe, 2009; Moriner, Stangier & Risch, 2008). Three further emotion regulation strategies have been found to have the strongest relationship with PTSD symptoms; thought suppression, avoidance and rumination (Seligowski, Rogers & Orcutt, 2016). A recent meta-analysis of emotion dysregulation and PTSD reported large effect sizes for specific emotion regulation strategies, as opposed to emotion regulation strategies overall (Seligowski et al., 2015). Both trauma and use of specific emotion regulation strategies have been independently linked to suicidality.

1.1.4 Suicidality
Suicidality has been identified as suicidal ideation, behaviour, gestures and/or attempts (Johnson, Wood, Gooding, Taylor & Tarrier, 2011). This definition of suicidality excludes deliberate self-harm where there is no conscious suicidal intent (Chapman, Gratz, & Brown, 2006). There is disagreement whether non-suicidal self-injury (NSSI) and suicidal self-injury (SSI) are discreet entities or part of the same dimension (Kapur, Cooper, O’Connor & Hawton, 2015). Some studies have reported that people who engage in NSSI do not experience suicidal thoughts at the time of their self-injury (Muehlenkamp, 2005; Patton et al, 1997). Some studies have reported that people who act on NSSI
experience suicidal thoughts or are ambivalent about whether they live or die (Brunner et al., 2014; Klonsky et al., 2011). There is evidence to suggest a link between non-suicidal self-injury (NSSI) and suicidality (Brown, Beck, Steer, & Grisham, 2000; Nock, Joiner, Gordon, Lloyd-Richardson & Prinstein, 2006). A recent study found that NSSI and SSI are part of the same continuous dimension (Orlando, Broman-Fulks, Whitlock, Curtin & Michael, 2015). For the purposes of this paper, suicidality will not include NSSI so that studies which have directly assessed suicide ideation, attempts and gestures are included in the review only. The prevalence of death from suicidality has been reported as 800,000 people globally each year (World Health Organisation, 2014), and is therefore a global public health concern that requires the identification of factors which predict suicidality (Anestis, Soberay, Gutierrez, Hernández, & Joiner, 2014).

1.1.5 Trauma and suicidality
Childhood trauma including abuse, neglect and bullying are risk factors for a number of different mental health problems, as well as suicide attempts and completions across all mental health difficulties (Braquehais et al., 2010; Short & Nemeroff, 2014). Each different form of abuse in childhood has been shown to increase the risk for suicide attempt later in life (Lipschitz, et al., 1999). Childhood sexual abuse, however, has been found to be particularly associated with an increased risk for suicide attempts (Isohookana, Riala, Hakko & Rasanen, 2013; Ullman & Brecklin, 2002) even when childhood physical and emotional abuse are controlled for (Wiederman, Sansone & Sansone, 1998).

People with a diagnosis of PTSD also have increased rates of suicidality (Dixon-Gordon, Tull & Gratz, 2014; Kessler, Borges & Walters, 1999), even when demographic, mood and substance use are controlled for (Sareen, Houlahan, Cox & Assmundson, 2005). A meta-analysis found that PTSD was associated with an increased reporting of past and current suicide ideation and attempted suicide, but there was not an increased risk of completed suicide (Krysinska & Lester, 2010). One review found an important relationship between different types of trauma experienced (for example, combat trauma, and natural disasters), PTSD and high rates of suicidal thought and behaviours (Panagioti, Gooding & Tarrier, 2009). There is some evidence to suggest trauma related to sexual assault may have a stronger association with suicidality than experiences of other types of traumatic experiences (Belik, Stein, Asmundson & Sareen, 2009).

1.1.6 Emotion dysregulation and suicidality
Difficulties with emotion regulation have been shown to increase the risk for suicidality in general (Wagner & Zimmerman, 2006). Emotion dysregulation has also been linked with an increase in suicide attempts. For example, in one study, individuals who reported more dysregulation reported multiple suicide attempts compared with individuals with lower levels of emotion dysregulation who reported only one suicide attempt (Esposiot et
al., 2003). It has been suggested that when individuals invalidate or are not accepting of their emotions then they may attempt suicide to escape emotions when the individual feels that they are unable to cope in any other way (Crowell, Beauchaine & Linehan, 2009; Linehan, 1993). Specific emotion regulation strategies have been investigated in relation to suicidality. Non-acceptance of reactions to emotional distress and lack of access to effective strategies to regulate emotional distress have been found to distinguish non-suicide attempters from suicide attempters (Rajappa, Gallagher & Miranda, 2012). Lack of access to effective strategies to help regulate emotions has also been found to be strongly associated with current suicide ideation (Weinberg & Klonsky, 2009).

In addition, difficulties with cognitive reappraisal have been associated with negative affect in people who experience suicidal ideation (Kudinova, et al., 2016). Impulsivity has been found to be related to suicidality (Dougherty, 2004; Roy, 2005) and may be related to suicide attempts through a higher pain and fear tolerance (Lopez-Castroman, Olié & Courtet, 2014) as people who are impulsive have been found to tolerate higher levels of pain and fear (Bender, Gordon, Bresin & Joiner, 2011). A recent meta-analytic review however, suggested that the relationship between trait impulsivity and suicidal behaviour is small (Anestis, Soberay, Gutierrez, Hernandez & Joiner, 2014). Higher rates of suicidality are reported in people who experience dissociation (Chang, Liu & Wang, 2010; Klonsky & Moyer, 2008). Dissociation and suicidality has also been linked in non-clinical samples (Sar, Akjuz & Dogan, 2007), in people who experienced substance use difficulties (Karadag, et al., 2005) and in people who attempt suicide on multiple occasions (Foote, Smolin, Neft & Lipschitz, 2008). In addition the emotion regulation strategy alexithymia has also been found to be associated with suicidality (Na et al., 2013).

1.1.7 Aim of review
Attention has been paid in the literature to the relationship between trauma and emotion dysregulation, emotion dysregulation and suicidality and trauma and suicidality. There is no known review of the literature to date, which examines the interaction between emotion dysregulation and suicidality in a sample of people who have experienced trauma. This paper presents a systematic review of the literature with the principal aim to increase the understanding of this complex relationship. Specifically there were three objectives to the review: (i) to systematically evaluate the relationship between trauma, emotion dysregulation and suicidality, (ii) to identify particular types of emotion regulation strategies associated with trauma and suicidality and (iii) to identify particular types of trauma associated with emotion dysregulation and suicidality. To meet the objectives of the review, only studies with a combined analysis of trauma, emotion dysregulation and suicidality (e.g. using multiple regression) are included.
1.2 Methods
The search strategy followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher, Liberati, Tetzlaff & Altman, 2009). The review was registered on the PROSPERO database (reference: CRD42016036801).

1.2.1 Eligibility criteria
We included studies which:

a) Employed a quantitative research design. Studies with any type of quantitative research design were included.
b) Included a measure of trauma (e.g. childhood trauma, PTSD).
c) Included a measure of emotion regulation/dysregulation (e.g. alexithymia, dissociation, impulsivity, emotional processing, emotion regulation, expression, blunting, avoidance, impulsiveness, appraisal, coping, rumination, distraction, worry and distress).
d) Included a measure of suicidality (e.g. suicidal thoughts, suicidal plans, suicidal attempts and completed suicide).
e) Included a combined statistical analysis of trauma, emotion dysregulation and suicidality.
f) Written in English language
g) Published in peer-reviewed journal.

We excluded studies which:

a) Employed a qualitative research design.
b) Did not distinguish between self-harm (with no suicidal intent) and suicidality.

1.2.2 Data sources and search strategy
Three electronic bibliographic databases were searched: Medline, PsycINFO and Embase. A scoping exercise was conducted through the Web of Science to identify further eligible studies. The search was conducted from inception to June 2016. The final search was conducted on 9th June 2016. The search strategy included combinations of words and MeSH terms organised in three search blocks: Emotion regulation (e.g. Alex?thymia, Dissociation, emotion process*) AND trauma (e.g. stress disorders, child abuse, victimisation) AND suicide (e.g. suicid*, self-harm*)

1.2.3 Study selection
Abstracts of studies retrieved using the search strategy were screened by the first author to identify studies that potentially met the inclusion criteria of the review. The full text of these potentially eligible studies were retrieved and independently assessed for eligibility.

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2 Inclusion and exclusion criteria are discussed within the Critical Reflection on Page 70
3 See Appendix B for full list of search terms
4 Search terms are further discussed within the Critical Reflection on Page 70
by two reviewers (MK and MP). Any disagreement between the reviewers over the eligibility of particular studies were resolved through discussion and involvement of all authors.

1.2.4 Data extraction
A data extraction sheet developed for the purposes of this study was used to extract data from the included studies for assessment of study quality and evidence synthesis\(^5\). Extracted information included: country of research, research aim, research design, screening tools for trauma, emotion dysregulation and suicidal behaviour, validity of screening tools, participant demographics, recruitment method, response rate of participants, whether the studies reported a comparison between participants who did not respond, control of confounding factors and the nature of the relationship between trauma, emotion dysregulation and suicidality.

1.2.5 Appraisal of methodological quality\(^6\)
The methodological quality of the studies was evaluated using criteria from the Newcastle-Ottawa Scale for cross-sectional studies (Herzog, et al., 2013) by the first author. The Newcastle-Ottawa scale for cross-sectional studies is based on three major components: selection of the study groups (0–5 stars), comparability of (0–2 stars), and ascertainment of outcome (0–3 stars). An independent researcher reviewed eight of the 25 papers (32%). The inter-rater correlation coefficient was found to be 0.84. A total score of 3 or less was considered poor, 4-6 was considered moderate, and 7-10 was deemed high quality.

\(^5\) See Appendix E
\(^6\) The quality assessment of the studies is discussed further within the Critical Reflection on Page 71
1.3. Results
The search generated 1350 citations. Of these, 1200 citations were excluded following title and abstract inspection. The full texts for 150 citations were retrieved. Three full texts were removed, and three were included following discussion. Twenty-five studies met the inclusion criteria of the review following review of the full-texts. The PRISMA flow chart for the studies is presented in Figure 1.

1.3.1 Descriptive characteristics of studies, measures, quality and outcomes
Table 1 summarises the characteristics of the 25 studies included in the review. Approximately half of the studies were conducted in North America (mainly US = 12), four in Europe, six in other countries and one world-wide study for the World Health Organisation (Stein et al., 2013). The majority of the studies were cross-sectional and based on adults (n = 19) with a mean age of 34.63 years. Two studies focused on adolescents (Swahn, et al., 2012; Zoroglu et al., 2003), three studies included children/adolescents and adults, and one study focussed on children alone (Bodzy, Barreto, Swenson, Liguouri & Costea, 2016). The recruitment settings differed widely including inpatient settings (n = 9) outpatient settings (n = 6) educational settings (n = 3), using data from surveys (n = 2); one from a world-wide epidemiological survey and one from a survey of people who had experienced a natural disaster, data gathered from a coroner (n = 2), from a mixture of educational setting, mental health services, and adverts (n = 2) and general adverts asking for research participants (n = 1).

1.3.1.1 Assessment of Emotion Dysregulation
The most frequent type of emotion regulation strategy investigated in the studies was impulsivity (n = 12), followed by dissociation (n = 8). Smaller numbers of studies explored emotion coping (n = 3), alexithymia (n = 2) and general emotion dysregulation (n = 2). Emotion dysregulation was mainly assessed (n = 24) through validated self-reported questionnaires of specific difficulties (e.g. Dissociative Experiences Scale or Barratt Impulsivity scale) or diagnostic interviews (e.g. Diagnostic interview for Personality Disorder).

1.3.1.2 Assessment of Suicidality
The type of suicidality most frequently reported was suicide attempt (n = 21) and/or ideation (n = 8). Four studies reported on suicide plans and two studies reported on completion. Ten studies reported on more than one type of suicidality. Suicidality was mainly assessed (n = 12) by validated self-reported questionnaires developed to assess suicidal ideation or suicidal intent (e.g. Beck Suicide Intent Scale, Suicide Ideation scale). Three studies used interview questions developed for the study to assess suicidality, five studies used self-reported questions developed for the study, and two used a validated interview protocol (e.g. Lifetime Parasuicide count) and two used validated diagnostic interview protocols (i.e. Structured Clinical Interview for DSM Diagnosis). One study did
not report on how they assessed for suicide attempts (Kušević, Vuksan, Babić & Marčinko, 2015).

1.3.1.3 Trauma
Childhood abuse and neglect was the most common type of trauma investigated (n = 15). PTSD was investigated in eight studies. In the studies investigating PTSD, three studies investigated any type of trauma, three studies investigated military trauma, one study focussed on sexual assault related PTSD and one study focussed on people who were earthquake survivors. Two studies explored both childhood trauma and PTSD. The majority of studies used a validated self-report measure (e.g. Impact of events scale) (n = 11), followed by validated interviews (e.g. Child Experience of Care and Abuse Interview) (n = 5) and use of both validated self-report measures and validated interviews (n = 3).

1.3.1.4 Quality Assessment
Overall, the methodological quality of the studies included in the review was low to moderate. There was only one study which was rated high on the quality assessment (Fanning, Meyerhoff, Lee & Coccaro, 2014), sixteen studies scored in the moderate quality range, and eight studies were deemed to be poor quality. The majority of studies scored low on the comparability (e.g. control of confounding factors) and outcome sections (e.g. assessment of outcome, statistical test used) of the quality assessment. Table 2 summarises the quality assessment of the studies.
Figure 1: PRISMA flowchart

Records identified through database searching (n = 1254)
Duplicates removed (n = 468)

Abstracts from 1350 records were screened for eligibility

Additional records identified through scoping exercise in Web of science (n = 564).

1200 records were excluded following reading title and abstract

150 records eligible for full text screening

125 records excluded following reading the full text
- 9 were non-empirical papers
- 4 were literature reviews
- 5 did not measure suicide
- 1 did not measure trauma
- 11 did not distinguish between suicide and self-harm
- 95 did not include an analysis of suicidality, emotion dysregulation and trauma.

Overall 25 studies included in the review
1.3.2 Data Synthesis

1.3.2.1 Association between trauma, emotion dysregulation and suicidality
Seventeen studies found that emotion dysregulation was associated with trauma and suicidality. Eight studies did not find this relationship. The difference found could be explained by the focus on different types of emotion regulation strategies in the studies. The majority of studies (n = 23) looked at specific types of emotion regulation strategies (e.g. dissociation, impulsivity, emotion coping) rather than general emotion dysregulation. General emotion dysregulation was investigated in two studies (Dixon-Gordon, Tull & Gratz, 2014; Gordon et al., 2016). One study (Gordon, et al., 2016) found that emotion dysregulation mediated the relationship between childhood sexual abuse and suicide attempt, and childhood emotional abuse and suicide attempt. The other study (Dixon-Gordon et al., 2016) found that emotion dysregulation was not a moderator in the relationship between sexual assault related PTSD and suicide attempts. The relationship between trauma, specific emotion regulation strategies and suicidality will be discussed below.

1.3.2.2 Association between trauma, dissociation and suicidality
Eight studies investigated the associations between trauma, dissociation and suicidality. The presence of trauma and dissociation was associated with increased levels of suicidality in six of these studies (Güleç, Ýnanç, Yanartaş, Üzer & Güleç, 2014; Kaplan, Asnis, Lipschitz & Chorney, 1995; Rodriguez-Srednicki, 2008; Stein et al., 2013; Wedig et al., 2012; Zoroglu, et al., 2003). Furthermore, one study also showed the opposite direction; this study showed that dissociation in people with experiences of suicidality was associated with increased severity of PTSD among earthquake survivors (Ozdemir, Boysan, Ozdemir & Yilmaz, 2015). This study found that the relationship between suicide ideation and PTSD severity was mediated by dissociation.

Seven studies explored whether trauma and dissociation predicted suicidality. All studies reported that trauma and dissociation remained significant predictors of suicidality, with the exception of Ozturk et al., 2008. This study used the Beck Scale for Suicide Ideation which measures suicidal ideation over seven days only which may account for the differences between this study and the other studies which looked at different definitions of suicidality (e.g. suicide ideation over a longer time-frame, or other risk factors for suicide). The overall findings from the studies suggested dissociation was associated with suicidality over and above the link to trauma. Despite this, however, only one of these six studies applied a formal mediation analysis. Rodriguez-Srednicki, 2008, found a non-significant relationship in their analysis of dissociation mediating the relationship between childhood sexual abuse and suicide attempt. This could be accounted for by the fact that this study used a college sample, rather than people accessing mental health services. The other studies which used similar samples found an association between...
trauma, dissociation and suicidality, although did not conduct a mediation analysis to investigate this relationship further (Stein et al., 2013; Zoroglu, 2003). This means that no firm conclusions can be made about the nature of this relationship.

1.3.2.3 Association between type of trauma, dissociation and type of suicidality
Five studies investigated childhood abuse (independently of adult trauma), dissociation and suicidality. Four of these studies found a relationship between the three variables (Güleç et al., 2014; Kaplan et al., 1995; Rodríguez-Srednicki, 2008; Zoroglu et al., 2003). Two studies found that all types of childhood abuse were predictors of suicide attempt in adulthood (Kaplan et al., 1995) and adolescence (Zoroglu et al., 2003). Rodríguez-Srednicki (2008) found that childhood trauma and dissociation predicted suicide attempts in adulthood however, Gulec et al. (2014) found that only emotional abuse predicted adult suicide attempts and dissociation was not related to adult suicide attempt. One study (Wedig et al., 2012) found that adult sexual abuse, but not childhood abuse and dissociation was a predictor of adult suicide attempts. Two studies specifically investigated PTSD; one was discussed earlier (Ozdemir et al., 2015), with the other finding a relationship between adult PTSD relating to any trauma, dissociation and current suicidal ideation, plans and attempts (Stein et al., 2012).

1.3.2.4 Overview of key results on the link between trauma, dissociation and suicidality
Evidence shows that both trauma and dissociation are associated with suicidality. However, it is unclear whether dissociation mediates the relationship between trauma and suicidality. In the only study using a mediation analysis dissociation did not mediate the relationship between childhood trauma and suicide attempts (Rodríguez-Srednicki, 2008). There was no evidence that these findings are explained by differences between studies such as study quality and design, populations, differences in effect sizes or types of trauma. The majority of studies investigated suicide attempts, therefore conclusions cannot be made regarding different types of suicidality. The majority of studies also used cross-sectional designs suggesting that no inferences can be made about the direction of these associations. More robust study designs and analytic approaches such as prospective studies using moderation and mediation analyses are needed to fully understand the role of dissociation in the link between suicidality and trauma.

1.3.2.5 Association between trauma, impulsivity and suicidality
Twelve studies investigated the association of trauma, impulsivity and suicidality with the majority (n = 11) examining several predictors of suicidality in the same model. Four of these studies found that impulsivity remained a significant predictor of suicidality even when controlling for history of trauma (Brodsky et al., 2008; Fanning et al., 2014; Kotler, Iancu, Efroni, & Amir, 2001; Zouk, Toussignant, Seguin, Lesage & Turecki, 2006). One study found that suicide attempters with high impulsivity scores were more likely to have experienced childhood emotional neglect and abuse than those with lower scores of
impulsivity (Lopez-Castroman, et al., 2014b). Seven studies found that impulsivity did not predict suicidality when controlling for trauma (Brodsky et al., 1997; Chachamovich, et al., 2015; Ferraz et al., 2013; James, 2015; Oquendo et al., 2005; Swahn, et al., 2012; Wedig et al., 2012). Therefore less than half of the studies investigating the impact of trauma, impulsivity and suicidality found that impulsivity was associated with suicidality beyond the effects of trauma. Only one of the studies applied a formal mediation analysis, and found that impulsivity mediated the relationship between childhood sexual abuse and suicide attempt (Brodsky et al., 2008).

Of the studies (n = 12) examining trauma, impulsivity and suicidality, eight of these studies applied a cross-sectional design. Three studies applied a prospective cohort design which provided stronger evidence for any association between trauma, impulsivity and suicidality. Two of these (Brodsky et al., 2008; Zouk et al., 2006) found that childhood trauma and impulsivity predicted suicidality. One study used a retrospective cohort design (Chachamovich, et al., 2015) and did not find a relationship between childhood trauma, impulsivity and suicide completion. Overall there was one high quality study, eight moderate quality studies and three poor quality studies exploring trauma, impulsivity and suicidality. The high quality study found that childhood trauma and impulsivity was associated with suicide attempts (Fanning et al., 2013).

1.3.2.6 Association between type of trauma, impulsivity and type of suicidality
Ten studies investigated childhood trauma, impulsivity and suicidality. Six of these studies found no relationship between the three variables of interest (Brodsky, Malone, Ellis, Dulit & Mann, 1997; Chachamovich et al., 2015; Ferraz et al, 2013; Oquendo et al., 2005; Swahn et al., 2012; Wedig et al., 2012). Of these studies, three studies investigated childhood trauma as a general concept, one study investigated childhood sexual abuse, and one study assessed for all types of childhood trauma. Of the studies that did find a significant relationship, Lopez-Castroman et al., 2014b found that adult suicide attempters with high impulsivity scores were more likely to have experienced childhood emotional neglect and abuse. However, Fanning et al., 2013 found that childhood sexual trauma, but not emotional abuse and impulsivity predicted adult suicide attempt.

Two studies investigated PTSD only. One of these studies investigated any type of trauma experience and found that PTSD and impulsivity predicted suicide risk (Kotler, et al., 2001) and the other found there was no relationship when investigating PTSD in military veterans (James et al., 2014). Two studies investigating childhood trauma and PTSD found that trauma and impulsivity did not predict suicide attempts (Oquendo, et al., 2005; Wedig et al., 2012). There were no consistent differences investigating childhood trauma, more specific types of childhood trauma or lifetime experience of trauma.
In the studies investigating suicide attempt (n = 9), five of these found no relationship between trauma, impulsivity and suicide attempt. The study investigating suicide risk (ideation, plans, attempts) found that trauma and impulsivity predicted suicide risk (Kotler et al., 2001). Only one study investigated suicidal ideation independently from other suicide behaviour and did not find a relationship (James, Strom & Leskela 2014). Two studies investigated trauma, impulsivity and suicide completion (Chachamovich et al., 2015; Zouk et al., 2006). The former study found that trauma and impulsivity predicted suicide completion, whereas the latter study did not. There was therefore no consistent differences between studies investigating mode of suicidality.

1.3.2.7 Overview of key results on the link between trauma, impulsivity and suicidality

There is inconsistent evidence showing impulsivity is related to childhood or trauma in adulthood and suicidality. In the only study using a mediation analysis, impulsivity was a mediator between childhood sexual abuse and suicide attempt. Some evidence was found that the variation in findings were explained by differences between studies. One explanation may be due to study design since more cross-sectional studies did not find a relationship between the three factors. The difference may also be explained by the different type of reaction to trauma studied as only one study out of four which looked at PTSD, found an association between trauma, impulsivity and suicidality. This could mean that PTSD is not associated in the relationship between impulsivity and suicidality, but other types of reactions to trauma are. More studies are required to clarify this relationship. There is also evidence to suggest that the differences between the findings may be explained by study quality because all studies deemed poor quality did not find a relationship. The findings could not be explained by differences in effect sizes as there was no consistent pattern with differences in effect sizes. Again, more robust study designs and analytic approaches such as prospective studies using moderation and mediation analyses are needed to fully understand the role of impulsivity in suicidality and trauma.

1.3.2.8 Other emotion regulation strategies

Factors explored in other studies were emotion coping, general emotion dysregulation and alexithymia. There were two studies which investigated alexithymia (Güleç, et al., 2014; Kušević et al., 2015). The former study found that childhood trauma and alexithymia predicted suicide attempts, and the latter study found that PTSD in military veterans and alexithymia predicted an increase in risk for suicide attempts. There were three studies which explored emotion coping (Amir, 1999; Bodzy et al., 2016; Panagioti et al., 2012), PTSD and suicide. One study (Panagioti et al, 2012) specifically investigated suicide behaviour in adults with any experience of trauma, whereas the other study (Amir, 1999) investigated suicide risk in adults who had experienced military trauma. Both studies found that the presence of PTSD and difficulties in emotion coping predicted suicidality and both were deemed moderate quality. The third study investigated emotion
coping in children (Bodzy et al., 2016) and found that childhood trauma and difficulties in emotion coping predicted suicide attempts. Due to the lack of studies investigating these types of emotion regulation strategies with trauma and suicide, it is difficult to make conclusions on whether a relationship exists, however, preliminary evidence is suggestive that emotion regulation strategies are important.
<table>
<thead>
<tr>
<th>Authors</th>
<th>Year</th>
<th>Country</th>
<th>Research Design</th>
<th>Screening tool for trauma</th>
<th>Type of trauma</th>
<th>Screening tool for emotion dysregulation</th>
<th>Type of emotion dysregulation</th>
<th>Screening tool for suicidality</th>
<th>Type of suicidality</th>
<th>Participants</th>
<th>Mean Age (SD, range)</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brodsky, Malone, Ellis, Dulit &amp; Mann (1997)</td>
<td></td>
<td>USA</td>
<td>Cross-sectional</td>
<td>Sexual experiences questionnaire OR clinical interview (Present: Yes or No)</td>
<td>Physical or sexual abuse before the age of 15</td>
<td>Clinical Interview for DSM-III-R for Personality Disorders OR pilot version of the Personality Disorder Examination</td>
<td>Impulsivity</td>
<td>Beck Suicide Intent Scale, Beck Suicide Lethality scale</td>
<td>Number of previous attempts, lethality and intent associated with lethal attempt</td>
<td>214 initially identified 156 met criteria for Borderline Personality Disorder</td>
<td>18-80</td>
<td>Non-significant result</td>
</tr>
<tr>
<td>Kotler, Iancu, Efroni, &amp; Amir (2001)</td>
<td></td>
<td>Israel</td>
<td>Cross-sectional</td>
<td>Impact of Events Scale</td>
<td>Lifetime exposure to trauma (confirmed through DSM diagnosis)</td>
<td>Impulsivity Control Scale</td>
<td>Impulsivity</td>
<td>Suicide risk scale</td>
<td>Past history of attempts, present strength of impulses</td>
<td>N = 138, PTSD = 46,</td>
<td>41 (18 - 65)</td>
<td>In PTSD impulsivity positively related to suicide risk (Cohen’s d = 1.34)</td>
</tr>
<tr>
<td>Fanning, Meyerhoff, Lee &amp; Coccaro (2014)</td>
<td></td>
<td>USA</td>
<td>Cross-sectional</td>
<td>Childhood Trauma Questionnaire</td>
<td>Childhood trauma</td>
<td>Barratt Impulsivity scale</td>
<td>Impulsivity</td>
<td>Structured Clinical Interview for DSM Diagnosis (SCID)</td>
<td>Suicide attempt</td>
<td>Total sample = 648 Intermittent Explosive disorder (IED) = 264</td>
<td>Total sample = 34.0 (9.8, 18-70)</td>
<td>37.0 (10.0)</td>
</tr>
<tr>
<td>Lopez-Castroman, Jaussent, Beziat, Guillaume, Baca-Garcia, Genty, Olié &amp; Courtet (2014)</td>
<td></td>
<td>France</td>
<td>Cross-sectional</td>
<td>Childhood Trauma Questionnaire</td>
<td>Childhood trauma</td>
<td>Barratt Impulsivity Scale</td>
<td>Impulsivity</td>
<td>Columbia Suicide History Form and Section O of the DIGS</td>
<td>Suicide attempt</td>
<td>696</td>
<td>Median = 39.4 (18 - 83.4)</td>
<td>Statistical data not presented in paper</td>
</tr>
</tbody>
</table>

Table 1 continued on next page
<table>
<thead>
<tr>
<th>Authors</th>
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<th>Type of emotion dysregulation</th>
<th>Screening tool for suicidality</th>
<th>Type of suicidality</th>
<th>Participants</th>
<th>Mean Age (SD, range)</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chachamovich, Kirmayer, Haggarty, Cargo, McCormick, Turecki (2015)</td>
<td></td>
<td>Canada</td>
<td>Retrospective cohort study</td>
<td>Child Experience of Care and Abuse Interview</td>
<td>Childhood trauma</td>
<td>Barratt Impulsivity Scale (BIS-11)</td>
<td>Impulsivity</td>
<td>Completion of suicide: Yes/No</td>
<td>Completion of suicide</td>
<td>Total sample = 240, Suicide completers = 120.</td>
<td>Suicide subjects = 23.41 (9.13).</td>
<td>Non-significant result</td>
</tr>
<tr>
<td>Ferraz, Portella, Vallez, Gutiérrez, Martín-Blanco, Martín-Santos, &amp; Subirá (2013)</td>
<td></td>
<td>Spain</td>
<td>Cross-sectional</td>
<td>Structured clinical interview which asked about the presence of childhood sexual abuse before the age of 16.</td>
<td>Childhood trauma</td>
<td>Barratt Impulsivity Scale (BIS-11)</td>
<td>Impulsivity</td>
<td>Structured interview</td>
<td>Lifetime suicide attempts</td>
<td>Total sample = 76, suicide attempters = 54</td>
<td>30.3 (SD = 8)</td>
<td>Suicide attempts were predicted by impulsive hostility traits (OR = 1.1, CI: 1.03-1.2) and CSA (OR = 10.9, CI: 1.6-73.8).</td>
</tr>
<tr>
<td>Kaplan, Asnis, Lipschitz &amp; Chorney (1995)</td>
<td></td>
<td>USA</td>
<td>Cross-sectional</td>
<td>Traumatic Experiences Questionnaire.</td>
<td>Childhood abuse and neglect.</td>
<td>Dissociative Experiences Questionnaire (DES).</td>
<td>Dissociation</td>
<td>Harkavy-Asnis Suicide Survey.</td>
<td>Suicidal behaviours</td>
<td>251</td>
<td>38.7 (18-87)</td>
<td>Dissociation (OR: 1.08; CI: 1.02-1.13) predicted suicide attempts in people who had been abused.</td>
</tr>
<tr>
<td>Swahn, Ali Bossarin, Van Dulmen, Crosby, Jones &amp; Schinka (2012)</td>
<td></td>
<td>USA</td>
<td>Cross-sectional</td>
<td>Questions about abuse prior to the age of 10.</td>
<td>Childhood trauma</td>
<td>A continuous measure, 4 item scale (Bosworth &amp; Espelage, 1995) (Not described in paper)</td>
<td>Impulsivity</td>
<td>Single item question - have you attempted suicide at least once in the last year?</td>
<td>Suicide attempt</td>
<td>Total sample = 2051</td>
<td>Not reported.</td>
<td>Non-significant result</td>
</tr>
<tr>
<td>Amir, Kaplan, Efroni, &amp; Kotler (1999)</td>
<td></td>
<td>Israel</td>
<td>Cross-sectional</td>
<td>DSM-IV interview</td>
<td>Military trauma</td>
<td>Coping styles questionnaire</td>
<td>Emotion coping</td>
<td>Suicide risk scale</td>
<td>Suicide attempts and suicide impulses</td>
<td>Total sample = 138, PTSD = 46, PTSD = 39.21</td>
<td>Coping styles predicted suicidality for the PTSD group (Cohen’s f’ = 0.49)</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 continued on next page
<table>
<thead>
<tr>
<th>Authors</th>
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<th>Type of suicidality</th>
<th>Participants</th>
<th>Mean Age (SD, range)</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>James, Strom &amp; Leskela (2014)</td>
<td>USA</td>
<td>Cross-sectional</td>
<td>PTSD checklist military version</td>
<td>Military trauma</td>
<td>UPPS Impulsive Behaviour Scale (UPPS)</td>
<td>Impulsivity</td>
<td>Risk taking behaviours evaluated using a measure designed for a larger study</td>
<td>Suicidal thoughts</td>
<td>Total sample = 234, PTSD = 69, 14.47, 18-87</td>
<td>Non-significant result</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoroglu, Tuzun, Sar, Tukun, Sava, Ozturk, Alyanak &amp; Kora (2003)</td>
<td>Turkey</td>
<td>Cross-sectional</td>
<td>Childhood abuse and neglect questionnaire. Author's survey questions around abuse.</td>
<td>Childhood abuse and neglect. Dissociative Experiences Questionnaire (Turkish version)</td>
<td>Dissociation</td>
<td>Self-reported questionnaire developed by authors.</td>
<td>Lifetime suicide attempt</td>
<td>839</td>
<td>15.9 (1.8, 14-17)</td>
<td>Increasing number of types of trauma predicted suicide attempt (Cohen’s d = 0.84)</td>
<td></td>
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<tr>
<td>Ozdemir, Boysan, Ozdemir &amp; Yilmaz (2015)</td>
<td>Turkey</td>
<td>Cross-sectional</td>
<td>Post-traumatic Stress diagnostic scale</td>
<td>Earthquake survivor</td>
<td>DES</td>
<td>Dissociation</td>
<td>Scale for Suicide Ideation</td>
<td>Suicidal ideation</td>
<td>611</td>
<td>24.9 (6.5, 17-67)</td>
<td>Dissociation and suicide ideation predicted PTSD severity within a regression model (Cohen’s $F^2 = 0.72$)</td>
<td></td>
</tr>
<tr>
<td>Rodriguez-Srednicki (2008)</td>
<td>USA</td>
<td>Cross-sectional</td>
<td>1. Trauma symptom checklist</td>
<td>Childhood sexual abuse 1. DES 2. Trauma Symptom Checklist - dissociation subscale</td>
<td>Dissociation</td>
<td>Demographic and background questionnaire</td>
<td>Suicide plans within the last year, suicide attempts</td>
<td>441</td>
<td>20.6 (1.2, 18-23)</td>
<td>Childhood sexual abuse and dissociation predicted suicide attempts (Cohen’s d = 0.47)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brodsky, Mann, Stanley, Tin, Quendo, Birmaher, Greenhill, Kolko,</td>
<td>USA</td>
<td>Prospective cohort study</td>
<td>Screening questions for abuse, Childhood Experiences</td>
<td>Childhood abuse. Age 10 - 17: 5 items impulsivity of IOWA Conners Parent Physical report.</td>
<td>Impulsivity</td>
<td>Columbia University History form.</td>
<td>Suicide attempt</td>
<td>Offspring = 507 No Abuse = 294, Physical</td>
<td>Insufficient data presented to calculate effect size</td>
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<tr>
<td>Zelazny, Burke, Melhem &amp; Brent (2008)</td>
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<td>Questionnaire. Childhood Adolescent Review of Experiences (CARE) PTSD section of the SCID-I.</td>
<td>Age over 18: Barratt Impulsivity Scale</td>
<td>No Abuse = 21.2 (9.6), Physical abuse only = 19.5 (8.6), Sexual abuse only = 16.3 (4.5), Physical and sexual abuse = 17.1 (5.2)</td>
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<td>Zouk, Tousignant, Seguin, Lesage &amp; Turecki (2006)</td>
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<td>Childhood Experience of Care and Abuse (CECA) and the Life Events and Difficulties Schedule (LEDS). Childhood trauma and life events over the past 12 months</td>
<td>Barratt Impulsivity scale, Version 11 (BIS-11).</td>
<td>Impulsivity</td>
<td>Suicide completion: Yes/No</td>
<td>Completion of suicide</td>
<td>The total sample = 164. Suicide completers with impulsivity scores &gt; 70th percentile = 50. Suicide completers with impulsivity scores &lt; 30th percentile = 50.</td>
<td>Impulsive suicide completers were more likely to have experienced rejection (Cohen's d = 0.39) and negligence (Cohen's d = 0.38) from either parent</td>
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<td>Cross-sectional</td>
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<td>Childhood trauma</td>
<td>DES, Dissociative Disorders Interview Schedule, Clinician Administered Dissociative States Scale (CADSS)</td>
<td>Dissociation Scale for Suicide Ideation</td>
<td>Suicide attitudes, behaviours and plans to complete suicide</td>
<td>40</td>
<td>Total sample = 25.8 (6.2, 16-40)</td>
<td>Non-significant result</td>
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<td>Oquendo, Brent, Birmaher, Greenhill, Kolko, Stanley, Zelzny, Burke, Firinciogullari, Ellis &amp; Mann</td>
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<td>Structured Clinical Interview for DSM-IV (SCID) Trauma screening questions in demographic questionnaire</td>
<td>Childhood physical and sexual abuse</td>
<td>Barratt Impulsivity Scale</td>
<td>Impulsivity Scale</td>
<td>Columbia University Suicide History form. Lethality Rating scale Scale for Suicide Ideation. Suicide intent scale</td>
<td>Lifetime suicide behaviour, medical injury from suicide attempt suicidal ideation suicidal intent</td>
<td>PTSD = 59</td>
<td>PTSD = 41.66 (10, 35-76)</td>
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<td>Abuse history interview (AHI) Childhood Experiences Questionnaire (CEQ-R)</td>
<td>Childhood trauma</td>
<td>1. Diagnostic Interview for DSM-III-R personality disorder (DIP-R). 2. Diagnostic Interview for Borderlines (DIB-R) 3.DES</td>
<td>1.Impulsivity 2.Dissociation</td>
<td>Suicide Lifetime Self-destructiveness questionnaire.</td>
<td>Presence or absence of suicide attempt</td>
<td>290</td>
<td>26.9 (5.8)</td>
<td>Impulsivity was non-significant. Significant predictors of suicide attempts were sexual assault (OR = 1.74), PTSD (OR = 1.93) &amp; Dissociation (OR = 1.02)</td>
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<td>Güleç, Ynanç, Yanartab, Üzer &amp; Güleç</td>
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<td>Cross-sectional</td>
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<td>Childhood trauma</td>
<td>DES, Toronto Alexithymia scale</td>
<td>Dissociation, Alexithymia</td>
<td>Previous suicide attempt: Yes/No</td>
<td>Suicide attempt</td>
<td>Total sample = 144, Suicide attempt = 33, Suicide attempt = 30.03 (10.71), The presence of a suicide attempt was predicted by score on the DES-taxon (OR = 1.304), and emotional abuse (OR = 1.321)</td>
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<td>Country</td>
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<td>Lifetime exposure to trauma</td>
<td>Emotion coping subscale of the Resilience Appraisals scale (RAS).</td>
<td>Emotion coping</td>
<td>Suicidal Behaviours Questionnaire Revised (SBQ-R)</td>
<td>Suicide attempt, suicidal thoughts within the last year.</td>
<td>56</td>
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<td>Difficulty in Emotion Regulation Scale (DERS)</td>
<td>Emotion dysregulation</td>
<td>Lifetime Parasuicide Count (LPC)</td>
<td>Suicide attempt</td>
<td>246</td>
<td>35.60 (10.07, 18 - 61)</td>
<td>Non-significant result</td>
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<td>Gordon, Simonich, Wonderlich, Dhankikar, Crosby, Li Cao, Yee Kwan, Mitchell &amp; Engel (2016)</td>
<td>USA</td>
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<td>Child Trauma Interview</td>
<td>Childhood trauma</td>
<td>The Dimensional Assessment of Personality Pathology Basic Questionnaire (DAPP-BQ)</td>
<td>Emotion dysregulation</td>
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<td>Suicide attempt</td>
<td>125</td>
<td>24.87 (7.24, 18 - 55)</td>
<td>Insufficient data presented to calculate effect size.</td>
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Table 1 (continued)

<p>| Stein, Koenen, Friedman, Hill, McLaughlin, Petukhova, Ruscio, Shahly, Spiegel, Borges, Bunting, Caldas-de-Almeida, de Girolamo, Demytenaere, Florescu, Haro, Karam, Kovess-Masfety, Lee, Matschinger, Miadesnova, Posada-Villa, Tachimori, Viana &amp; Kessler (2013) | Interviews administere d in Belgium, France, Germany, Italy, Japan, Northern Ireland, Portugal, Spain, U.S, Columbia, China, Brazil, Bulgaria, Lebanon, Mexico, Romania | Cross-sectional | WHO Composite International Diagnostic Interview (CIDI) Interviews assessed Lifetime trauma | Lifetime exposure to trauma Childhood adversity | WHO Composite International Diagnostic Interview (CIDI) Interviews assessing lifetime exposure to 27 traumatic events | Dissociation | CIDI suicide behaviour module | 12 month occurrence of suicide ideation, plans and attempts. | Total sample = 25018, PTSD = 747. | Not reported | Dissociation was associated with significantly elevated odds of 12 months suicidality in people with PTSD (OR: 3.4-6.1). |</p>
<table>
<thead>
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<th>Authors Year</th>
<th>Country</th>
<th>Research Design</th>
<th>Screening tool for trauma</th>
<th>Type of trauma</th>
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<td>Bodzy, Barreto, Swenson, Liguori &amp; Costea (2016)</td>
<td>USA</td>
<td>Retrospective cohort</td>
<td>Trauma Symptom Checklist for Children and Adolescents</td>
<td>Alternative Childhood trauma</td>
<td>BarOn Emotional Quotient Inventory Version Short form</td>
<td>Emotion coping</td>
<td>Review of inpatient chart, The Child- Adolescent Suicide Potential Index (CASPI)</td>
<td>Suicide ideation, Suicide attempt</td>
<td>129</td>
<td>9.97 (1.7)</td>
<td>Presence of trauma &amp; difficulties in emotion coping distinguished ideators from attempters (Cohen’s d = 0.70)</td>
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<td>Outcome score</td>
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1.4. Discussion

The aim of the present study was to conduct a systematic review of the relationship between trauma, emotion dysregulation and suicidality, the role of particular types of trauma and emotion dysregulation and suicidality and the most important emotion regulation strategies associated with trauma and suicidality.

1.4.1 Summary of main findings

1.4.1.1 Trauma, emotion dysregulation and suicidality

There is evidence to suggest there is a relationship between trauma, emotion dysregulation and suicidality. More specifically, there is greater evidence to suggest that there is a relationship between childhood trauma, dissociation and suicidality. The review found that one pathway between trauma and suicidality may be through dissociation, however, the only study to use a mediation analysis found that there was a small, but non-significant mediation relationship. It is possible that this was because the study used a college sample who were experiencing suicidality to investigate this relationship, whereas a specific clinical sample may have shown a stronger relationship. There is a definite need however for more studies, with clinical samples to clarify the exact nature of this relationship. There was mixed evidence supporting the relationship between trauma, impulsivity and suicidality. Previous research that has found independent relationships between trauma and impulsivity and impulsivity and suicidality (Dougherty et al., 2004; Roy, 2005), however the review did not support an inter-relationship between these factors. There were more poor quality studies which did not find a relationship when compared with moderate quality studies, which may in some way explain the reason for non-significant findings. It could be that there is only a small relationship between trauma, impulsivity and suicidality as more recent research has found that the relationship between trait impulsivity and suicidality is small (Anestis et al., 2014). Previous research is suggestive of a relationship between trauma and alexithymia (van der Kolk, et al., 1996; Wise et al., 2000) and alexithymia and suicidality (Na et al., 2013), however, there were only two studies in the review which explored the interaction between these factors, and found that trauma and alexithymia did predict suicidality. Further research around trauma, alexithymia and suicidality is clearly indicated to examine the precise nature of this relationship so that the suicide risk can be reduced in individuals who have experienced trauma and alexithymia.

General emotion dysregulation has previously been found to be linked to trauma (Cloitre et al., 1997; Kulkarni, et al., 2013) and suicidality (Esposito et al., 2003; Wagner et al., 2006). Each additional trauma has also been found to lead to greater difficulties in emotion regulation (Cloitre et al., 1997; Kulkarni, et al., 2013). It is therefore conceivable that it could be the use of a combination of several different unhelpful emotion regulation strategies (e.g. use of dissociation, impulsivity and alexithymia) that relate trauma experiences to suicidality, and not necessarily the use of one individual strategy per se. This has not been investigated to date. The review found however that general emotion dysregulation was found to be a mediator in the relationship between childhood
trauma and suicidality (Gordon, et al, 2016), but not a moderator between sexual assault related PTSD and suicidality (Dixon-Gordon et al., 2014), however, again, more studies would be needed to clarify this relationship. There were only two studies in the review that investigated more than one emotion regulation strategy. Studies which investigate the relationship between several emotion regulation strategies, trauma and suicidality would help elucidate this relationship.

The review also found preliminary evidence to suggest that there is a relationship between trauma, emotion coping and suicidality. Due to the paucity of evidence in the relationship between trauma and the latter emotion regulation strategies, it is difficult to draw firm conclusions. The studies within the review which investigated dissociation, impulsivity and alexithymia examined each of these constructs in relation to trauma and suicide as unitary. There is evidence to suggest that dissociation, impulsivity and alexithymia each have at least more than one dimension (Moorman et al., 2008; Holmes et al., 2005; Kraplin et al., 2014), and that different dimensions, for example, negative urgency in impulsivity, may have a greater relationship with suicidality (Whiteside & Lynham, 2001). This was not addressed within the studies included in the review. Further research is therefore required to clarify the relationship of the different dimensions of all three constructs to trauma and suicidality. There are also a number of emotion regulation strategies that have not been investigated in their relationship to trauma and suicidality, for example, lack of access to effective strategies, difficulties with cognitive appraisal, rumination, thought suppression or experiential avoidance, despite their previous research advocating the link to suicidality (Rajappa et al., 2012; Seligowski et al., 2016). This is important so as to establish what processes contribute to suicide risk in people who have experienced trauma.

1.4.1.2 Type of trauma, emotion dysregulation and suicidality
Overall, there were more studies investigating childhood trauma, emotion dysregulation and suicidality, with two thirds of these studies reporting significant associations. Previous research has suggested the relationship between the experience of childhood abuse and overall difficulties in emotion regulation (Cloitre et al., 1997; Kulkarni et al., 2013), and a relationship between childhood trauma and suicidality (Isohookana et al., 2013; Ullman, 2002). The majority of studies which investigated childhood trauma and impulsivity did not find a significant relationship with suicidality, which may suggest that there is a stronger link between childhood trauma and suicidality through other emotion regulation strategies, such as dissociation. The precise nature of this relationship is unclear as only one study used a mediation analysis to investigate childhood trauma independently of trauma in adulthood or adult onset PTSD. It is also difficult to draw any conclusions over types of abuse and emotion dysregulation as the majority of studies investigated any experiences of trauma, rather than specific types of trauma.

Previous research has suggested that childhood sexual trauma has a greater impact on suicidality than other types of trauma (Ullman & et al, 2013; Wiederman, et al., 1998), however there is limited evidence due to a lack of available studies to say that the pathway between childhood sexual
abuse and suicidality is through emotion dysregulation. A complex relationship may exist between childhood trauma, emotion dysregulation and suicidality, in terms of the frequency of childhood abuse and the impact of this, as additional traumatic experiences in childhood have been found to lead to increased suicidality (Lipschitz et al., 1999). There was study which investigated the impact of additional forms of trauma on emotion dysregulation and suicidality and found that all types of emotional abuse were predictors of suicidality (Zoroglu et al., 2003). Another explanation may be that it is the severity of abuse that leads to greater emotion dysregulation or the use of particular emotion regulation strategies. One study investigated severity of abuse and did not find that severity of abuse and dissociation was predictive of suicide attempts (Kaplan, 1995), however, again, this requires further research to clarify this relationship.

The majority of studies investigating lifetime experience of trauma and childhood trauma, showed a relationship between emotion dysregulation and suicidality. There are therefore no firm conclusions which can be made regarding a difference in the type of trauma and the relationship between emotion dysregulation and suicidality. Again, there is evidence to suggest that sexual trauma has a greater impact on suicidality than other types of trauma (Belik, et al., 2009), but this conclusion cannot be made from the review.

1.4.1.3 Trauma, emotion dysregulation and type of suicidality
The majority of studies investigated suicide attempt alone, as opposed to different forms of suicidality. The review found that there is strong evidence to indicate a relationship between trauma, emotion dysregulation and suicide attempts. The focus of studies on suicide attempt is not surprising considering the link between suicide attempts, repeated suicide attempts and suicide completion (Boisseua et al., 2013; Harris & Barraclough 1997), however, all forms of suicidality have been shown to increase the risk for suicide completion (Carter, Reith, Whyte & McPherson, 2005). Further research is therefore suggested to look at the role of trauma, emotion dysregulation and all forms of suicidality.

1.4.2 Experiential avoidance model
The experiential avoidance model offers a theoretical understanding of the main findings related to emotion dysregulation, dissociation, impulsivity and alexithymia. The experiential avoidance model proposes that difficulties arise from the avoidance and escape of undesirable internal events, for example, thoughts, images, memories (Hayes et al., 1996). Difficulties with emotion regulation has been related to experiential avoidance (Chapman, Dixon-Gordon & Walters, 2011) and both dissociation and alexithymia have been identified as forms of experiential avoidance (Luminet, Rime, Bagby & Taylor, 2004; O’Driscoll, et al., 2014). The development of experiential avoidance has been suggested to be a consequence of living within an abusive environment in childhood where expression of negative emotions is chastised or invalidated resulting in the child developing enduring patterns of avoidance and/or suppression of emotions into adulthood (Krause, Mendelson & Lynch, 2003; O’Driscoll et al., 2014; Stevens, Gerhart, Goldsmith, Heath, Chesney and Hobfoll,
Greater levels of impulsivity have also been related to experiential avoidance (Chapman, et al., 2006), as avoidance of internal events often takes the form of impulsive acts which serve a function of escaping the aversive internal experiences (Hayes et al., 1996; Peters, Erisman, Upton, Baer & Roemer, 2011). Avoidance of emotions through suppression is also linked with greater PTSD symptoms in adulthood (Street, Gibson & Holohan, 2005). Within the experiential avoidance model, suicide is viewed at the extreme end of the continuum of experiential avoidance where suicide would result in the ultimate escape from all undesirable internal events (Hayes et al., 1996; Hayes, Pistorello & Biglan, 2008). This model relates to the findings of the review, in particular the findings of the relationship between childhood trauma, dissociation and suicidality. It may also explain the association between the constructs under review, trauma, suicidality in the studies which investigated PTSD. The experiential avoidance model therefore extends an insight into the relationship between trauma, emotion dysregulation and suicidality, and related concepts.

1.4.3 Study limitations

The limitations of the review are that there was no search of the grey literature which may have yielded fewer significant results due to publication bias. Although there is increased interest in including grey literature in systematic reviews, it is difficult to synthesise and appraise studies that have not undergone the peer-reviewed process. For this reason only peer reviewed articles were included which are usually of higher quality. There was also no search of non-English papers, therefore the review is restricted by this. Although the search incorporated a number of different terms for emotion regulation or dysregulation it is possible that some terms were missed, due to the known complexity in describing emotion dysregulation. There were also between study differences in the samples studied, however, the review offers a comprehensive review of the available studies to date. The data also did not allow the use of meta-analysis. The advantage of meta-analysis is that it quantifies relationship and assigns different weights to studies with larger sample size, although this was not possible with the available data, the methodological quality and study design were considered in their effect on the results.

1.4.4 Research implications

As discussed above, the review suggests that more robust studies are needed to investigate the role of emotion regulation strategies within the relationship between trauma and suicidality. A full programme of research with aims to explore the emotion regulation processes which link trauma to suicide, would expand on current research into this area. There are also a number of specific research studies indicated from the review, as the review has highlighted that there are several unknowns. In particular, more studies are required investigating the emotion regulation strategies of alexithymia, emotion coping, and general emotion dysregulation with the rationale to expand on the emerging evidence that these specific regulation strategies and general dysregulation are important in the relationship between trauma and suicidality. Further studies should also focus on investigating the use of more than one emotion regulation strategy to investigate if the use of more than one unhelpful strategy is indicated in the relationship between trauma and suicidality. There
are a number of different emotion regulation strategies not explored within the literature to ascertain if they are associated with trauma and suicidality. In particular, research into rumination, thought suppression, difficulties with cognitive appraisal or experiential avoidance, or a combination of the use of these emotion regulation strategies are identified as important from the review.

1.4.5 Clinical implications

The review suggests that clinicians working with people who have experienced trauma and who are experiencing any form of suicidality need to assess for particular emotion regulation strategies. When clinicians work therapeutically with trauma, then dissociation should be routinely assessed through validated measurement tools for dissociation, for example, the Dissociative Experiences Scale II (Carlson & Putnam, 1993). This is part of the routine assessment in some therapies, for example EMDR (Shapiro, 2001), but not necessarily all therapies that target trauma. Despite evidence of other emotion regulation strategies being indicated in the pathway between trauma and suicidality, emotion regulation would be important to assess as it is likely to be important in suicidality. In particular, alexithymia and emotion coping appear to be emerging as important indicators of suicidality in people who have experienced trauma. Emotion dysregulation as a general concept is also important to assess in individuals who have experienced trauma. Emotion dysregulation as a potential indicator for suicide risk and could be assessed using the Difficulties in Emotion Regulation Scale (DERS) (Gratz & Roemer, 2004).

Particular interventions to target and build on a range of more helpful emotion regulation strategies may help reduce suicidality within a group of people who have experienced trauma. Dependent on assessment of emotion regulation strategies, different interventions may be indicated. For example, for dissociation, there are a number of different effective psychological interventions indicated from the literature, such as Mindfulness, or approaches incorporating Mindfulness (Zerubavel & Messman-Moore, 2015) or EMDR (van der Hart, Groenendijk, Gonzalez, Mosquera, & Solomon, 2013). To target impulsivity, there appears to be less researched interventions, however, Dialectic Behaviour Therapy has been shown to reduce impulsive behaviours (Soler et al., 2009; Mcquillan, et al., 2005) and Acceptance and Commitment Therapy (ACT) has shown promising results (Morrison, Madden, Odum, Friedel & Twohig, 2014). For general emotion dysregulation, there are a number of different psychological therapies which have been shown to be effective in improving emotion regulation, for example, Emotion Regulation Therapy (Mennin & Fresco, 2009), Mindfulness based Cognitive Therapy (Kumar, Feldman & Hayes, 2008) or ACT (Blackledge & Hayes, 2001).

1.4.6 Conclusion

The present review suggests that that emotion dysregulation is important in the relationship between trauma and suicidality. The specific emotion regulation strategy of impulsivity may have less of an association in the relationship between trauma and suicidality than other emotion regulation strategies. More robust research and better quality studies are required to clarify the
exact relationship. Furthermore there is evidence that dissociation is important in the relationship between childhood trauma and suicidality, and therefore it is advised that clinicians should screen for dissociation in people who have experienced trauma who may be at risk of suicide. There are also emotion regulation strategies absent from the literature when investigating trauma and suicidality, for example, cognitive appraisal or rumination, which suggest an important direction for future research would be to investigate these pathways to meet the ongoing need to find factors that predict suicide. There is evidence to suggest that childhood abuse is an important factor in the relationship between emotion dysregulation and suicidality, again, better quality and more robust studies are required to strengthen the emerging evidence in this area. Overall, the review found that emotion dysregulation is a significant factor in the relationship between trauma and suicidality, and this has important implications for both clinicians and researchers in order to continue to identify and develop interventions to reduce the risk of suicide.
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Paper 2: An investigation into the role of entity beliefs about emotion, emotion dysregulation and suicidality

The following paper has been prepared for submission to the Journal of Affective Disorders. The guidelines for authors can be found in Appendix A2. Formatting changes have been made to the current paper to aid readability. Additional word count has been used to aid understanding within the paper.

Word Count:

Whole text: 8112

Main text: 5912
(Excluding abstract, tables, figures and references)
ABSTRACT

Background: Entity beliefs about emotion propose that emotions cannot be changed or controlled and have been associated with increased distress, overall emotion dysregulation and unhelpful strategies to regulate emotions. Emotion dysregulation has been independently associated with distress and an increased risk for suicidality as a solution to this distress. The relationship between entity beliefs and emotion dysregulation is therefore important to consider in relation to suicidality.

Methods: We examined the association between entity beliefs about emotion, emotion dysregulation and suicidality in a clinical sample (aged 18 – 60) of 101 participants from the United Kingdom.

Results: Entity beliefs about emotion were not found to be associated with emotion dysregulation or suicidality when depression and hopelessness were controlled for. Entity beliefs predicted limited access to emotion regulation strategies. General emotion dysregulation, impulse control difficulties, limited access to emotion regulation strategies and non-acceptance of emotions predicted suicide potential over and above depression.

Limitations: This was a cross-sectional study, therefore inferences about causality are limited.

Conclusion: Emotion dysregulation is an important risk factor for suicide potential. Entity beliefs are not directly related to suicidality but may contribute in that they are associated with limited access to emotion regulation strategies. As a result, it is important to consider the role of emotion dysregulation, emotion regulation strategies and entity beliefs in clinical practice. Future research should investigate different types of beliefs about emotion and suicidality, and explore the role of entity beliefs as predictors of hopelessness or depression.

Keywords: Entity beliefs, emotion dysregulation, strategies, suicidality
2.1 Introduction
Suicidality has been described as any form of suicidal thinking or behaviour, gestures and attempts. Suicidality is often viewed on a continuum (Johnson, et al., 2010) and has been found to increase the risk of completed suicides (Carter, et al., 2005). Suicide has been identified as a major public health concern and a leading cause of death worldwide (World Health Organisation (WHO), 2012), and 800,000 people die globally each year through suicide (WHO, 2014), and therefore suicide is a world-wide public health issue. A recent meta-analysis on research into the risk factors for suicidality found that risk factors identified over the past fifty years are weak and inaccurate in predicting suicide (Franklin et al., 2016). Finding accurate predictors for suicide is therefore a complex task, nevertheless there is a necessity to explore factors that lead to suicidal thoughts and behaviours in order to find ways to improve resilience to, and improve prevention of suicide.

A number of key psychological factors have been found to be linked with increased suicidality. For example, hopelessness, which has been described as negative attributions about the future and a helplessness to improve prospects for the future (Klonsky et al., 2012) has been found to be an important long term risk factor for suicidality (Joiner, et al., 2005; McMillian, et al., 2007). Symptoms of depression are also known to be a risk factor for suicide and have found to predict suicide thoughts, attempts and completed suicide (Brown, et al., 2000; Miranda and Nolen-Hoeksema, 2007). Other related psychological risk factors include feelings of defeat and entrapment and an inability to regulation emotions. Defeat and entrapment includes a perception of loss, failure and an inability to escape, and has been shown to have a significant relationship with increased suicidality (Siddaway, et al., 2015; Taylor, et al., 2010). Emotion dysregulation has also been found to be a risk factor for suicidality (Ammeman, et al., 2015; Arria, et al., 2009; Miranda, et al., 2013). One definition of emotion dysregulation is an inability to regulate emotions through deficits in; being aware or understanding emotions, accepting emotions, control of impulsive behaviour, being able to meet individual goals and use of appropriate strategies to regulate emotions (Gratz and Roemer, 2004; Paulus, et al., 2016). Emotion dysregulation has been associated with many psychological disorders and is a core feature of many Axis I and Axis II disorders (Aldao et al., 2010; Gross, 1998). In contrast, emotion regulation has been shown to be an important feature of healthy psychological functioning (Werner and Gross, 2009).

Emotion dysregulation has been found to be a risk factor for suicide even when controlling for known risk factors of depression and hopelessness (Rajappa, et al., 2012). Key emotion regulation strategies which have been linked to suicidality include a perception of limited access to emotional regulation strategies, non-acceptance of emotions (Rajappa et al., 2012) and impulsivity (Anestis and Joiner, 2010; Whiteside and Lynam, 2001). Limited access to emotion regulation strategies is thought to be related to suicidality because the person experiences feelings of defeat and a powerlessness to change in relation to negative emotions, due to lack of strategies available to regulate the emotion (Rajappa et al., 2012). Being non-accepting of emotions is thought to be
related to suicidality through individual beliefs about a lack of ways to cope with the unacceptable emotion, and suicidality becomes a strategy to regulate the emotion (Crowell, et al., 2009; Linehan, 1993; Wagner and Zimmerman, 2006). Impulsivity is thought to be linked to suicidality through wanting to eliminate negative emotions (Anestis and Joiner, 2010) and people engage in risky behaviours to manage these emotions, which over time instil them with the capacity to enact serious or lethal harm to themselves (Joiner, 2005).

Several different theories have sought to explain and predict suicidality. Emotion dysregulation (Linehan, 1993), hopelessness (Beck, Steer, Kovac & Garrison, 1985) and defeat and entrapment (Williams, 1997; Williams et al., 2006) have all been discussed above, however are not thought to offer a full explanation for suicidality (Franklin et al., 2016). Other important theories to the present study include the experiential avoidance model (Hayes, Wilson, Gifford, Follette & Strosahl, 1996), relevant to both deliberate self-harm and suicide, and the extended process model of emotion regulation and psychopathology (Gross, 2015; Sheppes, et al, 2015). The experiential avoidance model theorises that psychopathology results from the avoidance or escape from unwanted internal experiences including thoughts, memories, emotions, as well as uncomfortable situations (Hayes, et al., 1996). Within this theory suicide is the most extreme form of experiential avoidance as death is seen as an escape from all unwanted internal experiences. This would include escape from beliefs that emotions are fixed, and associated emotional responses (Hayes et al.,1996; Hayes, Pistorello & Biglan, 2008).

The extended process model theorises that suicide behaviour is related to an inaccurate analysis of the costs and benefits of the use of different emotion regulation strategies and suicide is selected as the preferred strategy to regulate the emotion(s). The model proposes that when an individual reaches a personal threshold of discrepancy between a negative valuation of their current state of emotion and a positive valuation of the desired state of emotion then distress is caused. The distress caused by the discrepancy means a set of co-ordinated cognitive, behavioural and physical responses are executed (Gross, 2015; Sheppes et al., 2015). Studies which have looked at metacognitive beliefs about emotion have found that people who believe emotions are fixed entities use fewer emotion regulation strategies (Mauss and Tamir 2014; Romero et al. 2014; Tamir, et al., 2007). In the extended process model this is thought to be the result of not activating emotion regulation due to negatively valuing a regulated state of emotion (Sheppes et al., 2015).

Metacognitive beliefs are beliefs about internal cognitive states such as thoughts, images or emotions, which are understood to maintain psychological distress (Leahy, 2002; Wells and Matthews, 1994). In particular, all metacognitive beliefs about emotions have implications for emotion regulation and processing (Manser, et al., 2012; Rimes and Chalder, 2010). Beliefs about the unacceptability of experiencing negative emotions have been found to exist across a number of different psychological disorders (Aldao and Nolen-Hoeksema, 2012; Baer, et al., 2012; Harvey, et
Beliefs about the inability to problem solve difficult emotions increases the perception that the situation is inescapable which increases feelings of helplessness and hopelessness (Williams, et al., 2006).

As discussed earlier, *entity beliefs* are a specific type of metacognitive belief about emotion and are thought to be related to psychological distress (De Castella, et al., 2014; Tamir, et al., 2007). People who possess entity beliefs deem that emotions cannot be changed or controlled. In contrast, people who hold *incremental beliefs* view emotions to be flexible and that people can learn to change their emotions. Incremental beliefs have been associated with fewer mental health symptoms and use of reappraisal of negative thoughts (Hans, et al., 2015). Beliefs that emotions are a fixed entity and cannot be changed have been associated with increased psychological distress (De Castella, et al., 2013), more emotion regulation difficulties, a reduction in positive emotional experiences and less social support (Tamir et al., 2007). Entity beliefs about emotions have also been linked to lower levels of well-being, depression, lower self-esteem, poorer life satisfaction and a predisposition toward unhelpful emotional regulation strategies (De Castella et al., 2013).

Whilst appraisals of emotion coping have been shown to be related to suicidality, the specific role of entity beliefs about emotions and emotion dysregulation have not been sufficiently explored. In this study we aimed to investigate the roles of entity beliefs about emotion, emotion dysregulation and suicidality. The study sought to identify which specific emotion regulation strategies were most strongly associated with suicidality and the influence of entity beliefs about emotions upon emotion regulation strategies used by suicidal individuals. We hypothesised that entity beliefs about emotions would significantly predict suicidality, even when depression and hopelessness were controlled for (hypothesis one). We also hypothesised that entity beliefs about emotion would predict overall emotion dysregulation (hypothesis two) and the specific emotion regulation strategies of impulse control difficulties (hypothesis three), non-acceptance of emotions (hypothesis four) and limited access to emotion regulation strategies (hypothesis five). We further hypothesised that emotion dysregulation would mediate the relationship between entity beliefs about emotion and suicidality (hypothesis six). Additional exploratory hypotheses included that impulse control difficulties, limited access to emotion regulation strategies and non-acceptance of emotions would independently predict suicidality whilst controlling for hopelessness and depression and independently mediate a relationship between entity beliefs about emotion and suicidality.
2.2 Materials and methods

2.2.1 Participants
A power calculation was conducted to calculate the number of participants required for study. A power calculation can be based on the conventional 10:1 rule for multiple regression to detect a power of 80% (Cohen, 1992). The minimum number required was calculated based on 4 potential predictors (entity beliefs, emotion dysregulation, depression and hopelessness). This required a minimum sample size of 40. With this number of participants the study had 80% power to detect simple correlations of 0.45 or more between pairs of measures. Additional participants were recruited to allow for additional exploratory analyses.

Inclusion criteria for the study were that participants had to be accessing NHS mental health services and have a named clinician or Care Co-ordinator, had experienced suicidal ideation within the last 12 months and have sufficient English language proficiency in order to complete the self-report measures. Participants were excluded if they had a diagnosis of an organic brain disease or had significantly used drugs or alcohol at the time of interview, as assessed by the researcher.

2.2.2. Measurements

2.2.2.1 Difficulties in Emotion Regulation Scale (DERS; Gratz and Roemer, 2004).
The DERS is a thirty six item self-report questionnaire which assesses general emotion dysregulation and six emotion regulation difficulties. There are six subscales which assess specific emotion regulation strategies; non-acceptance of emotional responses, lack of clarity of one’s emotions, lack of emotional awareness, difficulties in engaging in goal directed behaviour, impulse control difficulties and limited access to effective emotional regulation strategies. Rate each item using a 5 point Likert scale (1 = almost never, 5 = almost always). Items were recoded so that higher scores indicate greater emotion dysregulation, and a sum was calculated (Gratz and Roemer, 2004). The scale has shown good internal consistency for the overall score (α = 0.93) and for the subscales (α = 0.75 – 0.88) in a clinical sample (Dixon-Gordon, et al., 2014). In the current study internal consistency was α = 0.91 for the total score and α = 0.64 – 0.88 for subscale scores.

2.2.2.2 Implicit Beliefs about Emotion Scale (IBES; Tamir, et al., 2007).
The IBES is a four item scale with two items measuring entity beliefs about emotions, and two items measuring incremental beliefs about emotions. Participants were asked to rate their agreement with each item on a 5 point Likert scale (1 = Never true, 5 = Always true). Incremental theory items were reverse scored and all items were then summed so that higher scores suggested entity beliefs and lower scores incremental beliefs about emotions. The scale has good internal
consistency (α = 0.78) (De Castella, et al., 2014) in a clinical population. In the current study internal consistency was α = 0.67.

2.2.2.3 The Suicide Probability Scale (SPS; Cull and Gill, 1988). The SPS is a thirty six item self-report scale assessing the probability of suicide in the future. The scale has shown high internal consistency (α = 0.93) and high test re-test over a 3 week period in an adult psychiatric population (τ = 0.92) (Cull and Gill, 1998). The scores were then weighted according to the SPS manual (Cull and Gill, 1998). The weighted scores were then summed and used to determine a score for suicide potential. In the present sample internal consistency was α = 0.86.

2.2.2.4 The Beck Scale for Suicidal Ideation (BSS; Beck, et al., 1979). The BSS is a nineteen item self-report scale assessing suicidal ideation, planning and intent. Each item is rated on a 3 item Likert-type scale from 0 to 2. High scores on the BSS indicate a greater suicide ideation. The scale has good internal consistency (α = 0.87 – 0.97) (Steer, et al., 1993). The scale has moderate test re-test reliability over a one week period in an adult psychiatric population (τ = 0.54) (Beck and Steer, 1988). In this sample internal consistency was α = 0.95.

2.2.2.5 The Calgary Depression Scale for Schizophrenia (CDSS; Addington, et al., 1990). The CDSS is a nine item scale measuring depression. All nine items were summed to produce a total score with higher scores indicating higher levels of depression. The scale has shown good internal consistency (α = 0.82) and good test re-test reliability (τ = 0.83) with people with schizophrenia (Lako et al., 2012). This measure was originally developed for measuring depression in schizophrenia, although has good face validity for use with other samples experiencing severe mental health difficulties. In the current study internal consistency was α = 0.72.

2.2.2.6 The Beck Hopelessness Scale (BHS; Beck and Steer, 1988). The BHS is a twenty item self-report scale which measures negative beliefs around three areas of hopelessness (feelings about the future, loss of motivation and expectations) (Beck and Steer, 1988). Participants were asked to rate true or false on the twenty items. The items were then recoded to produce a total score. The higher the score indicated a greater level of hopelessness. The scale has a high internal consistency (α = 0.93) and high test re-test reliability over three weeks in an adult psychiatric population (τ = 0.85) (Holden and Fekken, 1988). In the current study internal consistency was α = 0.92.
2.2.3 Procedures

The NHS Health Research Authority, UK approved all study procedures\(^8\). Participants were recruited through inpatient mental health wards and community mental health teams in North West England. Inpatient participants were recruited during their participation within an NIHR funded trial investigating the effectiveness of cognitive behavioural suicide prevention therapy (CSBP) for suicidality. Eligible inpatient participants were identified by ward staff or Clinical Studies Officers (CSOs)\(^9\). For community participants, potential participants were identified by Care Coordinators/Clinicians or CSOs and asked if they consented to be approached by a researcher. If participants were interested in the study, then contact details were passed to the researcher or CSOs and contacted by a researcher who explained the study, answered questions and provided written information sheets. Participants were asked to answer two questions to establish eligibility for the study: (a) Have you ever thought about or attempted to kill yourself? (b) How often have you thought about killing yourself in the past year? If participants were eligible then they were given a minimum of twenty-four hours to allow them to consider their participation in the study and give written consent.

2.2.4 Data analyses

All data were screened for normality, skewness, missing data and predictors were screened for multi-collinearity. Bootstrapping was used to transform all of the data due to non-normality of the outcome variables (Tabachnick and Fiddell, 2007). Bootstrapping does not require that an outcome variable be normally distributed (Preacher and Hayes 2008). Pearson's Product Moment correlation coefficients were calculated between all the variables first, and then all variables whilst controlling for depression and hopelessness. Multiple linear regression analysis was used to determine whether entity beliefs about emotion would predict overall emotion dysregulation and emotion regulation strategies. Multiple linear regression was also used to examine which of the different emotion regulation strategies would predict suicidality. Hopelessness and depression were controlled for in the analyses. Examination of possible mediators was not conducted\(^10\). The data was analysed using SPSS version 22 (SPSS Inc, Chicago).

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\(^8\) Consideration of ethics is further discussed within the Critical Reflection on Page 74
\(^9\) Recruitment is further discussed within the Critical Reflection on page 75
\(^10\) Mediation is further discussed with the Critical Reflection on page 75
2.3 Results

Prior to analysis, all variables were examined for missing data. Overall, 2 items on the SPS, 4 items on the BSS and 1 item on the BHS were missing and were imputed with the overall mean for that variable (Tabachnick and Fiddell, 2007). One of participant’s data on the DERS was removed from analysis because more than 20% of the items were not responded to (Gratz, 2016, personal communication), therefore this reduced the sample who had completed the DERS to 100. Several variables (i.e. DERS Total, DERS subscales, SPS) exhibited non-normal distributions (Shapiro Wilks test was significant p<.001). A bootstrap of 1000 samples was conducted within the analyses. There was no evidence of multicollinearity in the predictors for the primary analyses (VIFS < 3) (Tabachnick and Fiddell, 2007).

Participants in this study were 101 people who reported suicidality within the previous 12 months. Additional demographic and clinical characteristics are available in Table 1. The means, standard deviations and other descriptive statistics for each of the measures completed are presented in Table 2. Pearson’s correlations were conducted between each of the measures (Table 2) and then repeated controlling for known covariates of suicidality; depression and hopelessness (Table 3).

2.3.1 Entity beliefs about emotion and suicidality

We hypothesised that entity beliefs about emotion would be associated with suicidality (hypothesis one). Entity beliefs about emotion significantly correlated with suicide ideation (BSS; r = 0.281, p = 0.002) and suicide potential (SPS; r = 0.250, p = 0.006). Once depression and hopelessness were controlled for, entity beliefs about emotion were no longer associated with suicide ideation or suicide potential which failed to support hypothesis one.

2.3.2 Entity beliefs about emotion and emotion dysregulation

Entity beliefs about emotion were hypothesised to predict overall emotion dysregulation including use of individual emotion regulation strategies. When depression and hopelessness were controlled for, entity beliefs about emotion significantly correlated with emotion dysregulation (r = 0.230, p = 0.012), and with the DERS subscales of limited access to emotion regulation strategies (r = 0.245, p = 0.008), and impulse control difficulties (r = 0.200, p = 0.024). To further examine the association between entity beliefs about emotion and emotion dysregulation we conducted a multiple regression analysis with forced entry. Only depression emerged as significant in the regression model investigating emotion dysregulation ($\beta = 0.32$, t = 2.78, p = 0.004) (see Table 4). This failed to support hypothesis two, and made hypothesis six redundant.

Multiple regression analysis was conducted between entity beliefs about emotion and impulse control difficulties and limited access to emotion regulation strategies. Hopelessness and depression were non-significant in the regression model predicting impulse control difficulties; only entity beliefs about emotion ($\beta = 0.21$, t = 2.00, p = 0.056) approached significance (hypothesis
three). Non-acceptance of emotions was not correlated with entity beliefs (hypothesis four). Entity beliefs about emotion ($\beta = 0.24, t = 2.47, p = 0.047$) and hopelessness ($\beta = 0.28, t = 2.43, p = 0.036$) predicted limited access to emotion regulation strategies, which supported hypothesis five. The results of the regression indicated that the predictors explained 20.4% of the variance ($R^2 = 0.20, F(3, 96) = 8.22, p < 0.001$).

2.3.3 Emotion dysregulation and suicidality

We hypothesised that emotion dysregulation would predict suicidality. Emotion dysregulation was significantly correlated with suicide ideation ($r = 0.279, p = 0.002$) and suicide potential ($r = 0.25, p = 0.006$). When depression and hopelessness was controlled for, suicide ideation was no longer associated with emotion dysregulation, however, suicide potential continued to be associated ($r = 0.375, p = < 0.001$). To further examine the association between emotion dysregulation and suicide potential, we conducted a multiple regression analysis. The results of the regression indicated that the predictors explained 47.9% of the variance ($R^2 = 0.48, F(3, 96) = 29.4, p = < 0.001$). Emotion dysregulation ($\beta = 0.32, t = 3.96, p = <.001$) and hopelessness ($\beta = 0.57, t = 6.08, p = 0.001$) continued to predict suicide potential in the regression model, however, depression was no longer significant in the regression model. This supported our hypothesis.

2.3.3.1 Impulse control difficulties and suicidality

We examined the association between impulse control difficulties and suicide ideation and suicide potential. Exploratory hypotheses predicted that impulse control difficulties would predict suicidality. Again, impulse control difficulties was only significantly correlated ($r = 0.458, p = < 0.001$) with suicide potential and continued to be associated with suicide potential ($r = 0.524, p = < 0.001$) when depression and hopelessness were controlled for. The results of the regression indicated that the predictors accounted for 56% of the variance ($R^2 = 0.55, F(3, 96) = 40.78, p = < 0.001$). Impulse control difficulties ($\beta = 0.41, t = 6.03, p = <.001$) and hopelessness ($\beta = 0.57, t = 6.84, p = <.001$) continued to predict suicide potential in a multiple regression model, however, depression became non-significant, which supported our hypothesis.

2.3.3.2 Non-acceptance of emotional responses and suicidality

Next, the association between non-acceptance of emotional responses and suicide ideation and suicide potential was examined. Exploratory hypotheses predicted that non-acceptance of emotional responses would predict suicidality. Non-acceptance of emotional responses was only associated with suicide potential ($r = 0.169, p = 0.046$) and continued to be associated when depression and hopelessness were controlled for ($r = 0.206, p = 0.021$). Non-acceptance of emotional responses ($\beta = 0.17, t = 2.06, p = 0.043$) continued to predict suicide potential and hopelessness continued to be significant ($\beta = 0.60, t = 6.20, p = 0.001$) in the multiple regression model, however, depression again became non-significant, which supported our hypothesis.
### Table 1
Participant characteristics

Demographic and clinical characteristics of the sample (N = 101)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
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</thead>
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<tr>
<td><strong>Male</strong></td>
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<td>32-41</td>
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<td>52-60</td>
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<td>Divorced/Separated</td>
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<td>Substance Misuse</td>
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<td>Did not know</td>
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<tr>
<td><strong>Participants reporting more than one diagnosis</strong></td>
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</table>

[^1]: Participants reported more than one diagnosis
results of the regression indicated that the predictors accounted for 42% of the variance ($R^2 = 0.42$, $F(3, 96) = 23.13$, $p = < 0.001$).

2.3.3.3 Limited access to emotion regulation strategies and suicidality

Finally, the association between limited access to strategies and suicide ideation and suicide potential was examined. Exploratory hypotheses predicted that limited access to emotion regulation strategies would predict suicidality. Again, limited access to strategies was associated with both suicide ideation ($r = 0.301$, $p = 0.001$) and potential ($r = 0.445$, $p = < 0.001$), but only associated with suicide potential when depression and hopelessness was controlled for ($r = 0.278$, $p = 0.003$). Multiple regression was used to examine the association between limited access to strategies and suicide potential. The results of the regression indicated that the predictors accounted for 44.1% of the variance ($R^2 = 0.44$, $F(3, 96) = 25.23$, $p = < 0.001$). Limited access to emotion regulation strategies ($\beta = 0.24$, $t = 2.84$, $p = 0.005$) and hopelessness ($\beta = 0.50$, $t = 5.02$, $p = < 0.001$) were significant in the regression model, however, depression became non-significant in the regression model, which supported our hypothesis.

2.3.4 Exploratory analyses

Given that the Beck Suicide Scale (BSS) was not significantly correlated with any of the measures when hopelessness and depression were controlled for, including suicide potential, further analysis was conducted to explore the possible reasons for this. To investigate differences between individuals who scored 0 on the BSS on items four and five (indicating no suicidal ideation over the past week) and those who scored above one or above on items four and five (indicating suicidal ideation over the past week) participants were separated into two groups. Results indicated that 26% of the sample had not experienced suicidal ideation over the past week. People who indicated current suicidal ideation ($M= 13.84$, $SD = 3.28$), compared to those without current suicidal ideation ($M= 11.42$, $SD = 3.50$) reported significantly stronger entity beliefs about emotion ($t (99) = -3.18$, $p = < 0.001$). Results also indicated that people who reported current suicidal ideation ($M= 100.93$, $SD = 16.22$), compared to those without current suicidal ideation ($M= 83.80$, $SD = 17.40$) reported significantly greater suicide potential ($t (99) = -4.55$, $p = < 0.001$). There were no significant differences found for general emotion dysregulation, limited access to emotion regulation strategies, impulse control difficulties or non-acceptance of emotional responses.

Logistic regression was used to evaluate the effects of entity beliefs about emotion, depression and hopelessness on the presence or absence of suicidal ideation. Results indicated that only hopelessness (OR = 1.24, Wald = 11.06, $df = 1$, $p = 0.001$, 95% CI: 0.09 – 0.40) was significant in the regression model predicting suicidal ideation, although entity beliefs about emotion approached significance (OR = 1.17, Wald = 2.52, $df = 1$, $p = 0.054$, 95% CI: 0.01 – 0.38). Only six people indicated no previous history of suicide attempt on the BSS, therefore no exploratory analyses was conducted in a comparison of those who had versus those who had no previous suicide attempts.
Table 2
Descriptive statistics, Cronbach’s Alphas and Correlations

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>α</th>
<th>IBES</th>
<th>BSS</th>
<th>SPS</th>
<th>BHS</th>
<th>CDSS</th>
<th>DERS TOTAL</th>
<th>STR</th>
<th>IMP</th>
<th>NON</th>
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<td>.25*</td>
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<td>.27*</td>
<td>.31**</td>
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<td>.12</td>
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<td>.28**</td>
<td>.30</td>
<td>.11</td>
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<td>.45</td>
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** <.001 * <.05

Bootstrap results are based on 1000 bootstrap samples
Correlations are based on one tailed significance

Table 3
Descriptive statistics, Cronbach’s Alphas and Correlations (controlling for depression and hopelessness)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Controlling for Hopelessness and Depression</th>
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<th>BSS</th>
<th>SPS</th>
<th>DERS TOTAL</th>
<th>STR</th>
<th>IMP</th>
<th>NON</th>
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<td>.06</td>
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<td>.10</td>
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<td>4. Emotion dysregulation (DERS TOTAL)</td>
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<td>.77**</td>
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<td>.69**</td>
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<td>6. DERS Impulse control (IMP)</td>
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** <.001 * <.05

Bootstrap results are based on 1000 bootstrap samples
Correlations are based on one tailed significance

67
### Table 4
Results of multiple regression predicting difficulties in emotion regulation

<table>
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<th>Dependent variable</th>
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<th>SE B</th>
<th>( \beta )</th>
<th>Confidence Interval</th>
<th>Lower</th>
<th>Upper</th>
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** ** <.001 * <.05

### Table 5
Results of multiple regressions predicting suicide potential

<table>
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<th>SE B</th>
<th>( \beta )</th>
<th>Confidence Interval</th>
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<td><strong>Impulse control</strong></td>
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</table>

** ** <.001 * <.05
2.4 Discussion
The current study investigated the relationship between entity beliefs about emotion, emotion dysregulation and their relationship to suicidality. We assessed suicidality in two ways – current suicidal ideation (using the BSS) and suicidal potential (using the SPS). The study found that people with current suicidal ideation reported significantly stronger entity beliefs about emotion when compared to people who did not report current ideation. However, entity beliefs about emotion were not directly related to suicide ideation or potential when controlling for hopelessness and depression. This suggests that entity beliefs may be related to depression or hopelessness. It is possible that entity beliefs about emotion predict depression or hopelessness as they may contribute to the perception of inescapability from feelings (Williams et al., 2006) and therefore continue to be important regarding suicidality, albeit indirectly as a determinant of depression or hopelessness. In addition, the entity beliefs measured in this study were general beliefs about emotion rather than people’s beliefs about their own emotions which may have generated different findings. Personal beliefs about emotion may be a greater indicator of beliefs about own emotions than emotions in general (DeCastella, et al., 2014). It is also possible that entity beliefs about emotion have a less important association with suicidality compared with other beliefs about emotion, for example, emotional schemas, which are different ways individuals may conceptualise their emotions (Leahy, 2002). There is currently no available research that has explored their role in suicidality.

Beliefs about emotion have shown to be important in emotion regulation (Aldao et al., 2012; Harvey et al., 2004; Rimes et al., 2010). In the current study entity beliefs about emotion did not predict overall emotion dysregulation, however, contradicting previous findings (Manser et al., 2012), although entity beliefs did predict limited access to emotion regulation strategies. Beliefs about the inability to solve emotions have been found to increase the perception that the emotional situation is inescapable, which increases feelings of helplessness and hopelessness (Williams et al., 2006). Entity beliefs about emotions were not related to impulse control difficulties or non-acceptance of emotions after controlling for depression and hopelessness.

General emotion dysregulation was found to predict suicide potential (but not current suicidal ideation) whilst controlling for hopelessness and depression. This supports previous findings that emotion dysregulation is particularly important in suicidality (Arria et al, 2009; Zlotnick et al., 1997). Emotion dysregulation and hopelessness were found to be related to suicide potential, however, depression was not associated with suicidal potential within this relationship. This finding was also replicated for the individual emotion regulation strategies investigated; limited access to emotion regulation strategies, impulse control difficulties and non-acceptance of emotional responses. This is an interesting finding and suggests that the presence of depression alone does not explain the potential for suicide. Other research has found that specific emotion regulation strategies to be predictive of suicidality but not overall dysregulation (Anestis, et al, 2011; Rajappa et al., 2012). However, most previous research has focussed on suicide attempts, rather than suicide ideation or
potential as was measured in this study. These differences in measurement of suicidality may contribute to inconsistencies in findings.

Our findings offer support to the extended process model of emotion regulation and psychopathology (Gross, 2015; Sheppes et al., 2015). The model theorises that suicide behaviour is related to an analysis of costs and benefits of the use of different emotion regulation strategies with suicide then selected as a way to regulate the emotion(s) in the absence of other available strategies. The results of the study also endorse the experiential avoidance model whereby suicide is thought to be considered an extreme method of not accepting and avoiding unwanted internal experiences including emotion dysregulation (Hayes et al., 1996). Impulsivity has been associated with a higher likelihood of experiential avoidance (Chapman, Gratz & Brown, 2006) and people who have limited access to effective strategies to manage difficult emotions have been found to avoid experiences that may elicit difficult emotions (Fergus, Bardeen & Orcutt, 2013). The current study found that current suicidal ideation was not associated with difficulties in emotion regulation or individual strategies, which contradicts previous research (Miranda et al., 2013; Orbach et al., 2007). It is possible that differences in measurement and samples may account for this.

Results of the current study have implications for the assessment and treatment of people who experience suicidality. The results imply that whilst entity beliefs about emotion are less important in predicting suicidality general emotion dysregulation is important to assess. This has implications in selecting therapies for people who are experiencing suicidality and that the focus of psychological therapy should be on helping people find helpful strategies to regulate their emotions. It is important to consider that entity beliefs may still be important within the context of depression and hopelessness. This implies that helping people to find alternative ways to manage their emotions may help people believe their emotions are less fixed, and therefore possibly reduce depression and hopelessness. A number of different psychological interventions focus on helping people with increasing beliefs that emotions can be changed and finding helpful strategies to regulate emotions, for example, Acceptance and Commitment Therapy (Blackledge and Hayes, 2001), Dialectic Behaviour Therapy (Neacsiu et al., 2014) and Mindfulness Based Cognitive Therapy (Kumar et al., 2008).

The results also imply that emotion dysregulation and individual regulation strategies do not predict whether someone will experience current suicidal ideation, however, are particularly important in considering other risks related to suicide. The BSS assesses suicide ideation over the past week, whereas, the SPS assesses factors implicated in future risk of suicide ideation, such as negative evaluation and hostility. Suicide potential may be a more important clinical variable to consider when assessing suicide risk, than current suicide ideation. As the current study showed that emotion dysregulation is particularly important, clinicians need to assess emotion dysregulation and different emotion regulation strategies, for example, using assessment tools such as the DERS (Gratz and Roemer, 2004), so that these factors can be considered in relation to an individual's risk
for suicide. It is also important to consider beliefs about emotion in the context of people’s consideration of the strategies available for them to regulate their emotions.

2.4.1 Limitations
The results of this study should be considered in the context of the study’s limitations. First, the study did not explore the role of personal beliefs about emotion and whether this would predict suicidality, and whether other metacognitive beliefs or emotional schemas are important in suicidality. Second, the study is cross-sectional in design, and therefore the precise nature and direction of the relationship between emotion regulation and suicidality cannot be definitely determined. Prospective studies would be able to clarify the nature of this relationship more definitively. The population used in the study was not an ethnically diverse population, thus limiting the generalisability of the findings. The study also suffers from the limitation that those who wanted to take part in the study may be clinically different from those who did not want to take part, or different to those who were not considered suitable by service user’s care teams. The study did not explore suicide attempts, as have been investigated in previous research (Anestis, et al, 2011; Rajappa et al., 2012), however, a limited number of people in the sample indicated that they had never made a suicide attempt, therefore this would have had a limited effect on the results. The strengths of the present study are that it used a wide diagnostic inclusion criteria and investigated people across a spectrum of suicidality. The study also used a mixture of inpatients and community patients to ensure there was a wide range of people from clinical settings.

2.4.2 Research implications
Future research would be required to replicate these findings for entity beliefs, emotion dysregulation and suicidality. The findings also accounted for less than half of the variance in predicting suicide potential, therefore more studies, including longitudinal studies are required to find novel factors that help predict suicidality, in addition to predictors in the current study (Franklin et al., 2016). Entity beliefs, whilst not predictors of suicide intent or suicide potential may be predictors of hopelessness and depression; known predictors of suicidality. Future research should focus on whether entity beliefs are associated with hopelessness and depression, as if found to be related would have important clinical implications for assessment and treatment of entity beliefs. Future research should also look into other beliefs about emotion, for example, using the Emotional Schema Questionnaire (Leahy, 2002) and emotion dysregulation and suicidality, as different beliefs maybe have a stronger relationship to suicidality than entity beliefs.

2.4.3 Conclusion
The findings of this study suggest that entity beliefs about emotion do not directly predict suicide ideation or suicide potential. Entity beliefs did predict limited access to emotion regulation strategies, however, which has important implications for clinicians work with people who experience suicidality as a way to help people find strategies to manage their emotions. Emotion dysregulation is an important factor in overall suicide potential, as well as the individual emotion regulation strategies; limited access to emotion regulation strategies and impulse control
difficulties, although this is less important for current suicidal ideation. This has strong implications for clinical practice and indicates that clinicians should pay greater attention to emotion dysregulation and emotion regulation strategies, rather than a focus on depression and hopelessness alone in the assessment and treatment of people at risk of suicide.
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3. Critical Reflection
The following paper is a critical appraisal of the research conducted within this thesis. A critical consideration of the planning and implementation will be discussed. In addition the strengths and limitations of each paper will be discussed.

3.1 Introduction

3.1.1 Choice of research area
Research into suicidality is increasingly becoming a huge area of interest. There were 6122 people who took their own lives through suicide in 2014 (Office of National Statistics, 2016), and many more who experience suicidal thoughts and who engage in suicidal plans and behaviours. Of particular interest to the author is what contributes to and can predict an increase in suicidality, so interventions can be tailored to help individuals who experience suicidality, and help prevent people from viewing suicide as their preferred choice to solve difficulties. Prevention of suicide is a major health care target for the government in England with the Preventing Suicide Strategy for England (HM Government, 2012; HM Government, 2015). Clinical psychology has contributed significantly to suicide research through identifying psychological predictors of suicide, for example, hopelessness, depression, feelings of defeat and entrapment and emotion dysregulation.

3.2 Paper 1: Systematic Review

3.2.1 Topic selection
The choice of topic was largely instigated and guided by the knowledge gained from reading around the literature for Paper 2. The relationship between emotional dysregulation and self-harm (e.g. Gratz & Roemer, 2008) and emotion regulation and suicide (Rajappa, et al., 2012) and trauma and suicidality (e.g. Belik, Stein, Asmundson & Sareen, 2009) are all well researched topics. The author was interested in the potential causes of emotional dysregulation, and its relationship with suicidality within the literature. This interest initially originated from clinical practice when employed as a Care Co-ordinator. As a Care Co-ordinator service users would regularly report suicidal thoughts, and this would often appear to be related to the service user feeling overwhelmed by their own emotions, as well as believing that these feelings would not dissipate.

One potential cause of emotional dysregulation, well discussed within the practice of clinical psychology and within the literature is the role of trauma in emotional dysregulation (e.g. Kim & Cicchetti, 2010). It was felt that a systematic review of the literature would provide an overview of how trauma, emotional dysregulation and suicide were related. It was hoped that this would provide an overview of the research conducted, and provide future directions for clinical practice and future research topics. Emotion dysregulation is a growing area in the field in psychology, and there is uncertainty over the conceptual clarity (Gross, 2015). Emotion dysregulation encompasses a number of different processes, and this is further discussed in both Paper 1 and 2. In summary emotion dysregulation is thought to be an inability to regulate emotions through deficits in; being
aware of or understanding our emotions, being accepting of our emotions, being able to control impulsive behaviour, being able to work towards and reach goals and the use of helpful strategies to regulate emotions (Gratz & Roemer, 2004; Paulus, Vanwoerden, Norton & Sharp, 2016).

There was a debate over whether non-suicidal self-injury (NSSI) should be included in the review. NSSI has been described as the deliberate destruction of body tissue without intent to die (Chapman, Gratz & Brown, 2006; Klonsky, 2007). It was recognised that there is a strong association between NSSI and suicidal behaviour which can mean that the term NSSI can be misleading (Kapur, Cooper, O’Conner & Hawton, 2013) and there are a number of people that engage in NSSI whilst experiencing suicidal thoughts (Klonsky, 2011). It was decided that NSSI would be excluded from the review, in addition to any studies which did not distinguish between self-harm and suicide so that the author could be confident that only studies investigating suicidality (suicide intent, plans, behaviours) would be included. It is important to do this so that Psychologists can distinguish between risk factors for suicide, independently from risk factors for NSSI or both. This would help clinicians to be clear on what contributes to suicide risk.

### 3.2.2 Search terms

Search terms were developed through several revisions to ensure that all possible literature was reviewed. Firstly, all the possible types of emotional regulation/dysregulation and trauma were generated. Once a list of search terms had been generated the author invited the wider research team to help revise the original list of search terms and additional terms for emotional (dys)regulation suggested, for example, alexithymia. Secondly, all possible search terms for trauma were generated, and then terms for suicidality. The issues around selecting search terms were that there is a number of different terms that are related to emotion dysregulation within the research literature. It was difficult to choose terms which would identify all relevant papers, without becoming too broad in the search for relevant papers. On reflection, it felt that the balance was achieved, however, there could have been papers missed due to the possibility that they used a unique term for emotion regulation or dysregulation.

### 3.2.3 Inclusion and exclusion criteria

In order to systematically review the relationship between trauma, emotion dysregulation and suicidality, all papers were required to include an analysis of these three factors. Grey literature was excluded as it was felt that peer-reviewed literature would improve the quality of the review itself. It has been reported that including grey literature can significantly affect the outcome of a review, as the grey literature can report more negative or inconclusive data than the data published in journal articles (Hopewell, McDonald, Clarke & Egger, 2008). Due to this, there may be a publication bias in the review because studies which did show a relationship between the three elements of the review would have been more likely to be included. Studies which were written in English Language only were included as it was felt that there was not the time nor resources available to the author to translate publications from different languages into English.
3.2.4 Data extraction
A data extraction sheet was produced\textsuperscript{12} and piloted on three papers, before amending and updating to include all information that was required. Data extraction was sometimes difficult as the information needed was not always clear in the papers therefore extracted information was re-checked by the author to check for accuracy.

3.2.5 Quality Assessment
As the vast majority of studies were cross-sectional studies, it was felt that a quality assessment addressing cross-sectional studies would be of most benefit to the review. Three main quality assessment tools were reviewed for the review, namely the US Department of Health and Human Services (2014) a quality assessment for cohort and cross sectional studies, the Newcastle-Ottawa scale adapted for cross-sectional studies (NOS-CS) (Herzog, et al., 2013) and the STROBE (Elm, et al., 2007). The Newcastle-Ottawa scale for cross sectional studies was chosen because it appeared to be able to assess the quality of the studies more effectively than the other tools and this tool was applicable to the studies included in the review. The NOS-CS appears to have good face validity, however, it also has the potential to be subject to interpretation. Efforts were made to reduce potential subjectivity by checking with supervisors regarding (a) their interpretation of the scale and (b) criteria for information included on the reviewed papers met quality ratings. All papers were initially assessed for quality by the first author, and then a colleague, independent of the review was asked to rate the quality of a third of the papers. An independent person was asked to do this so as to reduce the previous influence of discussions around papers.

3.2.6 Clinical implications
The review established that there is an overall relationship between trauma, emotion dysregulation and suicidality. Taking this conclusion at face value suggests that all emotion regulation strategies are equal, however, the paper found that dissociation had more studies to suggest a relationship between trauma and suicidality, whereas impulsivity showed greater inconsistency in the research around the relationship between trauma and suicidality. The main clinical implications are discussed in Paper 1, however, the findings suggest that in people with a history of trauma, emotion dysregulation, and specific emotion regulation strategies should be assessed in order to reduce risk for suicidality. Interventions should then target helping people to find more helpful ways/strategies to manage their emotions. There are a number of evidence-based interventions that could address this, for example, DBT, ACT, CBT are all evidence-based intervention that could target emotion regulation. These interventions should be chosen based on the individual’s formulation, and the individual’s choice of which intervention would be most suitable for them.

3.2.7 Further directions
The area investigating the relationship between trauma, emotion dysregulation and suicidality needs to be further researched to allow firm conclusions to be drawn. Especially important is that

\textsuperscript{12} Appendix E
future studies investigate alexithymia, general emotion dysregulation and other less well researched emotion regulation processes, for example, rumination, cognitive avoidance and alexithymia. This research could be taken forward by a number of different researchers, for example, trainee psychologists on future projects, or clinicians working with people with a history of trauma, or academic psychologists who have an interest in either of the three fields of emotion dysregulation, trauma and/or suicidality.

3.3 Paper 2: Empirical paper

Paper two explores the rationale for investigating beliefs about emotion in the context of emotion dysregulation and suicidality. To further explain the rationale for exploring implicit beliefs about emotion, it is important to look outside the field of Clinical Psychology. In particular, implicit beliefs have been investigated in the fields of education and sport. Implicit beliefs have been found to be an important variable associated with motivation and learning (Dweck, 1999; Blackwell, Trzesniewski & Dweck, 2007), and can influence academic goal orientation (Grant & Dweck, 2003). Incremental theorists believe that intelligence is adaptable which is related to people working hard, whereas entity theorists believe intelligence is fixed and are less likely to put effort in (Komarraju & Nadler, 2013). When faced with a problem, incremental theorists remain positive, seek mastery, increase effort and activate their self-regulating strategies (Robins & Pals, 2002). Entity theorists are less likely to employ cognitive and metacognitive strategies, for instance, planning and monitoring (Dahl, Bals & Turi, 2005). In sport, implicit beliefs about ability have been related to adopting goals related to achievement (Biddle, Wang, Chatz, Sarantis & Spray, 2003). People who have incremental beliefs about sporting ability believe that their ability can be changed with practice and effort (Stenling, Hassman & Holmstrom, 2014) whereas people who have entity beliefs do not. Incremental beliefs are positively related to mastery goals (e.g., Biddle et al., 2003; Wang & Biddle, 2003).

It is therefore viable to assume that implicit beliefs have a role in emotion regulation, and therefore efforts to change emotion or not, dependent on whether someone is an incremental theorist or entity theorist. It is also viable to hypothesise that if someone holds entity beliefs and believes their emotions cannot be changed, they may consider suicide as the only option to cope with their emotions.

3.3.1 Rationale for joint project

Two other Clinical Psychology trainees were also interested in research into suicidality. It was agreed from the outset that it would be beneficial to conduct a joint project as recruitment of large participant numbers for the project was likely to be demanding. In addition it was important to reduce participant burden, to pool resources, and to provide support to one another in an area which can be highly emotive. Each trainee read the literature to gather some background information to their specific research interest in order to generate specific hypotheses for their research projects. Each trainee then decided on the measures their individual study required.
based on these hypotheses, and a discussion was held and decisions were made collaboratively over the joint measures required to use to assess suicidality.

At the time of designing the current project, the INSITE project had been funded by the NIHR. INSITE was aiming to investigate the feasibility of delivering cognitive behavioural suicide prevention therapy (CSBP) to people on inpatient wards. As this project was in its infancy, and using similar measures to assess suicidality (i.e. Beck Suicide Scale, Beck Hopelessness scale, Calgary Depression scale, Suicide Probability Scale), it was agreed by the INSITE team that the questionnaires being used by each of the trainees could also be included. An amendment to the ethical approval for INSITE was made so that these additional questionnaires could be added to the assessment battery. This would mean that data could be collected from participants who were recruited from an inpatient setting, which would allow for people who were most at risk of suicide to access the study, in addition to a community sample where the risk of suicide would be presumed to be comparatively less. It was agreed that each trainee would ask participants to complete all joint questionnaires around suicide, and also the questionnaires related to each of the individual projects. Collectively the trainee projects were named the Beliefs, Emotions, Criticism and Suicidality project (BECS).

3.3.2 Personal contribution to community sample
From the outset it was clear that the contribution to the project should be equal between the three trainees. This included dividing up tasks equally, for example, creating study documents (e.g. the distress protocol, the participant information sheet, the BECS protocol – see Appendix C1-C5) and parts of the IRAS ethics approval form. Each trainee picked at least one NHS mental health trust to liaise and recruit from. It was the author’s choice to approach two NHS mental health trusts as the author had built contacts with one NHS trust pre-clinical training, and had built further contacts with another NHS trust since commencement of clinical training. One NHS Trust approached by one of the trainee’s did not allow ethical application for projects not supported by the NIHR portfolio to recruit from its Trust. A joint decision was made to make an application to the portfolio. Personal contribution to recruitment included approaching teams and presenting to six different mental health community teams, and further liaison with an additional six community mental health teams.

3.3.3 Personal contribution to INSITE/inpatient sample
It was agreed that as the INSITE project was likely to recruit a significant number of participants to the BECS study time should be given to help out with all aspects of the INSITE study. This included help with recruitment from inpatient wards, identifying potential participants, interviewing participants and inputting data.

3.3.4 Design
The current study adopted a within-subjects, cross-sectional design from the outset as it was felt that this was the most effective study design to address the research question. A cross-sectional
design allowed for the assessment of all the variables at the same time. During recruitment, the majority of people wanted to share their experiences, and elaborate on their answers from the questionnaires. A limitation of the empirical paper is that this particular study did not aim to capture this information. A mixed methods design may have been fruitful in being able to capture qualitative response to answers. During the study, a number of people acknowledged that they had felt a higher frequency of suicidal thoughts within the previous months. A repeated measures design may have been able to capture this information to investigate the differences between the variables when an individual had a greater frequency of suicidal thoughts versus when people were experiencing less suicidal thoughts.

3.3.5 Measures
The choice of measures to use had to weigh up burden of the number of questions to the individual, whilst needing to find validated measures to investigate the processes of beliefs about emotion and emotion dysregulation. Both the Beliefs About Emotions Scale (Rimes & Chalder, 2010) and the Implicit Beliefs about Emotion scale (Tamir, John, Srivastava, & Gross, 2007) were considered. A revised version of the Implicit Beliefs about Emotion scale (IBES) was also considered (De Castella, et al., 2013) which adapted the questions on the IBES to personal beliefs, for example, ‘If they want to, people can change the emotions that they have’ is changed to ‘If I want to, I can change the emotions that I have’. It was decided that the unrevised version of the IBES would be included in the study because entity and incremental beliefs could be directly measured with this scale, and this scale had been used more widely within the research.

3.3.6 Ethics
The ethics of asking people at risk of suicide needed to be considered when asking people to take part in research. A considerable amount of thought was placed on the ethical considerations of people participating in this research, which was also acknowledged by the NHS Research Ethics Committee. Different agencies were approached when designing the study to ensure that all ethical considerations had been addressed. This included consultation with the University of Manchester Community Liaison Group (CLG), the INSITE project service user reference group (INSURG) and the North West Suicide prevention charity; Papyrus. Feedback was sought on the number of measures being used, administration of the questionnaires and the debrief time following the ending of completion of the questionnaires. The possibility of separate projects (to reduce participant burden) was also mooted, with feedback being it appeared to be reasonable for trainees to embark on a joint project. During recruitment any concerns regarding the immediate well-being or risk of the individual were passed to the leading clinician or Care Co-ordinator to ensure the safety of the individual.

Participants would regularly discuss that one of their reasons for taking part in research was to help others in similar situations. People seemed to take great value in knowing that their experience would help others. The option for participants to receive a copy of the publication for the research was given to each of the community participants. The vast majority of participants wished to
receive a copy of the research papers following their participation in the research. This meant that fundamental to this project is that the study is published so that participants can value their own participation in research.

3.3.7 Recruitment
Recruitment within the NHS is notoriously difficult (Woodall, Morgan, Sloan & Howard, 2010). The author has been employed in a number of different community mental health teams, with links with practitioners within teams and expected recruitment from these teams to be easier. The author’s hopes, however, did not come to fruition and this may be for a number of different reasons. There are a number of identified barriers to participating in research related to mental health. The stigma associated with mental health may affect people’s willingness to participate (Thornicroft, 2006), in addition to fear and distrust of researchers (Bachman et al., 2010), concerns regarding confidentiality of information shared as part of the research (Kaminsky, Roberts & Brody, 2003) and fear of relapse as part of participation in the research (Hinton, Zweifach, Oishi, Tang & Unutzer, 2006). These may also be concerns of the clinicians. In addition there are also known barriers with recruiting through clinicians who may have difficulty relaying information about the study to prospective participants (Howard et al., 2009).

A considerable amount of time was spent attempting to engage community mental health teams, in particular Care Co-ordinators to help identify participants for the study. Due to the workload of Care Co-ordinators it was decided that the study should seek the least amount of additional work from them as possible. Care Co-ordinators were therefore asked in the first instance to identify people who would fit the inclusion criteria and ask the potential participant whether they could be contacted by a researcher. The task of explaining the study, sending out information sheets, and meeting with participants would then be left with the trainees. The task of getting Care Co-ordinators to refer to the study was still difficult, however support was offered through discussion of relevant people to try and ease the demands or recruiting to the study. Care co-ordinators reported their reluctance to ask people related to workload as other more important issues would be raised during visits to service users, rather than discussion of potential participation in research and a reluctance to cause further distress to clients. Important pieces of feedback gained by the author through the recruitment process included participants’ feedback that they had participated in the study to help other people in similar situations, and that an unknown participant had feedback to a therapy group that she had felt valued by taking part in the research

3.3.8 Analysis
All analyses of the data for each individual study was analysed independently of the other trainees involved in the joint project. Originally, the hypotheses had indicated that mediation analysis would be required as part of the research process. As entity beliefs about emotion became a non-significant predictor between the Beck Suicide Scale (BSS) and the Suicide Probability Scale (SPS) or emotion dysregulation when depression and hopelessness were included, mediation did not appear to be indicated. Advice was sought from a statistician regarding this. The statistician
suggested performing the mediation, as it was still possible for entity beliefs about emotion to be mediated by emotion dysregulation in a relationship with suicide, not captured within a regression relationship. Mediation was conducted, however, there was no mediation effect, therefore emotion dysregulation and other hypothesised strategies were not a mediator between entity beliefs and suicidality.

3.3.9 Personal reflections
A responsibility was felt to provide teams and participants with a good experience of taking part in research throughout the process of research. This included communication with teams, acknowledging barriers to asking potential participants to take part in research, and acknowledging the project being an addition to current workload. In addition to this it is also important for the author to re-visit participating teams and NHS trusts to provide a presentation of the summary of the findings from the research (including findings from the other projects within BECS). It is hoped that this will contribute to teams continuing to participate in research projects in the future.

It was also important to ensure that participants felt valued and that gratitude was relayed to participants. A thank you card was given to each community participant to thank them for participation in the research following completion of the questionnaires. There were times when people wanted to share information about their past experiences, and it was difficult for the trainee to separate the clinician who wants to help versus the researcher, who has a more limited role with direct help of these difficulties. It felt instinctive to want to help individuals in distress, however, ever present was the thoughts that the author was only seeing a snapshot of their life, and the individual already had a clinician they were receiving help from therefore the author did not want to undermine another clinician’s therapeutic work. Reflective listening was routinely applied so that the individual felt listened to and difficulties acknowledged without providing advice around therapies available or therapeutic choices.

The findings from the research has also had a direct impact on hypotheses and formulation within clinical work. The author has been working within a Children in Care team, and discussion of emotion dysregulation and suicidality has been part of the consideration of people’s needs. Consideration of entity beliefs about emotion, emotion dysregulation, specific strategies of emotion regulation and suicidality will continue to be assessed as part of a comprehensive assessment and consideration of interventions within a future role as a Clinical Psychologist. It is important to use the findings from the research papers to enhance clinical practice including dissemination of the findings through supervision of others, consultation, teaching and direct work with clients.

3.3.10 Clinical implications
The main clinical implications are discussed within Paper 2. Entity beliefs about emotion are not directly associated with suicidality once accounting for depression and hopelessness. Entity beliefs could be a predictor of hopelessness or depression, therefore it is important not to discount them as unimportant. More importantly, the finding that emotion dysregulation and specific emotion
regulation strategies are associated with suicidality over depression, is important for clinicians to consider in assessment of suicidality. The findings of the research means that clinicians need to be mindful that emotion dysregulation may be a more important risk factor for suicide than the presence of depression. It appears especially important to communicate this to clinicians so that that this is not overlooked during assessment of suicide risk. Psychological assessment and risk assessment need to include the exploration of people’s experiences of emotion regulation, and this could be done through direct questions in addition to validated measures, for example, use of the DERS within routine assessment.

3.3.11 Future research
Suggestions are made for future research within Paper 2, however, aside from this, further research related to the data collected within the BECS research study is indicated. There is a responsibility felt to participants who took part in completing the measures, as well as their pride and value in taking part in research, to use the collected data to investigate suicidality or factors related to suicidality. There have been ethical questions raised around secondary analyses when the data is used again, and whether consent is an ongoing process (Wiles, Heath & Crow, 2005), however, there is also a duty to use the data to the full to make participation in research worthwhile and reduce the burden on other research participants (Law, 2005; Grynier, 2009). Participants consented for the data to be used as part of another research project\(^\text{13}\) and further ethical approval would be sought to use the data again. Paper 2 proposes that entity beliefs about emotion may predict hopelessness. As the BECS study collected information on hopelessness from the BHS and a subscale of the SPS, this could be directly analysed from the data available. More research papers could be derived from using all of the data collected for the overall BECS study.

3.3.12 Limitations
Given the focus of the systematic review, it would have been interesting to include a measure of trauma within the pack of questionnaires in order to contribute to the research area in trauma, emotion regulation and suicidality. Participants would often offer information around previous trauma, despite this not being asked in any questionnaire, and would feel that they could talk about it with the interviewer. It may have been deemed too burdensome to include a further measure in the study, however, this may be a potential area of future research. There is likely to have been a sampling bias present in the study which does not account for the potential participants who were not asked to take part in the study or who declined participation in the research. The data for this is not available, therefore it is unknown whether this is a significant difference between those who did and did not take part in the study.

During the process of people answering the Implicit Beliefs about Emotion Scale (IBES) it became clear that people’s answers would differ if the questionnaire had asked about them directly. For example, the first question is ‘If they want to, people can change the emotions that they have’.

\(^{13}\) Appendix C2
When asked, participants would sometimes say that they believed that others could change their emotions, but it was they themselves that could not change their emotion because they were faulty. Others were in psychological therapy and reported that cognitively they could understand that everyone could learn to change their emotions, however, they did not feel this on an emotional level. In hindsight it may have been better to have used the amended questionnaire version of the IBES (De Castalla et al, 2013) and assess for both personal and general beliefs about emotion.

Recent statistics on suicide indicate that 76% of suicides in 2014 were men (Office of national statistics, 2016), however, the current study only recruited 42% of male participants. The reasons for the higher percentage of women being recruited into the study are unknown, however, this could be because more women access mental health services. Of the 42 males that did take part in the study, only 30% were under the age of 36. The study recruited only four people from a Black and Minority Ethnic (BME) group. BME and young men are less likely to access mental health services, and are therefore not available to be recruited directly through mental health services (Oliver, Pearson, Coe & Gunnell, 2005) which means they are under-represented in mental health research (Iwamsasa, Sorocco & Koonce, 2002). This highlights the need to (a) ascertain if men and people from BME communities are able to engage with mental health services and (b) engage men and people from BME communities in research, so that research can be representative of the communities it serves.

3.3.13 Dissemination
As discussed earlier the majority of participants wanted to receive copies of the papers submitted for publication, therefore these will be sent directly to them. The teams who also participated in helping with recruitment will be given the option to hear a summary of the results as a presentation, and receive articles submitted to publication. Each participating Trust will be offered the option of hearing a summary of the results through presentation at a Trust conference or presentation at a team meeting. Both the systematic review and empirical paper will be submitted for publication in an academic journal.

3.4 Overall Conclusions
The overall aim of the thesis was to investigate risk factors for suicidality, and more specifically the role of emotion dysregulation, and associated factors. The systematic review found that emotion dysregulation, and in particular, childhood trauma and dissociation is indicated in the relationship with suicide risk. The literature review found that emotion dysregulation and individual emotion regulation strategies are important to suicide risk. Reflections have addressed the processes of conducting research in this field, and some of the difficulties related to this, however, overall it has been incredibly worthwhile, and it is hoped both clinicians, researchers and service users will benefit from the conclusions of the research. The thesis offers a significant contribution to the research into risk factors for suicidality, and offers suggestions for both clinicians and researchers for future directions in this area.
3.5 References


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Instructions for authors – Guidelines for the submission to *Clinical Psychology Review*

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Appendix B

Search terms for Systematic Review

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Appendix C1
BECS Study Protocol

PROTOCOL

An investigation into the relationship between Emotions, Beliefs, Coping
Strategies and Self-Criticism:
Beliefs, Emotions, Criticism and Suicidality (BECS)
# Contents

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# 1) RESEARCH TEAM & KEY CONTACTS

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2) INTRODUCTION

Suicide is a major public health issue (Bertolote et al, 2003), with devastating impact on individuals, families and carers. Suicide is one of the leading causes of death worldwide. As a world-wide public health issue it is therefore a necessity to explore factors that lead to suicidal thoughts and behaviours in order to find ways to improve resilience to and improve prevention of suicide. It is vital to study reasons that lead to suicide. There is also a value to doing this study for the NHS as the study could help add to therapies being used at present to help people with suicidal thinking or behaviour.

3) BACKGROUND

Suicide is the most serious outcome of mental illness (University of Manchester, 2010), resulting in approximately 6000 deaths annually (Office for National Statistics, 2011). Attempted suicide and feelings of suicidality are recurrent experiences for many individuals (Haw, Bergen, Casey and Hawton, 2007) resulting in considerable personal distress and placing substantial pressure on NHS services. The effect of suicide is wide reaching, which influences family, friends and healthcare staff. The related health economic burden is also significant (Department of Health, 2010).

Suicide prevention is therefore a principal public health issue and NHS priority, as demonstrated in major policy directives across the UK (Department of Health, 2011). Fourteen percent of suicides occur in acute mental health settings (Windfuhr & Kapur 2011). These deaths are the most preventable (Duffy & Ryan, 2004) given the service user’s proximity to services. As a public health issue it is therefore essential to explore factors that contribute to suicidal thoughts and behaviours to find ways to improve resilience to and improve prevention of suicide.

The ‘Beliefs, Emotion, Compassion and Suicide’ study (BECS) will examine a range of factors thought to be associated with increased suicidality. A recent extensive study on suicidal behaviour found that reducing symptoms of depression does not necessarily lead to a decline in suicides (Nock et al., 2013). Therefore work is needed to increase our understanding of the pathways to suicidal behaviours. There are three different work packages within the BECS study which will investigate three different potential pathways to suicidal behaviours. This will contribute to the development of strategies for clinical prediction and prevention of suicide.

3.1 Emotions work package

It is proposed that there are basic emotions which underlie emotional experience and related behaviour (e.g., Ekman, 1982; Oately & Johnson-Laird, 1987). There is some agreement that the basic emotions are anger, disgust, fear, happiness and sadness (Power & Dalgleish, 1997). Anger has long been considered crucial in the development of suicidality (Goldney et al., 1997). Studies that have revealed a predictive effect of depression or anger on suicidality have not controlled for possible comorbid effects of other emotions. The Emotions work package predicts that suicidal ideation is predominantly derived from the combination of sadness, anger and disgust that elevate an individual’s suicidal ideation. A further aim of this work package is to examine the contributory effects of the basic emotions to levels of suicidal thoughts.

3.2 Beliefs and Emotion work package
An inability to regulate emotions has been found to continue to be a risk factor for suicide even when controlling for depression and hopelessness (Rajappa, Gallagher & Miranda, 2012). Specifically, a perception of limited access to emotional regulation strategies and non-acceptance of emotions (Rajappa et al., 2012) and negative urgency (defined by acting impulsively in response to eliminate negative emotions) (Whiteside & Lynam, 2001; Weinberg & Klonsky, 2009) have been found to be associated with suicidality (Anestis & Joiner, 2010). Beliefs about the inability to problem solve difficult emotions increases the perception that the situation is inescapable which increases feelings of helplessness and hopelessness (Williams, Barnhofer, Crane & Duggan, 2006).

The aim of the Beliefs and Emotion work package is to investigate the relationship between beliefs about emotion, emotion regulation strategies and suicidality. In particular, the role of fixed beliefs about emotion and suicide is to be investigated. The work package will also seek to identify which specific emotion regulation strategies are most strongly associated with suicide.

### 3.3 Criticism work package

Research has highlighted the potential role of disgust in the development and maintenance of suicidal ideation and behaviour (Chu, Buchman-Schmitt, Michaels, Ribeiro & Joiner, 2013). Feelings of disgust with the self may be understood as a form of negative self-view such as self-criticism, hatred, and attacking (Chen, Wu, & Bond, 2009). Self-criticism has been linked to suicidality (Fazaa and Page, 2003; O’Connor and Noyce, 2008). This work package will also examine the relationship between different types of self-criticism to suicide; inadequacy, which has been linked to perfectionism, and self-hatred, which has been related to disgust and contempt (Gilbert et al 2004; Whetton and Greenberg 2005).

People with self-resilience and low self-criticism have been found to be able to exhibit more active coping and positive emotion towards the self which allowed them to defend against harsh self-criticism (Whetton, 2005). Gilbert et al (2006) found that trait self-reassurance was related to lower depression and more favourable social comparisons. This work package will examine the impact of levels of self-reassurance within a clinical population, and whether it is able to moderate the effect of self-criticism on suicidality.

Results from the BECS study can be used to inform and develop suicide prevention interventions.

### 4) PROJECT OBJECTIVES

#### 4.1 Primary Question/Objective:

What is the underlying psychological architecture for suicidality with specific focus on emotions, beliefs and criticism?

#### 4.2 Secondary Question/Objective:

The three different work packages within the BECS study have different secondary research questions/objectives as follows:

#### 4.2.1 Emotions work package
Which basic emotions contribute to suicidal ideation? The objective is to look at the influence of different kinds of basic emotions on suicidality. A further objective will be to explore the role of other basic emotions such as fear and happiness in exploratory analyses.

4.2.2 Beliefs and Emotion work package

What is the relationship between beliefs about emotion, emotion regulation strategies and suicidality? More specifically, the objectives of the study are to investigate the role of fixed beliefs about emotion and suicide and the role of emotion regulation strategies and suicide. The study will also seek to identify which specific emotion regulation strategies are most strongly associated with suicide.

4.2.3 Criticism work package

Is self-criticism, specifically self-hatred and inadequacy, and self-reassurance related to suicidal ideation? What is the relationship of self-criticism and self-reassurance to suicidal ideation in a population who have experienced suicidal ideation or behaviour in the last 12 months?

5) PROJECT DESIGN & PROTOCOL

The study will adopt a cross sectional Within Subjects design, with a sample from across the suicidality continuum to investigate the relationship between suicidality, beliefs about emotion, emotion regulation, basic emotions in suicide and self-criticism.

5.1 Participant Identification

The study will seek to recruit sixty individuals with a range of ages and of both sex who have experienced suicidal ideation in the past twelve months. Participants will be recruited from a community clinical sample population. Potential participants will be identified by a mental health clinician (e.g. Care Co-ordinator, Lead Clinician, Named Nurse, Support worker) who will ask the participant whether they are interested in taking part in the study. Once informed consent has been established by the researcher, the researcher will ask participants a question to establish eligibility for the study. Potential participants will be required to answer yes to ascertain this: (a) Have you had any thoughts about or attempts to kill yourself within the past 12 months?

5.2 Study Measures

Participants will be asked to answer a series of questionnaires in the following order:

The Beck Scale for Suicidal Ideation (BSS; Beck, Kovacs & Weissman, 1979). This is a twenty one item self-report scale assessing suicidal ideation, planning and intent.

The Suicide Probability Scale (SPS; Cull & Gill, 1988). This is a thirty six self-report scale exploring the probability of suicide in the future.
The Calgary Depression Scale for Schizophrenia (CDSS; Addington, Addington & Schissel, 1990). This is a nine item scale measuring depression.

The Beck Hopelessness Scale (BHS; Beck & Steer, 1988). This is a twenty item self-report scale which measures negative beliefs around three areas of hopelessness.

The Forms of Self-Criticising/Attacking & Self Reassuring Scale (Gilbert, Clarke, Hempel, Miles and Irons, 2004). This is a 22 item scale that measures self-criticism and the ability to self-reassure. It measures different ways people think and feel about themselves when things go wrong for them.

The Defeat Scale (Gilbert and Allen, 1998). This is a 16 item scale assessing defeat, failed struggle and low social rank.

The Entrapment Scale (Gilbert and Allen, 1998). This is a 16 item scale assessing feelings of being trapped by internal and external events.

Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). This is a thirty six item self-report questionnaire which assesses six difficulties of emotion regulation in response to stress.

Implicit Beliefs about Emotion Scale (IBES; Tamir, John, Srivastava & Gross, 2007). This is a four item scale with two items measuring fixed beliefs about emotions, and two items measuring incremental beliefs about emotions.

The Basic Emotional States (BES; Power, 2006) state and trait scale. This is a three-part scale constructed from 20 emotional terms which relate to the five basic emotions of anger, disgust, fear, happiness and sadness.

In total this is 200 items, and will take an estimated maximum of one hour and ten minutes to complete. Following this, participants will be given the opportunity to take part in a Debrief with the researcher, to enable the participant to process any difficult feelings that have arisen from completing the questionnaires (this will take approximately 20 minutes). This means that participants will be in the study for one and a half hours.

6) PARTICIPANT IDENTIFICATION

6.1 Inclusion Criteria:
i) Adults over 18 years.

ii) Mental capacity to provide informed consent to take part in research (This will be established through clinical observations at the time of interview according to British Psychological Society (BPS) guidelines (Assessment of Capacity in Adults: Interim Guidance for Psychologists, 2006).

iii) Experienced suicidal ideation within the past 12 months (according to self-report). Potential participants will be asked to answer a question and will answer yes to establish this: (a) Have you had any thoughts about or attempts to kill yourself within the past 12 months?

iv) Sufficient English language proficiency.

v) People accessing NHS Mental Health services with a named worker.

6.2 Exclusion Criteria:

i) Organic brain disease, reported by referring clinicians.

ii) Significant drug or alcohol intoxication at the time of interview as assessed by self-report or observed by the interviewer.

6.3 Recruitment:

If potential participants agree to take part, then participants will be approached by a researcher who will explain the study, answer questions and provide written information sheets. They will be informed that the purpose of the study is to look at the role of thoughts and feelings related to suicide. They will also be informed that the study will require them to complete a series of questionnaires which will ask them about their general thoughts and beliefs, in addition to their recent experiences of suicide. It will be important to stress that if they do not consent to the study then this will not affect the care they receive from their care team. The participant information sheet and consent form will be left with the eligible participant for a minimum of 24 hours to allow them to consider their participation in the study.

Anonymised data collected from the INSITE project will be included in this study in line with participant’s consent gained as part of the INSITE project.

6.4 Patients who withdraw consent:

Participants can withdraw consent at any time without giving any reason, as participation in the research is voluntary, without their care or legal rights being affected.

7) OUTCOME

For all of the BECS work packages, the main outcome measure will be the Beck Scale for Suicidal Ideation (Beck, et al., 1979). The Beliefs and Emotion work package will also use the Suicide Probability Scale (Cull & Gill, 1988) as an outcome measure.

In addition, it is hoped that the information gained from this research will help increase our understanding of the pathways to suicidal behaviours. This is to help find ways to prevent suicide and also to find ways to help people to build up their strength against suicide. There is a value to
doing this study for the NHS as the study could help add to therapies being used at present to help people with suicidal thinking or behaviour.

In terms of participant benefit, this research will help to identify future areas to target during treatment, providing an evidence based and effective treatment for individuals experiencing increased suicidality.

8) DATA COLLECTION, SOURCE DATA AND CONFIDENTIALITY

Data will be collected from participants using questionnaires and a demographic information sheet. Prior to completing the questionnaires, participants will be asked to complete a consent form. Participants will be allocated a participant number so that identifiable information (for example, their name on the consent form) is separated from answers to the questionnaires and demographic information. All documents will be transported to the University of Manchester in a secure case. The information from the questionnaires and the demographic information will be entered onto the research database in accordance with ISO/IEC 27002 (Information Technology – Code of Practice for Information Security Management, 2005; 2007). Hard copies will be stored in locked filing cabinets in a secure office at the University of Manchester.

9) STATISTICAL CONSIDERATIONS

9.1 Statistical Analysis

Statistical analysis has been separated into each work package of the BECS study.

9.1.1 Emotions work package

Hypotheses (Hypotheses 1 – 5):

The relationship between the emotional profile of Sadness, Anger, Disgust (Basic Emotional States (BES)) and current ‘state’ suicide ideation (The Suicide Probability Scale (SPS)) will be examined using a correlational analysis and regression analysis. Hopelessness (The Beck Hopelessness Scale (BHS)), depression (The Calgary Scale for Schizophrenia (CDSS)) and ‘trait suicidality’ (The Suicide Probability Scale (SPS) will be controlled for in the analysis. The correlation will estimate the degree of association and interdependence between the variables. Whilst the regression will investigate the prognostic significance of the basic emotions to suicidality after adjusting for important confounding factors.

Exploratory Hypotheses:

The relationship between the emotional profile of fear and happiness (Basic Emotional States (BES)) and current ‘state’ suicide ideation (The Suicide Probability Scale (SPS)) will be examined using a correlational analysis and regression analysis. Hopelessness (The Beck Hopelessness Scale (BHS)), depression (The Calgary Scale for Schizophrenia (CDSS)) and ‘trait suicidality’ (The Suicide Probability Scale (SPS) will be controlled for in the analysis.

9.1.2 Beliefs and Emotion work package

Primary aim (Hypotheses 1-3):
The relationship between beliefs about emotions (Implicit Beliefs about Emotion Scale (IBES)), emotion regulation (Difficulties in Emotion Regulation Scale (DERS)) and suicide (The Beck Scale for Suicide Ideation (BSS) and Suicide Probability Scale (SPS)) will be examined using a correlational analysis and regression analysis. Hopelessness (The Beck Hopelessness Scale (BHS)) and depression (The Calgary Scale for Depression (CDSS)) will be controlled for in the analyses. The role of fixed beliefs (IBES) on suicide (BSS and SPS) via emotion regulation strategies (DERS) will be further analysed using regression analysis to establish whether emotional regulation strategies are a mediating variable.

**Exploratory aims (Hypotheses 4-6):**

The relationship between different emotion regulation strategies (subscales of the DERS) and suicide (BSS and SPS) will also be examined using correlational analysis and a regression analysis. The role of fixed beliefs (IBES) on suicide (BSS and SPS) via emotion regulation strategies (subscales of the DERS) will be further analysed using regression analysis to establish whether emotional regulation strategies are a mediating variable. Data will be analysed using available SPSS statistical software.

9.1.3 Criticism work package

**Hypothesis one and two**
The relationship between self-hatred (on the FSCRS) and suicide probability will be examined using a correlational analysis and regression analysis. Hopelessness and depression will be controlled for in the analyses.

The relationship between Inadequacy (on the FSCRS) and suicide probability will be examined using a correlational analysis and regression analysis. Hopelessness and depression will be controlled for in the analyses.

**Hypothesis three**
The relationship between self-reassurance (FSCRS) and suicide will also be examined using correlational analysis and a regression analysis. This relationship will be further analysed using a moderator regression analysis to establish whether self-reassurance is a moderating variable with regards the relationship between self-criticism (self-hated and inadequacy) and suicide probability.

If the study is able to recruit increased numbers of participants this would allow for more correlates to be controlled for in the analysis, including defeat and entrapment along with current suicidality.

9.2 Sample Size:

A power calculation has been based on the conventional 10:1 rule for multiple regression (i.e. at least 10 participants per prognostic measures are required for a reasonably robust regression analysis). Separate analyses will be carried out for each of the BECS work packages. For the Beliefs and Emotion work package there are up to four potential predictors (beliefs about the fixedness of emotions, emotion regulation, depression and hopelessness). This requires a sample size of 40. In the Emotion Work Package of the study there will be five basic prognostic variables (Sadness, Anger, Disgust, Hopelessness and Depression) therefore a minimum number of 50 participants will be required to conduct this analysis. In the Criticism Work package, 60 participants will be required as there are six predictor variables to be included in the analysis; self-
hatred, inadequacy, self-reassurance, depression, hopelessness, and an intermediate variable for use in the moderator analysis around self-reassurance. With this number of participants the study will have 80% power to detect simple correlations of 0.45 or more between pairs of measures.

Data will be pooled so that a total minimum number of 60 participants will be required to allow for the separate analyses being undertaken in each arm of the study. Therefore a total number of 60 participants will be recruited to allow to control for additional known correlates for suicidality.

10) DATA MONITORING AND QUALITY ASSURANCE
The study will be subject to the audit and monitoring regime of the University of Manchester.

11) ETHICAL CONSIDERATIONS
An Application for NHS and University Ethics has been made.

The study will be conducted in full conformance with principles of the “Declaration of Helsinki”, Good Clinical Practice (GCP) and within the laws and regulations of the country in which the research is conducted.

12) STATEMENT OF INDEMNITY
The University of Manchester will arrange insurance for research involving human subjects that provides compensation for non-negligent harm to research subjects occasioned in circumstances that are under the control of the University of Manchester, subject to policy terms and conditions.

13) PUBLICATION POLICY
Participants will be sent a lay version of the results from the study who opt in at the consent stage. Relevant organisations, for example, Papyrus will also be sent a copy of the research results. A summary report will be given to the manager of all host sites (including all participating inpatient wards and community teams). Presentations for the hosting NHS organisations will be arranged for all interested staff on the findings of the study.
14) REFERENCES


Department of Health (2010). No health without mental health. London. HMSO.


National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (2010) University of Manchester.


Appendix C2
BECS Consent form

CONSENT FORM

Study Title: Beliefs, Emotion, Criticism and Suicidality (BECS)

Investigators: Dr Daniel Pratt, Professor Gillian Haddock, Kate Ward, Catherine O’Neill and Meryl Kilshaw.

1) I confirm that I have read and understand the Participant Information Sheet dated 05/01/2015 (Version 1) for the above study and have had the opportunity to consider the information.

2) I confirm that I have had the opportunity to ask questions about the study and that these questions have been answered satisfactorily.

3) I understand that my participation is completely voluntary and that I am free to withdraw at any time, without giving a reason and this will not affect any current or future treatment.

4) I understand that the data collected may be published as part of a research project. My identity will not be revealed in any publication.

5) I agree to my GP/Mental Health clinician being informed of my participation in the study and of any health concerns or risks relating to you or others the study team may become aware of during my participation.

6) I agree to my data being anonymised and this data being used for other ethically approved educational or research purposes.

7) I give permission for my Mental Health professional/clinician to access my clinical notes to confirm my psychiatric diagnosis.

8) I give permission for the researcher to contact a member of my clinical team if I become distressed during the interview. I would also like the researcher to contact _________________ (name) on _________________ (telephone number) if I become distressed during the interview.

9) I understand that if I disclose anything that means I am at immediate risk then this will be passed onto the relevant individual/service (e.g. Emergency Services, Care Co-ordinator, Nurse in charge).
10) I understand that relevant sections of my medical notes and data collected during the study may be looked at by individuals from the University of Manchester, from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.

11) I agree to take part in the above study.

Name of Participant:
Signature: Date:

Name of Researcher:
Signature: Date:

I would/would not (please delete) like a summary of the results of this study.

If you would like a summary of the results please add your name and address to send it to:

NAME:

ADDRESS:

When completed: 1 copy for Participant, 1 copy for Researcher site file, 1 (original) to be kept in the clinical notes.
Appendix C3

BECS protocol for managing disclosure of risk

BECS: PROTOCOL FOR MANAGING DISCLOSURE OF RISK

This protocol directs the practice of all non-clinical staff (including students, trainees, and volunteer assistants – all hereafter referred to as staff).

Rationale

During a session or other contact with BECS research staff a participant may indicate an intention to harm themselves or others. Alternatively they may provide information to the effect that a child or other vulnerable person may be in danger. Any information of this nature must be acted upon.

At the beginning of each research interview the participant will be informed that what is discussed is private and confidential except if they indicate any current intention to harm themselves or others, or if they provide information to the effect that a child or other vulnerable person may be in danger. In such situations the staff member has a legal duty to break confidentiality. The particular setting within which risk is disclosed (i.e. hospital ward or community) will determine the specific actions to be taken.

Community participants

In the case that the individual indicates current intention to harm themselves or others the action taken is to remind the participant of the staff member’s Duty of Care to break confidentiality where risk is identified (as already outlined at the commencement of the interview) and then contact their care co-ordinator and / or psychiatrist or GP. The immediacy of this action will depend upon the time frame involved.

If an imminent risk is identified, i.e. the individual reports that they intend to harm themselves within the next 48 hours, immediate action should be taken and the session should immediately change focus to the imminent threat. However if the individual reports that they intend to act on their thoughts in a few days, or longer, action by the worker may involve continuing with the session in light of the information discussed, reviewing how they are feeling at the end of the session and calling the care-coordinator / named worker following this.

If the individual indicates that a child / other vulnerable person may be in danger the action taken would be to call the respective Child or Adult Safeguarding Team (see contact details below).

In either eventuality the participant will be informed that confidentiality needs to be broken and, if at all possible, will be encouraged to work in collaboration with the staff member to this end.
Unless there are circumstances that would contraindicate (e.g. risk to safety of staff), the participant should be informed that this action is to be taken.

If this scenario occurs during a face to face contact the individual may be given the option of phoning the care co-ordinator themselves in the presence of the staff member or staying in the room whilst a call is made. Alternatively the individual may choose to wait in a safe place such as an adjoining room. Based upon the telephone discussion the worker will act on any part of the action plan generated that involves action on their part.

In the eventuality that the care co-ordinator or named worker are not contactable a call should be made within the hours of 9am – 5pm Monday to Friday to the Duty worker for the appropriate Community Mental Health Team or outside of these hours a call should be made to the Crisis Team or A&E. Details are listed in Appendix 2. Once again the worker will act in accordance with any action plan agreed. This may involve faxing information over to A&E, accompanying the individual to A&E etc. The police will be contacted if the person absconds during this process.

If the scenario occurs during a telephone contact the individual will be informed that confidentiality will need to be breached. The same plan as above will be implemented and the individual should be called back to feedback the planned actions.

In the eventuality that the individual discloses that a child / vulnerable adult may be in danger the Child / Adult Safeguarding Team should be contacted. If it is outside of 9am – 5pm and there is considered to be imminent risk to a child / vulnerable adult the police should be informed. Inform these staff also. Details of out of hours Child / vulnerable Adult Safeguarding Team services are listed in Appendix 2.

If the worker is uncertain as to the appropriate course of action to take they should initially contact the project supervisors (i.e. Professor Gillian Haddock or Dr Daniel Pratt). If the project supervisors are unavailable contact your clinical supervisor. If they are unavailable the flow diagram of contacts found on page 7/8 should be followed.

In the unlikely event that all avenues are exhausted the worker should follow the previously outlined plan (commencing with contacting the Care Coordinator).

If the client is currently harming him or herself or has done so recently, and there is a need for medical attention, it would be important to negotiate with the client that they attend hospital or that they allow an ambulance to be called. A&E will be contacted to inform them of the reason for attendance and confirm the individual’s arrival. The mental health team or duty psychiatrist would ensure that anyone refusing medical attention was assessed under the Mental Health Act. A decision regarding the need for a compulsory admission to hospital will then be made by an approved social worker in accordance with the Mental Health Act 1983.

If the participant disclosing that they have committed a criminal offence, then this should be shared with the police as soon as possible.
Ensure that you record all information and actions taken, including telephone calls and discussions with your project lead/clinical supervisor, in the participant’s file.
FACTORS TO CONSIDER IF A PARTICIPANT EXPRESSES HARM TO SELF OR OTHERS

If a participant you are interviewing expresses ideas of harm to self or others these are important factors to consider and pass on.

- Ideation (frequency, intensity, duration, triggers)
- Plans/intent
- Access to means to carry out plans
- Timeframe
- Protective factors
- Access to support/isolation
- Hopelessness
- Drug or alcohol use
- Command hallucinations and perceived power or control over voices

Any concerns you have should be discussed with Dr Daniel Pratt or Professor Gillian Haddock.
FLOWCHART OF CONTACTS FOR COMMUNITY PARTICIPANTS WITH IDENTIFIED INTENT TO HARM OTHERS

In situations where a Child / vulnerable Adult is at risk the appropriate Safeguarding Team should be contacted.

Participant expresses imminent harm to others

↓

ENSURE OWN SAFETY - LEAVE IF FEEL THREATENED

↓

Call Care Coordinator

↓

If no answer

↓

If unsure call Dr Daniel Pratt or Professor Gillian Haddock

↓

Call Duty Worker at Team

↓

If no answer

↓

Call GP

↓

If not available

↓

Call Dr Daniel Pratt or Professor Gillian Haddock

↓

IF UNSURE OF IMMEDIATE SAFETY, PHONE POLICE

↓

In all instances record in clinical notes & within BECS Records
FLOWCHART OF CONTACTS FOR COMMUNITY PARTICIPANTS WITH IDENTIFIED IMMINENT SUICIDAL INTENT

Client expresses imminent suicidal intent

↓

Where possible do not leave the client alone

↓

If unsure call Dr Daniel Pratt or Professor Gillian Haddock

↓

Call Care Coordinator

If no answer

↓

Call Duty Worker at Team

If no answer

↓

Call GP

If not available

↓

Dr Daniel Pratt or Professor Gillian Haddock

If not available

↓

Call Ambulance and/or police

↓

Contact A&E to confirm arrival & inform of reasons for attendance

↓

In all instances record in clinical notes & within BECS Records
APPENDIX 1: DISCLOSURE OF RISK DURING AN INTERVIEW

Staff are to follow these guidelines in the event that, when conducting an interview, they identify that a participant might be at risk, or could pose a risk either to themselves or to others. The examples presented here are to be modified according to the situation.

- **Prior to commencing an interview** with a participant, the researcher will carefully explain that, although the interview is going to be confidential, if any risk is identified or disclosed during the interview, then the researcher will have to communicate these concerns to other professionals:

  “Before we begin the interview, I just want to explain again that what we will talk about will be confidential, but if I feel that there might be a risk in what you are saying, for example to yourself or to others, I will need to pass this on to other staff members. But if I do this, I will tell you”.

- If during the interview a participant’s account indicates that there might be distressed or they disclose some type of suicidality or risk factors, the researcher will reflect the distress they appear to be in and will ask if they want to continue the interview, and/or offer a brief break:

  “You seem to be going through a hard time at the moment – do you want to continue with the interview? You know we can take a break at any time or we can stop if you want to”.  
  “It sounds like there have been a few things upsetting you recently – are you okay to continue with the interview or would you prefer to take a bit of a break for a few minutes?”

- If during the interview the participant has disclosed a clear risk of suicidality (for instance, a description of plans for self-harming, or explaining that they are in possession of medication to take an overdose), at the end of the interview the researcher will explain the need to communicate this to staff:

  “You’ve spoken about wanting to take an overdose with some medication you have, and it sounds like you are quite upset about some of the things we’ve been talking about. What I’m going to do, like we’d talked about at the beginning, is to speak with the nurse on duty or your care coordinator/named worker and tell them how you are feeling so that they know what’s going on for you and so that they can help you”.

- If during the interview the participant’s account indicates or suggests a possible risk of suicidality (for example, talking about occasional fleeting feelings of wanting to die, or sometimes wishing they could just be gone to end their problems), the researcher will try to ascertain some further information:

  “You’ve said that you sometimes wish you could just be gone and end your problems this way, have you recently had this kind of thoughts? Do you mean that you have a plan for this or are they just thoughts?”
  “You said that you sometimes have felt like you want to die – if you were to feel like this again, do you think you would communicate this to staff?”

At the end of the interview, the researcher will talk about this with the participant:
“You said that sometimes you have felt like you want to die, although not in the last week – do you mind if I just mention this to the nurse on shift/your care coordinator/named worker, so that they are aware too?”

If the participant accepts, this information can be given to staff.
If the participant declines, the researcher will contact Dr Daniel Pratt or Professor Gillian Haddock to consult with them, on a case by case basis, the need to report this to staff.

- If any risk of suicidality has been disclosed by a participant during an interview and this risk needs to be reported to staff, the researcher will do so verbally to a staff nurse, Clinical Practice Lead or shift leader. Staff will also write an entrance in the clinical notes:

> “During a research interview, [participants name and surname] has described plans and intent to take an overdose if access to medication was available. This was communicated to [staff name and role] when the interview ended. [Participant] is aware that I have passed this information on to other staff.”

**APPENDIX 2: LIST OF USEFUL CONTACTS**

**BECS Staff Contact Details:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gillian Haddock</td>
<td>0161 275 8485 / 07889323071</td>
</tr>
<tr>
<td>Dr Daniel Pratt</td>
<td>0161 306 0400 / 07963561580</td>
</tr>
<tr>
<td>Catherine O’Neill</td>
<td></td>
</tr>
<tr>
<td>Kate Ward</td>
<td></td>
</tr>
<tr>
<td>Meryl Kilshaw</td>
<td></td>
</tr>
<tr>
<td>Community Support Resources For Participants:</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Manchester and Salford Samaritans</strong></td>
<td></td>
</tr>
<tr>
<td>Address: 72-74 Oxford St, Manchester M1 5NH</td>
<td></td>
</tr>
<tr>
<td>Phone: 0161 236 8000</td>
<td></td>
</tr>
<tr>
<td><strong>Manchester Mind</strong></td>
<td></td>
</tr>
<tr>
<td>Address: Zion Community Centre, 339 Stretford</td>
<td></td>
</tr>
<tr>
<td>Road, Hulme, Manchester, M15 4ZY</td>
<td></td>
</tr>
<tr>
<td>Phone: 0161 226 9907</td>
<td></td>
</tr>
<tr>
<td><strong>Manchester Assertive Outreach</strong></td>
<td></td>
</tr>
<tr>
<td>Address: PO Box 201 Manchester M21 8WR</td>
<td></td>
</tr>
<tr>
<td>Phone: 0161 881 4799</td>
<td></td>
</tr>
<tr>
<td>**The Samaritans of Warrington, Halton and St</td>
<td></td>
</tr>
<tr>
<td>Helens**</td>
<td></td>
</tr>
<tr>
<td>Address: 46 Arpley Street, Warrington, Cheshire, WA1 1LX</td>
<td></td>
</tr>
<tr>
<td>Phone: 01925 235000</td>
<td></td>
</tr>
<tr>
<td><strong>Halton Mind</strong></td>
<td></td>
</tr>
<tr>
<td>Address: The Resource Centre, 30a Widnes Road, Widnes, WA8 6AD</td>
<td></td>
</tr>
<tr>
<td>Phone: 0151 495 3991</td>
<td></td>
</tr>
<tr>
<td><strong>The Samaritans of Chester and District</strong></td>
<td></td>
</tr>
<tr>
<td>Address: 36 Upper Northgate Street, Chester,</td>
<td></td>
</tr>
<tr>
<td>Cheshire, CH1 4EF</td>
<td></td>
</tr>
<tr>
<td>Phone: 01244 377999</td>
<td></td>
</tr>
</tbody>
</table>
Child Protection Service Contact Details:

If a child is at immediate risk, contact the police on 999

**Manchester**
0161 234 5001 (24 hour service) or email mcsreply@manchester.gov.uk

- **Salford** (8.30 – 4.30) 0161 603 4500
  - Duty (out of hours) 0161 794 8888
- **Trafford** (8.30 – 4.30) 0161 912 5125
  - Duty (out of hours) 0161 912 2020
- **Bolton** (9 - 5) 01204 337729
  - Duty (out of hours) 01204 337777
- **Halton** (Mon – Thurs 9-5
  Fri 9 – 4:30pm) 0151 907 8305
  - Duty (out of hours) 0345 050 0148

- **Cheshire West & Chester**
  (Mon – Thurs 9-5
  Fri 9 – 4:30pm) 01606 275 099
  - Duty (out of hours) 01244 977 277

**Other**
- NSPCC Child Protection helpline on 0808 800 5000 (free 24 hour service)
- Childline 08001111 (a free 24 hour helpline for children)
<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>Address</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manchester Royal Infirmary</td>
<td>Oxford Road, Oxford Road, Manchester, M13 9WL</td>
<td>0161 276 4147</td>
</tr>
<tr>
<td>North Manchester General</td>
<td>Delaunays Road, Crumpsall, Manchester, M8 5R8</td>
<td>0161 624 0420</td>
</tr>
<tr>
<td>Wythenshawe Hospital</td>
<td>A Block, Wythenshawe Hospital, Southmoor Road, Manchester M23 9LT</td>
<td>0161 291 6041</td>
</tr>
<tr>
<td>Salford Royal Infirmary</td>
<td>Hope Building, Salford Royal, Stott Lane, Salford, M6 8HD</td>
<td>0161 789 7373</td>
</tr>
<tr>
<td>Trafford General Hospital</td>
<td>Moorside Road, M41 5SL</td>
<td>0161 748 4022</td>
</tr>
<tr>
<td>Royal Bolton Hospital</td>
<td>Minerva Road, Farnworth, Bolton, Lancashire, BL4 0JR</td>
<td>01204 390390</td>
</tr>
<tr>
<td>Whiston Hospital</td>
<td>Warrington Road, Prescot, Merseyside, L35 5DR</td>
<td>0151 426 1600</td>
</tr>
<tr>
<td>Countess of Chester Hospital</td>
<td>The Countess Of Chester Health Park, Chester, Cheshire, CH2 1HJ</td>
<td>01244 365000</td>
</tr>
</tbody>
</table>
CRISIS TEAM CONTACT NUMBERS:

MMHSCT

Crisis Line: 0161 922 3801
This line is in operation from Mon-Thurs 5pm - 9am and from 5pm on a Friday until 9am Monday. The Crisis line is also open on Bank Holidays).

GMW Area

Crisisline: 0800 028 8000
GMW service users may contact Crisisline directly.
Crisisline operates: Monday to Friday: 5pm – 9am, Saturday, Sunday and bank holidays: open 24 hours

Warrington and Halton

Crisis team: 01925 664811
This line is in operation 8am to 8pm, 7 days a week, 365 days per year

Cheshire and Wirral area

Crisis Line: 01244 397303 (Juniper Ward)
This line is in operation from 5pm – 9am, 7 days a week, 365 days per year.

(The community mental health team can help during the day 9am – 5pm, Monday to Friday. Ask for your care co-ordinator or the person on duty on 0151 357 7600)

OTHER USEFUL CONTACTS:

Mind infoline 0300 123 3393 weekdays 9am - 6pm
info@mind.org.uk
Samaritans 08457 90 90 90 open 24 hours a day
jo@samaritans.org
HOPELineUK 0800 068 41 41, email: pat@papyrus-uk.org, text: 07786 209697
NHS helpline: 111 (open 24 hours a day)
Appendix C4
BECS Participant Information Sheet

Participan Information Sheet
Beliefs, Emotions, Criticism and Suicide (BECS)

We would like to invite you to participate in a study that looks at the relationship between different types of emotion, how people feel about their emotions and suicide.

Please read all of the information on this sheet carefully. If you would like any more information or feel that there is anything you don’t understand, please contact the researchers. Please take your time to think about taking part or not.

What is the purpose of the study?

Suicide is a leading cause of death world-wide. It is important to study reasons that lead to suicide. This is to help find ways to prevent suicide. It could also help to develop new treatments for people having suicidal thoughts and feelings. We need to discover why people take their own lives and how we can help stop this from happening.

This research will particularly look at whether people who have been suicidal show patterns of particular emotions, or whether feeling particular ways increases their risk of suicide. It will also look at what people think about their emotions increases or decreases their risk of suicide.

Who is organising this research?

This research is being organised by Students on the Clinical Psychology Doctorate programme (under the supervision of qualified Clinical Psychologists at the University of Manchester).

Why have I been invited to take part?

You have been invited to take part because you may have experienced thoughts of taking your own life in the past 12 months and are receiving services from an NHS mental health team.

Do I have to take part?

No, it is your choice to take part or not. If you change your mind at any point during the study you can leave at any time. You do not have to give a reason and it will not affect your treatment with the mental health team.

What will taking part involve for me?

You should receive this participant information sheet from your mental health worker, or by post after giving consent to find out more about the research. You can take as long as
you need to consider if you want to take part or not. You can also ask the researchers any questions you may have.

If you decide to take part in the research, a researcher will come and meet you in your home or a community venue of your choice. They will ask you to fill in a consent form, some information about yourself and fill in some questionnaires that relate to your feelings and thoughts related to suicide. These questionnaires will not have your name on and will not be seen by your healthcare team.

Answering the questions should take around 1 hour and 10 minutes. There will then be a 20 minute debrief period where you can discuss any thoughts or feelings the study has brought up. You will be able to take breaks at any point.

You will be allocated a unique identification number and this will be used for identification rather than your date of birth or name. Personal information will be kept up to five years following the end of the study (for audit purposes) and will then be confidentially destroyed.

Your data will be kept private and confidential. Only researchers on the BECS study, individuals from the University of Manchester, regulatory authorities or your NHS Trust may have access to the study data. The data will be stored in a locked cabinet in a secure office at the University of Manchester.

What are the risks of taking part?

We do not expect there to be any risks to people taking part on this study, however speaking with the researcher and filling in the questionnaires may become upsetting. You will be able to take a break whenever you like and can stop the interview at any time. There will also be time at the end of the session for you to talk about any difficult feelings and the researchers will check whether you would like us to contact anyone for you if you need some extra support.

What are the benefits of taking part?

There are no direct benefits for you from taking part in the study but some researchers looked at the benefits of taking part in research on suicide. Most people felt the experience was positive and felt glad to have helped others through sharing their experiences. Some felt it was helpful to talk about their experiences and felt good about contributing to research.

Who will know I am taking part?

Your care team will be told that you are taking part in the BECS study. However, any information you provide as part of the study is confidential to the BECS team. We will only share information with your care team if you told us something that we thought put you or someone else in danger. If we needed to do this, we would try to talk to you about it first. Individuals from the University of Manchester, regulatory authorities or your NHS Trust may need to have access to the study data.
data to make sure that the research is being carried out appropriately. With your permission, this will include access to your identifiable data. All individuals have a duty of confidentiality to all research participants.

What if there is a problem?

If you are worried about any part of the study, you can speak to one of the researchers who will do their best to answer any questions. If they cannot help you, you can speak to the study lead Investigators, Dr Daniel Pratt or Prof Gill Haddock at the University of Manchester on 0161 306 0400.

If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions. If they are unable to resolve your concern or you wish to make a complaint regarding the study, please contact a University Research Practice and Governance Co-ordinator on 0161 275 7583 or 0161 275 8093 or by email to research.complaints@manchester.ac.uk.

We aim to publish the results from this study in scientific papers and to present the results to other scientists. We will also write the results in a non-scientific way. These results will not be available until the study is finished. If you would like a copy of these results please tell a member of the research team when you are being interviewed.

If you would like any more information about this study, please contact one of the researchers on this project:

Kate Ward  Meryl Kilshaw  Cat O’Neill

Tel:
07487591288

Email
becs@manchester.ac.uk
Appendix C5
BECS Participant Demographics

Participant ID: ____________________________

(To be completed by the researcher)

What is your gender? (circle one):

- Male
- Female
- Other ________________________________

How old are you? (circle one):

- 16 – 20
- 21 - 25
- 26 - 31
- 32 - 36
- 37-41
- 42 - 46
- 47 - 51
- 52 - 56
- 57-61
- over 61

What is your ethnic origin? ____________________________

What is your marital status? (circle one):

- Single
- Dating
- Co-habiting
- Married
- Divorced/ Separated
- Other ________________________________

What is your main diagnosis? ____________________________

What (if any) mental health service are you currently under? (circle one):

- CMHT/ CCTT
- GP
- Voluntary Services
- EIS
- Hospital/ Ward
- Other ________________________________

How long have you been with the current service?

__________________________________________

What is the TOTAL length of time you have been involved with mental health services, throughout your LIFETIME? Include any previous time spent in hospital or within mental health services, and the length of time you have been at your current service for:

__________________________________________
Appendix D1
Ethical approval – University of Manchester

Hi Meryl, Catherine and Kate

Thanks very much for your patience. I have completed the review and can confirm that the University can act as research governance sponsor for your study. We discussed the issues around the overlap with the INSITE study and how this will have to be outlined on the review form. Other than that, there were only a couple of issues – please see review form attached. You will notice that some of the points are comments rather than requests for changes. If you don’t feel they are appropriate for your study, that is fine, just let me know via the review form.

Next Steps

Once you have gone through the comments, made any changes and are happy that you have the final version of the application please send the following:

- **By email to** [fmhsethics@manchester.ac.uk](mailto:fmhsethics@manchester.ac.uk):
  1. A copy of the updated review form
  2. PDF of IRAS form
  3. Any revised documents

- **In IRAS:**
  1. electronic authorisation request(s) in IRAS for REC/R&D form. When sending the authorisation request please use the following email address for the sponsor representative: [lynne.macrae@manchester.ac.uk](mailto:lynne.macrae@manchester.ac.uk)

Letters and Insurance certificates

In anticipation of signing off the IRAS REC and R&D forms, I am attaching a copy of the sponsorship and insurance letters and a copy of the University’s insurance certificates (zip file). All of these documents will have to be submitted as part of your REC/R&D application.

Please note that I didn’t see an insurance assessment form with the initial application. I have re-attached the form but, please just let me know if I have missed it.

Sponsor Conditions
Finally, I have attached a copy of the sponsor conditions. All the conditions are relevant however I would like to highlight the following:

- All Amendment must be submitted for sponsor approval before being sent to the REC.

- Once you have final ethical approval, please send a copy of your IRAS REC form, REC approval letter, approved documents (as listed in the REC approval letter) to fmhsethics@manchester.ac.uk. This is to ensure that we maintain sponsor oversight but also so that insurance cover is in place for your study.

BW

Lynne

Lynne MacRae
Research Practice Coordinator
Faculty of Medical & Human Sciences
University of Manchester
Room 3.53 Simon Building
Brunswick Street
Manchester M13 9PL

Tel: 0161 275 5436
(10am-4pm - voicemail outside of these hours)

Email address for requesting electronic authorisation in IRAS: lynne.macrae@manchester.ac.uk
(note no initial ‘K’)

Website: FMHS Research Governance Website

Twitter: @fmhs_ethics
Appendix D2

Ethical approval - NHS

Health Research Authority
National Research Ethics Service

NRES Committee North West - Lancaster
Barlow House
3rd Floor
4 Marshall Street
Manchester
M1 3DZ

Telephone: 0161 625 7818
Fax: 0161 625 7299

16 March 2015

Dr Daniel Pratt
School of Psychological Sciences
2nd Floor Zochonis Building, University of Manchester
Brunswick Street, Manchester
M13 9PL

Dear Dr Pratt

Study title: An investigation into the relationship between emotions, beliefs, coping strategies and self criticism with suicidality; Beliefs, Emotions, Criticism and Suicidality (BECS: INSITE)

REC reference: 15/NW/0207
Protocol number: 1
IRAS project ID: 170377

The Research Ethics Committee reviewed the above application at the meeting held on 12 March 2015. The Committee thanks Catherine O’Neill and Meryl Kilshaw for attending to discuss the application.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this favourable opinion letter. The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact the REC Manager Mrs Carol Ebenezer, nrescommittee.northwest-lancaster@nhs.net. Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

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, subject to the conditions specified below.

The Committee wished to point out that there is a typographical error on point 5 of the consent form in that the second line should read “risks relating to me or others” rather than “you or others”. The Committee suggests this is corrected prior to using
Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation’s role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations.

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database. This should be before the first participant is recruited but no later than 6 weeks after recruitment of the first participant.

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to request a deferral for study registration within the required timeframe, they should contact hra.studyregistration@nhs.net. The expectation is that all clinical trials will be registered, however, in exceptional circumstances non registration may be permissible with prior agreement from NRES. Guidance on where to register is provided on the HRA website.

The sponsor must ensure that all participants enrolled into the study are registered with The Over Volunteering Prevention System (TOPS).

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Ethical review of research sites

NHS Sites

The favourable opinion applies to all NHS sites taking part in the study taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).
Summary of discussion at the meeting

The Chair welcomed the researchers to the REC and thanked them for attending to discuss the study. The Committee told them that this was a sensitive way of approaching the study.

Social or scientific value; scientific design and conduct of the study
The Committee asked whether the questionnaires would be self-completed or whether the questions would be asked verbally.

The researchers stated that it would be whatever the participants were comfortable with. They would check on them at different time points to ensure they were ok and would be present all of the time.

The Committee noted that three students were involved in the study and asked whether they were each doing one part.

The researchers stated that they would all be involved in the recruitment but would analyse individually.

The Committee asked the researchers whether they were collecting data on participants who went on to attempt suicide.

The researchers stated that they had not considered this.

Recruitment arrangements and access to health information, and fair participant selection
The Committee accepted the need to speak English in order to take part in this study.

The Committee asked for clarification of the recruitment process.

The researchers stated that care coordinators would be approached to see if anyone was suitable for the study. They would then check if suitable persons would be happy to be contacted. They told the Committee that the Participant Information Sheet could be sent by post or given by the care coordinator or by themselves, depending on what they wanted. They would then be contacted after 24 hours to discuss further and answer any questions and check that they had fully understood what was involved. If they wished to participate, consent would then be taken.

The Committee asked whether the overview of the study had been put into writing to ensure the same thing is said to each prospective participant.

The researchers stated that they would just be asking for their interest at that stage.

The Committee was satisfied with this.

Care and protection of research participants; respect for potential and enrolled participants’ welfare and dignity
The Committee asked whether the GP would be involved.

The researchers stated that it would be the GP surgery for primary care participants and otherwise the managing medical officer.

The Committee asked about the link to the INSITE project.

The researchers explained that they were using data collected for that study but with the consent of the participants.
Suitability of supporting information

The Committee told the researchers that they liked the debrief and the subsequent telephone call to check on the participants’ welfare.

The Committee asked whether the questionnaires would be anonymised and an identity number used instead of a name.

The researchers confirmed this.

Other general comments

The researchers confirmed that the study had not yet started.

Approved documents

The documents reviewed and approved at the meeting were:

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<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
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<td>Covering letter on headed paper [Letter for REC]</td>
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<tr>
<td>Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Letter for insurance]</td>
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<td>GP/consultant information sheets or letters [BECS Health care provider notification letter]</td>
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<td>IRAS Checklist XML [Checklist_25022015]</td>
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<td>Letter from sponsor</td>
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<td>Letter from statistician [Letter of scientific review]</td>
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<td>Other [Research CV_Catherine O’Neill]</td>
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<td>Other [Research CV_Kate Ward]</td>
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<td>Other [Certificate of Employers Liability]</td>
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<td>Other [BECS protocol for managing disclosure]</td>
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<td>Research protocol or project proposal [Appendix A BECS protocol]</td>
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<td>Summary CV for student [Research CV_Meryl Kilshaw]</td>
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<td>Validated questionnaire [Forms of self criticising and self reassurance scale]</td>
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<td>Validated questionnaire [Implicit Beliefs about Emotion Scale]</td>
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<td>Validated questionnaire [Difficulties in Emotion Regulation scale]</td>
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Membership of the Committee

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

After ethical review

Reporting requirements

The attached document “After ethical review – guidance for researchers” gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website: http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Training

We are pleased to welcome researchers and R&D staff at our training days – see details at http://www.hra.nhs.uk/hra-training/

15/NW/0207 Please quote this number on all correspondence

With the Committee’s best wishes for the success of this project.

Yours sincerely

Dr Lisa Booth
Chair

E-mail: nrescommittee.northwest-lancaster@nhs.net

Enclosures: List of names and professions of members who were present at the meeting and those who submitted written comments
"After ethical review – guidance for researchers"

Copy to:

Ms Lynne Macrae
Ms. Jennifer Higham, Greater Manchester West MH NHS Foundation Trust
NRES Committee North West - Lancaster

Attendance at Committee meeting on 12 March 2015

Committee Members:

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<tr>
<th>Name</th>
<th>Profession</th>
<th>Present</th>
<th>Notes</th>
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<tr>
<td>Dr Brenda Ashcroft</td>
<td>Lecturer</td>
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<tr>
<td>Mr David Barber</td>
<td>Pharmacist</td>
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<tr>
<td>Dr Lisa Booth</td>
<td>Senior Lecturer / Chair</td>
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<td>Mrs Andrina Lawrence</td>
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<td>Dr Brenda Leese</td>
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<tr>
<td>Dr Laura Machin</td>
<td>Lecturer in Medical Ethics</td>
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<td>Dr Anas Olabi</td>
<td>Consultant Paediatrician</td>
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<tr>
<td>Mrs Susan Page</td>
<td>Senior Clinical Tutor</td>
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<tr>
<td>Mrs Valerie Skinner</td>
<td>Nurse (Retired)</td>
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<td>Professor Jols Stansfield</td>
<td>Professor of Speech Pathology</td>
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<tr>
<td>Dr Gary Whittle</td>
<td>Consultant in Dental Public Health (retired)</td>
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Also in attendance:

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<tr>
<th>Name</th>
<th>Position (or reason for attending)</th>
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<tr>
<td>Mrs Carol Ebenezer</td>
<td>REC Manager</td>
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</table>
Appendix D3
Ethical approval - 5 Boroughs Partnership NHS Foundation Trust

5 Boroughs Partnership
NHS Foundation Trust

Our Ref: S0315

Date: 19th March 2015

Meryl Kilshaw
School of Psychological Sciences
University of Manchester
2nd Floor, Zochonis Building
Brunswick Street
Manchester

Dear Meryl,

Re: NHS Trust Permission to Proceed

Project Reference: S0315

Project Title: Beliefs, Emotions, Criticism and Suicidality (BECS)

I am pleased to inform you that the above project has received research governance permission.

Please take the time to read through this letter carefully and contact me if you would like any further information. You will need this letter as proof of your permission.

Trust R&D permission covers all locations within the Trust; however you will only be allowed to recruit from the sites/services you have indicated in section 3 of the SSI application form. If you would like to expand recruitment into other services in the Trust that are not on the original SSI then you must contact the R&D department immediately to discuss this before doing so.

You also must ensure you have liaised with and obtained the agreement of individual service/ward managers before commencing recruitment in that service and you must contact the relevant service/ward managers prior to accessing the service to make an appointment to visit before you can commence your study in the Trust.

Please make sure that you take your Trust permission letter with you when accessing Trust premises and please include the Trust reference number on any correspondence/emails so that the services are assured permission has been granted.
Recruitment
Researchers must recruit the first participant to 5 Boroughs Partnership NHS Foundation Trust within 30 days of being granted Trust permission and ensure that studies recruit to time and target.

National guidelines expect Trusts to report the date when the first participant is recruited to the study, therefore please can you provide this information that point to the R&D department at research.department@5bp.nhs.uk.

If you have any concerns with recruitment please contact the R&D team immediately for assistance.

Monitoring
If your study duration is less than one year, you will be required to complete an end of study feedback report on completion. However if your study duration is more than one year, you will be required to complete a short electronic progress report annually and an end of study report on completion. As part of this requirement, please ensure that you are able to supply an accurate breakdown of research participant numbers for this Trust (recruitment target, actual numbers recruited). To reduce bureaucracy, progress reporting is kept to a minimum; however, if you fail to supply the information requested, the Trust may withdraw permission.

Honorary Research contracts (HRC)
All researchers with no contractual relationship with any NHS body, who are to interact with individuals in a way that directly affects the quality of their care, should hold Honorary Research NHS contracts. Researchers have a contractual relationship with an NHS body either when they are employees or when they are contracted to provide NHS services, for example as independent practitioners or when they are employed by an independent practitioner (Research Governance Framework for Health and Social Care, 2005). If a researcher does not require an HRC, they would require a Letter of Access (LoA). For more information on whether you or any of your research team will require an HRC or LoA please liaise with this office. It is your responsibility to inform us if any of your team do not hold Honorary Research NHS contracts/Letters of Access.

Staff involved in research in NHS organisations may frequently change during the course of a research project. Any changes to the research team or any changes in the circumstances of researchers that may have an impact on their suitability to conduct research MUST be notified to the Trust immediately by the Principal Investigator (or nominated person) so that the necessary arrangements can be put in place

Research Governance
The Research Governance Sponsor for this study is University of Manchester. Whilst conducting this study you must fully comply with the Research Governance Framework. This can be accessed at: http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4108952&chk=Wde1Tv

For further information or guidance concerning your responsibilities, please contact your research governance sponsor or your local R&D office.

Risk and Incident Reporting
Much effort goes into designing and planning high quality research which reduces risk; however untoward incidents or unexpected events (i.e. not noted in the protocol) may occur in any research project. Where these events take place on Trust premises, or involve Trust service users, carers or staff, you must report the incident within 48 hours via the Trust
incident reporting system. If you are in any doubt whatsoever whether an incident should be reported, please contact us for support and guidance.

Regardless of who your employer is when undertaking the research within 5 Boroughs Partnership NHS Foundation Trust you must adhere to Trust policies and procedures at all times.

Confidentiality and Information Governance
All personnel working on this project are bound by a duty of confidentiality. All material accessed in the Trust must be treated in accordance with the Data Protection Act (1998) For good practice guidance on information governance contact us.

Protocol / Substantial Amendments
You must ensure that the approved protocol is followed at all times. Should you need to amend the protocol, please follow the Research Ethics Committee procedures and inform all NHS organisations participating in your research.

Final Reports
At the end of your research study, we will request a final summary report so that your findings are made available to local NHS staff. The details from this report may be published on the NHS Trust internet site to ensure findings are disseminated as widely as possible to stakeholders.

On behalf of this Trust, may I wish you every success with your research. Please do not hesitate to contact us for further information or guidance.

Yours sincerely,

Dr Anna Pearson
Research & Development Manager

Cc: Daniel.pratt@manchester.ac.uk
Gillian.haddock@manchester.ac.uk
fmhsethics@manchester.ac.uk
Appendix D4
Ethical approval – Cheshire and Wirral Partnership NHS Trust

Standardised Process for Electronic Approval of Research

Meryl Kilshaw
School of Psychological Sciences
2nd Floor, Zoology Building
University of Manchester
Brunswick Street
Manchester
M13 9PL

7th April, 2015
Dear Meryl,

Re: NHS Permission for Research

Project Title: Beliefs, Emotions, Criticism and Suicide (BECS)
Sponsor: University of Manchester
SPEAR: 1394

Further to your request for permission to conduct the above research study at this Trust, we are pleased to inform you that this Trust has given NHS permission for the research. Your NHS permission to conduct research at this site is only valid upon receipt of a signed ‘Conditions for NHS Permission Reply Slip’ which is enclosed.

Please take the time to read the attached conditions for NHS permission. Please contact the Research Office should you require any further information. You will need this letter as proof of NHS permission.

NHS permission for the above research has been granted on the basis described in your university application form and supporting documentation.

The documents reviewed were:

- NHS ethics application
- NHS ethics approval. 15/NW/0207
- Participant information sheet v1, 05/01/2015
- Consent form v1, 01/12/2014
- Study protocol v1, 01/12/2014

Permission is granted on the understanding that the study is conducted in accordance with the Research Governance Framework, ICH GCP (if applicable), and NHS Trust policies and procedures. Permission is only granted for the activities for which a favourable opinion has been given by the Ethics Committee (where appropriate).
May I wish you every success with your research.

Yours sincerely,

Phil Elliott

Dr Phil Elliott
Senior Research Facilitator on Behalf of:

Dr Pat Mottram
Research and Effectiveness Manager

Enc: Approval Conditions Leaflet
## Appendix E
### Blank Data Extraction Sheet for Systematic Review

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<th>Mean Age (SD, range)</th>
<th>N (%) Male</th>
<th>Key conclusions</th>
<th>Information on recruitment method?</th>
<th>Response rate</th>
<th>Comparison of those who did &amp; did not respond?</th>
<th>Was trauma measure valid &amp; reliable?</th>
<th>Was Emotion regulation measure valid &amp; reliable?</th>
<th>Was Suicide measure valid &amp; reliable?</th>
<th>Were confounding factors controlled for in analysis?</th>
<th>Statistical data</th>
<th>Is there a relationship between trauma, ER &amp; suicidality?</th>
<th>What is the relationship?</th>
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