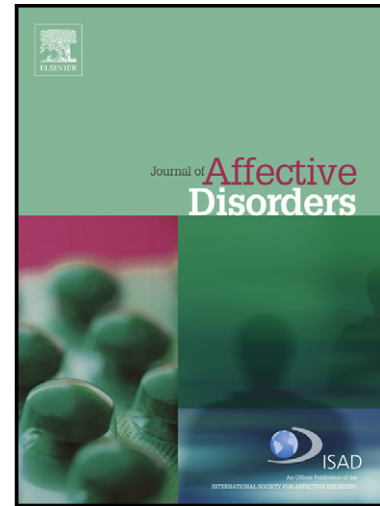


Author's Accepted Manuscript

A qualitative Investigation into the Relationships between social Factors and suicidal Thoughts and Acts experienced by people with A bipolar disorder diagnosis

Rebecca Owen, Patricia Gooding, Robert Dempsey, Steven Jones



www.elsevier.com/locate/jad

PII: S0165-0327(15)00078-6
DOI: <http://dx.doi.org/10.1016/j.jad.2015.02.002>
Reference: JAD7279

To appear in: *Journal of Affective Disorders*

Received date: 26 November 2014
Revised date: 30 January 2015
Accepted date: 2 February 2015

Cite this article as: Rebecca Owen, Patricia Gooding, Robert Dempsey, Steven Jones, A qualitative Investigation into the Relationships between social Factors and suicidal Thoughts and Acts experienced by people with A bipolar disorder diagnosis, *Journal of Affective Disorders*, <http://dx.doi.org/10.1016/j.jad.2015.02.002>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Title: *A Qualitative Investigation into the Relationships between Social Factors and Suicidal Thoughts and Acts Experienced by People with a Bipolar Disorder Diagnosis*

Authors: *Rebecca Owen¹, Patricia Gooding¹, Robert Dempsey² & Steven Jones³*

¹ School of Psychological Sciences, University of Manchester, UK

² Centre for Health Psychology, Staffordshire University, UK

³ Spectrum Centre for Mental Health Research, Lancaster University, UK

Corresponding Author:

Rebecca Owen

School of Psychological Sciences

University of Manchester

UK

M13 9PL

Tel: 0161 275 2593

Email address: rebecca.owen-6@postgrad.manchester.ac.uk

Abstract

Background: The prevalence rate of completed suicide in bipolar disorder is estimated to be as high as 19%. Social factors or influences, such as stigmatisation and family conflict, contribute to the development of suicidal ideation in clinical and non-clinical populations. Yet, there is a lack of studies examining suicidality from a psychosocial perspective in people who experience bipolar disorder.

Method: Semi-structured interviews were used to collect qualitative data from 20 participants with bipolar disorder. The interview focused on the effects of social factors upon participants' experiences of suicidality (suicidal thoughts, feelings or behaviours). A thematic analysis was used to understand the data.

Results: Social or interpersonal factors which participants identified as protective against suicidality included, 'the impact of suicide on others' and, 'reflecting on positive social experiences'. Social factors which triggered suicidal thoughts included, 'negative social experiences' and, 'not being understood or acknowledged'. Social factors which worsened suicidal thoughts or facilitated suicidal behaviour were, 'feeling burdensome,' and 'reinforcing negative self-appraisals'.

Limitations: Some participants had not experienced suicidal thoughts for many years and were recalling experiences which had taken place over ten years ago. The accuracy and reliability of these memories must therefore be taken into consideration when interpreting the results.

Conclusions: The themes help to enhance current understanding of the ways in which social factors affect suicidality in people who experience bipolar disorder. These results highlight the importance of considering the social context in which suicidality is experienced and incorporating strategies to buffer against the effects of negative social experiences in psychological interventions which target suicide risk in bipolar disorder.

Key Words: Bipolar disorder, suicide, suicidality, social, psychosocial

1. Introduction

Suicide accounts for 1.5% of all mortality, making it the 14th leading cause of death worldwide (O'Connor & Nock, 2014). An extensive body of research suggests that suicidal behaviour occurs as the result of a complex interaction between numerous cumulative factors (e.g., Dieserud et al., 2001; O'Connor & Sheehy, 2001; Panagioti, Gooding, Taylor, & Tarrier, 2013; Taylor et al., 2010; Wasserman et al., 2007). Therefore, a biopsychosocial conceptualisation of suicidal behaviour is utilised within many clinical settings (e.g., Hoffman, 2000; King & Merchant, 2008; O'Connor & Nock, 2014; O'Connor & Sheehy, 2000). The influential role of social or interpersonal factors in the development of suicidality (i.e., suicidal thoughts, feelings and behaviours) has been substantially documented within the research literature, in both clinical and non-clinical populations (e.g., Coker et al., 2002; Hawton et al., 2012; Hinduja & Patchin, 2010; Jakupcak et al., 2010). However, the role of such factors within pathways leading to suicidal behaviour is still not fully understood. Previous research focusing upon the role of social factors in suicidal ideation and behaviour has emphasised the impact of characteristics of family relationships, such as the perceived level of family support (e.g., Diamond et al., 2010; Hoagwood et al., 2010) and family conflict (e.g., Legleye et al., 2010; Xing et al., 2010). Characteristics of wider social networks have also been implicated in the formation of suicidal ideation, such as social isolation (e.g., Bearman & Moody, 2004) and peer integration amongst adolescents (e.g., Connor & Rueter, 2006).

Suicide is a cause of death in which psychological factors are directly involved, as the individual ultimately forms a decisive intention to end their own life (Johnson et al., 2008; O'Connor & Nock, 2014). It is therefore necessary to consider the individual's psychological state and the influence of social factors upon their mental health or wellbeing and level of suicidality. There are four main contemporary psychological models of suicidality, each of which specifies a role for social factors in the development, maintenance and intensification of suicidal thoughts and behaviours. The Integrated Motivational-Volitional model of Suicidal Behaviour (O'Connor, 2011) implicates social problem solving abilities as a key factor in a person's evolution from suicidal ideation to behaviour. The Cry of Pain model (Williams, 1997; Williams et al., 2005) asserts that perceptions of 'no rescue' are central to both triggering and worsening suicidal ideation and behaviour. Rescue factors can include social support, a lack of which can lead to feelings of entrapment and suicidal ideation as a means of escape from negative life circumstances (Williams et al., 2005). Joiner's (2005) Interpersonal Theory of Suicide hypothesises that a combination of the psychosocial factors of feeling burdensome and perceiving a low level of belongingness within social networks, produce a greater risk of suicidal ideation. Finally, the Schematic Appraisals Model of Suicide (Johnson, Gooding & Tarrier, 2008) posits that negative appraisals of social factors, such as, perceptions of poor social support and social interactions, are involved in pathways leading to the development of suicidality

A mental health diagnosis is a strong predictor of suicidal behaviour and nine out of 10 people who end their life will have experienced clinically significant mental health problems (World Health Organisation, 2002). However, the low specificity of this predictor must be acknowledged, as the great majority of people who experience mental illness do not die by suicide. Individuals who experience bipolar disorder are at a heightened risk of suicide compared to the general population (Clements et al., 2014). There is also clear evidence that social factors, particularly the nature of the family environment, can play a key role in determining the clinical course of bipolar disorder. A prospective follow-up study of participants with a diagnosis of bipolar disorder demonstrated that a critical and hostile family atmosphere, known as high expressed emotion, significantly predicted the rate of relapse into acute mood episodes (Miklowitz et al., 1988). The presence of these family attitudes has been associated with more frequent relapses and worse symptomatic outcomes in a number of studies (Honig et al., 1997; Kim & Miklowitz, 2004; Miklowitz et al., 2000; O'Connell et al 1991; Yan et al., 2004). Moreover, psychosocial family interventions which focused upon educating family members about bipolar disorder, facilitating better communication, and optimising problem-solving have been associated with better global functioning (Clarkin et al., 1998) in addition to fewer relapses and greater improvements in depressive symptoms (Miklowitz et al., 2000). However, the influence of the immediate social context upon the development of suicidal thoughts remains under-researched in people with bipolar disorder'.

The most recent UK based epidemiological study investigating the prevalence rates of suicide in bipolar disorder reported that 1489 people with bipolar disorder ended their own lives between 1996 and 2009, an average of 114 suicides each year (Clements et al., 2014). Despite these high prevalence rates, there are a limited number of studies investigating the relationship between social factors and suicidal behaviour in bipolar disorder. There are a number of studies which report that bipolar disorder is significantly associated with social dysfunction and can have a profound negative effect on social relationships (e.g., Hirschfeld et al., 2003). However, the role of social factors in the development of suicidality within the context of bipolar disorder remains largely under researched. The few studies which have focused upon social factors and suicidality in bipolar disorder have highlighted the significance of adversities during early life, such as childhood physical and sexual abuse (Alvarez et al., 2011; Carballo et al., 2008; Garno et al., 2005; Leverich et al., 2002), a family history of suicidal behaviour (Galfalvy et al, 2006; Leverich et al., 2002; MacKinnon et al., 2005; Pawlak et al., 2013), a family history of mental health problems (Lopez et al., 2001; Pawlak et al., 2013), problems with social relationships (Leverich et al., 2002; Tsai et al., 1999), and stressful life events (Antypa et al., 2013; Azorin et al., 2009).

However, none of the aforementioned studies involved directly asking individuals with past experiences of suicidality and bipolar disorder to identify the socially relevant processes or factors they feel are involved in pathways leading to suicidal thoughts and behaviours. Indeed, family histories of suicidal behaviour and mental health problems may involve maladaptive-dysfunctional

social relationships, but this has not been examined directly. Given the lack of specific research targeting social factors in suicidality in individuals who experience bipolar disorder, a practical first step would be to ask people with bipolar disorder which social factors they feel are implicated in the pathways to suicide, as key processes may not have been recognised within the existing research literature.

The aim of the present study was to identify which social factors people who experience bipolar disorder perceived as having triggered, worsened and protected against suicidal thoughts, feelings and behaviours. Qualitative interviews were used to gain an in-depth understanding of participants' subjective experiences of suicidal thoughts, feelings and behaviours.

2. Method

2.1 Design

This study involved conducting one-to-one semi-structured qualitative interviews with individuals with a diagnosis of bipolar disorder.

2.2 Inclusion Criteria

A total of 20 participants were recruited based upon the following inclusion criteria:

1. A primary diagnosis of bipolar disorder (I or II) according to the Diagnostic and Statistical Manual of Mental Disorders (DSM) IV research criteria (First et al., 1997), confirmed by the Structured Clinical Interview for DSM-IV Axis I Disorders, Research Version (SCID; First et al., 1997).
2. Self-reported past experience of suicidal thoughts, feelings and/or behaviours.
3. In contact with a care-coordinator or an equivalent named health professional who could be contacted in the event of suicide-related risk issues.
4. Aged 18-65 years.

2.3 Recruitment

This study was given approval by the University of Manchester Ethics Committee and NHS Research Ethics Committee (Ref: 13/NW/0846). Participants were recruited via opportunistic sampling using a number of recruitment methods. Recruitment of participants took place across the North West of England, in collaboration with a range of NHS and non-NHS organisations, such as community mental health teams, primary care services and charitable organisations including Mind and Bipolar UK.

Self-referral to the study was invited via flyers and posters which were placed in areas accessible to potential participants (e.g., local community centres). Advertisements were also placed in local newspapers, e.g., the Manchester Evening News, and on websites, such as, Twitter and Facebook. Based upon the information provided, if an individual wished to obtain further information about the study, they were able to contact the first author by phone or email.

Data was analysed concurrently with recruitment and assessment. Recruitment was closed after 20 participants had been recruited because thematic saturation was reached.

2.4 Measures

The Mood Disorder Questionnaire (MDQ; Hirschfeld et al., 2000)

This brief screening instrument was administered over the phone to give initial indications of eligibility. This minimised any burden on participants who were ineligible and made the assessment process more efficient.

The validity of the MDQ has previously been evaluated by comparing the sensitivity and specificity of the MDQ to the SCID interview in 711 participants who were randomly selected from a group of 85,358 adult respondents in a nationwide epidemiological general population sample (Hirschfeld et al., 2003). Using the standard scoring system of the MDQ, which requires seven or more symptoms to be present in order for a bipolar disorder diagnosis to be deemed likely, the MDQ correctly identified 28.1% (weighted sensitivity) of those with positive SCID diagnoses as having bipolar spectrum disorders. The MDQ correctly identified 97.2% of the SCID individuals without bipolar disorder as not having bipolar disorder (weighted specificity).

The Structured Clinical Interview for DSM-IV Axis I Disorders, Research Version (SCID; First et al., 1997)

This is a structured interview used to assess whether an individual meets full criteria for the Major DSM-IV Axis I disorders. It remains the gold standard for confirming psychiatric diagnoses in clinical trials (First et al., 1997; Lobbestael, Leurgans & Arntz, 2011). Modules A (Mood Episodes), B (Psychotic and Associated Symptoms), C (Psychotic Disorders), D (Mood Disorders), E (Substance Use Disorders) and F (Anxiety Disorders) were administered.

The Semi-Structured Qualitative Interview

The interview topic guide was developed following a review of the research literature and consultation with the Spectrum Centre service-user advisory panel, comprising individuals with lived experience of bipolar disorder. Questions were designed to elicit participants' perceptions of (i) positive and negative social interactions (e.g., supportive listening offered by a friend, family conflict), (ii) perceptions of those interactions in the context of bipolar disorder and suicidality (e.g., was supportive listening helpful or unhelpful to the individual in terms of managing the symptoms of bipolar disorder?), (iii) characteristics of desirable social interactions within the context of bipolar disorder and suicidality (e.g., social support), (iv) the effects of social interactions on bipolar disorder symptoms (e.g., mood fluctuations), and (v) feelings related to suicidality in the context of social interactions (e.g., how does a strong support system affect the development of suicidal thoughts and behaviours?).

Although there were a number of key questions which were asked of every participant (e.g., have you ever experienced thoughts or feelings of wanting to kill yourself, even if the thoughts or

feelings have only been fleeting?), the topic guide was sufficiently flexible to allow for the inclusion of individual experiences which were not anticipated in the original interview outline.

2.5 Procedure

Potentially eligible participants were contacted following referral and provided with a participant information sheet. The first author (RO) administered the Mood Disorders Questionnaire over the phone to confirm the likelihood of a diagnosis of bipolar disorder. Eligible individuals were given an appointment to take part in the full structured clinical interview (First et al., 1997). The researcher administering the interview was fully trained and experienced in administering the SCID tool. The researcher also attended regular weekly one-to-one supervision and monthly group clinical supervision sessions.

Once a research diagnosis of Bipolar Disorder I or II was confirmed, a second face-to-face appointment was arranged for eligible participants to take part in the qualitative interview, either at participants' homes or at the University of Manchester.

A total of 20 interviews were conducted. Each interview lasted between 35 and 90 minutes. Interviews were audio recorded (with consent) to allow transcription and data analysis.

2.6 Analysis

Interview transcripts were analysed using a thematic analysis (Braun & Clarke, 2006). Within the current study, thematic analysis was used as a realist method which allowed us to report the experiences of participants. This allowed the identification of key themes or topics which were repeated across the data. The current study identified a-priori areas of interest for analysis, which were, social factors, positive and negative appraisals of social factors, resilience to suicidality, and hopelessness. These areas were identified based on a previous systematic review of the research literature relating to psychological and social factors associated with suicidality in bipolar disorder (Owen, Gooding, Dempsey & Jones, in submission).

2.6.1 Stages of Data Analysis

(1) Familiarisation: The first stage involved reading all participants' transcripts. The data recalled by participants was read and re-read by the principal investigator (RO) over a period of approximately two weeks. Developing a high level of familiarity with the data was considered optimal for the later stages of analysis. For example, it facilitated the identification of associations between key themes.

(2) Identifying a Coding System: The initial coding system was developed according to common experiences, associations and themes within the data (the first author can be contacted for a copy of the coding manual).

(3) Indexing: This stage involved applying the coding system to the data. The coding system was used to identify the pieces of data which corresponded to each theme. The codes were presented to the wider academic and clinical team for discussion, during which, theme content and provisional labels were agreed upon.

(4) **Charting:** Theme headings were used to create charts of the data. When no new themes began to emerge this suggested that thematic saturation had been reached, meaning that the themes had sufficiently captured participants' shared views.

(5) **Mapping and Interpretation:** This involved searching for patterns and associations within the data. This process was influenced both by the original research aims and by themes which were fully grounded in the data.

3. Results

3.1 *Participants*

The mean age of participants was 45.6 years (range 26-60). All met criteria for bipolar disorder I or II, according to the SCID (see Table II). One participant attended the SCID interview but was excluded due to not having experienced a manic or hypomanic episode according to the SCID. There was considerable range in terms of patterns of lifetime mood episodes, with 0-200 self-reported depressive episodes (mean = 27 depressive episodes), and 2-50 manic or hypomanic episodes (mean = 16 manic/hypomanic episodes) (see Table II). Information regarding participants' self-reported frequency of suicide-related experiences was also recorded by asking, "on how many separate occasions have you (a) thought about suicide, (b) felt a desire to end your life, (c) planned to end your life, (d) attempted to end your life" (see Table II for suicide-related frequency data).

3.2 *Overview of Key Findings*

Themes were grouped into (1) social protective factors, and (2) social triggers and worsening factors. Social factors which had a protective influence upon suicidal thoughts, feelings and behaviours were, 'the impact of suicide on others', 'others can change suicidal thought processes' and, 'reflecting on positive social experiences'. Social factors which triggered suicidal thoughts were, 'negative social experiences', 'not being understood or acknowledged', 'lack of social support', and 'lack of social control'. Finally, social factors which worsened or intensified suicidal thoughts were, 'feeling burdensome' and, 'others reinforce negative self-appraisals'.

Whilst most participants reported only having experienced suicidality during a depressive episode, two participants described the experience of suicidal thoughts during a mixed episode (i.e., when the person experienced features of mania, e.g., impulsiveness, and features of depression, e.g., feelings of worthlessness, either simultaneously or in very short succession). However, rather than attributing the development of suicidal thoughts to the influence of any social or interpersonal factor, both participants attributed suicidality during this mood state to the combined characteristics of the mood state itself.

3.3 *Protective Factors associated with Suicidality*

Within this theme, participants discussed the positive effects of social factors upon their level of suicidality, i.e., social factors which protected against suicidal behaviour or buffered suicidal thoughts. One method by which social factors protected participants against carrying out suicidal

behaviour was when participants considered the devastating impact of their suicide upon family and friends:

Participant 5: "I've had feelings of thinking I'd be better off dead but I wouldn't want [husband] or the children to find me, so I've got as far as planning and thinking and then I've thought, 'how would that affect the children?' and that's the thing that's always stopped me".

Social factors also protected against suicidal behaviour when other people actively changed suicidal thought processes. This included buffering against feelings of hopelessness by distracting the participant away from suicidal thoughts and feelings:

Participant 6: "If it wasn't for her [sister] getting me out of the house I don't know what I would have done, it gave me an outlet, it got me out of the house for a few hours and it distracted me away from the negative thoughts, it stopped me spiralling down into thinking about ending it".

A less direct way in which social factors protected against suicidal behaviour was when participants reflected on past positive social experiences as a coping mechanism to interrupt the cycle of negative thoughts. Two participants reported that when their mood began to fluctuate downwards and they felt vulnerable to the experience of suicidal thoughts, they would purposefully recall positive social experiences as a way of self-managing their mood and protecting against the desire to carry out suicidal behaviour:

Participant 2: "In order for me to challenge my negative thoughts, I need evidence that people like me and they would miss me [...] so when suicidal thoughts start to creep in, I have to say to myself, 'come on now, [friend] likes you and we know this because of this, this and this, on this day she did this and she wouldn't have done that if she didn't like you', so having that kind of evidence helps me".

It is important to note that whilst these protective factors were perceived as being effective for mitigating more fleeting or milder suicidal thoughts, they were less effective when participants experienced suicidal thoughts with high levels of intent or suicidal desire, for example, when participants were severely depressed.

Participant 9: "Other people don't even come into it when you're so low and so depressed and suicidal, when you get to that stage all you're thinking of is 'how can I get away with it? How can I make an excuse to get out of the house and do it?' You feel like such a burden to everyone that you can't even see any negative effects might have on them".

3.4 Triggers and Worsening Factors associated with Suicidality

Within this theme, participants discussed the negative effects of social or interpersonal factors upon suicidality. Participants reported that negative social events could directly lead to the development of suicidal thoughts. Sometimes participants cited major or life-altering events, such as bereavement, and

other times the social events appeared fairly minor and innocuous, but triggered a chain of negative thoughts culminating in suicidal ideation:

Participant 4: "If something bad happened or if I'd had some kind of falling out with a friend or whatever, the first thing that would pop into my head is, 'I need to end this' and that became, for a long time, the default reaction and it became acted upon on quite a few occasions".

A lack of perceived social support was also cited as a key factor in triggering suicidal thoughts:

Participant 7: "I just felt really, really low, from what I can remember, I felt that nobody loves me, nobody would miss me, just really low, like I just didn't want to be alive".

This also extended to a lack of perceived social control, which often resulted in participants feeling trapped and suicidal behaviour was considered the only means of escape:

Participant 8: "She backed me into a corner and I felt trapped, it wasn't physical at all, it was psychological control, I didn't want to die I just wanted to get away from her".

Several participants reported that not feeling understood or acknowledged was a trigger for suicidal thoughts. This was sometimes cited as being the catalyst which transformed their suicidal thinking into suicidal action. Participants often recalled feeling stigmatised or misunderstood by others due to their bipolar disorder diagnosis:

Participant 17: "There have been times in my life where I've not been listened to by professionals and they think they understand my moods but they have not got a clue [...] it was a total misunderstanding of someone's thoughts of suicide and that can actually definitely send you over the edge".

Another way in which social factors worsened or intensified suicidal thoughts was when other people reinforced participants' negative self appraisals. This was usually unintentional, but nonetheless was pivotal in making participants feel more suicidal as it reinforced their feelings of guilt and worthlessness:

Participant 9: "Because you're so full of guilt, any negative comments just reinforce why you shouldn't be here or why you are a burden to everyone or why you are pathetic and weak".

Finally, participants disclosed that their suicidal thoughts became more intense when they felt as though they were a burden to those around them:

Participant 4: "Coping with the impact that bipolar has had on my relationships, I think that is primarily the main motivation for my suicidal behaviour at times, it's the shame and guilt of recognising what impact and what a huge burden my behaviour, through my moods, has been on people that I genuinely care about".

4. Discussion

The aim of the present study was to explore which social factors were perceived to have triggered, worsened and also protected against suicidal thoughts, feelings and behaviours by individuals with a diagnosis of bipolar disorder. The themes were grouped into (a) protective social factors and, (b) social triggers or worsening factors. A realist approach was taken during data analysis and an accurate picture of the data was presented by ensuring that the themes were data driven. This meant that themes were labelled according to how they were discussed during the interview itself (e.g., terms such as, 'positive' and 'negative').

Previous research examining suicidality in bipolar disorder has tended to focus solely upon risk factors. Therefore, this study is novel in that it considers both risk-enhancing and protective or risk-reducing factors from the perspective of individuals who experience bipolar disorder. Furthermore, suicide risk factors tend to identify factors which are situated *within* the individual, for example, history of suicide attempts, frequency of depressive episodes and coping skills. The current study extends this work by considering the potential impact of the wider social context on the experience of suicidality.

A self-management strategy which two participants stated they employed to protect against suicidal behaviour was reflecting on past positive social experiences. This is consistent with strategies used in clinical practice which trigger positive memories to facilitate positive emotions, such as broad minded effective coping (TARRIER, 2010). This therapeutic technique uses mental imagery to encourage individuals to recall positive memories in order to experience the positive emotional states associated with the memories (TARRIER, 2010). A preliminary test of this mood-boosting strategy found that it was effective in increasing both short-term hope and happiness in people with a diagnosis of schizophrenia (Johnson et al., 2013) and post-traumatic stress disorder (Panagioti et al., 2011). The present finding provides preliminary supportive evidence for the incorporation of such a memory-based self-management strategy (i.e., reflecting on past positive social experiences when suicidal feelings occur) into psychological interventions which aim to target suicide risk in people with bipolar disorder.

Participants who used this technique in the current study disclosed that although the strategy was effective for more fleeting suicidal thoughts, it was less effective for suicidal thoughts with higher levels of intent. Participants associated more severe suicidal thoughts with more severe episodes of clinical depression. This points towards the potential efficacy of assessing the severity of both the suicidal thoughts experienced and the severity of the depressive episode before attempting to utilise mood boosting self-management strategies. Knowing which techniques are more likely to protect against suicidality at specific time points in the mood cycle of individuals with bipolar disorder, will help to both streamline psychological interventions and enhance the probability of their effectiveness in vulnerable individuals.

A lack of social support and negative social experiences were both implicated in triggering suicidal thoughts. Both of these findings are consistent with a wide body of research literature which identifies a significant relationship between low perceived social support (e.g., Morrison et al., 1999)

and suicidality, and negative life events, such as divorce and bereavement, and suicidality (Antypa et al., 2013; Azorin et al., 2009). However, whereas the existing literature tends to cite negative life events as being significant and life-changing, such as the aforementioned divorce and bereavement, participants in the present study also recalled the ways in which minor or seemingly innocuous social events, such as a friend not returning a phone call, could trigger the downward spiral of negative thoughts. This finding is consistent with work started by Kanner and colleagues (1981, 1987) investigating the psychological impact of 'daily hassles', defined as, irritating, frustrating, distressing daily demands, such as, arguments, disappointments, traffic jams and concerns about physical appearance (Kanner, 1981). Kanner and colleagues found that daily hassles predicted current and subsequent psychological symptoms, such as, depression and anxiety, more accurately than significant negative life events (Kanner et al., 1981). Later empirical work has also found that stress sensitivity to daily hassles was significantly associated with, dissatisfaction with current life circumstances (Lavee & Ben-Ari, 2008), marital problems (Harper, Schaalje & Sandberg, 2000), reactive cocaine use in individuals with cocaine dependency (Waldrop et al., 2007) and, importantly, the wish to die in older adults (Boyer et al., 2012) and heightened stress-sensitivity in people with bipolar disorder with more frequent depressive episodes (Havermans & Nicolson, 2007). The current finding points towards the need to assess the individual's interpretation or personal meaning attached to more 'every day' events and formulating strategies to help people cope with the impact of such events.

Many participants reported that not being understood or acknowledged was both a trigger for suicidal thoughts and was also the catalyst which facilitated the transformation from suicidal thoughts to the desire to carry out suicidal acts. This finding is consistent with previous work exploring the negative effects of mental health stigma, in which individuals with severe mental illness have cited stigma, defined as being negatively judged or made to feel ashamed due to negative views of those with mental health problems in society, such as, being weak or inferior, as triggering suicidal thoughts (e.g., Eagles et al., 2003; Pompili et al., 2003). To the best of our knowledge, this is the first study to consider a direct link between stigma and facets of suicide within bipolar disorder.

Participants also identified perceived burdensomeness as a social or interpersonal factor which intensified suicidal thoughts. Several participants reported that when their depressive mood was particularly severe, they felt a burden to those around them and believed that their loved ones' lives would be more fulfilled if they were no longer here. At this stage, some participants reported that imagining the impact of their suicide on those around them was no longer protective, because they felt so worthless that suicide became a selfless act to remove the perceived burden. This finding is consistent with previous studies investigating burdensomeness, in which perceived burdensomeness, particularly towards family, is strongly associated with suicidal ideation (Brown et al., 1999; DeCatanzaro, 1995; Joiner, 2002). Moreover, the Interpersonal-Psychological Theory of Suicidal Behaviour (Joiner et al., 2009) asserts that feelings of ineffectiveness, including feeling ineffective to

the extent that an individual perceives themselves as a burden upon others, is one of the strongest predictors of suicidal ideation. In a direct test of the model (Van-Orden et al., 2008), the interaction between perceived burdensomeness and a thwarted sense of belongingness significantly predicted suicidal ideation.

The final social factor which participants identified as worsening or intensifying suicidal thoughts was other people, particularly family members, reinforcing existing negative self-appraisals, such as, worthlessness. This finding may have implications for family-based psychological interventions and demonstrates the importance of educating family about the adverse effects of reinforcing individuals' negative self-appraisals. It also supports the assumption that reinforcing more positive self-appraisals may help to buffer against suicidal ideation (e.g., Johnson et al., 2010).

To the best of our knowledge, this is the first study to directly explore the relationship between specific social or interpersonal factors and suicidality in people with a diagnosis of bipolar disorder. The themes which we have identified help to enhance current understanding of the complex interplay between social influences and other factors involved in the pathways leading to suicidality in people who experience bipolar disorder. However, there are two key limitations which must be taken into consideration.

First, several participants had not experienced suicidal thoughts and feelings for a number of years at the time of the interview. Consequently, memory was occasionally a barrier to articulating exactly how social factors had impacted upon their experiences. Furthermore, even when participants appeared to have had a deep level of insight into their distressing suicide-related personal experiences, previous research has demonstrated that memories of traumatic events can be distorted in order to serve a protective function, such as, protecting against recalling intense physical and emotional pain (e.g., Conway et al., 2004; Kwan, John, Kenny, Bond & Robin, 2004; Williams, 1996). In order to enhance the accuracy of suicide research, future work should set a limit upon the time period in which suicide-related experiences occurred, such as, within the previous year.

Second, the number of participants who had been exposed to psychological therapy was not recorded. One participant recalls using evidence to challenge negative thoughts, which is a common technique used in cognitive-behavioural therapy (CBT) based interventions. Future work would benefit from recording participants' history of exposure to psychological therapies. This would help to ascertain the extent to which individuals employ strategies derived from psychological interventions to manage their suicidality.

Based upon the present findings, future research should aim to, (1) identify the presence of each of these themes in larger samples to validate their applicability to people with bipolar disorder more generally, and, (2) ascertain the extent to which each theme predicts prospective suicidality longitudinally to elucidate cause and effect relationships.

With regards to implications for clinical practice, the findings point towards the potential to enhance the efficacy of suicide risk assessments by collecting more detailed information about the

individuals' own perceptions of their social relationships. The present study also demonstrates that the influence of social relationships should be taken into consideration by clinicians when formulating the psychological processes which underlie suicidal thoughts and feelings. The findings highlight possible areas for psychological intervention and the potential to enhance formulation-based techniques which aim to target and reduce the risk of suicide in individuals with a diagnosis of bipolar disorder. For example, the use of strategies such as encouraging vulnerable individuals to recall past positive social experiences or to consider the negative impact of their suicide would have upon others, in order to interrupt the downward spiral of negative thoughts. The findings also point towards the potential value of incorporating key members of the individual's support network into psychological interventions which target suicide risk and promote better mood management. The aim here would be to educate the individuals' support network about the damaging effects of reinforcing negative self-appraisals and feelings of burdensomeness, with the aim of protecting or buffering against suicidality and maximising the long-term efficacy of the intervention.

References

- Alvarez, M. J., Roura, P., Osés, A., Foguet, Q., Sola, J., Arrufat, F. X. (2011). Prevalence and clinical impact of childhood trauma in patients with severe mental disorders. *J. Nerv. Ment. Dis.* 199, 156-161.
- Antypa, N., Antonioli, M., Serretti, A. 2013. Clinical, psychological and environmental predictors of prospective suicide events in patients with bipolar disorder. *J. Psychiat. Res.* 47, 1800-1808.
- Azorin, J. M., Kaladjian, A., Adida, M., Hantouche, E., Hameg, A., Lancrenon, S., Akiskal, H. S. 2009. Risk factors associated with lifetime suicide attempts in bipolar I patients: findings from a French National Cohort. *Compr. Psychiatry.* 50, 115-120.
- Bearman, P. S., Moody, J. 2004. Suicide and friendships among American adolescents *Am J Public Health.* 94, 89-95.
- Bolton, C., Gooding, P., Kapur, N., Barrowclough, C., Tarrier, N. 2007. Developing psychological perspectives of suicidal behaviour and risk in people with a diagnosis of schizophrenia: We know they kill themselves but do we understand why? *Clin. Psychol. Review.* 27, 511-536.
- Braun, V., Clarke, V. 2006. Using thematic analysis in psychology. *Qual Res Psychol.* 3, 77-101.
- Brown, R. M., Dahlen, E., Mills, C., Rick, J., Biblarz, A. 1999. Evaluation of an Evolutionary Model of Self-Preservation and Self-Destruction. *Suicide Life-Threat. Behav.* 29, 58-71.
- de Catanzaro, D. 1995. Reproductive status, family interactions, and suicidal ideation: Surveys of the general public and high-risk groups. *Ethol. Sociobiol.* 16, 385-394.
- Carballo, J. J., Harkavy-Friedman, J., Burke, A. K., Sher, L., Baca-Garcia, E., Sullivan, G. M., Oquendo, M. A. 2008. Family history of suicidal behavior and early traumatic experiences: additive effect on suicidality and course of bipolar illness? *J. Affect. Disord.* 109, 57-63.
- Clarkin, J.F., Carpenter, D., Hull, J., Wilner, P., Glick, I. 1998. Effects of psychoeducational intervention for married patients with bipolar disorder and their spouses. *Psych. Serv.* 49, 531-533.

- Clements, C., Morriss, R., Jones, S., Peters, S., Roberts, C., Kapur, N. 2013. Suicide in bipolar disorder in a national English sample, 1996-2009: frequency, trends and characteristics. *Psychol. Med.* 107, 1-10.
- Coker, A. L., Smith, P. H., Thompson, M. P., McKeown, R. E., Bethea, L., Davis, K. E. 2002. Social support protects against the negative effects of partner violence on mental health. *J Womens Health Gend Based Med.* 11, 465-476.
- Connor, J. J., Rueter, M. A. 2006. Parent-child relationships as systems of support or risk for adolescent suicidality. *J. Fam. Psychol.* 20, 143-155.
- Conway, M. A., Singer, J. A., Tagini, A. 2004. The self and autobiographical memory: Correspondence and coherence. *Social Cognition.* 22, 491-529.
- Diamond, G. S., Wintersteen, M. B., Brown, G. K., Diamond, G. M., Gallop, R., Shelef, K., Levy, S. 2010. Attachment-based family therapy for adolescents with suicidal ideation: a randomized controlled trial. *J Am Acad Child Adolesc Psychiatry.* 49, 122-131.
- Dieserud, G., Røysamb, E., Ekeberg, Ø., Kraft, P. 2001. Toward an integrative model of suicide attempt: a cognitive psychological approach. *Suicide Life-Threat. Behav.* 31, 153-168.
- Eagles, J. M., Carson, D. P., Begg, A., Naji, S. A. 2003. Suicide prevention: a study of patients' views. *Br. J. Psychiatry.* 182, 261-265.
- First, M. B., Spitzer, R. L., Gibbon, M., Williams, J. B. W. 1997. Structured clinical interview for DSM-IV axis I disorders-clinician version (SCID-CV). Washington DC: American Psychiatric Association Press.
- Galfalvy, H., Oquendo, M. A., Carballo, J. J., Sher, L., Grunebaum, M. F., Burke, A., Mann, J. 2006. Clinical predictors of suicidal acts after major depression in bipolar disorder: a prospective study. *Bipolar Disord.* 8, 586-595.
- Garno, J. L., Goldberg, J. F., Ramirez, P. M., Ritzler, B. A. 2005. Bipolar disorder with comorbid cluster B personality disorder features: impact on suicidality. *J. Clin. Psychiatry.* 66, 339-345.
- Harper, J. M., Schaalje, B. G., Sandberg, J. G. 2000. Daily hassles, intimacy, and marital quality in later life marriages. *American Journal of Family Therapy*, 28(1), 1-18.
- Havermans, R., Nicolson, N. A. 2007. Daily hassles, uplifts, and time use in individuals with bipolar disorder in remission. *J. Nerv. Ment. Dis.* 195, 745-751.
- Hawton, K., Saunders, K. E., O'Connor, R. C. 2012. Self-harm and suicide in adolescents. *Lancet.* 379, 2373-2382.
- Hinduja, S., Patchin, J. W. 2010. Bullying, cyberbullying, and suicide. *Arch Suicide Res.* 14, 206-221.
- Hirschfeld, R. M., Lewis, L., Vornik, L. A. 2003. Perceptions and impact of bipolar disorder: how far have we really come? Results of the national depressive and manic-depressive association 2000 survey of individuals with bipolar disorder. *J. Clin. Psychiatry.* 64, 161-165.
- Hirschfeld, R. M., Williams, J. B., Spitzer, R. L., Calabrese, J. R., Flynn, L., Keck, P. E., Zajecka, J. 2000. Development and validation of a screening instrument for bipolar spectrum disorder: the Mood Disorder Questionnaire. *Am. J. Psychiatry.* 157, 1873-1875.

- Hoagwood, K. E., Cavaleri, M. A., Olin, S. S., Burns, B. J., Slaton, E., Gruttadaro, D., Hughes, R. 2010. Family support in children's mental health: A review and synthesis. *Clin Child Fam Psych.* 13, 1-45.
- Hoffman, M. A. 2000. Suicide and Hastened Death: A Biopsychosocial Perspective. *Couns. Psychol.* 28, 561-72.
- Honig, A., Hofman, A., Rozendaal, N., Dingemans, P. 1997. Psycho-education in bipolar disorder: effect on expressed emotion. *Psychiatry Res.* 72, 17-22.
- Jakupcak, M., Vannoy, S., Imel, Z., Cook, J. W., Fontana, A., Rosenheck, R., McFall, M. 2010. Does PTSD moderate the relationship between social support and suicide risk in Iraq and Afghanistan War Veterans seeking mental health treatment? *Depress. Anxiety.* 27, 1001-1005.
- Johnson, J., Gooding, P., Tarrier, N. 2008. Suicide risk in schizophrenia: Explanatory models and clinical implications, The Schematic Appraisal Model of Suicide (SAMS). *J. Psychol. Psychother. Res.* 81, 55-77.
- Johnson, J., Gooding, P. A., Wood, A. M., Fair, K. L., Tarrier, N. 2013. A therapeutic tool for boosting mood: the broad-minded affective coping procedure (BMAC). *Cog. Ther. Res.* 37, 61-70.
- Johnson, J., Gooding, P. A., Wood, A. M., Taylor, P. J., Pratt, D., Tarrier, N. 2010. Resilience to suicidal ideation in psychosis: Positive self-appraisals buffer the impact of hopelessness. *Behav. Res Ther.* 48, 883-889.
- Joiner, T. E. 2002. The trajectory of suicidal behavior over time. *Suicide Life-Threat. Behav.* 32, 33-41.
- Joiner, T.E. 2005. Why people die by suicide. Harvard University Press: Boston, MA.
- Joiner, T. E., Van Orden, K. A., Witte, T. K., Selby, E. A., Ribeiro, J. D., Lewis, R., Rudd, M. D. 2009. Main predictions of the interpersonal-psychological theory of suicidal behaviour: Empirical tests in two samples of young adults. *J. Abnorm. Psychol.* 118, 634-646.
- Kanner, A. D., Coyne, J. C., Schaefer, C., Lazarus, R. S. 1981. Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. *J. Behav. Med.* 4, 1-39.
- Kanner, A. D., Feldman, S. S., Weinberger, D. A., Ford, M. E. 1987. Uplifts, hassles, and adaptational outcomes in early adolescents. *J. Early Adolesc.* 7, 371-394.
- Kim, E. Y., Miklowitz, D. J. 2004. Expressed emotion as a predictor of outcome among bipolar patients undergoing family therapy. *J. Affect. Disord.* 82, 343-352.
- Kwan, V. S., John, O. P., Kenny, D. A., Bond, M. H., Robins, R. W. 2004. Reconceptualising individual differences in self-enhancement bias: an interpersonal approach. *Psychol. Rev.* 111, 94-110.
- Lapierre, S., Boyer, R., Desjardins, S., Dubé, M., Lorrain, D., Prévaille, M., Brassard, J. 2012. Daily hassles, physical illness, and sleep problems in older adults with wishes to die. *Int. Psychogeriatr.* 24, 243-252.
- Lavee, Y., Ben-Ari, A. 2008. The association of daily hassles and uplifts with family and life satisfaction: does cultural orientation make a difference? *Am. J. Commun. Psychol.* 41, 89-98.

- Legleye, S., Beck, F., Peretti-Watel, P., Chau, N., Firdion, J. M. 2010. Suicidal ideation among young French adults: association with occupation, family, sexual activity, personal background and drug use. *J. Affect. Disord.* 123, 108-115.
- Leverich, G. S., McElroy, S. L., Suppes, T., Keck Jr, P. E., Denicoff, K. D., Nolen, W. A., Post, R. M. 2002. Early physical and sexual abuse associated with an adverse course of bipolar illness. *Biol. Psychiatry.* 51, 288-297.
- Lopez, P., Mosquera, F., De Leon, J., Gutiérrez, M., Ezcurra, J., Ramírez, F., Gonzalez-Pinto, A. 2001. Suicide attempts in bipolar patients. *J. Clin. Psychiatry.* 62, 963-966
- MacKinnon, D. F., Potash, J. B., McMahon, F. J., Simpson, S. G., Raymond DePaulo, J., Zandi, P. P. 2005. Rapid mood switching and suicidality in familial bipolar disorder. *Bipolar Disord.* 7, 441-448.
- Miklowitz, D. J., Goldstein, M. J., Nuechterlein, K. H., Snyder, K. S., Mintz, J. 1988. Family factors and the course of bipolar affective disorder. *Arch. Gen. Psychiatry.* 45, 225-231.
- Miklowitz, D. J., Simoneau, T. L., George, E. L., Richards, J. A., Kalbag, A., Sachs-Ericsson, N., Suddath, R. 2000. Family-focused treatment of bipolar disorder: 1-year effects of a psychoeducational program in conjunction with pharmacotherapy. *Biol. Psychiatry.* 48, 582-592.
- Morrison, A. P., Bowe, S., Larkin, W., Nothard, S. 1999. The psychological impact of psychiatric admission: Some preliminary findings. *J. Nerv. Ment. Dis.* 187, 250-253.
- O'Connell, R.A., Mayo, J.A., Flatow, L., Cuthbertson, B., O'Brien, B.E. 1991. Outcome of bipolar disorder on long-term treatment with lithium. *Br. J. Psychiatry.* 159, 123-129.
- O'Connor, R. C. (2011). *Towards an integrated motivational-volitional model of suicidal behaviour. International handbook of suicide prevention: research, policy and practice*, (1st Ed). London: John Wiley & Sons Ltd.
- O'Connor, R. C., Nock, M. K. 2014. The psychology of suicidal behaviour. *Lancet Psychiatry.* 1, 73-85.
- O'Connor, R.C., Sheehy, N. 2000. *Understanding suicidal behaviour*. BPS Books: Leicester.
- O'Connor, R. C., Sheehy, N. P. 2001. *Suicidal behaviour*. BPS. 14, 20-24.
- Panagioti, M., Gooding, P. A., Dunn, G., Tarrier, N. 2011. Pathways to suicidal behaviour in posttraumatic stress disorder. *J. Trauma. Stress.* 24, 137-145.
- Panagioti, M., Gooding, P., Taylor, P. J., Tarrier, N. 2013. A model of suicidal behaviour in posttraumatic stress disorder (PTSD): The mediating role of defeat and entrapment. *Psychiatry Res.* 209, 55-59.
- Pawlak, J., Dmitrzak-Węglarz, M., Skibińska, M., Szczepankiewicz, A., Leszczyńska-Rodziewicz, A., Rajewska-Rager, A., Hauser, J. 2013. Suicide attempts and clinical risk factors in patients with bipolar and unipolar affective disorders. *Gen. Hosp. Psychiatry.* 35, 427-432.
- Pompili, M., Mancinelli, I., Tatarelli, R. 2003. Stigma as a cause of suicide. *Br. J. Psychiatry.* 183, 173-174.
- Pope, C., Ziebland, S., Mays, N. 2000. Analysing qualitative data. *BMJ.* 320, 114-116.

Tarrier, N. 2010. Broad minded affective coping (BMAC): A “positive” CBT approach to facilitating positive emotions. *Int. J. Cog. Ther.* 3, 64-76.

Taylor, P. J., Gooding, P. A., Wood, A. M., Johnson, J., Pratt, D., & Tarrier, N. (2010). Defeat and entrapment in schizophrenia: The relationship with suicidal ideation and positive psychotic symptoms. *Psychiatry Res.* 178, 244-248.

Tsai, S. Y., Lee, J. C., Chen, C. C. 1999. Characteristics and psychosocial problems of patients with bipolar disorder at high risk for suicide attempt. *J. Affect. Disord.* 52, 145-152.

Twiss, J., Jones, S. Anderson, I. 2008. Validation of the Mood Disorder Questionnaire for screening for bipolar disorder in a UK sample. *J. Affect. Disord.* 110, 180-184.

Van Orden, K. A., Witte, T. K., Gordon, K. H., Bender, T. W., Joiner Jr, T. E. 2008. Suicidal desire and the capability for suicide: tests of the interpersonal-psychological theory of suicidal behaviour among adults. *J. Consult. Clin. Psychol.* 76, 72-78.

Waldrop, A. E., Back, S. E., Brady, K. T., Upadhyaya, H. P., McRae, A. L., Saladin, M. E. 2007. Daily stressor sensitivity, abuse effects, and cocaine use in cocaine dependence. *Addict. Behav.* 32, 3015-3025.

Wasserman, D., Geijer, T., Sokolowski, M., Rozanov, V., Wasserman, J. 2007. Nature and nurture in suicidal behaviour, the role of genetics: some novel findings concerning personality traits and neural conduction. *Physiol. Behav.* 92, 245-249.

Williams, J.M.G. 1997. *Cry of Pain*. Penguin: Harmondsworth.

Williams, J. M. G., Barnhofer, T., Crane, C., Beck, A. T. 2005. Problem solving deteriorates following mood challenge in formerly depressed patients with a history of suicidal ideation. *J. Abnorm. Psychol.* 114, 421-431.

World Health Organisation. 2012. *Suicide Prevention in Europe: The WHO European Monitoring Survey on National Suicide Prevention Programmes and Strategies*. World Health Organisation: Geneva.

Xing, X. Y., Tao, F. B., Wan, Y. H., Xing, C., Qi, X. Y., Hao, J. H., Huang, L. 2010. Family factors associated with suicide attempts among Chinese adolescent students: a national cross-sectional survey. *J Adolesc Health.* 46, 592-599.

Yan, L. J., Hammen, C., Cohen, A. N., Daley, S. E., Henry, R. M. 2004. Expressed emotion versus relationship quality variables in the prediction of recurrence in bipolar patients. *J. Affect. Disord.* 83, 199-206.

Participant	Age at Interview	Gender	SCID BD Diagnosis	No. of Depressive Episodes	No. of Manic / Hypomanic Episodes	No. of Suicidal Thoughts	No. of Suicide Plans	No. of Suicide Attempts
1	39	M	BD I	12	12	5	0	0
2	26	F	BD II	40	15	100	50	4
3	60	M	BD I	0	5	5	0	0
4	44	F	BD I	20	10	20	5	5
5	38	F	BD I	8	25	10	8	0
6	45	F	BD I	3	25	5	2	2
7	49	F	BD II	30	10	30	10	4
8	41	M	BD I	5	5	5	1	5
9	51	F	BD I	20	15	6	3	6
10	27	F	BD II	90	45	6	3	1
11	45	M	BD I	6	7	20	20	0
12	55	F	BD I	20	15	30	5	13
13	59	M	BD I	200	50	20	4	4
14	53	F	BD I	6	2	10	0	0
15	57	F	BD II	9	15	10	2	10
16	51	F	BD II	10	17	70	0	70
17	34	F	BD I	18	18	20	0	20
18	50	M	BD I	30	20	5	0	4
19	48	M	BD I	4	4	100	0	100
20	43	F	BD I	6	3	5	2	5

Participant	Age at Interview	Gender	Marital Status	Education	Employed
1	39	M	Single	Higher	Voluntary
2	26	F	Partner	Post-graduate	Full-time
3	60	M	Married	GCSEs	Retired
4	44	F	Partner	Post-graduate	Full-time
5	38	F	Married	Post-graduate	Full-time
6	45	F	Married	Further	Unemployed
7	49	F	Single	Further	Unemployed
8	41	M	Single	Higher	Voluntary
9	51	F	Single	GCSEs	Unemployed
10	27	F	Partner	Higher	Unemployed
11	45	M	Single	Higher	Unemployed
12	55	F	Married	GCSEs	Unemployed
13	59	M	Single	Higher	Unemployed
14	53	F	Partner	Further	Unemployed
15	57	F	Married	GCSEs	Part-time
16	51	F	Single	GCSEs	Unemployed
17	34	F	Partner	Post-graduate	Unemployed
18	50	M	Partner	GCSEs	Unemployed
19	48	M	Single	Further	Self-employed
20	43	F	Single	Post-graduate	Part-time

Table II. Sociodemographic information

Acknowledgements

There are no further acknowledgements.

Accepted manuscript

Conflict of Interest

There are no conflicts of interest.

Accepted manuscript

Contributors

Authors A and B (R.O & P.G) designed the study. Author A (R.O) designed the interview topic guide and all authors commented on draft versions, including the final draft. Author A conducted the interviews. Authors B, C and D provided supervision throughout. Author A conducted the thematic analysis, whilst all authors provided feedback and comments on codes and themes. Author A wrote the first draft of the manuscript and authors B, C and D contributed significantly to subsequent manuscript drafts and have approved the final manuscript.

Accepted manuscript

Role of Funding Source

Funding for this study was provided by the School of Psychological Sciences at the University of Manchester. The funding was for a PhD studentship award.

Accepted manuscript