Emotional Earthquakes: Emotion and Delusions in the Landscape of Psychosis

Abstract

Background: Traditionally studies have neglected emotion in psychosis, possibly as a consequence of psychiatry's emphasis on psychotic symptoms rather than individuals' lived experience of emotions before, during and after psychotic episodes.

Aims: This study sought to investigate how individuals experienced their emotions and delusions in the context of psychosis.

Methodology: A qualitative Interpretative Phenomenological Analysis (IPA) research methodology was used. Semi-structured interviews were conducted with a purposively sampled group of eight participants recruited from a local Early Intervention in Psychosis service.

Results: Four themes were generated by the analysis. The first highlighted emotional experiences prior to the onset of psychosis: Struggling with life distress. The second highlighted the intense emotional experience within psychotic experiences: Transformed world and intense emotion. The third theme highlighted self critical tendencies in the post onset phase of psychosis: Blame and guilt after the breakdown. The final theme highlighted a mixture of emotions in the post onset phase: Confusion, despair and hope.

Clinical Implications and Conclusion: There were many clinical implications highlighted in the study including the value of normalising participants' emotional experiences in order to promote engagement in services and of assessing for self-criticism, despair and hope following the psychotic experience, alongside therapeutically addressing the varying levels of emotional experiences before, during and after a psychotic breakdown.

Key words: *Emotion, Psychosis, Delusions, Worry, Hope, Self-Esteem.*

Introduction

Many studies have noted an overlap between emotional disorders and psychosis, particularly with a focus on delusions within psychosis. Two competing arguments regarding the role of emotions in delusions have highlighted that delusions defend against overwhelming negative emotions maintaining self-esteem (Bentall, Corcoran, Howard, Blackwood & Kinderman, 2001); or alternatively, that delusions directly represent an individual's emotional concerns (Freeman, 2007). In a large longitudinal study that took place in the Netherlands high anxiety was identified as a predictor of schizophrenia (Krabbendam, Janssen, Bill, Vollebergh & Os, 2002). There has also been some research suggesting that a range of emotions may be involved in delusion formation. These may include guilt and shame (Birchwood, Meaden, Trower & Gilbert, 2002), anxiety (Freeman, 2007), and hopelessness (White, McCleery, Gumley & Mulholland, 2007). Psychological disorders involving emotions have also been connected to psychosis and/or delusion formation; for example, trauma (Morrison, Frame & Larkin, 2003; Read et al, 2005), depression (Freeman, 2007) and social difficulties (Rhodes & Jakes, 2000; 2010). Research has additionally indicated the potential contribution of emotion to hallucinations (Freeman & Garety, 2003, Smith et al., 2006, Freeman et al., 2015). Further, when patients judge their hallucinations and other psychotic experiences as culturally unacceptable, then there tends to be more distress. (Morrison, 2001).

Whilst research points to the importance of emotions in forming and maintaining delusional beliefs and other psychotic symptoms, we know little about these processes and even less about how these experiences are viewed by those experiencing psychosis. Having said this, some qualitative research has indirectly implicated emotion as an important experience. For example, whilst participants developed metaphors to explain psychotic experiences which then influenced delusional beliefs, it was also noted how the metaphors had a powerful effect upon emotional experiences (Rhodes & Jakes, 2004). Further, some authors have argued that there are multiple emotional and cognitive factors that contribute to the formation of delusions (Freeman, 2007; Rhodes & Jakes, 2009). Furthermore, Rhodes & Jakes (2010) noted almost all of the participants in their study

had serious emotional and social problems before and during the onset of the psychotic experience: often these were not mentioned by the participants, unless they were directly asked. This link between psychosis and emotional experiences has also been implicated in hearing voices (Goodliffe, Hayward, Brown, Turon & Dannahy, 2010). Given this emergent indirect qualitative literature on emotions, we believe it would be beneficial to specifically explore individuals lived emotional experiences, within the context of delusions and psychosis.

Research Question

This study sought to investigate how participants experienced their emotions before, during and after their psychotic experience.

Method

Design

A qualitative design was used as the current study aimed to examine how individuals with psychosis make sense of their emotional and delusional experiences. Due to its high ecological validity an Interpretive Phenomenological Analysis (IPA) approach was utilised (Smith, Flowers, Larkin, 2009). Using the IPA approach enabled the study to explore and understand the phenomena of psychosis and emotional experiences in order to inform clinical judgement (Smith *et al.,* 2009).

IPA's idiographic focus on the particular details of an experience, including participants' use of language to describe their experience, was an additional advantage (Smith, *et al.*, 2009). Within this study this was the detailed experience of emotions and how this may be understood within the context of psychotic experiences. Qualitative designs exploring data in detail can typically aim for sample sizes of 6-8 (Smith, *et al.*, 2009).

Procedure and Participants

Participants were eligible to participate in the study if they experienced psychosis in the past five years; there were no restrictions on gender, age, ethnicity or culture. However, to ensure homogeneity in psychotic experiences, only participants who were able to access and discuss their emotional experiences in principle were recruited, rather than those with predominately negative symptoms such as flat affect (APA, 2000). Whilst those with negative symptoms may have powerful emotions, they may have difficulty expressing them (Sass, 2003) requiring an alternative, specific focus and research design. Care co-ordinators judgement on negative symptoms was informed by the PANSS assessments they had undertaken.

Semi-structured interviews were conducted with a purposively sampled group of eight participants recruited from a local Early Intervention in Psychosis (EIP) service. The participants were all under the care of a Consultant Psychiatrist and care co-ordinators in the EIP team.

Care co-ordinators were given details of the study to identify clients who were eligible and able to give informed consent to participate. Clients who expressed an interest were contacted and sent additional information explaining the study aims and issues of consent. Interviews were arranged in a confidential setting, for example, the participant's home or an NHS site. Prior to the interview commencing, formal written consent was obtained following a discussion of the research regarding the interview, its transcription, the use of verbatim quotes and publication. Interview length ranged from 40 minutes to 2 hours and 30 minutes. The interview was immediately followed by a debriefing of the study. The participant was contacted one week after the interview to offer a further opportunity to debrief. Interviews were transcribed by a confidential transcription service. All transcriptions were kept in a locked secure filing cabinet and a password protected computer.

Sample Demographics

The age of participants ranged from 19-35. There were six males and two females. Six were White British, one was White Italian and one was White Hungarian. All participants were taking anti-psychotic medication. In order to protect confidentiality pseudonyms were used throughout the research process.

Interview schedule

Members of the research team had extensive experience in compiling and constructing interviews and conducting qualitative research; one had specific expertise in psychosis. The schedule was initially structured to explore current experiences of the individual with psychosis and how emotions were experienced together with their delusional beliefs. Following this initial stage, the interview examined the individual's earlier life experiences exploring how emotions and their delusional beliefs were experienced in the past and present. These broad areas had options for follow up prompts and questions depending on how participants responded (Smith *et al.,* 2009).

Ethical Approval

Ethical approval was granted from the Hertfordshire NHS Research Ethics Committee (ref: 10/HO311/22). Issues of consent, confidentiality and risk were considered throughout the study.

Credibility and Validity Checks

In order to strengthen the credibility and validity of the research we used Yardley's (2000) criteria for IPA studies was used. Member checking of our findings was used where the participants were presented with a summary of themes identified within their transcripts. All participants supported these themes and expressed value in this process.

To demonstrate reflexivity throughout the project a reflective journal was kept by the interviewer, and utilised in the analysis process including peer IPA groups and research supervision, thus, reducing the potential impact of interviewer bias. For example, the researchers' epistemological stance that psychosis was on a continuum of human experience was reflected on throughout, and was particularly evident in Ralph's account within the first theme of the analysis: *Struggling With Life Distress.*

Following transcription each interview was sequentially read and re-read many times and initial descriptive and linguistic comments made before re-reading and making interpretative comments on the data (Smith, *et al.,* 2009). The emergent themes were repeatedly discussed between the authors to check clarity, coherence and closeness to the transcripts. The overarching themes are presented within the results section below.

Results

Four themes were generated by the analysis: 1) Struggling with life distress (this incorporates emotions before breakdown and includes over-dwelling on and/or blocking off from emotional experiences); 2) Transformed world and intense emotions; 3) Blame and guilt after the breakdown; and 4) Confusion, despair and hope.

Struggling with life distress

Before their experiences of psychotic breakdown, all participants highlighted a range of emotional responses to difficult situations in their lives. Ralph described his experiences prior to the onset of psychosis where two consecutive relationships at University ended in rejection. To cope with the pain of this rejection he attempted to suppress the experience:

> *'I was really hurt by that and so I just kind of broke ties with her and, you know, obviously going to the same university and I'd avoid her in every way I could really, I just didn't want to speak to her, sit next to her, didn't want to look at her...' Ralph*

It appeared that he avoided his ex-girlfriend and attempted to forget what had happened by working hard. He also attempted to actively avoid potential emotions:

> *'I just had to completely block those emotions, you know, just put them on hold and say, "Hang on, I've got to finish a degree here," so I just started studying and put my head down in the first exam, like, really badly, I knew I'd failed it, then these emotions are cropping up'. Ralph*

Here, Ralph described his attempts to *"completely block"* his emotions. Whilst this was perhaps initially helpful in preventing him from feeling the full emotional pain of his experience, and enabled him to focus on his future, emotions kept *"cropping up*. In the

interview Ralph highlighted how he never addressed feelings of pain and anger towards these ex-girlfriends:

> *'...I never recovered from the kind of hurt, I didn't express any anger toward her or, the first girl, sorry, I think the same with the second. And I think maybe if I had done it would have been better for me probably just to get that anger out maybe' Ralph*

He added:

> *'...And it felt like, I don't know, all this emotion, I just couldn't control it but I felt that was hiding...' Ralph*

In spite of his efforts, he felt that the emotions were not under his control. Ralph's struggle with emotions occurred prior to the psychotic experiences. All participants in this study had difficulties with their emotional experiences before and during the psychotic episode.

Further examples of how participants dealt with their emotional experiences were provided by the following quotes, firstly from Anne:

> *'I used to worry all the time before I was ill...Worried about my teeth because they weren't straight enough and they were like a horrible colour. I used to worry about what I used to wear, what I looked like. ' Anne*

In this extract Anne described her experience of "*worry*". Perhaps akin to the process of rumination, several participants described experiences which involved prolonged and excessive thinking which we will term over-dwelling. To illustrate this theme we will present an extract from Chris' interview that described his experience of over-dwelling:

'I think my personality, especially when I was younger, was always to dwell on things, analyse and try and take apart ideas which couldn't really be solved and that would just make me feel worse', Chris

Chris highlighted how he used to "*dwell on things*" that could not be solved making him "*feel worse*". This over-dwelling ended up increasing his negative feelings. Chris described this tendency as being part of his "*personality*" evoking a sense that it was ingrained and unyielding.

Over-dwelling sometimes appeared to generate strong emotional experiences. This was shown in an extract from Natalia's interview, when describing her move to England from another country:

'Very bad homesick, and I always wanted to go home and, you know, I didn't want to be here, and I was carrying on and on and on about it, and I was turning inside, you know, like I was really quiet and just always constantly think about it, these things, yes.' Natalia

Natalia described how she was constantly thinking about her homesickness and possible associated sadness linked with this experience. She highlighted how it appeared to dominate her life by her expression of how she "*was carrying on and on*", and simultaneously she experienced "*turning inside*", suggesting feelings of instability, confusion, something going round and round, occurring deep within her 'self' and body. The process of participants over-dwelling in relation to their psychotic experiences was highlighted in the majority of transcripts.

In sum, all participants spoke of emotional difficulties before their breakdown and the majority also described how they attempted to deal with their emotions by blocking the emotion, or in contrast, spending excessive time thinking about the situation, but then feeling worse.

Transformed world and intense emotion

The participants described intense emotional experiences during their psychotic experience. One example of being overwhelmed by this intensity comes from Ralph. Here he described his idea that he was Adam in the Garden of Eden:

> *'Guilty for the death of Jesus, guilty for all sin on the world, 'cause I sold the world and now there's pain and suffering and death that was never meant to be death ...' Ralph*

Ralph further highlighted his beliefs towards the end of his interview:

> *'...especially the feelings of guilt, the guilt was the worst part of it, you know, I'd felt, I literally felt guilty for all the problems in the world and that was too much of a burden for me to take on and that guilt was so overwhelming and overpowering, it just overtook my every thought and that at the time I was probably crying up to ten times a day, you know, and it just completely disabilitated me, I just couldn't do anything...' Ralph*

What can it be like to feel such total and overwhelming guilt, and such responsibility for the *"world"*? It seemed beyond an everyday sense of guilt for a specific action. The guilt seemed to fit, to be in proportion to the psychotic *"world"* he lived in. Given that he *"sold"* the *"world"*, then presumably he was responsible for all world problems. The scenario he lived seemed 'absolute', and by involving the transformation of the very world, it takes on mythic proportions. Ralph described his feelings of guilt as the *"worst part of it"*, that it was a *"burden"* which was *"overwhelming and overpowering"*. Ralph also described how it *"overtook my every thought"* which suggested intense excessive thinking.

Another example of an intense emotional experience in psychosis came from Chris in relation to his belief that an evil power had been defiling children:

> Chris*: It was almost like some sort of... I interpreted it as some sort of evil that had got a hold of those children and it upset me greatly. Something that perhaps other people couldn't see, but I thought I could.*
> Interviewer*: You say it sort of upset you, how did that feel in your body and how did you feel? Did you cry, did you get really intense?*
> Chris*: Yeah, I remember shouting while I was driving the car, sort of, "Leave them alone," sort of... as if I was speaking to some sort of evil power. Physically, get rush of adrenalin and you feel uptight, almost to the point where I'd wanna cry or shout or really relieve that... those feelings in that way.*

The transformed world of children taken over by evil is linked by Chris to an extreme agonising reaction. Furthermore, this heightened intensity is consistent with Chris' belief that *"I thought I could"* interpret where evil had *"got a hold of those children"*. There was a sense of powerlessness as he attempted to stop the behaviour (the evil) of others in order to protect children and vulnerable people from it. One can perhaps sense Chris' emerging panic and frustration at powerlessness in this predicament. Later in his interview Chris described his struggle with frequently feeling *"depressed and angry"*:

> **"***And relieving that sort of aggression and stress had made me feel better and when I'd come home my dad was in the kitchen and I sort of started crying and he said something supportive and made me feel better. But being that sort of stressed and depressed and angry with everything I was experiencing, I'd only feel better for a short time before experiencing things again. Voices, hallucinations, people acting strangely. It would all build up again."* Chris

That this would only be relieved for a *"short time"* suggested that this was an incessant emotional struggle. He highlighted how he may have experienced feeling more *"stressed and depressed and angry"* as the *"voices, hallucinations, people acting strangely"* would

"build up again" as his reassurance seeking strategy only seemed to work in the short term. The sense of powerlessness at the re-experiencing of distress was almost palpable in Chris' description that it would *"all build up again"*.

The transformation of the world could occur in many contexts including everyday activities. For example, David described how he often felt angry at television programs he believed were watching him:

> *"Anger, yeah. I get angry because I think… somehow on the live TV it is kind of watching me, on live TV, and that makes me angry because I just want to lead a normal ...' David*

Here the world was transformed, as "*people*" invaded his very home and watched him. David uses emotive language to describe his daily struggle. David's experience with the TV screen appeared to amplify his *"anger"*.

We can think of psychotic emotional experience as involving all the negative feelings people generally have in difficult situations, but here they often involve a radical and daily transformation of the world, and in some cases an almost 'cosmic' dimension, involving Jesus, evil, the whole world, fatal attack and death. The world of the person seemed transformed and the person felt intense emotions verging on dread and terror.

Blame and guilt after the breakdown

Participants reflected on how they were feeling in the time following the period of most extreme psychotic experiences. Paul described his belief that his psychotic experiences were self-induced by his addiction to cocaine:

> 'It's me who done the drugs, it's me turned me into this paranoid ill person, no-one else forced it on me so… that's the only person I can blame in my head so I

just think to myself "well, you done it, you've got to live with it now" it's that sort of mentality that you didn't have to do the drugs, you didn't have to do this and that but you did so it turned you into this…' Paul

The statement *"It's me"* who made *"myself"* into a *"paranoid ill person"* suggested Paul was taking on responsibility for his psychotic experiences, that somehow it was his fault. The phrase *"didn't have to"* points to a sense of regret over choices he made and how he would like to reverse those choices if he had the opportunity.

Mark also blamed himself:

Yeah, I mean, it's upsetting, but I try not to get upset. I know, I know it's just right in some sense to be upset, but not only was, were my problems self-induced, but to be upset about them is almost, I don't know. I don't' like the woe, always me, sort of thing, kind of winds me up. I mean, if other people do it, I'm inclined to help or sort them out. I don't like doing it myself. Maybe it's like guilt, or being ashamed or something, for the fact that it was self-induced maybe, so…

He blamed himself and was upset, but at the same time he expressed discomfort with being emotional. He almost mocked himself with the use of the phrase *"…the woe, always me"* and in fact it *"winds"* him up. Further, he suggested he could not be sympathetic to himself due to his guilt or sense of shame.

Following the psychotic episode Chris too engaged in forms of criticism:

Chris: *Yeah, I think more things that I did that I regret and... just anytime I've been disrespectful or perhaps done something. Acted strange or done something strange or at times perhaps even perverse in earlier days. Where I would consider them sort of perverse now.*

Interviewer*: But at the time you didn't?*

Chris*: No. At the time I was just young and being silly I guess, so... [Short pause]. I'm sort of... perhaps it's maturity or something, but my attitude towards many things has changed since my experiences began.*

His actions in the past were "*strange*", even "*perverse*": these comments suggested that now he found his past incomprehensible yet also, perhaps, shameful.

After the breakdown it seemed that participants were seeking to explain what had happened, and for some, this turned into self-blame with a range of feelings of regret, guilt and shame. The above testimony gives us some hint of the range of confused and disturbing feelings a person might suffer after a breakdown and the way self-critical thinking may amplify emotions.

Confusion, despair and hope

Some participants found it difficult to integrate their psychotic and emotional experiences into the way they had previously viewed themselves and their view of reality. They still experienced confusion and as they contemplated what had happened and how they might move forward, the participants struggled with despair. Further, during these experiences they seemed to lose a sense of their former selves. First, we refer to Mark's interview where he was struggling to make sense of his emotional and psychotic experiences:

'It's just really weird, because, I mean, reality exists as a construct in our mind, as we experience it, and when that starts breaking down, it's bizarre, because you've lived your whole life within a certain way, with your mind held in a certain way, and then when things start to break up, it's just, I mean, you've never, never experienced outside that.' Mark

Mark used the evocative terms *"weird", "surreal", "bizarre"* in his attempt to explain or understand how his reality broke down during his psychotic experience. The way in which Mark described living his *"life within a certain way",* and then how it *"starts breaking down",* suggested the profound impact of the psychotic experience. We wish to suggest that this can be compared to something like an earthquake in the way it shattered his sense of self and what he had previously taken for granted. Mark highlighted how he *"never"* experienced anything like this before, giving further emphasis to this by his use of this term twice in the same sentence. This gave a sense of how he experienced his psychosis as something alien, as completely unexpected and something that he could never have prepared for. The difficulty of integrating these alien experiences into a new identity was highlighted by Mark in the following extract:

> *'I mean, even now, even though I've experienced it, because it's, it's my mind coming back together. It's like, that, that's no... I can't really, I can't really understand it any more. I mean, I can understand the bits that are still relating to some of what I'm experiencing now, but the bits that were so surreal and bizarre, I can't, I can't really understand them anymore, even if I ever could.' Mark*

Following the psychotic experience Mark described how his mind was *"coming back together"* again, perhaps similar to how a city rebuilds following an earthquake. Even though Mark appeared to be rebuilding a sense of self, he struggled; this is underlined when he said *"I can't really"* understand the psychotic experience, he did not believe he *"ever"* could understand it. Mark went on in his interview to contemplate the future:

> *'...is it always just going to be this, this randomness, these abstracted feelings and states of mind, or is it ever going to become coherent? Am I ever going to be normal again?' Mark.*

There was a strong sense of hopelessness in the way Mark used terms such as *"always"* and *"Am I ever"* in relation to his desire to become *"coherent"* again. Mark was clearly still experiencing fundamental alterations. Mark described his current sense of self as

"randomness" and *"abstracted feelings and states of mind"*. The term *"abstracted"* suggested that, now, he did not experience the full richness or the concreteness of life that he had before. The term *"randomness"* hinted that events did not seem to follow predictable patterns or have meaning.

Mark goes on in the extract to ask a basic yet profound question *"Am I ever going to be normal again?"* The question underlined Mark's desire to return to normality, or his sense of self before the psychotic experience. The question expressed the fear most participants had where they appeared to wonder if they would ever return to their previous ways of being.

Another example of confusion following the psychotic experience came from Chris when he described how his experience of paranoia had caused significant difficulties within his family:

> *'Well it's hard, because I become so convinced, I have become so convinced that something isn't right. To confront the last people about if there's any truth to what I'm experiencing and they say, "No, it's ridiculous, it can't happen. You know you're just unwell, you need to rest. Get back on medication." Makes you feel terrible, because you're so convinced that these things are happening and you feel you want a straight answer and that leads you to believe people are lying, cause you're so convinced yourself, which destroys any trust which burns bridges and you're sort of left on your own to ponder over the ideas in hospital while you're back on medication.' Chris*

Whilst he had been convinced of the truth of his experiences, his family stated:*"No, it's ridiculous, it can't happen"* and told him to go back on the *"medication"*. In this context he felt *"terrible"*. So, what does it mean here to *"feel terrible"*? Given that he next added *"...which destroys any trust which burns bridges",* it seemed to involve a painful destruction of trust, increased isolation, uncertainty in that there were no answers and, perhaps, there was loss of hope.

Carl also described a struggle**:**

> Carl: *Devastating. From knowing where I was before I was first ever ill when I was 16, knowing that I had confidence, I could do stuff, I didn't have any problems in life. And that's what I think about and it's just devastating because the drugs have turned me into a paranoid wreck basically and I always think back to when I've had confidence, when I could go out, when I could go see people, and then I compare my life now to it and it's devastating for me.*
> Interviewer*: Devastating?*
> Carl*: Yeah. From when I was to where I am now. It's getting better, I'm starting to get better, I'm starting to feel like I can go out but it's still there. And I always compare what I had before* to what I have now.

Carl described a painful contrast, and perhaps part of what was initially devastated was hope; hope emerged later when he started to "*get better*". Despite Chris' uncertainty, he attempted to keep some hope for change:

> *Yeah. It's... Yeah, I think so....... I'm thinking about something like I regret doing or something I wish I did in a different way that will cause me to worry and look at back in anger in some ways. So, I find now if I try and stay calm, relaxed and keep clear headed, it's easier to accept anything which comes along and I would hope I'd get less stressed than perhaps I would in the past.*

Here, we find the previously experienced anger and worry, yet alongside this was an alternative hopefulness about being able to "*accept anything*". This shift was also evident for Anne, who saw something positive in how she had changed from worrying, to being more "*laid back*":

> Anne: *What's different? Like I said, I'm more laid back. I don't worry about anything. I'm probably more happier now than I was before I was ill. I'm*

probably more grown up now because obviously before I was ill it was like...
being ill has made me grow up a lot I think.
Interviewer*: What do you mean by growing up?*
Anne*: Just made me realise things. Life's too short to worry.*

Clearly all the participants had enormous issues of change to cope with and finding ways to manage: they felt confused, and often a sense of despair was manifested in how they remembered who they were before, how they remembered what had happened during the breakdown and what they thought about their current experiences. However, there were some hints that, for at least some of the participants, they were able to rekindle some stability and hope.

Discussion

Summary

The findings from this study highlighted a central role for emotions within the participants' psychotic and every day experiences. Participants experienced intense and overwhelming emotions including anger, guilt, fear and sadness. Emotions within the psychotic experience appeared to be amplified by those experiences. Following the psychotic experience participants highlighted an increased sense of responsibility, self-criticism and despair alongside a change in their sense of self. Particularly before the psychotic episode participants used a range of strategies in order to cope with, or to regulate, emotional intensity including over-dwelling (rumination) and suppression to block out their emotions. The use of these strategies was less evident within the psychotic episode itself where the emotions seemed all encompassing. Each of these findings will now be discussed in relation to the wider research literature. Wider clinical and theoretical implications will also be considered.

Emotional intensity within the psychotic episode

The findings from this study highlighted the extremity of emotion within the context of psychotic experiences, wherein one exacerbated the other. For example, Ralph and Chris described delusional beliefs that they were respectively responsible for the world's sins and evil towards children. Consequently, they experienced profound guilt, perhaps exacerbating their sense of responsibility and their delusional belief. Research on religious delusions suggest that people who experience these types of delusions often believed they had actually committed these 'sins' and subsequently felt guilt (Wilson, 1998; Mohr *et al*., 2010). This was similar to the experiences of Mark, Paul and Natalia; there appeared to be an inflated sense of responsibility over the effect of their actions subsequently causing pain to other people. Indeed, Tangney *et al* (2007) highlighted that guilt was associated with a preoccupation with the impact of actions on others.

Further, participants highlighted intense feelings of anger in response to psychotic experiences; for example, when David believed he was being watched by the television. Research has suggested a link between anger and paranoia where clients may feel angry and powerless in response to experiencing persecutory delusions (Fornells-Ambrojo & Garety, 2009). Though we have no direct evidence in our study, we wish to speculate that some emotions, for example, David and Chris' experiences of anger, may intensify psychotic experiences. It appears that how these emotions were experienced and managed contributed to participants on going emotional and psychotic experiences. Indeed, Morrison (2001) stated that distress can arise from how intrusions are conceptualised which can be affected by faulty self and social knowledge and maintained by mood, in addition to physiology, cognitive and behavioural responses.

After the breakdown: Self-blame, guilt, despair, a fragmented self and hope

The intensity of the delusional experiences appeared to lead some participants to experience disintegration within their sense of self akin to a form of 'earthquake' which they had not yet recovered from; such experiences have been implicated in the onset of psychosis (Moller & Husby, 2000). Alongside the transformed world and intense emotions from the psychotic experience, their previous understanding of the world and their 'self' within this also seemed to shatter. Derived from research on the onset of a chronic illness, one theory that might explain this is the assumptive world theory; people need to restore meaning through the reassessment of shattered assumptions following onset (Janoff-Bullman, 1992). This was highlighted in Mark's interview where he described his *"mind breaking down"*. This was a new experience for him, and following this psychotic episode, he attempted to rebuild his understanding of an *"abstracted"* and shattered world.

This study highlighted participants' struggle to make sense of their experiences and confused sense of self. Similarly, the wider research literature on recovery in psychosis has shown that people recovering from psychosis appeared to develop a rupture in their life story, or narrative, which can create confusion and anxiety (Davidson & Roe, 2007). Further, with post psychotic depression individuals can struggle to adjust and understand their new world view (Birchwood, Iqbal & Upthegrove, 2005). It is interesting to note that some of our participants reported blaming themselves for the onset of psychosis.

Indeed, those with psychosis can feel entrapped and humiliated by their psychotic experiences making it more difficult for them to adjust and recover from it (Rooke & Birchwood, 1998); Paul described in detail how he felt ashamed by his actions when he thought he induced his psychosis through his cocaine use and was subsequently self-blaming (this took the form of self-critical thinking). Thus, some participants appeared to use shame based self-criticism; within Paul's account there was a great deal of self-criticism and a sense of disgust with himself. Research in Compassion Focused Therapy has highlighted how shame can intensify self-criticism (Gilbert, 2010). Therefore, it may be beneficial to address self-criticism and shame within clinical interventions for those

with psychosis. Given in the post onset phase there was an emerging narrative of hope for some participants, facilitating the development of this hope alongside enhancing coping and the processing of more difficult emotional experiences, could be beneficial particularly as these themes have been noted in other research on recovery from psychosis (Pitt et al, 2007).

Theoretical implications

The findings from this study support research on the influence of emotional experiences on delusions (Freeman & Garety, 2003; Freeman, 2007) in terms of how participants described strong emotions linked to their delusional experiences.

Furthermore, within the participants' accounts there were suggestions of an influence of interpersonal relationships on the individuals' emotional and psychotic experience which supports previous research (Byrne & Morrison, 2010). Just as addressing heightened levels of psychosocial stress and improving resilience could protect those at high risk of a psychotic breakdown (Pruessener et al, 2011), improving interpersonal relationships with significant people may also facilitate recovery (Gumley & Schwannauer, 2006). Indeed, for recovery, Byrne & Morrison (2010) have emphasised the importance of improving communication of distress within interpersonal relationships. Furthermore, given childhood trauma can be a significant precursor in psychosis (Read et al., 2005) identifying supportive interpersonal relationships is crucial.

Emotional regulation difficulties

One interesting finding was how participants appeared to have difficulty regulating their emotional experiences. There are several theories that seek to understand emotional regulation difficulties including Dialectical Behavioural Therapy (Linehan, 1993) and the literature on experiential avoidance (EA) (Hayes, Strosahl & Wilson, 2004). Further, developmental research examining emotional regulation in various psychopathologies,

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highlights how adult patterns may relate to childhood experiences (Garber and Dodge, 1991; Schore, 1994). EA has been indentified within psychosis and it has been linked with rumination as well as increased distress in, and frequency of, delusions (Campbell & Morrison, 2007; Goldstone, Farhall & Ong, 2011). The findings from this study highlighted how participants attempted to use a range of emotional regulation strategies including over-dwelling (rumination), suppression of emotional experiences, and avoidance. Other research has also found that people with psychosis had difficulty regulating their emotions through the use of unhelpful strategies such as rumination or suppression (Livingstone, Harper & Gillanders, 2009). It was possible that avoidance and preoccupation with emotions contributed to difficulties in emotional regulation and that these may have contributed to the development and maintenance of psychosis. However, more research would be required to support this as a direct process.

Limitations of the study

As with all qualitative studies, the small number of participants limits the application of the findings to other people with psychosis; with the sample being mainly white British men, further exploration of the experiences of women is warranted alongside experiences of those from different cultural backgrounds. Further, due to the interpretative focus of IPA other researchers may have emphasised different aspects of the data (Smith, *et al.,* 2009). Finally, as we excluded those with negative symptoms this limits our understanding of emotional experiences in psychosis. Indeed, perhaps negative symptoms may be distressing – or even mask intense unexpressed emotional experiences and this is worthy of further exploration.

Clinical Implications

Emotions appeared to be central to participants' experiences of psychosis. Therefore, it may be appropriate to consider therapies that enable clients to manage distress; for example, therapies that facilitate the expression of emotion alongside learning to cope

with them constructively (Greenberg, 2004). Participants appeared to use over-dwelling (rumination) as a means of seeking explanations or understanding about psychotic experiences. This appeared to increase participants' confusion and anxiety, possibly resulting in an increase in delusional thoughts. Therefore, it may be important to target this; for example, via meta-cognitive techniques such as detached mindfulness (Wells, 2008). There is an evidence base for the use of this technique to address worry based strategies in generalised anxiety disorder. Furthermore, these approaches have been effectively applied to reduce distressing symptoms of psychosis (Campbell & Morrison, 2007; Freeman et al, 2015).

The findings of this study emphasised participants use of EA to suppress or block out difficult emotional and psychotic experiences (Goldstone, Farhall & Ong, 2011). Given the more hopeful experience of some participants in the aftermath of the psychosis this may suggest the use of Acceptance and Commitment Therapy, which may be particularly effective for symptoms of depression following psychosis (White et al, 2015). This approach addresses EA and would promote acceptance and action-based strategies (Hayes et al, 2004), potentially reducing the emotional intensity of clients' experiences (Perry, Henry & Grisham, 2011) and avoidant coping strategies (Goldstone, Farhall & Ong, 2011). However, these findings should be treated with caution as other research has highlighted that acceptance-based strategies was associated with increased paranoia (Westermann & Lincoln, 2011) suggesting more research is required to understand what may help or hinder the effective use of these strategies within psychosis.

Our research findings also point to the potential value of helping clients solve a range of problems that contribute to emotional suffering, such as social, employment and practical concerns. Additionally, attention needs to be paid to building hope and ways forward; for example, by a focus on present solutions, inclusion in everyday life, future goals and more benign narrations of self (Rhodes & Jakes, 2009).

Conclusion

The findings from this study highlighted the experience of intense emotions during psychotic breakdown with emotional experiences being present before and after the psychotic episode. Furthermore, whilst participants seemed to use various strategies of emotion management before breakdown we can only speculate that they continued to use these during the breakdown; there was little direct evidence of this in the interviews. Perhaps at such times, and during extreme moments of crisis, the experience of emotion was so overwhelming that no capacity remained to even try to cope. The clinical implications for psychological therapy have been highlighted in terms of actively targeting emotion and emotional regulation strategies as part of future interventions for psychosis. A further clinical implication was that, after the experience of psychosis, participants' highlighted tendencies for self-blame and experiencing intense guilt, a finding which may warrant further research. Alongside this, whilst participants' sense of self remained fragmented following the psychotic episodes, they were also hopeful of an alternative meaningful future and reintegration of their previous sense of self.

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