A grounded theory of how service users experience and make use of formulation in therapy for psychosis

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Abstract

Objectives: This study set out to explore service user experiences of formulation during individual therapy for psychosis, and develop a grounded theory of the processes involved.

Method: Semi structured interviews were undertaken with 11 service users and two clinical psychologists with experience of formulation in therapy for psychosis.

Design: Grounded theory was used to examine the qualitative data collected.

Results: An emerging model was constructed to conceptualise the processes that occur during the sharing of a formulation. 'Linking previous experiences with current ways of being' and 'Building the therapeutic relationship' emerged as core, reciprocally influential processes. 'Making use of new understandings' was also identified as an important process.

Conclusions: The findings suggest that formulations should be developed collaboratively and progressively with service users, and that care should be given to the emotions that arise as a result. Further research is necessary to elaborate our understanding of formulation given the importance placed on it in United Kingdom clinical psychology.

Keywords: psychosis; psychological intervention; formulation; therapeutic processes

Introduction

Psychosis

Experiences thought of as 'psychosis' include; hearing, tasting, smelling or feeling things others do not, holding strong beliefs that others do not share, difficulties thinking and concentrating, and appearing withdrawn or unmotivated (British Psychological Society, Division of Clinical Psychology [BPS, DCP], 2017).

Diagnosis of psychosis is made in the context of the medical model, where mental health difficulties are seen as arising from something erroneous in the functioning of the brain (Johnstone, 2017). Historically, psychosis was considered a disorder from which full recovery was unlikely (American Psychiatric Association [APA], 1994) and treatment focused on medication (Morrison et al., 2014). However, medications can have unwanted side effects impacting negatively on an individual's wellbeing (APA, 2013), and psychiatric diagnosis has been criticised for its poor reliability and validity, exclusion of social contexts and contribution towards stigma (Johnstone, 2017).

The UK's National Institute for Health and Social Care Excellence (NICE, 2014) guidelines recommend that all individuals experiencing psychosis should have access to talking therapies, specifically, Cognitive Behavioural Therapy for psychosis (CBTp) and family intervention. Research has demonstrated both are effective when undertaken alongside antipsychotic medication (NICE, 2014). NICE also recommend art therapy, mindfulness-based CBT and acceptance and commitment therapy.

A range of interventions can be helpful for individuals experiencing psychosis as not everyone finds it helpful to focus directly on psychotic experiences (DCP, 2017).

Collaborative formulation can help therapists and clients to decide which areas of an individual's life they wish to focus on during therapy (DCP, 2017).

Formulation

Formulation is an essential component of many psychological therapies practised within the UK's National Health Service and is seen as a starting point for intervention (DCP, 2011). Formulations from different therapeutic modalities vary, for example in the way a formulation is developed, shared and used within therapy (Johnstone & Dallos, 2015). Consequently there is no commonly agreed definition of formulation (DCP, 2011). However, formulation is generally understood to provide a hypothesis about an individual's difficulties that draws on psychological theory (Johnstone & Dallos, 2015).

The roots of formulation date back to the 1950s and the development of the scientist-practitioner model in clinical psychology. Since then it has become a core skill of the profession (DCP, 2011). However, despite the importance placed on formulation, it is underconceptualised and under-researched (Johnstone & Dallos, 2015) and its key components, impact on therapy processes and outcomes are unclear (DCP, 2011). Early indications suggest that formulation is experienced in important but sometimes distressing ways (e.g. Redhead, Johnstone & Nightingale, 2015, Chadwick, Williams & Mackenzie, 2003), but may contribute to the development of the therapeutic relationship (e.g. Nattrass, Kellet, Hardy & Ricketts, 2014). There is also empirical evidence to support many of the theories and psychological principles that formulations draw upon, for example: developmental psychology, the therapeutic relationship and attachment theory (Johnstone & Dallos, 2015).

The most extensively supported common feature in effective therapy of all orientations is the therapeutic relationship (Martin, Garske & Davis, 2000). It remains unclear whether the relationship is in itself a curative element of therapy, or creates the interpersonal context necessary for other therapeutic components to have effect (Horvath, 2005). Research has shown that the therapeutic relationship alone is not sufficient in predicting positive outcomes in therapy (Horvath, 2005), suggesting that other processes are necessary to achieve positive outcomes.

Formulation can be seen as a process embedded within the therapeutic relationship (Johnstone & Dallos, 2015). As the therapeutic relationship develops, clients may trust their

therapists more, feel better understood and share more, leading to a collaborative formulation (Johnstone & Dallos, 2015). It is therefore possible that formulation is another component necessary for good therapy, influenced by the therapeutic relationship.

Research exploring the use of formulation in therapy for psychosis is in its early stages. Initial research has suggested that service users feel ambivalent about formulation (Pain, Chadwick & Abba, 2008). As well as finding formulations reassuring, encouraging and helpful, service users have also experienced them as upsetting, frightening, saddening, worrying and overwhelming (Chadwick et al., 2003).

More research is needed to explore service users' reactions to formulation, the psychological processes involved, and its connections with the therapeutic relationship and outcomes. Research using a qualitative method suited to investigating psychosocial processes, such as grounded theory, is necessary (Pain et al., 2008), as grounded theory can be used to generate theory on under-conceptualised social-psychological processes and activities (Willig, 2001).

This study aimed to conceptualise how service users experience and make use of formulations during therapy for psychosis, in order to inform research and clinical practice.

Grounded theory methodology was used to address the following research questions: (1) how does the sharing of a written formulation help service users make sense of their experiences?

(2) how does the sharing of a formulation influence behaviour inside and outside of the therapy room? (3) how does the sharing of a formulation influence the therapeutic relationship? and (4) in what ways does the therapeutic relationship influence how a formulation is viewed and acted upon?

Materials and Methods

Design

A qualitative design was employed, using semi-structured interviews to explore service users' experiences, primarily in individual therapy. Grounded theory methodology al-

lows for collection of additional data to provide a different perspective on the emerging model or analysis, so sampling was extended to include people with group experience and psychologists. Data from these different participant groups was triangulated at the analysis stage.

Participants

Eleven service users were interviewed in total (Table 1). Service users were eligible to take part in the study if they were aged 18 or over, able to provide informed consent, fluent in English, and with experience of therapy in the last year. Individual therapy must have included the sharing of a written or diagrammatic formulation understood to be part of a shared attempt to make sense of psychotic experiences. Service users' group experience must have included discussions exploring psychological understandings of group members' psychotic experiences, which may have been shared in written form. Service users experiencing a deterioration in mental health were excluded.

In the second phase of the study, psychologists with experience of formulating with clients during therapy for psychosis were invited to take part and two were interviewed (Table 2). Overall 13 interviews were undertaken.

Therapy provision in the service was consistent with core elements of CBT for psychosis as per NICE guidelines (2014) whilst drawing on other models as indicated by an individually tailored, client-centered approach. The two psychologist participants had been the therapist for two of the 11 service user participants. Although they both described their approach as "integrative" the formulations they described were CBT oriented.

Table 1. Service user participant characteristics

Service User	Gender	Age	Ethnicity	Therapy	Therapy Length	
(Pseudonyms)		(Range)	(extracted from	Mode	(months)	
		notes)				
Louisa	F	56-60	White/ Black	Individual	3	
			(African)			
April	F	61-65	White (British)	Individual	11	
Mark	M	56-60	White (English)	Individual	10 and 9	
Matthew	M	46-50	White/ Black	Individual	7	
			(Caribbean)			
Sophia	F	56-60	Black (British)	Individual	8	
Edward	M	61-65	Black	Group	3	
			(Caribbean)			
*Thomas	M	51-55	White (British)	Individual	8	
*Luke	M	21-25	White (British)	Individual	2	
John	M	46-50	Black (African)	Individual	8	
Adam	M	61-65	White/ Mixed	Individual	6	
			(European)			
Simon	M	36-40	White/ Black	Individual	11	
			(African)			

^{*} Service users who also reflected on their experiences of group therapy.

Table 2. Therapist participant characteristics

Psychologist	Gender	Age (Range)	Ethnicity	Years Qualified	Psychological
(Pseudonyms)			(self-		Approach (self-
			categorised)		categorised)
Ruth	F	36-40	White (British)	7	Integrative
Heather	F	56-60	White (British)	23	Integrative

Procedure

Approval for the study was sought and granted by the participating Trust.

Psychologists introduced the study to service users, shared the relevant information sheet, and sought consent for the researcher to make contact. Service user demographic information was extracted from the electronic notes, and recruiting psychologists provided brief details about themselves. The researcher contacted interested service users by telephone and arranged to obtain their written consent and conduct the interview. In a subsequent stage of the project, the recruiting psychologists were invited to be interviewed.

Of the 11 service users, 10 described their experience of formulation during individual therapy, with two sharing additional reflections on previous experiences of group therapy. One further participant was interviewed regarding his experience of group therapy, though he also reflected on his previous individual therapy. Interview questions (available on request from the first author) were the same for all service users, using follow-up prompts to respond flexibly to emerging stories. Psychologists' interviews followed in the next stage with the intention to explore gaps in the service user accounts and elaborate variations in emerging themes (Charmaz, 2006). Psychologist interviews were designed to reflect the same content in order to support a triangulation process, whilst also including practice examples to enrich the data obtained from service users. Content was coded and categorised in a sequential but consistent process.

Grounded Theory Analysis

Data was analysed using grounded theory from a critical realist perspective, which sits between social constructionism and positivism. It acknowledges that theories and methods are shaped by social forces and informed by interests yet encourages exploration of reality in a critical way (Pilgrim & Bentall, 1999).

Grounded theory is suitable for exploring under-researched phenomena, behaviours and experiences (Strauss & Corbin 1998). The theory is 'grounded' in the raw data, as opposed to fitting data into an existing conceptual framework, achieved through the method of 'constant comparison' (Glaser & Strauss, 1967). The study followed the grounded theory analysis stages outlined by Charmaz (2006), including initial, focused and theoretical coding.

Results

The interview transcripts were analysed to explore the psychological and behavioural processes that occur during the sharing of a formulation in therapy for psychosis. Three categories and ten sub-categories emerged from the data. 'Linking previous experiences with current ways of being' and 'Building the therapeutic relationship' emerged as reciprocally influential core processes underpinning formulation, with 'Making use of new understandings' emerging as an additional key element of the model (Table 3).

An emerging grounded theory model was developed to detail the interactions between the categories and sub-categories (Figure 1).

Table 3. Categories and sub-categories of the grounded theory

Categories	Sub-categories		
Linking previous experiences with current	Discussing significant life events		
	Noticing patterns		
ways of being	Formalising therapeutic discussions		
Building the therapeutic relationship	Influencing therapist characteristics		
	Influencing service user characteristics		
	Working together		
Making use of new understandings	Thinking differently		
	Doing things differently		
	Reflecting back		
	Managing emotion		

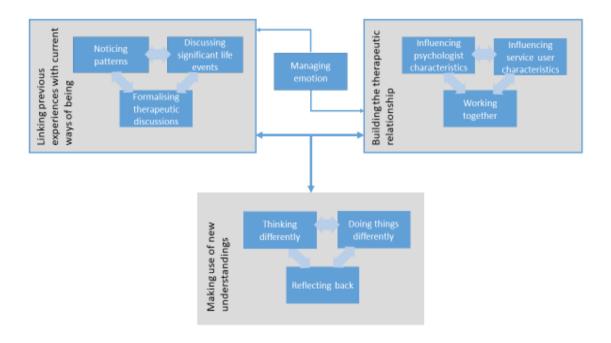


Figure 1. Emerging theoretical model of how service users experience and make use of formulation in individual therapy for psychosis

Linking Previous Experiences with Current Ways of Being

'Linking previous experiences with current ways of being' involved service users 'Discussing significant life events' that may have left them more vulnerable to experiencing mental health difficulties. Service users also began 'Noticing patterns' in their current behaviour, possibly relating to early experiences. Service users contributed to the

development of a written document detailing their new understandings, defined in the current model as 'Formalising therapeutic discussions'.

Discussing significant life events

The process of 'Linking previous experiences with current ways of being' often involved discussing previous life events. "We started right at the front, from an early age, from day one sort of thing, we went through the lot" (Adam, service user).

Noticing Patterns

'Noticing patterns' within the lives of service users happened in different ways for service users and psychologists. Often the process of 'Noticing patterns' occurred in therapeutic discussions whilst 'Discussing significant life events'. "It was quite positive spotting the patterns of the way things happened throughout my life" (Thomas, service user).

For psychologists, 'Noticing the patterns' in their clients' lives often started before meeting them. "Before I see a client, I read all their notes to begin formulating, I see what their patterns are and that helps with formulating" (Ruth, psychologist).

Formalising Therapeutic Discussions

The development of a written formulation appeared to formalise what had been discussed in sessions. "I think of it just as a summary about what we had been talking about" (April, service user).

For one individual, the existence - and potentially public nature – of a product representing aspects of his personal experience appeared significant. The service user described in the quote below had experienced child sexual abuse but his life account had previously been disbelieved by others. "He said that he didn't want to make any changes to it [written formulation], he wanted it there as a kind of witness testimony to what he'd been through" (Ruth, psychologist).

For others, it appeared to be the capturing of private subjective experience in a product reviewable by the self that felt powerful. "It was quite emotional because it's basically your relationship you have with yourself" (Mark, service user).

One individual preferred letters because the typed format seemed more important. "It [formulation letter] seemed you know more important like, when you see illustrations [diagrams], they are just drawings" (Simon, service user). Service users expressed a preference for either letters or diagrams for a number of other reasons. One service user said he preferred his letter because it contained "more information" (Matthew, service user). Another service user favoured her diagram formulation as she preferred to "take information in visually" (Louisa, service user).

Two individuals found their formulations difficult to understand, for example, Luke (service user) said his formulation "went over his head". John (service user) found his formulation difficult to comprehend as his first language was not English.

In all the interviews it was the therapist who wrote out or typed up the diagrams and letters. Diagrams were usually drafted whilst a psychologist and service user spoke. "Lucy [psychologist] usually makes up a diagram while we're talking and we relate to it" (Louisa, service user).

Psychologists and service users worked together to adjust the letters and diagrams until service users were happy that it reflected their experience. Three service users felt their written formulation formally marked an "accomplishment" (Sophia, service user) or a "new start" (Adam, service user) in their lives.

Building the Therapeutic Relationship

'Building the therapeutic relationship' involved therapists and their clients coming together to develop a relationship where service users felt comfortable sharing their personal experiences as part of 'Linking previous experiences with current ways of being'. Three service users felt the therapeutic relationship "deepen" (Thomas, service user) or develop as a

result of engaging with the process of 'Linking previous experiences with current ways of being' with their therapist.

However, a good therapeutic relationship did not always mean that participants were able to connect their experiences. Edward (service user), who was interviewed regarding his experience of group therapy, reflected on the positive relationship with his previous individual therapist. However, it was not until he attended the group and met other people with similar experiences that he was able to begin questioning his experiences.

"The individual sessions with Peter, we had a bonding, I believe we did, but the group therapy, that was completely different, that was because it was so many individuals' stories that I was listening to, but with Peter it was just singularly mine and I genuinely thought that I was the only one going down to [CMHT base]". (Edward, service user).

Influencing Therapist Characteristics

A number of service user and therapist characteristics contributed to 'Building the therapeutic relationship'. From a service user point of view, the demographics of their therapist were important for various reasons. Due to a history of child sexual abuse, for example, it was important for one participant to have a female therapist (Adam, service user). Another participant said the age and gender of her psychologist were important to her. "He [previous psychologist] was the same age as my daughter, he was about 36 then, my daughter's 34, I couldn't open up about certain things because he was a man and he was young" (Sophia, service user).

Two service users expressed that it was their therapist's "personality" (Mark, Sophia, service users) that aided the development of their relationship. Two people found it difficult to describe what enabled them to speak to their psychologist, "I could just trust her, I can't put my finger on why" (Luke, service user). Service users described their therapists as

"patient and persistent" (Mark, service user), "non-judgemental" (Sophia, service user) and "professional but not too stiff" (Thomas, service user).

Influencing Service User Characteristics

A service user's current psychotic experiences and levels of distress were highlighted by both psychologists and service users as factors that could influence 'Building the therapeutic relationship' and an individual's capacity to engage with the process of 'Linking previous experiences with current ways of being'. Researcher: "Do you feel like your formulation was developed in partnership with you?" Service user: "As much as she was able to, I was quite psychotic at the time" (Mark, service user).

Psychologists suggested that there were particular characteristics that enabled their clients to engage in formulation. One psychologist felt that it was helpful if service users were able to "exhibit some level of control" over their psychosis (Ruth, psychologist). Both psychologists felt that clients who were "less avoidant" and more "resilient" appeared more able to engage in the formulation process. "I suppose it was the things about him, he was cognitively able, he's quite resilient, he was able to face difficult things with me" (Ruth, psychologist).

Working Together

'Working together' was important to service users. "It was good, it was working together, exploring things then her going away to type it up" (Thomas, service user). Service users found it difficult to describe how their relationship with their therapist felt collaborative, but all the service users interviewed felt that they worked with their psychologist to develop their formulation. "Ruth let me have my say, she didn't put words into my mouth" (Mark, service user). Two service users mentioned how key activities made formulation feel collaborative. "I think it was the words she used, the information she had, the plan we made" (Adam, service user).

Psychologists said they worked hard to ensure formulation was undertaken collaboratively with their clients and described how they did this. "I say something like, "let's map out what you're telling me, let's take a look at it together and see if it makes sense" (Heather, psychologist).

Making Use of New Understandings

Service users spoke about how they came to understand their psychotic experiences differently as a consequence of formulation. This for seven individuals resulted in changes in thinking and behaving.

Thinking Differently

Service users described changes in how they were thinking generally, "I'm looking at things more objectively and thinking twice about things" (Louisa, service user). Service users also described changes in how they were interpreting the world and people around them as a result of using the formulation product. "Well looking at the diagrams reminds me of how people think, how I think people think, it helps me to differentiate from what I think people are thinking from what I worry they are thinking about" (Simon, service user).

Doing Things Differently

Five service users also made behavioural changes which they associated with the formulation process. Some described this as a slow process. For example, one service user described how she first needed time to consolidate her new understandings but anticipated making behavioural changes. "I'm being mindful of it [formulation], but I haven't quite trusted it enough to go forward yet" (Louisa, service user). For others behavioural changes appear to have occurred sooner. "One day he just turned up and said "I've been down [Name of charity shop] and I've got a job there next week, so I presume it was that, that helped him to feel less paranoid about things" (Heather, psychologist).

Six service users anticipated, or had already begun, 'Reflecting back' on their formulation. Two individuals kept their formulations close by to ensure they were easily accessible. "I've got them [formulation diagrams] on my fridge with magnets so that I can look at them" (Louisa, service user).

Individuals described their formulations as resources to draw on in the future. One individual hoped that he would look back on his formulation and see progress. "One day when I'm working and things are going well, I'll pick 'em out, read 'em and think 'wow I've come a long way'" (Matthew, service user). Another anticipated that the written formulation would serve as a reminder of the past, rather than something they might compare their current situation with. "I think they'll probably change [feelings], it [formulation diagram] will become like looking at an old photograph I think, a reminiscent tool, rather than a progress tool" (Thomas, service user).

Seven individuals felt that they would reflect privately on their formulation, rather than share it with others. For some this appeared to be related to stigma regarding mental health difficulties. "Well basically I'll show it to doctors but I don't want to show it to others because I just don't want them thinking about me or seeing me in a different way" (Simon, service user). Others mentioned details being in their formulation that they were keen not to share with others as they anticipated an emotional reaction. For example, Louisa (service user) said "I don't want to worry them or upset them" when asked if she might share her formulation with her family.

However, some individuals spoke about sharing their formulations with others and a positive impact on relationships as a consequence, "I think it made us more understandable to each other and able to talk about other stuff" (Adam, service user).

'Managing emotion' emerged as an underpinning sub-category that contributed both to 'Linking previous experiences with current ways of being' and 'Building the therapeutic relationship'. This sub-category describes how service users experienced and dealt with the emotions arising from engaging in the core processes. For example, service users described feeling "vulnerable" (Louisa, service user) and becoming upset when 'Discussing significant life events'. "I remember when I was going through the events, it was hard, it was really hard, and I would dissolve into tears" (Sophia, service user).

Service users also described an array of emotions related to seeing their written formulation. Service users said they felt "surprised and reassured", "sad and vulnerable", "understood", "relieved", "elation", and "confused" (Mark, Louisa, Matthew, Adam, Simon, John, respectively). Two individuals spoke specifically of experiencing both positive and negative emotions. "I think it was a mix of emotions, some were sad, some were happy" (Matthew, service user).

Psychologists also reflected on the diverse emotions their clients appeared to experience after sharing their written formulation, including; "overwhelmed", "surprised", "understood" and "anger" (Ruth, psychologist), and "relieved" and "anger" (Heather, psychologist).

Both psychologists spoke about clients who had been angered by their formulations. One psychologist felt in hindsight that her client may have benefited from an "evolving formulation" as he was "avoidant" (Ruth, psychologist). Another psychologist described how as a trainee she had independently developed a detailed formulation, then presented it to her client, who responded with anger. She reflected on her learning. "I was being a good trainee and getting it right technically but she was somewhere else completely, so I really remembered that, and after I've never produced huge formulations again" (Heather, psychologist).

Figure 1 shows how 'Linking previous experiences with current ways of being' and 'Building the therapeutic relationship' emerged as two core processes in formulation. The former required service users to discuss significant life events, notice patterns in their lives and collaboratively represent therapeutic discussions in a written format. Service users experienced and processed a range of emotional reactions to 'Discussing significant life events' and engaging in 'Formalising therapeutic discussions'. 'The building of a therapeutic relationship' was an ongoing process which influenced - and was influenced by - the process of 'Linking previous experiences with current ways of being'. Individuals experienced a "deepening" of the therapeutic relationship as a consequence of engaging with 'Linking previous experiences with current ways of being' and managing the resulting emotions in the context of the therapeutic relationship. Having a good therapeutic relationship enabled service users to feel comfortable to explore links between their past and current selves. 'Building the therapeutic relationship' was also influenced by service user and therapist characteristics. Many service users were able to move on to make use of their new understandings, describing psychological and behavioural changes arising from them. Individuals anticipated or had already begun 'Reflecting back' on their written formulations.

Discussion

This study sought to build a theoretical model to conceptualise the psychological and behavioural processes that occur during the sharing of a formulation in therapy for psychosis. An emerging grounded theory model comprising three categories and ten sub-categories was developed from 13 interviews. 'Linking previous experiences with current ways of being' and 'Building the therapeutic relationship' were defined as core categories, along with 'Making use of new understandings'. '*Managing emotion*' emerged as a sub-category underpinning the core categories.

Findings were consistent with research exploring the use of formulation with individuals experiencing a range of mental health difficulties. This included the observation

that the sharing of a formulation resulted in a "deepening" of the therapeutic relationship (Nattrass et al., 2014). Service users described as 'difficult to treat' said that the sharing of a cognitive analytic therapy formulation enhanced trust in their therapists, though quantitative outcome measures did not show change in how the relationship was perceived (Evans & Parry, 1996). Service user perception of the therapeutic relationship did not change in Chadwick et al.'s (2003) study, although they did find that therapists' perceptions of the therapeutic relationship improved.

In the present study, service users experienced both positive and negative emotions after the sharing of a formulation. This is in line with previous research (Redhead et al., 2015; Chadwick et al 2003), along with the finding that service users experienced contrasting emotions (Kahlon, Neal & Patterson, 2014; Pain et al., 2008). Participants in the current study also said their formulation helped them to move on and make use of new understandings. Similarly, Redhead et al. (2015), who interviewed service users about their experiences in CBT for anxiety, found that formulation helped service users to move forwards from their difficulties.

Service users in the current study had already begun to - or anticipated that they would - reflect back on their formulation. Some participants saw their written formulation as a resource for the future, which again replicates previous research findings (Pain et al., 2008). The finding that some preferred to keep their formulations private due to concerns that others may become upset by them, or due to perceptions of stigma, is in line with previous literature (Dilks, Tasker & Wren, 2010).

The therapeutic relationship has been highlighted as important for effective therapy (Horvath, 2005) so it was not surprising that this emerged from the current analysis as a core process in formulation. 'Building the therapeutic relationship' emerged as an ongoing process which both influenced and was influenced by 'Linking previous experiences with current ways of being'. However, consistent with previous findings (Horvath, 2006), the therapeutic relationship alone appeared insufficient for service users to develop new understandings or

make changes to their lives. For example, one participant described how despite having a positive relationship with his psychologist, it was not until he attended a psychosis group that he began to understand his experiences differently.

The proposition that formulations shared with service users in therapy for psychosis should evolve from simple to detailed (Kinderman & Lobban, 2000) was reinforced by this study. One psychologist described having developed a complex formulation which overwhelmed her client. Service users also spoke of sometimes feeling confused by their written formulations. It is possible that evolving formulations, attuned to individual needs and pace, may enable a greater sense of collaboration and understanding for service users, particularly in the context of trying to manage overwhelming emotions associated with experiences of psychosis. Future research could usefully explore how such service user characteristics might influence judgments about when and how to share formulations.

To the authors' knowledge, the present study is the first to use grounded theory to explore formulation, enabling an in-depth exploration of the processes involved. New findings include identifying the core processes of 'Linking previous experiences with current ways of being' and 'Building the therapeutic relationship'. This study observes how linking past and present may occur through discussing significant life events and noticing patterns, before formalising discussions in a written format. This study appears to be the first to suggest how key processes in formulation may be related.

Finally, the current study also seems to be the first to suggest that service users perceive collaboration in formulation as important. Collaborative formulation has been emphasised in the CBT literature (Johnstone & Dallos, 2015; Kinderman & Lobban, 2000) and UK clinical psychology professional literature (DCP, 2011), though the current evidence base appears more focused on benefits for therapists. For example, Pain et al. (2008) found that collaborative formulation aids clinicians' understanding of their clients. However, the importance of collaboration for the service user in this process has not been reported until

now. It would be helpful for future research to focus on how collaboration in the formulation process is perceived by service users and how this affects their response and experience.

There are limitations to this study, which offers an emerging grounded theory model only. Further data collection would be necessary to reach theoretical saturation to extend and refine this model and draw firmer conclusions (Glaser & Straus, 1967).

All the service users who took part had experienced CBT based formulation.

Although some therapists did draw from other models to inform their understanding of clients, it is unclear whether the processes identified are unique to CBT based formulations. Similarly, this study did not specifically seek to clarify differences between types of formulation shared, such as longitudinal versus maintenance formulations, or narrative versus diagrammatic. However, grounded theory allows variations in experience to be expressed in the resulting model if the data supports that, so if there had been meaningful differences in the type of formulation it would be expected for this to have emerged in the analysis.

Similarly the inclusion of different participants (individual and group, service user and therapist) may have obscured some aspects of individual service user experience, though the intended aim was to elaborate different possible features of formulation experience. Further research may help elucidate some of these finer points of difference.

The findings of the current study have important implications for therapy in psychosis. Service users' prioritisation of collaboration in formulation, together with the potential for the process to be confusing, suggests that formulations should be developed and presented progressively to service users. Preferences for formulations to be developed in a written narrative or diagrammatic form should be taken into account and the potential impact of specific therapist and service user characteristics on the development of the relationship and the formulation process should be considered. Finally, in common with the limited research to date, this study also suggests that formulation can be an emotional process for service users, so care and attention should be given to managing the emotions that might arise as a result.

This study extends our understanding of the specific processes operating during formulation in therapy for psychosis in what is a significantly under-examined area. Given the emphasis on formulation in UK clinical psychology it would seem important to prioritise further research into formulation processes and its relationship to outcomes.

Disclosure of Interest

The authors report no conflict of interest.

References

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental*disorders (Fourth Edition.). Washington DC, USA: American Psychiatric Publishing.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (Fifth edition.). Arlington, VA: American Psychiatric Association Publishing.
- British Psychological Society, Division of Clinical Psychology (2011). *Good practice guidelines on the use of psychological formulation*. Leicester: British Psychological

 Society. Retrieved from http://shop.bps.org.uk/good-practiceguidelines-on-the-use-of-psychological-formulation.html
- British Psychological Society, Division of Clinical Psychology. (2017). *Understanding psychosis and schizophrenia*. Leicester: British Psychological Society. Retrieved from https://www1.bps.org.uk/networks-and-communities/member-microsite/division-clinical-psychology/understanding-psychosis-and-schizophrenia
- Chadwick, P., Williams, C. & Mackenzie, J. (2003). Impact of case formulation in cognitive behaviour therapy for psychosis. *Behaviour Research and Therapy*, 14, 671–680. doi: 10.1016/s0005-7967(02)00033-5
- Charmaz, K. (2006). Constructing Grounded Theory: A practical guide through qualitative analysis. London, UK: Sage Publications.
- Dilks, S., Tasker, F., & Wren, B. (2010). Managing the impact of psychosis in the social world: A grounded theory of therapy and recovery processes in psychosis. *British Journal of Clinical Psychology*, 49, 87–107. doi: 10.1348/014466509X43965
- Evans, G. & Parry, J. (1996). The impact of reformulation in cognitive-analytic therapy with difficult-to-help clients. *Clinical Psychology and Psychotherapy*, 3, 109–117. doi:1063-3995/96/020109-09
- Glaser, B.G., & Strauss, A. (1967). *The discovery of grounded theory*. Chicago, USA: Aldine Transaction.

- Horvath. A. (2005). The therapeutic relationship: Research and theory. *Psychotherapy Research*, 15, 3-7. doi:10.1080/10503300512331339143
- Johnstone, L. & Dallos, R. (Eds.) (2015). Formulation in psychology and psychotherapy:

 Making sense of people's problems. London, New York: Routledge.
- Johnstone, L. (2017). Psychological formulation as an alternative to psychiatric diagnosis. *Journal of Humanistic Psychology*, 58, 1-17. doi: 10.1177/0022167817722230
- Kahlon, S., Neal, A., & Patterson, T. (2014). Experiences of cognitive behavioural therapy formulation in clients with depression. *The Cognitive Behaviour Therapist*, 7, 1-3. doi:10.1017/S1754470X14000075
- Kinderman, P. & Lobban, F. (2000). Evolving formulation: Sharing complex information with clients. *Behavioural and Cognitive Psychotherapy*, 28, 307-310. doi: 10.1017/S1352465800003118
- Martin, D., Garske, J., & Davis, K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 68. 438-450. doi: org/10.1037/0022-006x.68.3.438
- Morrison, A., Turkington, D., Pyle, M., Spencer, H., Brabban, A., Dunn, G., & Hutton, P. (2014). Cognitive therapy for people with schizophrenia spectrum disorders not taking antipsychotic drugs: A single-blind randomised controlled trial. *The Lancet*, 383, 1395-1403. doi: 10.1016/S0140-6736(13)62246-1
- National Institute for Health and Care Excellence (2014). *Psychosis and schizophrenia in adults: Treatment and management. NICE clinical guideline 178.* Retrieved from http://guidance.nice.org.uk/CG178
- Nattrass, A., Kellett, S., Hardy, G., & Ricketts, T. (2014). The content, quality and impact of cognitive behavioural case formulation during treatment of obsessive-compulsive disorder. *Behavioural and Cognitive Psychotherapy*, 43, 590-601. doi: 1 0.1017/S135246581400006X

- Pain, C., Chadwick, P. & Abba, N. (2008). Clients' experience of case formulation in CBT for psychosis. *Advances in Psychiatric Treatment*, 13, 34–42. doi: 10.1348/014466507x235962
- Pilgrim, D., & Bentall, R. (1999). The medicalisation of misery: A critical realist analysis of the concept of depression. *Journal of Mental Health*, 8, 261-274. doi: 10.1080/09638239917427
- Redhead, S., Johnstone, L., & Nightingale, J. (2015). Clients' experiences of formulation in cognitive behaviour therapy. *Psychology and Psychotherapy: Theory, Research and Practice*, 88, 453-467. doi: I:10.1111/papt.12054
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures* for developing Grounded Theory (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory and method*. Buckingham, UK: Open University Press