This is a repository copy of *Understanding Outcomes in a Randomized Controlled Trial of a Ward-based Intervention on Psychiatric Inpatient Wards: A Qualitative Analysis of Staff and Patient Experiences.*.

White Rose Research Online URL for this paper:
https://eprints.whiterose.ac.uk/110207/

Version: Accepted Version

Understanding Outcomes in a Randomized Controlled Trial of a Ward-based Intervention on

Psychiatric Inpatient Wards: A Qualitative Analysis of Staff and Patient Experiences

Katherine Berry*[1], Gillian Haddock[1], Stephen Kellett[2], Yvonne Awenat[1], Karolina Szpak[1] &

Christine Barrowclough[1]

[1] School of Psychological Sciences, University of Manchester, 2nd Floor Zocohnis

Building, Brunswick Street, Manchester, M13 9PL. UK.

[2]Clinical Psychology Unit, University of Sheffield, Western Bank, Sheffield, S10

2TN. UK.

* Corresponding author. School of Psychological Sciences, University of Manchester,

2nd Floor Zocohnis Building, Brunswick Street, Manchester, M13 9PL. UK.

Tel: + 44-161-3060400. Fax: + 44-161-3060406.

*E-mail address:* katherine.berry@manchester.ac.uk.

**Key words**

Formulation; psychiatric inpatient; randomized controlled trial; qualitative methods

**Declaration of interest.** None

Abstract

**Objectives.** Team formulation is advocated to improve quality of care in mental health care and evidence from a recent UK based trial supports its use in inpatient settings. This study aimed to identify the effects of formulation on practice from the perspectives of staff and patient participating in the trial, including barriers and enhancers to implementing the intervention.

**Method.** We carried out semi-structured interviews with 57 staff and 20 patients. Data were analyzed using thematic analysis.

**Results.** Main outcomes were: improved staff understanding of patients, better team collaboration and increased staff awareness of their own feelings. Key contextual factors were: overcoming both staff and patient anxiety, unwelcome expert versus collaborative stance, competing demands and management support.

**Conclusions.** Team formulation should be implemented to improve quality of care in inpatient settings and larger definitive trials should be carried out to assess the impact of this intervention on patient outcomes.


        *Key words:* psychiatric inpatient; qualitative analysis; therapeutic relationships; psychosis; formulation

Understanding Outcomes in a Randomized Controlled Trial of a Ward-based Intervention on

Psychiatric Inpatient Wards: A Qualitative Analysis of Staff and Patient Experiences

The pressing need for more compassionate and person-centered care across health care settings is well-acknowledged (Australian College of Nursing, 2014; Department of Health, 2013; Epstein & Street, 2011). The quality of psychiatric care in the UK is under particular scrutiny due to negative independent inquiries (Schizophrenia Commission, 2012; Mind, 2011) and the 'parity of esteem' agenda (Royal College of Psychiatrists, 2013). As in many other developed countries, current inpatient psychiatric care is noted as being exceptionally anti-therapeutic, with high associated costs when people are detained for long periods due to poor outcomes (Schizophrenia Commission, 2012). Improving quality of care and ultimately outcomes in psychiatric inpatient settings is therefore a priority (Schizophrenia Commission, 2012). One organizational intervention for improving inpatient care that is growing in popularity in the UK is 'team formulation'. This involves all ward staff setting aside dedicated time to work together to identify the full range of biopsychosocial factors responsible for each patients' difficulties and using this information to plan treatment (Kinderman, 2005). The practice of engaging in team formulation is consistent with the principles of person-centered care. It encourages staff to look beyond the patient's symptoms of illness and appreciate his or her unique life experiences, needs, strengths, goals and values. As a result treatments plans informed by formulations are tailored to the patient's unique needs and circumstances at that particular point in time. From a theoretical perspective, we hypothesize that team formulation enables staff to develop more helpful beliefs about patients' difficulties and thus promote more positive responses to service users' distress or problems. For example, a staff member may believe that a patient finds it hard to engage with treatment programmes because he is lazy. However, the process of reviewing the patient's

goals and previous life experiences may help staff to see that his lack of engagement is associated with fear of failure and consequent resignation in relation to trying new things. Importantly, the process of formulating may also provide an opportunity for staff to reflect on and receive emotional support in relation to difficulties that arise in their day-to-day interactions with patients.

Although team formulation is advocated by UK professional bodies and there are some examples of excellent practice (British Psychological Society, 2011; Wolfson, Holloway, & Killaspy, 2009), it has not been implemented consistently across mental health services. Treatment for the majority of patients with severe mental health problems in the UK involves medication only, with poor access to psychological therapies or psychologically-informed care, particularly in inpatient settings (Mind, 2011; Schizophrenia Commission, 2012). Part of the reason for this lack of momentum in relation to the uptake of the practice of team formulation is the absence of a robust evidence-base supporting team formulation. There is also limited understanding of the organizational barriers to its implementation in routine clinical practice.

Findings from small quantitative studies suggest that team formulation can improve staff attitudes towards patients(Berry, Barrowclough, & Wearden, 2009), reduce problem behaviors (Taylor & Sambrook, 2012) and enhance team cohesion  (Kellett, Wilbram, Davis, & Hardy, 2014).  Qualitative research investigating staff views of team formulations suggests that they improve understanding of the patients' social context, lead to more creative treatments and help ensure a more consistent way of working (Kellett et al., 2014; Summers, 2006).

Recently, Berry and colleagues reported the largest and most controlled evaluation of the use of formulations on psychiatric rehabilitation inpatient wards to date (Berry, Haddock,

Kellet, Roberts, Drake, & Barrowclough, 2015).  The intervention was evaluated across 10 rehabilitation wards (n = 85 staff and 51 patients) using a single blind cluster randomized controlled trial (RCT), with half of the wards randomized to the intervention plus treatment as usual (TAU) or TAU only. Importantly, the study found that compared with TAU, patients on the wards who received the intervention felt less criticized by staff and reported improvements in ward atmosphere. These findings suggest that team formulation had a positive impact on patients' experience of inpatient psychiatric care. Staff in the intervention arm of the trial also reported less emotional distance from patients post-intervention, suggesting greater engagement with job roles. These are important findings given the poor quality of care and high staff burnout typically found in psychiatric inpatient wards (Schizophrenia Commission, 2012; Mind, 2011; Totman, Hundt, Wearn, Paul, & Johnson, 2011).

The UK-based Medical Research Council (2008) stipulate the importance of qualitative methods in assessing the feasibility of complex interventions. There are different ways in which qualitative research can be used in the context of RCTs to enhance research quality (O'Cathain, Thomas, Drabble, Rudolph, & Hewison, 2013). The value of a nested mixed methods model has been highlighted as particularly helpful in mental health intervention research (Peters, 2010). Using narratives of staff and patients who participated in the formulation trial, we aimed to identify the effects of the intervention on practice, including any active ingredients or variations in effectiveness. We also aimed to identify any potential barriers or facilitators to implementation. Finally, a subsidiary aim was to explore participants' experiences of the research process. Our investigation is important as we envisage that our findings will inform recommendations for implementing interventions to

improve quality of care and outcomes in inpatient psychiatric settings in both clinical practice

and larger scale definitive trials of organizational interventions.

Method

*Summary of Trial and Intervention*

The trial is described in detail elsewhere (Berry et al., 2015). Rehabilitation wards were randomly assigned to the intervention and TAU or TAU only. At baseline and six-month follow-ups, staff completed measures of relationships with patients, stress and job satisfaction, whilst patients completed measures of relationships with staff, symptoms and functioning. Twenty-four sessions of one-hour duration were delivered to wards over six months. Sessions were facilitated by a clinical psychologist and attended by all members of the team working on the ward at the time the meeting was held. Due to the shift patterns, the composition of the group varied from session to session.  Each intervention session focused on a specific patient and followed the format outlined in Table 1. After each meeting, a written report was prepared and fed back to the patient's keyworker and at the multidisciplinary review meeting. Decisions about the level of feedback patients were given were made on a case-by-case basis, but all patients were informed of any changes in care resulting from the meetings. Ethical approval for all aspects of study was obtained (reference:10/H1016/2).

*Setting and Participants*

Participating wards provided inpatient psychiatric rehabilitation care to people with complex mental health needs. Inclusion criteria for both staff and patients to the main trial and the qualitative study were: i) at least three months experience of working or residing on the ward, ii) no plans to leave within the next six months, and iii) informed consent as assessed by trained researchers. Staff were excluded if they only worked nights as intervention sessions exclusively took place during the day.

Purposive sampling (Marshall, 1996) was used to target all staff and patients still present on the wards at the six-month follow-up. We sampled both participants in the intervention and TAU only arms of the trial and participants from all ten wards participated in the study.

In total 57 staff (77% of those approached to participate) and 20 patients (55% of those approached to participate) were interviewed. There were no significant differences between those who participated and those who did not in terms of any of the demographic or clinical variables. All patients had a diagnosis of a psychotic illness and were prescribed some form of antipsychotic medication. See Table 2 for more detailed descriptive statistics.

*Data Collection*

Individual interviews took place following the intervention at the six-month follow-up between the years of 2011 and 2013. A flexible topic guide comprised of semi-structured questions with enabling prompts was employed. The guide facilitated data collection of topics identified by the research team while also allowing flexibility for participants to introduce additional relevant issues (Smith, 1995). The topic guide (available on request from the authors) explored motivations for joining the study, experiences of the intervention and experiences of the research process. The guide evolved overtime as a result of both new themes emerging and participant feedback in relation to the interviewing process. For example, we added specific questions about participants' views of psychological research as it began apparent that the subject area of the research might raise particular anxieties for some people. Following participant feedback, we also moved motivations for joining the research from the middle to the beginning of the interview. The average duration of interviews was one hour (range: 30 -90 minutes). However, the interviews with those in the TAU only arm of the trial were relatively shorter and only focused on participants'

experiences of the research process, for example, outcome assessments and motivations for being involved in the study. All interviews were conducted by graduate level researchers trained and supervised by the first and fourth authors. None of the interviewers were involved in delivery of the intervention.

*Data Analysis*

Interviews were audio-recorded and transcribed verbatim. Data were analyzed manually using thematic analysis. Thematic analysis is an appropriate method with accessible well established guidelines suitable for identifying patterns of meaning within a relatively large sample (Braun & Clarke, 2013). The six step analytical process advocated by Braun and Clarke was followed (Braun & Clarke, 2006). Firstly, all transcripts were read several times by the first author to facilitate familiarization and highlight relevant issues. Next a more detailed analysis was carried out involving the first author and two student researchers (one undergraduate psychology student and one postgraduate psychology student) to identifying initial codes. Each transcript was read and coded by the first author and at least one of the student researchers. All of the codes generated from this process were compiled and data relating to each code was retrieved. The analysts discussed relationships between codes and possible ways of grouping codes into overarching themes. The wider research team were asked to comment on the codes generated, including any similarities or differences and ideas about how codes might be grouped. In the later stages of the analysis, the wider team were also asked to comment on any disagreements in the analysts' ideas about themes and groupings until a consensus of themes were reached.

We generated codes for the staff and patient data separately. These codes were compared and similarities and differences were highlighted (See Table 3). Staff and patient

codes were then emerged during the theme development phase of the analysis. For reasons highlighted in the discussion, patient narratives were less rich and nuanced than those of staff and therefore the staff perspective is more dominant in the analysis.

We initially made the decision to include perspectives from both intervention and TAU only participants in order to determine if there were any differences in how the research process was perceived. However, at the analysis stage, codes for both were very similar, so this aspect of the analysis was given less weight than differences between staff and patient perspectives. As interviews for the participants in the TAU arm of the trial only focused on experiences of the research process and not the intervention, the voice of the participants in the intervention arm of the trial was more prominent in the overall analysis.

*Epistemological Position, Reflexivity and Quality Assurance*

Our epistemological position did not assume a single reality, but one that was socially constructed from the combined perspectives of participants and researchers (Charmaz, 2006). Triangulation involving multiple coders including independent coding by data and discussion of codes with members of the wider research team enabled a degree of external validation to the analysis, as well as an opportunity to enrich the analysis (Denzin, 2005). To be more explicit, at least two of three researchers (the first author and one postgraduate student or one undergraduate student) independently coded each transcript. The goal of this exercise was not to seek consensus, but to generate multiple ways of seeing the data. The resultant codes were then shared with the other authors who made suggestions about similarities and differences in codes and the organization of codes into themes.

Despite this process of validation, in line with our epistemological position, we recognize that the findings produced are inevitability influenced by our own, the interviewers' and the participants' experiences, perspectives and values. The majority of the authors are clinical psychologists and all authors have a passion for improving inpatient mental health care through the delivery of more person-centered and psychologically informed care. The authors may therefore have been particular drawn to themes reflecting the inadequacy of current inpatient care and the benefits of any changes to current practice resulting from the intervention. The first author developed and delivered the intervention so therefore may have been especially inclined to interpret responses to the intervention in a positive light. Although independent from the intervention and RCT itself, the interviewers and researchers involved in jointly analyzing the data were supervised by the first author, so may have been influenced in a similar way. Patient participants may have been reluctant to share negative views about their experiences of staff on the ward, with interviewers who by virtue of their professional status may have been associated with ward staff. Similarly, ward staff may have been reluctant to share negative thoughts about the intervention and/or anxieties about their own lack of expertise with interviewers from outside their professional group. The dominance of the staff voice over the patient voice in the analysis may also reflect the power imbalance between ward staff/researcher and users of mental health services. In terms of quality assurance, we applied the 15-point checklist outlined in Braun and Clarke (2006; 2013). The checklist comprises criteria for good thematic analysis in relation to each stage of the research process, including transcription, coding, analysis and report writing.

Results

Seven lower-order themes emerged from the data and were grouped into two higher-order overarching themes: 1) effects of the intervention, and 2) facilitators and barriers (see Table 3). The overarching themes and the themes within them are illustrated in the following text and quotations. Quotations are labelled by participant codes. Those with an 'S' preceding the code refer to staff members and those with a 'P' preceding the code refer to patients.

*Effects of the Intervention*

*Improved staff understanding of patients.* Formulation helped to increase staff awareness of patients' previous experiences and thus improved staff understanding of the factors that might be influencing patients' behavior on the ward. This ultimately increased staff capacity to empathize with patients, an effect which was reflected in discussions outside of the formulation meetings.

> I think I got to appreciate the patients a bit better and understand what they've been through and why they might be feeling like they are or acting like they do now. (S901)

> For days after there would be feedback and reflection going on about the individual clients that were discussed. (S905)

Increased understanding also helped staff to identify new and more creative ways of working:

> I've certainly seen people approaching issues and problems in a way that I haven't seen them do previously. There's one person in particular who seems to be able to think much more creatively about some of the issues that we face. (S906)

For other staff the process of taking a step back and reflecting on practice was important for fostering new ways of thinking about and ultimately working with patients, rather than the provision of new information per se.

> The main thing was actually having chance to take stock of what we're doing with patients and where we're going and ways of working with patients in the future, because with some patients you end up hitting a brick wall doing the same things. (S907)

Service users were not directly involved in the formulation meetings, but nonetheless staff members were able to reflect on how changes in their own behavior following formulation meetings had had a positive impact on relationships with service users. This impact was described both in terms of changes in relation to specific patients as well as changes for patients on the ward in general.

> We started letting him make more decisions, not nagging him as much and the service user seems to be a lot more settled, less intrusive, less demanding of staff time and I guess a lot of it comes from the sessions. (S404)

> I see patients are now more comfortable approaching staff. Well, they must have seen a change in staff. I think, there has been more patience with patients, from staff. (S402)

Validating these staff observations, patients also noticed a change in staff behavior towards them. In particular patients noticed that staff were being more encouraging and less critical, possibly reflecting increases in staff empathy and understanding.

> Just verbally sort of encouraging the patients to be sort of in a good mood, instead of telling them off like they do. (P701)

However, not all staff saw formulations as a valued opportunity for new learning or reflection. A minority of staff felt the meetings did not change their practice because they already had an established way of working or one that worked well. In this respect, formulation meetings were viewed as an unwelcome imposition which implied that staff needed to be learning something new and therefore, by inference, were not doing a good enough job.

> We're an organized team, and we have a good thing going anyway, the way that we handle the ward and the caseloads and everything, so I didn't feel like we needed to learn anything. (S912)

Similarly several patients noticed changes to staff practice as a result of the intervention suggesting that these patients did not work closely with staff who changed as a result of the intervention or that changes in staff behavior were not significant enough to be noticed by everyone.

> No it's just the same, it's still the same. (P205)

*Improved staff team working.* Developing a shared understanding of patients' needs was viewed as a key method of improving communication on the ward which resulted in staff feeling supported by each other, as well as opportunity to shape disparate ideas into more coherent support plans.

> It pulled us all together as a team, so it felt like it was more of a team approach, rather than sometimes it can feel like you're standing alone. (S606)
>
> Getting everyone's ideas and then realizing people had different ideas and how we can tweak the different angles on them so it benefits the service users. (S915)

The process of sharing ideas also helped to reassure less experienced staff that others within the team held similar views, thus increasing their confidence. This finding might also suggest that other opportunities to exchange ideas were limited.

Sometimes I don't feel as good as others, I'm the most inexperienced and the last one in, so to speak, so to hear that I was having some of the same ideas as them, I wasn't questioning my judgement as much (S915)

Some people think they don't know, but they actually do, so to hear somebody say what they're thinking really helps their confidence. (S601)

No patients reflected on any changes in team working as a result of the intervention, suggesting that any improvements in collaboration were more important for staff morale and may have a less direct impact on practice.

*Staff increased awareness of feelings.* The process of formulation resulted in staff being more aware of their own relationships with patients and consequently more open about their feelings concerning these relationships. This increased emotional awareness and reflection represented a change from some staff members' previous experiences.

Regarding my personal feelings, I generally was quite closed off.  I just kind of, went off, did what needed to be done and went home and didn't acknowledge anything there or in between. Whereas now I tend to find that I'm more open a bit more acknowledging about my own feelings. (S903)

Patients also observed changes in staff openness, possibly reflecting the finding that some staff members felt more open in relation to their own feelings.

I think the staff recently have been more open in talking about things with us. And talking not just recreationally but talking about your problems. (P401)

*Exploring Barriers and Facilitators*

*Overcoming initial anxiety.* Both staff and patients reported being intimidated by the prospect of formulation sessions and the associated trial. Part of the anxiety from the staff perspective reflected concerns about expressing negative feelings about patients or admitting to difficulties.

I did feel anxious about it, actually saying that you can't work with certain clients and the way that they make you feel. (S507)

One factor that helped to alleviate both staff and patient initial anxiety was the confidentiality of both the research and the discussions within formulations.

I feel more at ease knowing that it is confidential and it won't get back to anyone in the Trust. (S209)

I knew that it would stay confidential within reason and I found that helpful and put me at ease. (P405)

Staff also reflected on the potential benefits of investing additional research assistant time in study set up and also potentially therapists spending time developing relationships with the ward before implementing formulation sessions.

I think if whoever was doing the interview came in first maybe without doing any questions, just to get to know people, have a brew with them so they felt more comfortable, that might help. (S1004)

*Unwelcome expert versus collaborative stance which recognizes team strengths.* Another potential barrier to participating in the study was staff concerns that they would be told what to do, which invoked a sense of resistance.

Although in hindsight, it was nothing like that, it sounded a bit like, you know you're

going to get somebody that's going to come in and tell you how to do your job, which

you've been doing for nine years! (S903)

A collaborative non-expert stance which recognized team strengths seemed key in terms of

overcoming staff concerns.

She (psychologist) doesn't assume, she asked us lots of questions and treated us like

the experts because we deal with the people everyday (S901).

Some less experienced staff did, however, value 'expert' advice and reported that they

would have welcomed more directive guidance about how to work with service users.

I remember the psychologist brought up some ideas of how best we can and deal

with situations. (S702)

I could recognize it all and it was interesting and relevant then I didn't particularly

know where to go next, you know how to carry it on. (S910)

*Competing demands.* Time and resource constraints were a barrier to both the

intervention delivery and research. In some cases this impacted on the staff member's ability

to engage not only physically, but also mentally within formulation sessions.

Not that there's lack of willing on behalf of the staff, I just think it's difficult. Shifts

on the unit, it can be busy. It's probably just a typical problem with research in this

sort of environment. (S207)

I know at times I had on my mind how much longer because I've got x, y and z to do.

It might have been that it was just before the end of my shift and I had three other

things to do so sometimes that played on your mind while you're doing it. (S907)

Conversely, some patients reflected that they had volunteered to participate in the research in order to alleviate feelings of boredom or to break up the monotonicity of their normal routine.

I did it because it was just something else to do on the ward" (P203).  "What makes me want to do it? Something to do, something to talk about. It's something to do isn't it? (P611)

However, both staff and patients commented on the large number of outcome measures and the benefits of reducing the demands of the research.

The questions are just too many, it's takes too long to complete. (S803)

Maybe to have smaller interview times. To like cap it at half an hour. I think both of us were getting tired. (P405)

Written documentation of the meetings was seen as an important way of ensuring all team members obtained details of information discussed and thus facilitated dissemination when staff were unable to attend due to competing demands.

Yeah, the reports were great. The psychologist went into detail, exactly what we were going to do. It helps in terms of.., if you have explain it to other people…, you can't always get it right, so you can say 'oh look in the report', which is good. (S208)

However, others acknowledged that staff did not always read the reports and that information did not filter through to the team via verbal handovers.

The meetings were positive but they were only good if you're actually there and able to partake in the meeting. You could read reports if you had time but lot of the time it was verbal feedback and it didn't filter through the whole team (S207).

*Importance of management support.* Staff described how some managers reinforced the rationale for the research and that this was key in encouraging them to take part in the project.

> It was sort of worrying really, because we didn't know much about it, we wondered whether it was going to be like looking at our practice, but then we discussed it with our manager and she said it was to improve how we might support people and planning their support. (S703)

For some staff, proactive encouragement and support from managers to attend also seemed to be necessary beyond the initial meeting and until the point that staff members' intrinsic motivation set in.

> The people who were initially sighing and pulling their faces, once they'd been in a few meetings, then they were the first through the door to attend the meetings and I never heard, I never heard that kind of expressed comment again from them. (S905)

Discussion

This study aimed to complement and extend the findings of a RCT of team formulations on psychiatry inpatient wards (Berry et al., 2015). The trial found that team formulation improved staff and patient relationships. Specifically in this study, we sought to identify the effects of the intervention from the staff and patients perspectives, possible mechanisms of the effects, variations in effectiveness, and barriers and facilitators to the implementation of both the intervention and its evaluation.  In summary, seven themes were identified in the data which were organized into two higher order themes relating to either the effects of the intervention or barriers and facilitators to implementation. Three main effects of the intervention were identified: improved staff understanding of patients, improved team

working, and increased staff awareness of feelings. Four factors were key in implementation: overcoming initial anxiety, unwelcome expert versus collaborative stance which recognizes team strengths, and competing demands and management support.

While quantitative effects on therapeutic relationships were rather narrowly defined in the trial (Berry et al., 2015), qualitative data described here provided a much more detailed and nuanced picture of changes resulting from the intervention, and how different components of the intervention related to each other and influenced change. Previous studies have explored participants' experiences of formulation-based interventions (Kellett et al., 2014; Summers, 2006). However, this is the largest qualitative investigation of team formulation to date. To our knowledge it is also the only study that has investigated patients' experiences of team formulations.

Although there were some dissenting views, both staff and patients identified that formulation helped to develop staff understanding of patients and consequently improved staff empathy and ways of working. Results from the trial highlighted that patients felt less criticized by staff following the intervention (Berry et al., 2015). This is an important outcome for patients given the drive to improve quality of care across the health service in the UK (Department of Health, 2013) and internationally (e.g. Australian College of Nursing, 2014; Epstein & Street, 2011). The finding is particularly important given that criticism from staff adversely affects outcomes in psychosis (Berry, Barrowclough & Haddock, 2011). The qualitative findings reported here support the quantitative findings, but also extend them. For example, as hypothesized increases in staff empathy and understanding may have been important mechanisms for reducing staff criticism. Both staff and patients also highlighted the way in which formulation increased staff awareness of their own feelings and as a result

their capacity to engage with patients, a finding consistent with significant changes in this

particular aspect of burnout in the main trial.

Not all patients noticed changes in staff behavior following the intervention. It is

possible that some patients were less aware of changes in staff behavior or the ward

environment as a result of their mental state or withdrawal from the general milieu. It is also

possible that formulation activities may not have been sufficient in bringing about change in

those staff members that patients worked with most closely and indeed some staff members

acknowledged that the intervention did not change their practice. Although not all patients

observed changes in staff behavior, the fact that some patients were able to detect changes in

staff is an important finding in itself as it suggests patients provide an important source of

information regarding the effects (or lack of effects) of a ward-based intervention, even when

they themselves are not active participants.

Consistent with previous studies of team formulation (Kellet et al., 2014; Summers,

2006), not all staff were positive about team formulation or its influence on their practice.

Different members of teams clearly respond to organizational interventions, including this

team-based formulation intervention in different ways.  Those staff members who were more

resistant to formulation were those who had an established way of working or who felt that

the team were already working well. Staff who expressed these views were working in teams

with members who highlighted ways in which formulation enhanced their understanding and

ways of working. This finding suggests that negative views of formulation were not confined

to particular teams that were working in the best way possible prior to the implementation of

the intervention. The extent to which these dissenting voices would influence more positive

responses to formulation over time is likely to depend on the number of people who shared

the view and the importance of their roles within the team (May, 2013). However, in order to facilitate future implementation of formulation, it would be important to identify and engage more resistant staff. The authors' previous experience suggests that motivational interviewing strategies, including rolling with resistance and identifying staff strengths and skills through positive affirmations, work well in engaging resistant staff members (Berry et al., 2012).

Staff but not patients identified the way in which formulation improved team working. The process of sharing ideas through formulation also increased the confidence of less experienced staff. The benefits of team formulation on team cohesion is consistent with findings of previous studies investigating staff perspectives on team formulation (Kellett et al., 2014; Summers, 2006). Team collaboration was not assessed as an outcome measure in the main trial, but is an important outcome to include in future trials as research suggests that collaboration has a positive influence on quality of care and team member well-being (Borrill, West, Shapiro, & Rees, 2000).

In terms of barriers, both staff and patients highlighted initial anxieties about the research and sharing difficulties with a psychological therapist. These barriers have been identified in previous research investigating clients' experiences of psychological therapy (Taylor et al., 2010), although to our knowledge staff reluctance to engage in psychological research has not previously been documented. Reassurances around confidentiality and getting to know staff and patients during study set up were seen as being important in overcoming initial anxieties from both the patient and staff perspectives and within both the intervention and TAU arms of the trial.

The importance of therapists adopting a collaborative stance which recognizes team strengths and management support were also seen as important to overcoming any initial resistance to formulations from the staff perspectives. The collaborative non-expert stance is an approach adopted to enhance engagement within both cognitive behavioral therapy for clients (Beck, 1976) and implementing other team-based psychological interventions (Onyett, 2007). This provides a good example of psychological therapists using their clinical skills in an organizational context. The findings from this study and previous research also highlight the essential role that managers play in ensuring the successful uptake and implementation of interventions on a long-term basis (Berry et al., 2012; Berry & Haddock, 2008).

Both staff and patients within both arms of the trial emphasized the importance of not overburdening them with outcome measures. However, the patients highlighted that lack of other activity on the ward motivated them to participate in the research whereas staff identified difficulties in attending formulation meetings due to competing demands. Although time and resources are often scarce on inpatient psychiatric wards due to the high level of patient need, in the long-term, additional time for discussion and forward planning in relation to potential difficulties could lead to reductions in resource-consuming crisis management (Baker, 2000).

*Limitations*

In general, patients' narratives were not as rich as those provided by staff and consequently not as many quotes are used to illustrate the patients' perspectives. Although all of the patients provided coherent discourse, the more limited patient data may result from their mental states at the time of the interview and consequent difficulty in articulating ideas. The more limited patient data may also relate to the fact that patients were not themselves

directly involved in intervention, or the possibility that patients felt reluctant to discuss their thoughts and feelings with conventional researchers. Nonetheless, the relatively limited patient data, highlights the need for future studies of patient perspectives on psychological or other organizational interventions to over recruit patients. More experienced interviewers with clinical training or personal experiences as a user of mental health service may also have been better equipped to elicit more elaborate patient narratives.

Only 77% of staff and 55% of patients recruited to the trial completed semi-structured interviews and there may be differences between those who agreed to be interviewed and those who did not. Arguably, those who declined to be interviewed may have had more negative or neutral experiences of the study. The use of service user researchers might also have encouraged more patients in particular to agree to participate in the study. This study focused on psychiatric rehabilitation wards where patients reside for relatively long periods of time and the focus is on the gradual development of patients' skills in social and occupational functioning. Outcomes and the feasibility of the intervention may be different on acute psychiatric wards whose main remit is to contain risk and stabilize symptoms. However, examples of team formulation or other forums for reflective practice in acute inpatient settings have been documented in the literature (Kennedy, 2009). Fourth, the first author designed and delivered the intervention, participated in the analysis, and supervised the interviewers and other analysts. The author's investment in the study may have biased the data collection process, analysis and write-up in favor of the positive aspects of the intervention.

Despite these limitations, the rich information generated from these semi-structured interviews complements the quantitative analysis by highlighting variations in participants'

experiences of the intervention, possible active ingredients and potential barriers and facilitators to future implementation of both the intervention and RCTs. The study itself also highlights the feasibility and usefulness of complementing traditional RCT methodologies with qualitative data, which may help triangulate research findings and offer a more nuanced interpretation of the quantitative findings.

Implications and conclusions

Our investigation is important as findings will inform recommendations for implementing organizational interventions to improve quality of care and outcomes in inpatient psychiatric settings and also larger scale definitive trials.  Team formulation is advocated by UK professional bodies (British Psychological Society, 2011; Wolfson et al., 2009) Wolfson et), but has not been implemented consistently across mental health services. One possible reason for this lack of uptake is that there is limited empirical evidence to support the use of team formulation. The findings of our previously reported trial suggest that team formulation can be used as a vehicle to improve staff and patient relationships on inpatient settings (Berry et al., 2015). Findings from this qualitative investigation support the findings reported in Berry et al (2015), but also highlight the potential benefits of formulation on staff empathy and team working which were not assessed as part of the outcome assessment. The findings reported here further highlight that it is feasible and acceptable to carryout future research to evaluate team formulation using the gold standard RCT (Medical Researh Council, 2008). Researchers should, however, be mindful of not overburdening staff and patients with outcome measures and the importance of developing relationships with potential participants before embarking on the study.   A further possible reason for the lack of uptake of team formulation across mental health settings is a lack of understanding of the organizational barriers and facilitators to implementing formulations in routine practice. The

study described here indicates the importance of identifying and reducing the competing

demands that staff face, perhaps by securing management support and commitment to

dedicated time to team formulation. It also highlights the importance of developing systems

for filtering information to staff who were not able to attend meetings, both in the form of

written reports, but also verbally at handovers. The study further highlights the importance of

identifying and reducing staff anxiety and resistance to a psychological perspective.

Management support and encouragement seemed key to alleviating these concerns, as did the

therapist taking a non-expert stance which values staff strengths and skills. It may also be

important to normalize negative feelings towards patients and outline clear ground rules in

relation to confidentiality at the outset.

Table 1

*Cognitive Interpersonal Model of Team Formulation*

| | |
|---|---|
| Needs | The therapist explains that the purpose of the meeting is to help develop a better understanding of the service user and his or her need. The therapist then elicits staff members' views about the patients' needs. |
| Strengths and resources | The therapist elicits the service user's strengths and resources, including both personal and environmental resources. |
| Goals and values | The therapist elicits the service user's goals and values |
| Significant live events | The therapist elicits key events in the service user's life which can be supplemented with information recorded from the medical notes or the therapist's own interviews with the service user. Both positive and negative experiences are identified. |
| Beliefs | The therapist explains that life experiences can influence beliefs about self, others, world in general and the future and provides examples for those unfamiliar with the cognitive model. *(e.g. if you are criticized a lot by significant others, you may believe you are useless and expect other people to be critical, if you have frequently been the victim of violence you may believe you are vulnerable, other people are aggressive and the world is a dangerous place).* Using Socratic dialogue, the therapist then asks the group to generate possible beliefs the service user may have about himself, other people (including team) and the world in general, including both positive |

| | and negative beliefs. |
|---|---|
| Ways of coping | Using Socratic dialogue, the therapist asks the group to think about how the hypothesized beliefs are likely to affect how the service user interacts with others (including team) and copes with stress and life in general (*e.g. if a person believes that other people can't be trusted, he is likely to avoid putting trust in people, may avoid close relationships with others or may be hostile towards others; similarly if a person believes he is a failure he is likely to avoid new challenges).* The therapist emphasises that strategies may be short-term solutions to managing distress, or they might have been useful at a different stage of the person's life when no other means of coping where available to him/her *(e.g. overdependence – person good at getting help and hypervigilance to risk is an evolutionary advantage).* |
| Consequences | Using Socratic dialogue, the therapist asks the group how to think about the possible impact of the service user's interactional styles and methods of coping. In particular, the therapist focuses on how the styles are likely to maintain the service user's problems *(e.g. if a person avoids close relationships, he will be deprived of opportunities to learn that people can be trusted, similarly if a person avoids new challenges he will be deprived of opportunities to learn that he can succeed).* The therapist emphasizes how the person makes the team feel, think and respond *(e.g. an aggressive patient may lead staff to back off and disengage and a patient with limited skills and a child-like presentation may draw staff into doing things for him/her).* |
| Implications | Using Socratic dialogue, the therapist asks the group to think about ways of |

| for support | engaging the service user or interventions that might help break |
| --- | --- |
| planning | maintenance cycles. It is also useful to think about the service user's goals |
| | and values as a way of motivating them. The therapist should emphasize |
| | that this might include things the person or other people in his/her life are |
| | currently doing and specifically ask staff to think about what has worked |
| | well for this person or other people they have worked with in the past |

*A more detailed description of the intervention model is outlined in the intervention manual which can be obtained from the authors.

Table 2

*Demographic Characteristics*

| Characteristic | Staff (n = 57) | Patients (n = 20) |
|---|---|---|
| Treatment arm | 60% | 70% |
| Control Arm | 40% | 30% |
| Gender | | |
| Male | 33.3% | 65% |
| Female | 66.7% | 35% |
| Ethnic Group | | |
| White British | 84.2% | 85% |
| White Irish | 1.8% | 0 |
| Black British | 3.5% | 5% |
| Black African | 8.8% | 5% |
| Black Caribbean | 1.8% | 0 |
| Mixed Race | 0 | 5% |
| Mean age* (range) | 41.67 (11.22) | 36.20 (11.93) |
| Median months on ward | 39 (3-276) | 11 (3-84) |
| Profession | | |
| Registered Nurse | 43.9% | 0 |
| Support worker | 49.1% | 0 |
| Other | 7% | 0 |
| Median years experience in mental health (range)* | 10 (1-35) | 0 |
| Diagnosis | | |
| Schizophrenia | 0 | 80% |

| | | |
|---|---|---|
| Schizoaffective disorder | 0 | 10% |
| Bipolar disorder | 0 | 10% |
| Mean age of onset of psychosis | 0 | 23.40 (10.24) |
| Median number of previous hospital admissions (range)* | 0 | 3 (2-20) |

*Figure recorded at baseline.

Table 3 –

*Summary of Themes Identified from Staff and Patient Interviews*

|  | Staff | Patients |
| --- | --- | --- |
| Effects of the intervention |  |  |
| Improved staff understanding of patients | Yes | Yes |
| Improved staff team working | Yes |  |
| Increased staff awareness of feelings | Yes |  |
| Barriers and facilitators to the intervention and research |  |  |
| Overcoming initial anxiety | Yes | Yes |
| Unwelcome expert versus collaborative stance which recognizes team strengths | Yes |  |
| Competing demands | Yes | Yes |
| Management support | Yes |  |

References

Australian College of Nursing (2014). *Person-centred care. Position statement*. Victoria: Australian College of Nursing.

Baker, J.A. (2000). Developing psychosocial care for acute psychiatric wards. *Journal of Psychiatric and Mental Health Nursing, 7*, 95-100.

Beck, A.T. (1976). *Cognitive therapy for the emotional disorders.* New York: International Universities Press.

Berry, K., Barrowclough, C., & Haddock, G. (2011). The role of expressed emotion in relationships between psychiatric staff and people with a diagnosis of psychosis: a review of the literature. *Schizophrenia Bulletin, 37*, 958-972.

Berry, K., Barrowclough, C., Innes, C., Fitzgerald, M., Hartley, S., & Haddock, G. (2012). A description and evaluation of a challenging behaviour workshop. *Journal of Mental Health, 21,* 478-484.

Berry, K., Barrowclough, C., & Wearden, A. (2009). A pilot study investigating the use of psychological formulations to modify psychiatric staff perceptions of service users with psychosis. *Behavioural and Cognitive Psychotherapy, 37*, 39-48.

Berry, K., & Haddock, G. (2008). The implementation of the NICE guidelines for schizophrenia: Barriers to the implementation of psychological interventions and recommendations for the future. *Psychology and Psychotherapy-Theory Research and Practice, 81*, 419-436.

Berry, K., Haddock, G., Kellett, S., Roberts, C., Drake, R., & Barrowclough, C. (2015). Feasibility of a ward-based psychological intervention to improve staff and patient relationships in psychiatric rehabilitation settings. *British Journal of Clinical Psychology* doi: 10.1111/bjc

Borrill, C., West, M., Shapiro, D., & Rees, A. (2000). Team working and effectiveness in health care. *British Journal of Health Care Management, 6,* 364-371.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3,* 77-101.

Braun, V., & Clarke, V. (2013). *Successful Qualitative Research. A practical guide for beginners*. London: Sage.

British Psychological Society, D.o.C.P. (2011). Good practice guidelines on the use of psychological formulation. Leicester: BPS.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis.* Thousand Oaks, California: Sage.

Denzin, N.K., & Lincoln, Y. S (Ed.) (2005). *Introduction: the discipline and practice of qualitative research*. Thousand Oaks, California: Sage.

Department of Health (2013). The NHS Consitution for England. London: DoH.

Epstein, R. M., & Street, R. L. (2011). The values and value of person-centered care. *Annals of Family Medicine, 9*, 100-103.

Kellett, S., Wilbram, M., Davis, C., & Hardy, G. (2014). Team consultancy using cognitive analytic therapy: a controlled study in assertive outreach. *Journal of Psychiatric and Mental Health Nursing, 21*, 687-697.

Kinderman, P. (2005). A psychological model of mental disorder. *Harvard Review of Psychiatry, 13*, 206-217.

Marshall, M.N. (1996). Sampling for qualitative research. *Family Practice, 13*, 522-525.

May, C. (2013). Towards a general theory of implementation. *Implementation Science,* 8, 18.

Medical Research Council (2008). *A framework for development and evaluation of RCTs for complex interventions to improve health.* London: MRC.

Mind. (2011). *Listening to experience. An independent inquiry into acute and crisis mental health care.* London: Mind.

O'Cathain, A., Thomas, K.J., Drabble, S.J., Rudolph, A., & Hewison, J. (2013). What can qualitative research do for randomised controlled trials? A systematic mapping review. *BMJ Open, 3.*

Onyett, S. (2007). New ways of working for applied psychologists in health and social care. Working psychologically in teams. Leicester: BPS.

Peters, S. (2010). Qualitative research methods in mental health. *Evidence Based Mental Health, 13,* 35-40.

Royal College of Psychiatrists (2013). *Whole-person care: from rhetoric to reality. Achieving parity between mental and physical health.* London: Royal College of Psychiatrists.

Schizophrenia Commission (2012). *The abandoned illness: a report from the Schizophrenia Commission.* London: Rethink Mental Illness.

Smith, J. (1995). Semi-structured interviewing and qualitative analysis. In J. A. Smith, R. Harre & L. Van Langenhove  (Ed.), *Rethinking methods in psychology*. London: Sage.

Summers, A. (2006). Psychological formulations in psychiatric care: staff views on their impact. *Psychiatric Bulletin, 30,* 341-343.

Taylor, K.N., & Sambrook, S. (2012). CBT for culture change: Formulating teams to improve patient care. *Behavioural and Cognitive Psychotherapy, 40, 4*96-503.

Taylor, P.J., Awenat, Y., Gooding, P., Johnson, J., Pratt, D., Wood, A., et al. (2010). The subjective experience of participation in schizophrenia research: A practical and ethical issue. *Journal of Nervous and Mental Disease, 198*, 343-348.

Totman, J., Hundt, G.L., Wearn, E., Paul, M., & Johnson, S. (2011). Factors affecting staff morale on inpatient mental health wards in England: a qualitative investigation. *BMC Psychiatry, 11*, 68-68.

Wolfson, P., Holloway, F., & Killaspy, H. (2009). *Enabling recovery for people with complex mental health needs: a template for rehabilitation services (Faculty Report FR/RS/1).* London: Royal College of Psychiatrists