Matrunola, C., Clark, A., Gumley, A. and Clark, S. (2022) An evaluation of team formulation practice in an Early Intervention Service in Glasgow. *Clinical Psychology Forum*, 349, pp. 32-40.

http://eprints.gla.ac.uk/264739/

Deposited on 08 February 2022

An evaluation of team formulation practice in an Early Intervention Service in Glasgow

Word Count = 3019

Summary:

Literature on team formulation (TF) is growing, however, there remains a need for work on how TF is implemented and evaluated in routine care. Here we outline and discuss an audit of TF practice in an Early Intervention (EI) service in Glasgow.

Background:

Formulation is one of the core skills of Clinical Psychologists (Division of Clinical Psychology; DCP, 2011). The DCP (2011) defines formulation as "*a hypothesis about a person's difficulties, which links theory into practice and guides the intervention*". Formulation is both an event and a process, which summarises and integrates a broad range of biopsychosocial factors and is based on personal meaning and collaboration with those involved. Formulation within Multi-Disciplinary Teams (MDTs) has received growing interest in the past decade (Hollingworth & Johnstone, 2014), and is now recommended in a number of guidelines (Johnstone & Dallos, 2014). TF has been broadly described as the '*process of facilitating a group of professionals to construct a shared understanding of a service user's difficulties*' (Johnstone & Dallos, 2014). The reported structure of TF varies – Geach and colleagues (Geach, Moghaddam, & De Boos, 2018) described three types of practices from TF studies: (1) high

1

structured consultation; (2) reflective practice meetings; and (3) informal sharing of ideas. In addition, TFs are reported to vary in the models used and incorporated, with use of multiple models being common.

Evidence Base

There has been a growing body of evidence for TM studies. Summers (2006) found that staff believed TF benefitted care planning, relationships between staff and patients, team working, staff satisfaction, increased understanding of patients and brought staff with differing views and backgrounds together. Berry et al. (2009) reported changes in staff perceptions of service users. There was an increase in staff perceptions of their degree of effort in coping and in the degree of control service users have. Staff have also reported reductions in blame, more optimism about treatment, an increased understanding of service users problems, and more positive relationships with service users (Berry et al., 2016). Geach et al. (2018) highlighted the need for further evidence exploring implementation of TF within routine care.

Aims:

To conduct an audit to identify whether the characteristics of formulation, as outlined in DCP guidelines (DCP, 2011), were present in the formulation notes of an EI service. The audit took place in an EI Service in NHS Greater Glasgow & Clyde, where team-based formulations are part of routine practice. We asked:

1) Are the DCP characteristics of formulation evident in TF notes from the ESTEEM North service?

2) Are there recommendations we can make about improving TF practice based on the evaluation of TF notes?

Methods:

TFs were drawn from the summary formulations recorded by the Clinical Psychologist working in the ESTEEM service. These TFs were routinely conducted at 12-weeks as part of the early psychosis care pathway. The structure of team formulations in the ESTEEM service is one that has been developed to fit with the overall running of the service, and is in line with Johnstone and Dallos (2013) example of a team formulation for (MDT) meetings. That is weekly meetings with designated timeslots which includes a review of background information and reasons for the service users referral; the development of the formulation in discussion with the team; outlining possible interventions and writing up the formulation. The TF section of the MDT meeting lasts between one to one and a half hours

We aimed to assess 20 TFs using the DCP (2011) checklist. Prior to extracting data, we conducted an inter-rater reliability phase based on 3 TF summaries. Inter-rater reliability was satisfactory (k=0.67). The reliability check was carried out by a Research Assistant under the supervision of Professor Andrew Gumley who is also an Honorory Consultant Clinical Psychologigist at the ESTEEM Early Intervention Service. The item "Paces the development and sharing of the formulation appropriately" was omitted from ratings as these were based on summaries of TF meetings and subsequent discussions with service users regarding the formulation were therefore unavailable for analysis. A total of 16 TFs were included in the

audit as data collection was stopped due to COVID-19 pandemic restrictions. No personal data were included in the data collection tool. Data were fully anonymised and stored securely.

Results

We grouped DCP checklist items into the following sub-categories: Theory and Practice, Personal Meaning, Planning and Prioritising, Accessibility, Contextual Factors, Clarity and Function, and Collaboration.

Theory and Practice

This sub-category reflects items (n=5) referring to the assessment of factors relevant to case formulation and their theoretical relevance. In this domain items were rated as met between 88 (n=14) and 100% (n=16) of the time.

Figure 1 Theory and Practice
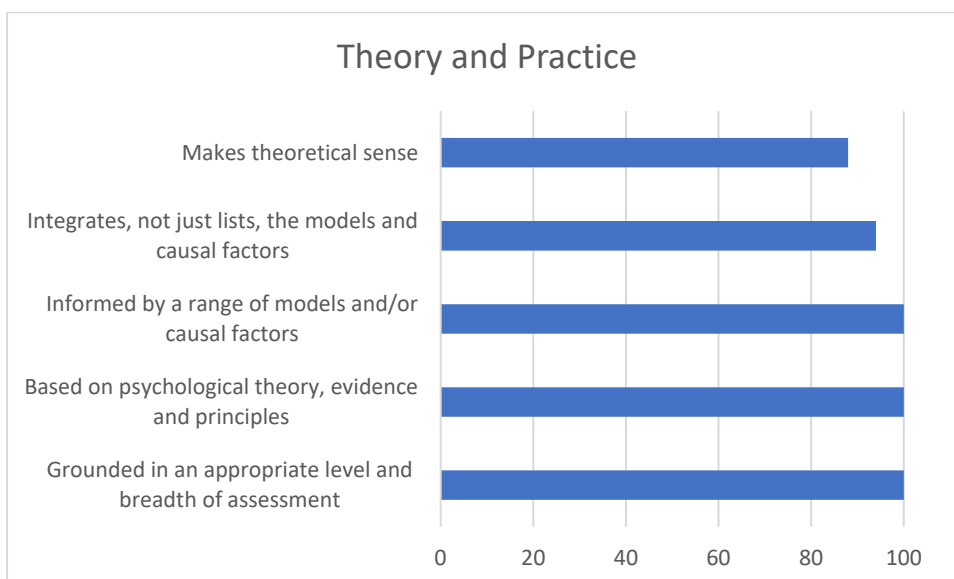
Personal Meaning

 This subcategory reflects items (n=5) emphasising personal meaning and the process of making sense of service users' difficulties. In this domain items were rated as met between 50% (n=8) and 100% (n=16) of the time. Two items that were less frequently met were "Includes service user's strengths and achievements" (n=10, 63%) and 'The personal meaning to the service user is an integrating factor (either directly or through an indirect or 'Best Interest' procedure)' (n=8, 50%).

Figure 2 Personal Meaning
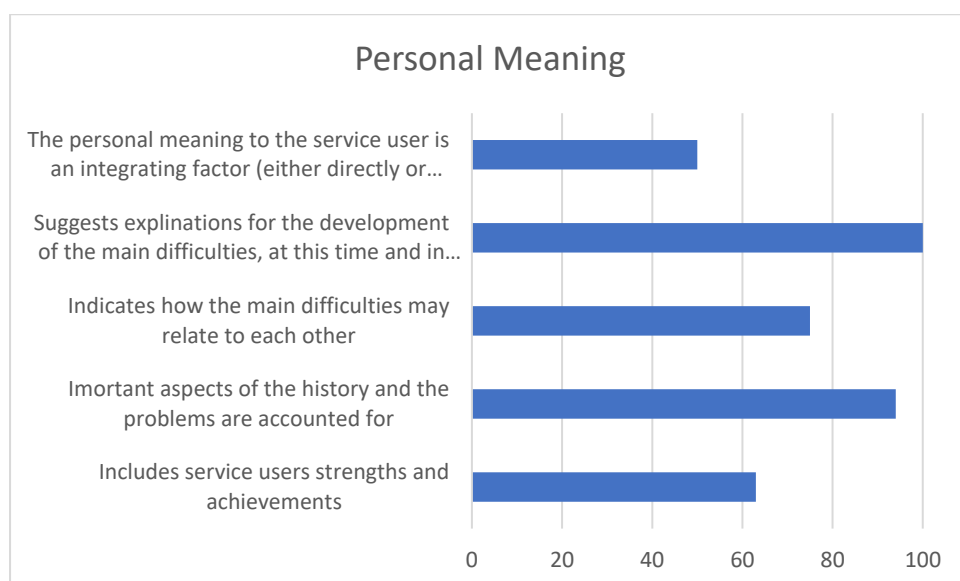
Planning and prioritising

This subcategory reflects items (n=5) emphasising decision making and actions arising from the formulation and understanding of service users' problems. Items were rated as met

between 6% (n=1) and 94% (n=15) of the time. Items less frequently met were 'Can be used to anticipate responses to the intervention, including setbacks' (n=1, 6%), 'Can be used to make and test predictions, including risks' (n=3, 19%), 'Suggests how to prioritise interventions, if indicated' (n=4, 25%), and 'Can be used to set goals and desired outcomes' (n= 9, 56%).

Figure 3 Planning and prioritising

Planning and Prioritising
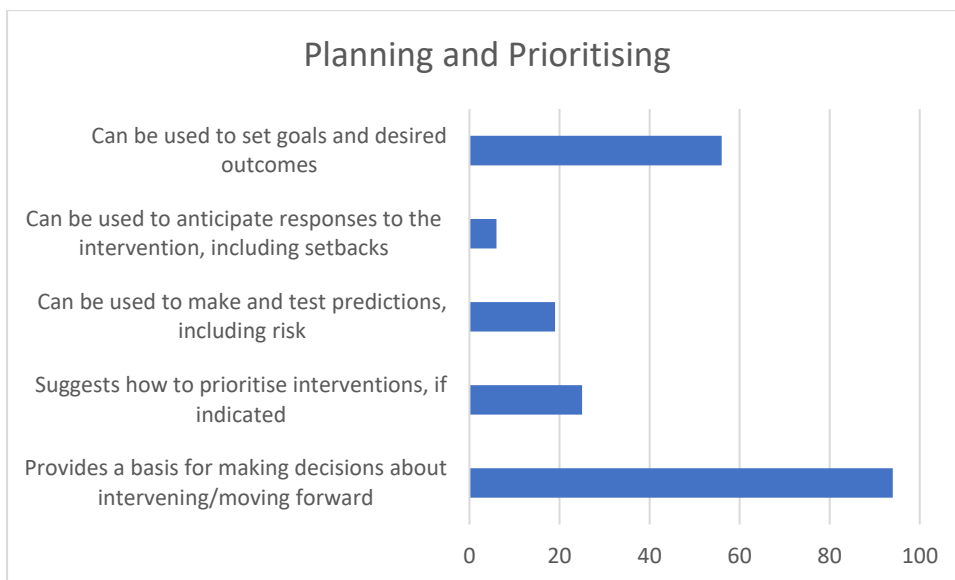
Accessibility

This subcategory reflects items emphasising (n=5) the extent to which language used was accessible, culturally sensitive and problem specific rather than diagnostically led. Items were rated as met between 12% (n=2) and 100% (n=16). The item less frequently met was 'Is culturally sensitive'.

Figure 4 Accessibility
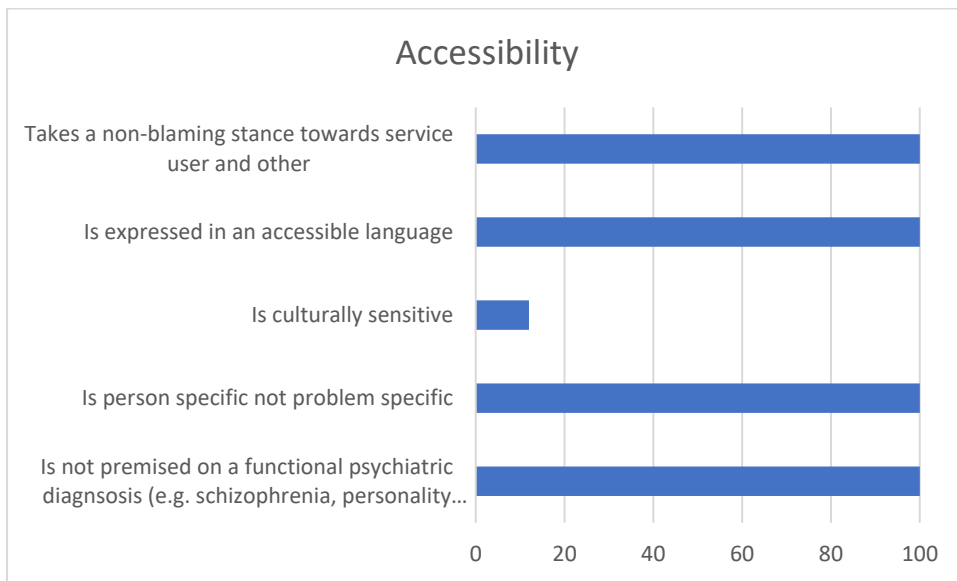
Contextual Factors

This subcategory reflects items (n=5) emphasising broader organisational, social and trauma related factors that have a bearing on service users' problems and their formulation. Items were rated as met between 19% (n=3) and 88% (n=14) of the time. Less frequently met items were 'Considers possible role of services in compounding the difficulties' (n=3, 19%), 'Informed by awareness of service/organisational factors' (n=4, 25%), 'Informed by awareness of social/societal factors' (n=5, 31%) and 'Includes the impact and personal meaning of medical and other health care interventions' (n=6, 38%).
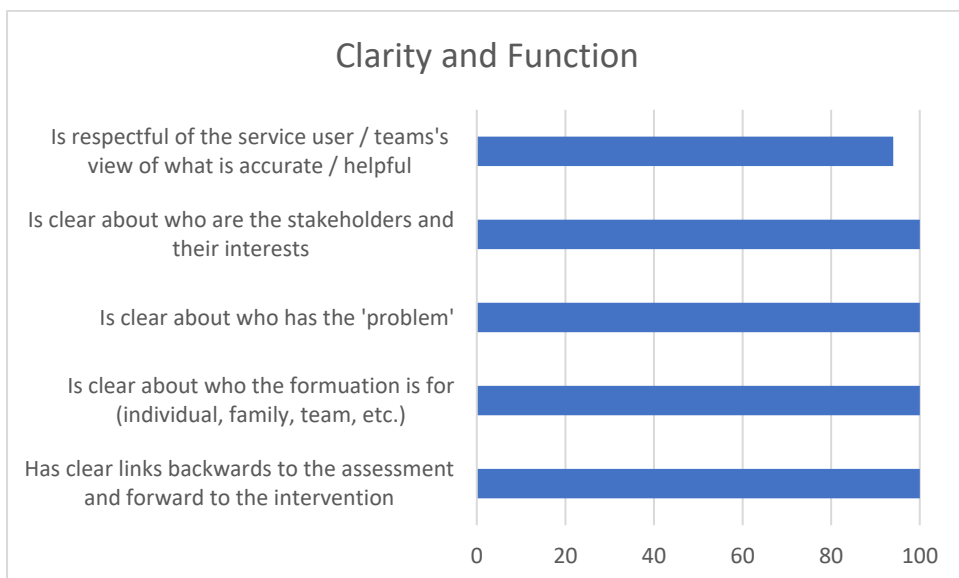
Figure 5 Contextual Factors
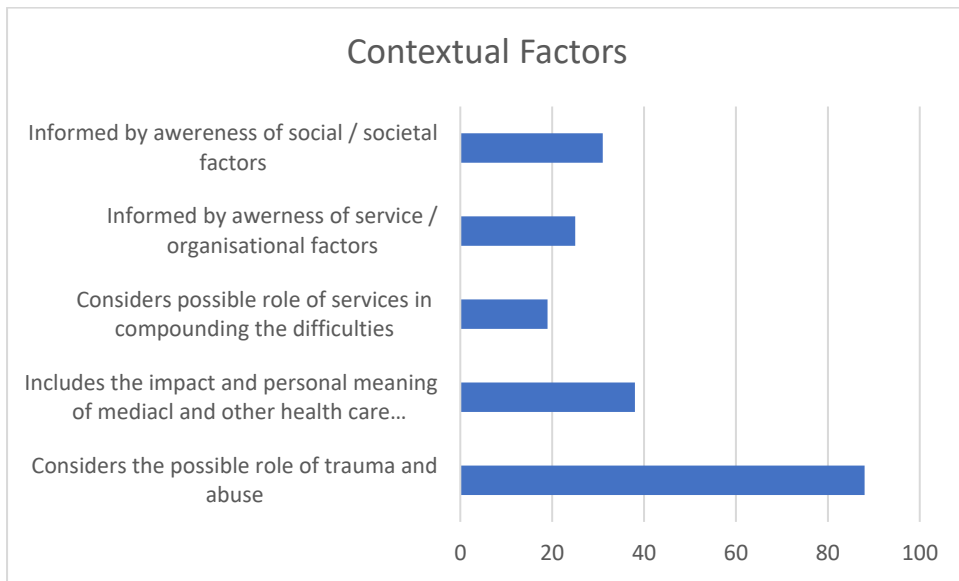
Clarity and function

This subcategory reflects items (n=5) that emphasise the purpose of TF, who it is for and makes clear links towards intervention. Items were rated as met between 94% (n=15) and 100% (n=16) of the time.
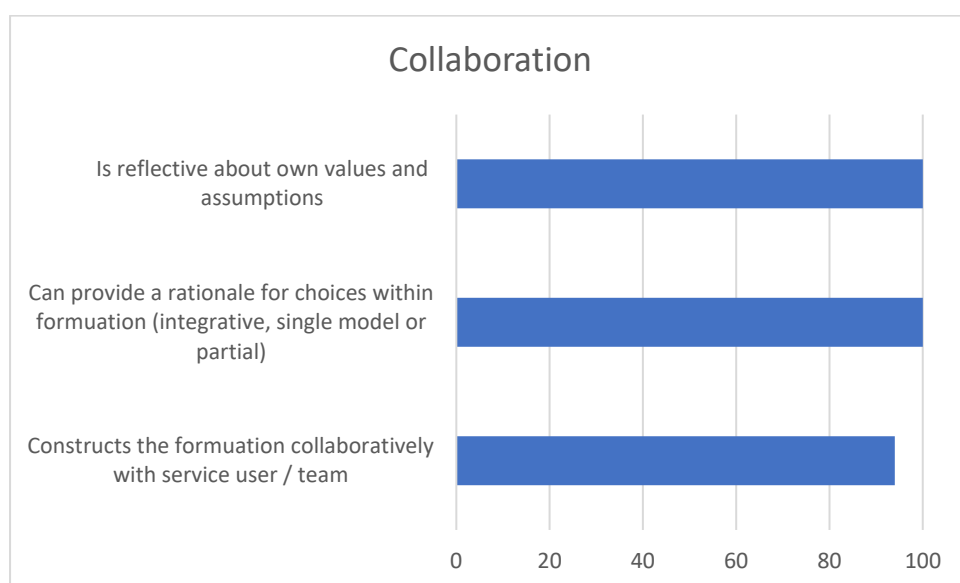
Figure 6 Clarity and Function

Collaboration

This subcategory reflects items (n = 3) that emphasise the overall collaborative nature of the TF. Items were rated as met between 94% (n=15) and 100% (n=16) of the time.

Figure 7 Collaboration

Discussion:

The aim of this audit was to evaluate the extent to which routine TF met standards in relation to formulation guidelines as outlined by the DCP (DCP, 2011) in the context of an EI service. We were able to achieve satisfactory reliability in coding TFs, however this was with a sample of n=3 and a larger sample would provide more confidence in our inter-rater reliability estimate. We found that the DCP (DCP, 2011) Checklist could be applied to these notes except

for the item 'Paces the development and sharing of the formulation appropriately'. We achieved assessment of 16 TFs, with further data collection hampered by the COVID-19 pandemic.

Our audit identified a number of strengths in the domains of Theory and Practice, Clarity and Function and Collaboration. We also highlighted a number of areas where we were unable to demonstrate if the checklist criteria were met and these clustered around planning and prioritising interventions and the incorporation of contextual factors, including how service and organisational factors might shape and influence the expression of service users' problems and their formulation.

Findings in relation to the incorporation of personal meaning reflected some areas of strength along with areas that were lacking evidence. For example, it was clear that formulations suggested explanations for the service users' development of their main difficulties. However, it was less clear the extent to which the personal meanings of service users were integrated into the formulation. This may well reflect a recording difficulty, however may also reflect a feature of the TF process where access to service users' personal meanings may be more variable.

We did note that only on 2 occasions were cultural factors explicitly referenced in the TF notes. The lack of cultural factors being described is noteworthy and of particular importance given the increasing visibility of the relevance of structural and institutional forms of racism and discrimination not just as this applies to black and minority ethnic populations but also how unearned privilege impacts on other characteristics including gender, sexuality, poverty and deprivation (Rosen et al. 2017). It could be suggested that this item of the checklist requires updating to capture a broader range of cultural factors.

It is important to note that discussions may have taken place during the TF meetings that were not recorded in the final written formulation. It is therefore possible that DCP standards for formulation were met in practice, but missed in our evaluation of the written forms. DCP (2011) guidelines for formulation provides a checklist which summarises the principles which are recommended for best practice in formulations. It is noted in the guidelines that whilst these principles and standards are broadly relevant to formulation, it is not always possible, or appropriate to include them in full, therefore it should not be expected to find all standards in a formulation. Whilst there was no checklist that was routinely used during the Team Formulation meetings and write up, the '5Ps' model (Macneil et al., 2012) of formulation was used for all of the TFs included in the audit, and is the model most commonly used within the service. This allows for discussion and recoring of presenting, predisposing, precipitating, perpetuating and protective factors of people's difficulties. However, the use of a checklist would be beneficial especially one that actively encourages attention to aspects of TF that were lacking evidence from the written summaries. This could be incorporated into routine practice by improving the way in which routine TFs are written up to conform to DCP (2011) standards.

Limitations:

We did not use a validated measure of TF. Bucci et al. (2019) have designed and validated the Team Formulation Quality Scale (TFQS). However, this tool was not available at the time of designing this project. The DCP (2011) guidelines to formulation includes a checklist of standards which should be included in formulations. This checklist could provide a framework for the audit and data extraction and the standards contained within the framework should

be made more explicit in the methods for routinely documenting TF. Although the DCP (2011) checklist covers the standards and content of formulations, the TFQS (Bucci et al.,2019) has been designed to assess the quality of TF specifically and has been found to have good validity and reliability. The use of this tool has subsequently being applied following TF as an opportunity for psychologists to reflect on TF practice.

We did not include reflections from staff on the use of TF. It would be of interest to have feedback from the psychologists leading the meetings and writing the formulations, as well as having input from the wider team on being part of the TF discussions. Existing literature has reported benefits to both team and service users (Summers, 2006; Berry et al., 2016; Berry et al., 2009). These factors are important, given that staff / service user relationships have been found to be a moderator for recovery and the potential for relapse (Berry, Barrowclough, & Haddock, 2011; Penn et al., 2004). TFs have been discussed in relation to shifting MDT cultures towards more psychological perspectives (DCP, 2011) and a further understanding of the causal role of trauma and adversity (Johnstone et al., 2015). In this model of TF, service users were not actively involved in TF but are then brought into discussions following these meetings. A main tenet of formulation is the principle of collaboration (DCP, 2011), which proposes that formulations should be shared with service users and carers (unless considered inappropriate), and that service users and carers have the opportunity to review and feedback on formulations. Milson & Phillips (2015) highlighted the importance of sharing formulations with service users; who reported positive experiences for service users who had their TF shared with them. In this audit TF meetings did not include the service user. This reflects the function of the TF meetings early in the care pathway that aim to bring together the MDT for multidisciplinary co-ordination and care planning. Further

work to incorporate the views and experiences of service users in TF is important including exploring how TFs are shared and implemented in practice.

Future recommendations:

Recommendations following on from this audit include consideration by the service of the standards which were more consistently not met. Considerations could include why these standards were met less consistently than others, and how to include them in discussions and/or write up more explicitly. Having the documentation of TF meetings guided by the routine use of the DCP (2011) checklist for formulations could improve the clarity and quality of TFs and address areas where content was lacking.

The service may wish to consider how to include service users in the TF process. This could include allowing opportunity for service users to view and feedback on formulations if and when appropriate. Given that there is little research on service users experiences of the TF process (Cole, Wood & Spendelow, 2015) a follow-up to this project which includes service users' experiences would be beneficial.

Similarly, the service may wish to consider further evaluation of staff experiences of the TF process, and how this reflects into practice. This may include the perspective of the psychologist who leads the TF meeting and write up of the formulation, the wider teams experiences of the TF process, how the formulations are used to inform practice, and any review process of formulations after the first initial TF meeting and write up.

Dissemination of the findings and recomendations of the audit to the ESTEEM service were disrupted by the COVID – 19 pandemic as only essential meetings were taking place and

training postponed. However, a report was written and shared with the service. This has influenced practice, with staff members now being more aware of service users social context. The project has also lead to further mixed methods study exploring staff's experiences of Team Formulation and its implementation which has facilitated more routine use of the Team Formulation Quality Rating Scale (Bucci et al, 2019).

References

Berry, K., Barrowclough, C. and 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*(5), pp.958-972.

Berry, K., Barrowclough, C. and 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*(1), p.39.

Berry, K., Haddock, G., Kellett, S., Roberts, C., Drake, R. and Barrowclough, C., 2016. Feasibility of a ward-based psychological intervention to improve staff and patient relationships in psychiatric rehabilitation settings. *British Journal of Clinical Psychology*, *55*(3), pp.236-252.

British Psychological Society, 2010. Accreditation through partnership handbook: Guidance for clinical psychology programmes. Leicester: British Psychological Society.

Bucci, S., French, L. and Berry, K., 2016. Measures assessing the quality of case conceptualization: A systematic review. *Journal of clinical psychology*, *72*(6), pp.517-533.

Bucci, S., Hartley, S., Knott, K., Raphael, J. and Berry, K., 2019. The team formulation quality rating scale (TFQS): development and evaluation. *Journal of Mental Health*, pp.1-8.

Cole, S., Wood, K., and Spendelow, J., 2015. Team formulation: A critical evaluation of current literature and future research directions. *Clinical Psychology Forum.* 275. pp. 13-19.

Division of Clinical Psychology (2011). *Good practice guidelines on the use of psychological formulation*. Leicester: British Psychological Society

Geach, N., Moghaddam, N.G. and De Boos, D., 2018. A systematic review of team formulation in clinical psychology practice: Definition, implementation, and outcomes. *Psychology and Psychotherapy: Theory, Research and Practice*, *91*(2), pp.186-215.

Health and Care Professions Council, 2015. Standards of proficiency: Practitioner psychologists. London, UK.

Health Professions Council (2009) Standards of Proficiency: Practitioner Psychologists, London: Health Professions Council.

Hollingworth, P. and Johnstone, L., 2014, May. Team formulation: What are the staff views. In *Clinical Psychology Forum 257*(5), pp. 28-34.

Johnstone, L., 2015. Editorial. *Clinical Psychology Forum.* 275. p. 1

Johnstone, L. and Dallos, R., 2013. *Formulation in psychology and psychotherapy: Making sense of people's problems*. Routledge.

Johnstone, L., Durrant, C., James, L., Lewis, H., Maybury, E., McCann, S., Pitt, J., Sandford, C., and Nam, J., 2015. Team formulation developments in adult mental health services in South Wales. *Clinical Psychology Forum.* 275. pp. 38-42.

Johnstone, L., Whomsley, S., Cole, S., & Oliver, N. (2011). Good practice guidelines on the use of psychological formulation. Leicester: British Psychological Society

Macneil, C. A., Hasty, M. K., Conus, P., & Berk, M. (2012). Is diagnosis enough to guide interventions in mental health? Using case formulation in clinical practice. *BMC medicine*, *10*(1), 1-3.

Penn, D.L., Mueser, K.T., Tarrier, N., Gloege, A., Cather, C., Serrano, D. and Otto, M.W., 2004. Supportive therapy for schizophrenia: possible mechanisms and implications for adjunctive psychosocial treatments. *Schizophrenia Bulletin*, *30*(1), pp.101-112.

Rosen, C., Jones, N., Longden, E., Chase, K.A., Shattell, M., Melbourne, J.K., Keedy, S.K., & Oliver, R.J. (2017) Exploring the intersections of trauma, structural adversity and psychosis among a primarily African-american sample: A mixed methods study. Frontiers Psychiatry. https://doi.org/10.3389/fpsyt.2017.00057

Summers, A., 2006. Psychological formulations in psychiatric care: staff views on their impact. *Psychiatric Bulletin*, *30*(9), pp.341-343.