Author's response to reviews

Title: Understanding clinician attitudes towards implementation of guided self-help cognitive behaviour therapy for those who hear distressing voices: Using factor analysis to test Normalisation Process Theory

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Response to Reviewers

Thank you to the reviewers for taking the time to review our paper, entitled: “Understanding clinician attitudes towards implementation of guided self-help cognitive behaviour therapy for those who hear distressing voices: Using factor analysis to test Normalisation Process Theory”. We appreciate the opportunity to consider the feedback from the reviewers, and edit our paper in light of this.

We will address each point in turn. Each of the reviewers’ comments are quoted followed by our response. Where it is relevant to the reviewer comment, revised/added extracts from the paper are quoted within quotation marks.

Reviewer 1:

1. [Introduction]: It would be useful for the reader if the authors expanded on the section in which the application of NPT to various mental health related contexts was developed further. For example were these qualitative studies prospective or retrospective in nature? Overall, what does this body of literature tell us about the application of the NPT framework in understanding implementation of interventions in mental health contexts? (lines 100-108)

*Thank you for this suggestion. In light of this feedback we have added additional information to this section of the introduction. We have added information on whether these studies were prospective or retrospective as suggested; as well as an additional sentence on whether these studies provide support for the NPT model. This review of the mental health NPT literature highlights a gap that we aim to address in this paper – see page 5:
“NPT [21] has been applied to many different healthcare interventions and contexts, including physical health, service infrastructure, and mental health [23]. Looking specifically at the mental health related research, NPT [21] has been used to explore the implementation of stepped care [24], depression interventions [25] and collaborative care [26], primary mental health care [27], bipolar treatment guidelines [28], and problem-solving therapies [29]. Some of these studies applied the NPT model [21] retrospectively as a means of reviewing a previous implementation process e.g. [27]; and some utilised NPT [21] prospectively to develop an implementation plan e.g. [26]. All of these studies used qualitative research methods to understand implementation within the NPT framework, and all concluded that NPT was a useful and comprehensive model to guide the implementation process in mental health service settings. There are currently no studies however that have tested the validity of the NPT model using a quantitative design in a mental health context.”

2. [Introduction]: Line 120 - The authors discuss their plan to implement guided self-help for psychosis in services. It would be useful if they provided a brief description of the types of services they have in mind. I am aware they discuss staff working in a NHS mental health service in the UK but it would be helpful to have further description beyond this e.g. community-based services? What type of clients would be eligible? How would the service be implemented? (this material may also work better in the methods section). Overall it would be useful to have a richer description of the intended implementation context.

*We have added additional information to the sentence identified in the comment so as to make the context for implementation clear, that is, that we plan to implement the intervention in NHS mental health services in the UK – see page 6:

“We plan to implement a brief CBTp intervention for distressing voices (CBTv) in National Health Service (NHS) mental health services in the UK [32]. The intervention is designed for adults who are distressed by hearing voices and who are currently receiving mental health care in an NHS service. Services would most typically be either secondary care community teams or early intervention for psychosis services.”

3. [Methods]: It would be useful if the authors clearly described how each of the professional roles surveyed differ (psychological therapist, psychological wellbeing practitioner, mental health practitioner, support work), a present the methods (and paper more generally) assumes too much familiarity with the UK mental health service context.

*Thank you for this comment and on re-reading we agree that familiarity with the UK mental health service context is assumed. In the Participants section we have now added additional information on the different professional groups mentioned within this paper. We have discussed these professional groups in the context of our study inclusion criteria i.e. which groups have experience of delivering psychological interventions, and which are likely to have experience of working with people who hear voices – see page 7:

“The study inclusion criteria required that participants were clinicians working in an NHS mental health service, and also had experience of delivering psychological interventions and/or experience of working with clients who hear voices. To elaborate upon the terminology in this
Paper, (1) Psychological Wellbeing Practitioners (PWPs) refers to clinicians with a year-long training in guiding CBT-based approaches for anxiety and depressive disorders, but they are not trained to the level of a CBT therapist; (2) Psychological Therapists refers to clinicians with a formal psychological therapy training which would include CBT therapists, Clinical Psychologists and Counselling Psychologists, they may or may not have experience working with people who hear voices; (3) Mental Health Professionals refers to clinicians with a core profession (e.g. nurses, psychiatrists, and occupational therapists) but without a formal psychological therapy training - they would be expected to have experience working with people who hear voices; and (4) Support Workers refers to clinicians who have no formal mental health qualification and no formal therapy training, but would be expected to have worked with people who hear voices in a support capacity. There were no exclusion criterion.”

4. [Methods]: Was any construct validity testing carried out (specifically testing for convergent and divergent validity)?

*As this is a preliminary study, we did not intend to conduct assessments of construct, convergent or divergent validity at this stage and no additional measures were completed by participants. We have acknowledged this in the limitations section of the discussion – see page 19:

“The measure we have developed appears to have factorial validity. However, we did not assess other forms of validity such as construct and divergent validity. This will be the focus of future research evaluating the psychometric properties of the measure.”

5. [Discussion]: It would be helpful if the authors spent some time specifically discussing the implications of the three NPT factors that were supported in the current sample: coherence, cognitive participation and reflexive monitoring. What specifically do these results imply about implementing a guided self-help for psychosis arm in current UK NHS mental health services and how would this differ between different arms of the larger service?

*Thank you for this suggestion. We have additional information to the discussion to elaborate on implications of our findings – see page 17.

“The second aim of our study was to examine clinicians’ attitudes towards guided self-help CBTv, and whether these differed as a function of therapy training (therapist versus non-therapist) and experience working with clients who hear voices. We found that clinicians’ attitudes were favourable across all three factors (all Ms<3; see Table Two). With respect to each of the factors extracted, these ratings can be interpreted to mean clinicians are, on average, supportive of the concept of guided self-help CBTv (coherence), are willing to be involved in its implementation (cognitive participation), and agree with the proposed means of evaluating the implementation (reflexive monitoring). These are encouraging findings as they suggest that most clinicians working in NHS mental health services in the UK have a positive attitude about guided self-help CBTv and would be willing to support its implementation and evaluation. This suggests that clinicians’ attitudes and willingness to be involved would not be barriers to implementation of guided self-help CBTv in the NHS.”
*Due to the limited sample size, our analysis was not able to verify whether attitudes were moderated based on the service that clinicians worked in.

Reviewer 2:

1. Conceptually, I wonder if it would have been better to use confirmatory factor analysis (CFA). The authors’ first aim was to test the validity of the four-factor NPT model, which would seem to indicate that it would be useful to see if the data fitted the model (i.e., CFA, not EFA). That is, they appeared to have the hypothesis that the data should have four latent factors. CFA is used for hypothesis testing, not EFA (see Field, p.674).

*Given the lack of empirical support for the NPT model we suggest that EFA has some advantages over CFA in this case in that no constraints are placed over which model is the best fit, that is, any items were free to load together on any number of factors. It could have been the case for example, that items from across different NPT factors loaded together. The finding that the emergent factors did by and large support the NPT model we suggest offers stronger support than CFA.

2. Given the authors did choose EFA, some comments on their decisions when carrying out this analysis may prove helpful. With the large number of variables per expected factor and the wide communalities, the sample size is probably adequate. Kaiser's greater than one rule and scree plots, however, are known to be inaccurate methods for deciding upon how many factors to rotate. Field touched on this issue in his book (p.679). That is, there may be more factors in the authors' data than can be determined using these outdated methods. For more information, the authors are referred to:


*Thank you for highlighting this paper – the review of factor extraction methods was very thought-provoking. We acknowledge that there are other methods that can be used to extract factors, and we decided to use the methods that are most well-established. We have added an additional point to the limitations section of our discussion. Within this, we reference the paper by Gaskin and Happell – see page 19:

“Furthermore, factors were extracted using a combination of Kaiser’s [40] criteria and the Scree Plot. Although this method of factor extraction is arguably the most widely used and well-established in scale construction, other methods such as parallel analysis are gaining support [48].”

3. I'm unsure that the analyses using Cronbach's alpha adds anything to the paper. This statistic (although often used) is a rather weak form of validity. EFA and CFA are much more powerful ways of assessing validity.
*Cronbach’s alpha gives an indication of how closely the items within each factor correlate with each other, which we suggest provides additional useful information for the reader. Whilst we agree that CFA could be an alternative approach to assessing internal consistency, we decided against this as it is considered poor practice to conduct EFA and CFA on the same dataset.

4. The inferential statistics would benefit from the reporting of effect sizes in addition to p values.

*Thank you for this suggestion. We have added the between-group effect sizes to table three (Cohen’s d). The non-significant effects are for negligible to small between-group effect sizes. Our one significant result represented a medium sized effect – we have included the effect size in the text of the results section – see page 15.

“The only factor where therapists and non-therapists differed significantly was on the Coherence factor, where therapists gave significantly less favourable ratings compared to non-therapists (Therapists: M=2.94, 95% CI [2.71, 3.17]; Non-therapists: M=2.52, 95% CI [2.37, 2.67]), representing a medium sized effect (Cohen’s d=0.47) [43].”

5. The authors have interpreted (in the Discussion) the statistically significant difference between qualified therapists and non-therapists on the coherence subscale as something that is potentially meaningful. It would seem difficult to judge, however, what a 0.42 (2.94-2.52) difference on a 7-point Likert scale means in terms of practice. Perhaps not much.

*We have considered your thoughts on this between-group difference in our discussion. We have included a sentence to highlight that the mean difference is potentially not practically meaningful – see page 17.

“Only therapist training significantly moderated the clinicians’ attitude, with qualified therapists reporting significantly less favourable attitudes on the coherence subscale compared to non-therapists. In practical terms however, this difference may be negligible as the mean difference between these groups was 0.42 on the seven point Likert scale. In addition, in both cases, therapists and non-therapists had mean ratings that were in the favourable range (<3) suggesting that whilst therapists were somewhat more sceptical, they were still, on average, positive in their attitudes towards the intervention. However, there is some evidence to suggest attitudes towards psychological therapy can vary as a function of the clinicians’ profession and training.”

Thank you again for your comments on our paper. The reviewers highlighted a number of key issues with the paper, and we have appreciated the opportunity to reflect upon and respond to these.