BJPsych | The British Journal of Psychiatry (2017) 211, 116–120

Correspondence

Edited by Kiriakos Xenitidis and Colin Campbell

Contents

Psychosocial intervention for negative symptoms: a note on meta-analyses

Lutgens *et al*'s interesting paper[1] describes the results of their meta-analytic study on the effect of psychosocial interventions on negative symptoms for people with psychosis. Despite commending the aims of the study we have some methodological reservations on the results presented.

We believe that the studies included are only a partial representation of the research conducted on the therapeutic modalities considered. For example, we have recently completed a meta-analysis on the effect of cognitive remediation on negative symptoms.[2] Our study had a similar time frame to Lutgens *et al*'s, and the same participant inclusion criteria. Our search retrieved 45 eligible studies, compared with only 16 retrieved by Lutgens *et al*, in their neurocognitive therapies category. We believe that this is due to their search strategy, which included the term 'negative symptom' and therefore retrieved only studies with this term in the abstracts. This had two effects: it was more likely to retrieve studies reporting positive findings; and when investigating interventions not specifically designed to target negative symptoms it missed a large body of studies across all the therapeutic modalities considered.

The nature of the control condition is also important when considering effect sizes. Lutgens *et al* conflated passive with active control conditions. Active control conditions for one study (e.g. cognitive remediation) were then considered active treatment conditions in subsequent analyses. We also noted some overlap in the therapy groups considered. Both art and music and exercise therapy included dance-based interventions. The miscellaneous category adds to the limited clarity of the category definitions by considering comprehensive 'care packages', such as in Garety *et al*,[3] which include medication management and allocation to a psychosocial intervention among a number recommended by clinical guidelines (i.e. family therapy or cognitive–behavioural therapy (CBT)). These limitations, in our view, make it difficult to reliably compare effect sizes from the intervention groups considered.

We also wish to point out some methodological considerations that may limit the accuracy of the results reported. First, it appears that the authors considered only end-of-therapy data in estimating effect sizes. This does not account for relative change. In other words, this method considers symptom reduction of a hypothetical 3 points on a negative symptoms scale to be equivalent in individuals entering the study with an initial score of 5 or of 23. The importance of taking into account baseline levels in meta-analysis is clear and it is considered best practice.[4] There is also evidence that the DerSimonian–Laird method has limitations compared with methods using restricted maximum likelihood estimators.[5]

Last, it is unclear how the authors considered the treatment that participants received as part of treatment as usual (TAU). They state: 'Compared with TAU, 59% (10/17) of studies reported CBT to be more effective at the end of treatment'. From this statement one might assume that participants received either TAU (e.g. medication) or CBT. In all likelihood, studies compared CBT + TAU with TAU only.

1 Lutgens D, Gariepy G, Malla A. Psychological and psychosocial interventions for negative symptoms in psychosis: systematic review and meta-analysis. *Br J Psychiatry* 2017; **210**: 324–32.

2 Cella M, Preti A, Edwards C, Dow T, Wykes T. Cognitive remediation for negative symptoms of schizophrenia: a network meta-analysis. *Clin Psychol Rev* 2017; **52**: 43–51.

3 Garety PA, Craig TKJ, Dunn G, Fornells-Ambrojo M, Colbert S, Rahaman N, et al. Specialised care for early psychosis: symptoms, social functioning and patient satisfaction. Randomised controlled trial. *Br J Psychiatry* 2006; **188**: 37–45.

4 Achana FA, Cooper NJ, Dias S, Lu G, Rice SJ, Kendrick D, et al. Extending methods for investigating the relationship between treatment effect and baseline risk from pairwise meta-analysis to network meta-analysis. *Stat Med* 2013; **32**: 752–71.

5 Veroniki AA, Jackson D, Viechtbauer W, Bender R, Bowden J, Knapp G, et al. Methods to estimate the between-study variance and its uncertainty in meta-analysis. *Res Synth Methods* 2016; **7**: 55–79.

Matteo Cella, Clinical Psychologist and Lecturer, King's College London, UK; **Antonio Preti**, Psychiatrist and Associate Professor, Psychiatry Branch, Centro Medico Genneruxi, Cagliari, Italy. Email: matteo.cella@kcl.ac.uk

doi: 10.1192/bjp.211.2.116

Authors' reply: In their thoughtful comments about our study, Cella & Preti raised several important points about some of the current challenges and limitations of research synthesis methods.[1]

In systematic reviews, search strategies need to strike a balance between specificity with regard to the research question at hand and sensitivity to capture the broadest number of relevant studies. Given that our only outcome of interest was negative symptoms in psychotic disorders, we included the term 'negative symptom' in our search strategy, as well as 26 synonyms of negative symptoms and associated terms, and broad keywords for psychosocial interventions. Our search retrieved a comprehensive 4136 non-duplicate studies from five major databases. Although some studies might have been missed, their omission from our review is unlikely to have been systematic, and our findings are overall consistent with those from a previous review.[2] We do agree with Cella & Preti that publication bias could be a problem – it is a common threat to almost all reviews – and we found some evidence of it, which we reported in the paper. We also acknowledge that the general intervention categories in our review might not perfectly match the various psychosocial interventions that have been tested in the literature. Our goal was to provide readers with a broad sense of the benefits of different intervention approaches for negative symptoms. Care was given to fully present the characteristics and quality of each study in the paper and online supplement.

Cella & Preti pointed out that our meta-analysis could have focused on change scores rather than endpoint scores of negative symptoms to account for baseline differences in groups. This