Are psychological therapies effective in treating schizophrenia and psychosis?

Yes

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The recent British Psychological Society report, *Understanding Psychosis and Schizophrenia: Why people sometimes hear voices, believe things that others find strange, or appear out of touch with reality, and what can help*, provides an accessible overview of the current state of knowledge about psychosis from a psychological perspective. Its conclusions have profound implications both for the way we understand ‘mental illness’ and for the future of mental health services.

Understanding ‘psychotic’ experiences

One of the main messages of the report is that ‘psychotic’ experiences can be understood in the same way as other psychological problems. The report presents evidence that these experiences are often a reaction to some kind of trauma or adversity which impacts on the way we experience and interpret the world. The report concludes that services should not insist that people see themselves as ill: some prefer to think of their problems as, for example, an aspect of their personality which sometimes gets them into trouble but which they would not want to be without. It suggests that we need to invest much more in prevention by attending to inequality and child maltreatment.

Potential to revolutionise mental health services

The radical idea that ‘psychosis’ can be understood and treated in the same way as other psychological problems has the potential to revolutionise our mental health services. In the past we have often seen drugs as the most important form of treatment. While they have a place, the British Psychological Society report argues that we now need to concentrate on helping each person to make sense of their experiences and to find the type of help or support that works for them.

This is a challenge to the orthodox view that these experiences reflect an underlying disease process, and some have described the report as controversial. That perception itself may be something of a minority view: the report has been widely welcomed. Representing the Royal College of Psychiatrists at the report’s launch, Professor Sir Robin Murray said that he would have been proud had the College published it. Norman Lamb MP, Minister of State for Care and Support, said: ‘I strongly welcome the publication of this report … I am particularly pleased that it is the product of a partnership between expert psychologists in universities and NHS trusts, and experts by experience – people who have themselves experienced psychosis. It helps us to understand such experiences better, to empathise with those who are distressed by them.’ The report was also warmly welcomed by Dr Geraldine Strathdee, National Clinical Director for Mental Health, and by representatives of the Royal College of General Practitioners and other professional bodies, as well as service user groups and mental health charities such as Mind and Rethink Mental Illness.

Nevertheless, three areas of some contention have emerged. Some critics have suggested that the report could have said more about prevention of mental health problems. Others have suggested that it pays insufficient attention to the role of social deprivation and disadvantage, including the specific issues faced by people from black and minority ethnic backgrounds. A final area of contention concerns the benefits of psychological therapies.

In truth, the report does not discuss this at length, but it does conclude that psychological therapies are helpful for many people. This is uncontroversial.

**CBT: the evidence**

Taking the most widely researched therapy, cognitive behavioural therapy (CBT), the report cites what was then the most recent meta-analysis, which found that ‘For patients who continue to exhibit symptoms of psychosis despite adequate trials of medication, CBT for psychosis can confer beneficial effects above and beyond the effects of medication.’ What may have stimulated some debate is the British Psychological Society report’s claim that ‘…there is general consensus that on average, people gain around as much benefit from CBT as they do from taking psychiatric medication…’ [page 87].

Meta-analyses of the effectiveness of antipsychotic medication typically yield effect sizes between 0.33 and 0.88 from blind placebo randomised controlled trials (RCTs), measuring total symptom scores. While it is true that there
have been no direct comparisons, meta-analyses of CBT typically yield effect sizes in the same range.\textsuperscript{4} Jauhar and colleagues\textsuperscript{5} conclude that ‘cognitive-behavioural therapy has a therapeutic effect on schizophrenic symptoms in the “small” range’. But the authors of this particular paper have been vigilant in ensuring that this statement is read in the context of their subsequent sentence: ‘This reduces further when sources of bias, particularly masking, are controlled for.’ They argue that blinded RCTs of CBT yield much smaller effect sizes than unblinded trials, converging on an effect size of around 0.17.\textsuperscript{5} They contrast this figure with the previous range of 0.33 to 0.88, and suggest that we should therefore be sceptical about the effectiveness of psychological approaches.

However, this straightforward comparison isn’t the end of the story. While there are legitimate arguments for supporting what might be seen as a scientifically purist approach of comparing meta-analyses only of blind RCTs for CBT with meta-analyses of drug trials, the selectivity of some of these comparisons has been questioned.\textsuperscript{4} Moreover, trials of antipsychotic medication (with effect sizes of between 0.33 and 0.88) compare that medication with placebo. The effect sizes of CBT assess the additional benefits of psychological therapies for people who are already receiving ‘treatment as usual’, which is, of course, medication. At present, it isn’t possible to disaggregate the effects of these interventions. If antipsychotic medication is effective, then it is encouraging that CBT leads to additional, measurable therapeutic gain. It is reasonable to conclude that CBT is effective and seems to achieve that effectiveness even on top of the benefits of medication.

It would also appear that CBT can bring comparable benefits even when people choose not to take medication.\textsuperscript{6} We know that medication can have serious adverse effects in the medium and long term,\textsuperscript{7} leading to adherence problems, so any potential alternative seems worth exploring. It is therefore not unreasonable for the NICE systematic evidence reviews, including the meta-analyses of both blind and non-blind RCTs of CBT, to have concluded that CBT is safe and effective.\textsuperscript{8} We will know more when we receive the results of the COMPARE study\textsuperscript{9} which is explicitly comparing drugs, CBT and ‘both’. But the benefits of CBT are clear.

Other psychological therapies

The British Psychological Society’s report discusses several forms of psychological intervention other than CBT. One of these is family therapy. Again, NICE recommends that everyone diagnosed with psychosis should have access to family interventions,\textsuperscript{8} although unfortunately this is far from being the case.\textsuperscript{10}

Conclusion

The British Psychological Society’s report has been widely welcomed as helpful and possibly even revolutionary. It contains much more than just a statement of the benefits of psychological therapies – although those benefits are clear. It outlines, in clear and accessible language, the evidence that ‘psychotic’ experiences are understandable and often are a reaction to trauma or adversity which impacts on the way we experience and interpret the world. The report stresses the importance of respect for a plurality of perspectives and emphasises the need to invest much more in prevention. While the effectiveness of psychological therapy is not its main focus, its statement that ‘…on average, people gain around as much benefit from CBT as they do from taking psychiatric medication…’ is entirely appropriate.

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Declaration of interests

Professor Kinderman is a contributor to Understanding Psychosis and Schizophrenia.

References

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The report entitled Understanding Psychosis and Schizophrenia (henceforward referred to as UPS), recently published under the auspices of the British Psychological Society, argues that ‘psychosis can be understood and treated in the same way as other psychological problems such as anxiety or shyness’. This claim rests, in part, on an argument for the effectiveness of psychological treatments in schizophrenia, particularly cognitive behavioural therapy (CBT or CBTp). Thus, the authors state that ‘There is a consistent evidence base suggesting that many people find CBTp helpful’, and that ‘Even where [psychological therapies] don’t reduce the frequency or intensity of experiences, they often help reduce distress’.

Perhaps most controversially, the UPS authors also claim that ‘there is general consensus that on average, people gain around as much benefit from CBT as they do from taking psychiatric medication’. This is something that flies in the face of the conventional mainstream view of schizophrenia as a biologically-determined disorder requiring treatment with antipsychotic drugs, even though these may have serious and occasionally life-threatening side effects.

Claims for cognitive behavioural therapy: are they valid?
The UPS’ claim that CBT is effective in schizophrenia is supported by an impressive-looking number of references. One of these is a recent meta-analysis of CBT for psychotic symptom outcomes – the most comprehensive to date – carried out by ourselves.2 This meta-analysis found effect sizes that were uniformly in the small range: 0.33 for overall symptoms, 0.25 for positive symptoms and 0.13 for negative symptoms in 33–34 included trials. It also found evidence for a significant source of bias among the studies, namely whether outcome assessments were made under blind conditions. The effect size for overall symptoms was reduced to 0.15 for overall symptoms and to 0.08 (a non-significant finding) for positive symptoms in 20 blind trials.

The importance of blinding and considering sources of bias
These vanishingly small effect sizes in blind studies cannot be idly dismissed. It is now widely accepted that failure to consider sources of bias can give rise to misleading findings in systematic reviews,3 and as a result the official line from organisations like the Cochrane Collaboration is that all potential sources of bias should be examined and emphasised in the conclusions of meta-analyses.4 Nor can blinding be considered somehow inapplicable to studies of psychological treatments: there is just as much evidence of inflation of therapeutic benefits by lack of blindness in psychiatry as in other areas of medicine ranging from neurology to cosmetic surgery, cardiology, otorhinolaryngology, dermatology, gynaecology and infectious diseases.5 In fact, the greater the subjectivity involved in judging an outcome, the more important blinding becomes with regard to preventing bias.6,7

In what is presumably an attempt to shore up their claims, the UPS authors cite several other meta-analyses and reviews of meta-analyses. Two of these can be dismissed as obsolete: they were published in 20068 and 2008,9 and over 15 further studies – several with moderate or large sample sizes – have been published since then. Also cited is the NICE 2014 schizophrenia guideline10 whose currency is more apparent than real – the meta-analyses in this have not been updated from the 2009 guideline.11 The UPS authors do cite one genuinely recent meta-analysis by Turner et al.;12 this found an effect size of 0.16 in studies of CBT compared to other psychological inventions.

Otherwise, the UPS authors have to fall back on two small and highly selective meta-analyses of CBT for schizophrenia. Burns et al.13 found significant benefit for CBT in 12 studies of treatment-resistant patients. The actual size of the treatment effect is, however, difficult to determine since the authors used an idiosyncratic method of calculating effect size (difference in baseline – endpoint means ÷ the endpoint standard deviation) which cannot be compared with the standard method based on the difference between endpoint means. Van der Gaag et al.14 examined studies using ‘individually tailored formulation-based cognitive behavioural therapy in auditory hallucinations and delusions’ – a quite restrictive set of inclusion criteria. They found an effect size of 0.36 in 11 studies of delusions (which reduced to 0.24 in blind studies) and 0.44 in nine studies of auditory hallucinations (which remained essentially unchanged in blind studies). The largest effect size in this latter meta-analysis, it should also be noted, came from a study that used ‘avatar therapy’ – a novel intervention that is not CBT by any stretch of the imagination.

What about the UPS claim concerning distress? This is, if anything, even less well-evidenced. A search of more than 50 published trials of CBT for schizophrenia
shows that, when distress has actually been examined, the invariable finding is of no significant improvement (for two recent examples, see Morrison et al.15 and Birchwood et al.16) or even greater distress reduction in controls (Shawyer et al.17).

Turning to the claim that, on average, schizophrenic patients gain as much benefit from CBT as they do from taking psychiatric medication, support for this is nowhere to be seen. The UPS authors cite a 2014 editorial by Correll and Carbon18 commenting on a systematic review of the relative effectiveness of pharmacotherapy and psychotherapy across a range of different psychiatric disorders.19 This latter19 quoted an effect size of 0.33 for CBT against overall symptoms (from Jauhar et al.2), and also an effect size of 0.51 for second-generation antipsychotics vs placebo, taken from a meta-analysis by Leucht et al.20 Neither the editorial nor the systematic review made any claim that these two effect sizes could be compared; indeed, it would be difficult to do so – the baseline condition was antipsychotic treatment in one meta-analysis and no treatment in the other, and the effect size for antipsychotics was in blind trials and that for CBT was in all trials. In any case, the effect size was obviously larger for antipsychotics.

Elsewhere, UPS states that ‘A meta-analysis ... suggested that many people experience only slight benefits [from antipsychotic medication] and only about 20 per cent experience a significant improvement or prevention of recurrence.’ The source quoted here is NICE’s 2014 guidance.10 In fact, NICE says nothing about the effectiveness of antipsychotics in acute treatment, beyond implying that it is established beyond doubt.

With respect to its effects on relapse, NICE notes that the relapse rate on antipsychotic treatment has been found to be about a third of that on placebo.

Conclusion
Overall, the picture that emerges from UPS is of claims that are either not supported by the studies the authors themselves cite, or are just plain wrong, or are interpretations that require the kind of mental gymnastics that would make a contortionist wince. Why should anyone take them seriously?

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