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Lessons from psychotherapy research for psychological interventions for people with schizophrenia

Graham Paley[1]* and David A. Shapiro[2]

[1]Centre for the Analysis of Nursing and Professional Practice, Leeds Community and Mental Health Trust/Leeds Metropolitan University, UK
[2]Psychological Therapies Research Centre, University of Leeds, UK

This article argues that psychological interventions for people with schizophrenia could be developed by being informed by research from the wider psychotherapy literature. We specifically argue that research on these interventions has ignored two key themes from this wider literature: first, the contention that differing models of intervention broadly result in similar outcomes, known as the 'equivalent outcomes paradox'; and second, the phenomenon of 'investigator allegiance' whereby the conclusions that may safely be drawn from comparative research are compromised by researchers' unwitting bias. We present evidence indicating that both these themes from the wider literature may be applicable to the literature on psychological interventions for schizophrenia and that schizophrenia treatment research should incorporate some of the lessons already learned in studies of other disorders. We conclude by arguing that psychological interventions for people with schizophrenia should be based on unbiased evidence and that interpretation of the evidence base should not be hindered by dogma or ideology from any quarter.

Psychological interventions for people with schizophrenia include both family interventions, which include the patient and their relatives, and individual therapy with patients. The majority of these interventions described in the literature tend to apply cognitive-behaviour therapy (CBT) principles directly, or to be derived from CBT principles. Although there is clear evidence from these studies that CBT can enhance clinical outcomes for people with schizophrenia (Gould, Mueser, Bolton, Mays, & Goff, 2001), there is currently little evidence to support the superiority of CBT when compared with other therapies matched for therapist attention (Dickerson, 2000). The evidence base supporting CBT for people with schizophrenia outstrips that currently available for

*Requests for reprints should be addressed to Graham Paley, Research Fellow, Centre for the Analysis of Nursing and Professional Practice, Meanwood Park Hospital, Tongue Lane, Leeds LS6 4QB, UK (e-mail: grahampaley@yahoo.co.uk).

other treatments, and CBT researchers are to be congratulated for making such a large contribution to the literature on psychological interventions for people with schizophrenia. However, it is our opinion that research in this area is in danger of becoming too focused around CBT to the possible exclusion of other models. Our concern is that this may lead to the premature dismissal of other potentially effective models and hinder the identification of the 'active ingredients' and underlying mechanisms responsible for change in both CBT and other psychological approaches to schizophrenia. We wish to make it clear that any criticisms of CBT studies made in this article do not reflect a bias, for or against, either CBT or any other theoretical model. Our concern is to ensure that research studies into psychological interventions for this group of patients take place on a level playing field unhindered by ideological assumptions from any quarter.

Our caution concerning the apparent superiority of CBT over other psychological approaches to schizophrenia is grounded in two of the most consistent themes of over 30 years' work in the wider field of psychotherapy research. First, different methods of psychotherapy appear to achieve broadly similar outcomes despite varying in their technical specification and theoretical orientation (Luborsky, Singer, & Luborsky, 1975; Roth & Parry, 1997; Wampold *et al.*, 1997). This is referred to as the 'equivalent outcomes paradox' (e.g. Stiles, Shapiro, & Elliott, 1986). It has recently been argued that equivalent outcomes may be confined largely to adult depression (Chambless & Ollendick, 2001). However, equivalent outcomes are frequently observed in other disorders, such as chronic PTSD (Tarrier, Pilgrim *et al.*, 1999) and panic disorder (Clark *et al.*, 1999). There is a range of possible outcomes for future research. One possibility is that future research may show that equivalence is indeed largely confined to adult depression; alternatively, it may show that equivalence does prove to apply to all disorders, including schizophrenia, with non-equivalence the exception. Our current interpretation of the literature is that the balance of evidence does not currently disprove the equal outcomes paradox in relation to psychological interventions for people with schizophrenia.

Second, the results of comparative treatment studies can be subtly, but gravely, distorted owing to the researcher's allegiance to one of the treatments being compared. This is referred to as the 'investigator allegiance effect' (e.g. Luborsky *et al.*, 1999). It could be argued that some non-equivalent outcomes are vulnerable to allegiance effects. If, as we argue, these two factors are present in the schizophrenia literature, then studies of psychological interventions for schizophrenia can be aided by accommodating the lessons already learned by researchers studying psychological interventions for other disorders.

The equivalent outcomes paradox

We begin by presenting the evidence to support our argument that the equivalent outcomes paradox applies to psychological interventions for people with schizophrenia.

Family interventions

A substantial literature on family interventions for people with schizophrenia has emerged over the last 20 years. Recent reviews have generally accepted the efficacy of these interventions, especially in preventing patient relapse, but have raised

questions over their potential effectiveness in routine care (Barbato & D'Avanzo, 2000; Pharoah, Mari, & Streiner, 2000). These reviews have also found little differential superiority between different models of intervention. The majority of family interventions have applied, either directly or indirectly, CBT principles but have varied in the emphasis placed upon the various components (e.g. illness education or stress management) as well as in the structure, duration and intensity of the intervention. Barbato and D'Avanzo (2000) reviewed 25 studies spanning a 20-year period. They concluded that no evidence was available showing clear differences in outcomes between different models of interventions. Huxley, Rendall, and Sederer (2000), in a review of 18 family interventions, cited three studies that had compared theoretical orientations: multiple-family behaviour therapy vs. multiple-family psycho-education; dynamic vs. behavioural; and behavioural vs. supportive. The differences between these orientations were 'small' (Huxley *et al.*, 2000, p. 193), with none demonstrating overwhelming superiority over their comparison interventions.

Individual interventions

A recent review (Rector & Beck, 2001) identified higher effect sizes for CBT interventions compared with those for supportive therapy and routine care. We fully accept evidence for the efficacy of CBT; however, we would argue that some of the interventions included in the review as supportive therapy are liable to allegiance factors, as discussed in the second part of this article. Dickerson (2000) examined 20 studies of CBT therapy with schizophrenia published since 1990. She concluded that although several studies indicate the superiority of CBT over routine care, 'the superiority of CBT is less evident when CBT is compared with other therapies that employ equivalent amounts of one to one therapist attention. Additionally, the relative benefits of CBT are less apparent over longer follow-up' (Dickerson, 2000, p. 84).

For example, Haddock *et al.* (1999) found no differences between CBT and supportive counselling in a pilot study with recent-onset patients. Nine patients completed a mean of 10.2 (SD= 5.1) sessions of CBT, and 11 patients completed a mean of 9.1 (SD= 4.36) sessions of supportive counselling during a five-week in-patient therapy envelope. Post-discharge booster sessions were offered, but with very low take-up in both conditions. Both groups showed significant reductions in mean Brief Psychiatric Rating Scale (BPRS) scores after treatment with no significant group differences (CBT pre-treatment mean: M= 53, SD= 7; SC pre-treatment: M= 53.2, SD= 8.2; CBT post-treatment mean: M= 46.8, SD= 8.75, SC post-treatment: M= 38.3, SD= 17.4). Two-year follow-up showed no significant differences between the two groups for mean number of relapses; median time to relapse; median time to readmission; or total number of days in hospital. Tarrier *et al.* (1998) compared 'intensive' CBT plus routine care, supportive counselling plus routine care, and routine care alone. Both CBT and supportive counselling consisted of 20 one-hour sessions held twice-weekly. The greatest gains for improvement in the mean number of symptoms were for the CBT group.

Pre–post treatment mean number of symptoms were: CBT= 4.46, 2.86; SC means= 4.79, 4.29; RC means= 4.78, 4.89, respectively. The percentage of patients achieving a 50% or greater improvement in symptoms was also higher for the CBT group (33%) compared with the supportive counselling (15%) and routine care groups (11%). However, supportive counselling also resulted in symptom improvement over routine care and offered equal protection against relapse as CBT. At 12-month follow-up, the

superiority of CBT for positive symptoms only held when compared with routine care, and there was a trend for both CBT and supportive counselling to be more effective than routine care alone for negative symptoms. The advantage of CBT for the percentage of patients with a 50% improvement in positive symptoms no longer held (CBT = 21.7%; SC = 19.04%; RC = 11.53%), nor were there any significant differences in relapse rates (CBT = 26%; SC = 19%; RC = 27%) (Tarrier, Wittkowski *et al.*, 1999).

The results of these reviews and individual studies indicate that, as would be expected from the wider psychotherapy literature, the equivalent outcomes paradox probably applies to psychological interventions for people with schizophrenia. This suggests that schizophrenia research needs to incorporate some of the lessons already learned in other areas — especially the psychotherapy of depression — to sharpen research questions and improve the methodology.

Proposed resolutions for the equivalent outcomes paradox

Within the wider psychotherapy literature, Lambert and Bergin (1994) propose three resolutions for the equivalent outcomes paradox:

- Different therapies can achieve similar outcomes through different processes.
- Different outcomes do exist, but remain undetected by inadequate research methodologies.
- Different therapies contain 'common factors' that are curative, but are not emphasized by the theories of change central to differing models of therapy.

We now discuss each of these proposed resolutions to psychological interventions for people with schizophrenia.

Different therapies can achieve similar outcomes through different processes

The limitations of the schizophrenia literature prevent us from exploring the first of Lambert and Bergin's resolutions in great detail. We have already presented evidence suggesting that differing models of intervention can achieve broadly similar results. However, we are unable to support or refute the notion that these similarities in outcomes are achieved via different processes owing to the paucity of available evidence in the schizophrenia literature. Within psychotherapy research in general, the argument for a pluralistic approach to methodologies is becoming increasingly accepted (e.g. Shapiro, 1996). These approaches include controlled trials; single-case designs, qualitative approaches and multivariate process research. This contrasts with most of the research on psychological interventions for people with schizophrenia. Family intervention research remains dominated by randomized controlled trials relying on patient relapse as the primary outcome measure, and a lack of a wider range of outcomes including the subjective reports of participants (Pharoah *et al.*, 2000). Studies of individual CBT interventions have not yet teased out the complex interaction between patient, therapist and the process of therapy (Dickerson, 2000). Reviews of both family and individual intervention studies agree that the 'active ingredients' of these interventions have not being identified (Barbato & D'Avanzo, 2000; Dickerson, 2000; Huxley *et al.*, 2000). Barbato and D'Avanzo conclude that it is conceivable that the benefits of family interventions are solely related to increased contact with professionals rather than the interventions being specifically therapeutic.

Process–outcome data are required to build confidence in the efficacy of psychological treatments. The increased use of session-by-session process measures, commonly

used in psychotherapy research, is required to identify the active ingredients and treatment mechanisms of interventions and thereby identify true differences, should they exist, between different interventions. The schizophrenia literature is lagging behind the wider psychotherapy literature in using process–outcome methods. Exceptionally within the field, Budd and Hughes (1997) explicitly call for such measures to be incorporated into future intervention studies, and they report their own use of these measures to evaluate a family intervention.. They found that relatives cited as helpful the non-specific aspects of the intervention (e.g. support, reassurance) more commonly than the specific aspects of the intervention (e.g. behaviour change and skill acquisition). This research method is highly congruent with the demands of the user movement in valuing participants' experiences of interventions, It is also scientifically informative in relation to process–outcome relationships and treatment mechanisms, a key tool in unpacking the specific therapeutic impacts of these interventions.

Different outcomes do exist, but remain undetected by inadequate research methodologies

The second proposed explanation for the equivalent outcomes paradox is that differences do exist but that research studies have tended to be inadequately designed and therefore not capable of detecting true differences. In psychotherapy research as a whole, there is little evidence to suggest that improved research methods are resulting in the detection of previously undetected differences between therapies (Wampold *et al.*, 1997). However, it cannot be assumed that this would currently apply to psychological interventions for people with schizophrenia, where current methodological limitations are perhaps greater than in such fields as depression treatments where there is a longer-established research tradition with stronger and considerably more numerous studies available. The reviews of family and individual interventions cited previously have all identified methodological shortcomings that limit the comparability of studies and the strength of conclusions about their effectiveness (Barbato & D'Avanzo, 2000; Huxley *et al.*, 2000). Some of the specific methodological problems associated with intervention studies for people with schizophrenia are worth examining in more detail.

Psychological intervention studies for people with schizophrenia have tended to rely on the RCT as the primary research strategy, and there is no doubt that RCTs have many strengths. However, psychotherapy research has identified limitations and difficulties that argue against sole reliance upon the RCT to identify effective interventions. Roth and Parry (1997) outline some of the validity problems associated with RCTs within psychotherapy research. These include the difficulties in attaining true randomization; the unrepresentativeness of diagnostically homogenous patients; the unrepresentativeness of 'pure' and standardized interventions; and the potential for bias and unrepresentativeness arising from high patient attrition rates. In schizophrenia research, there is substantial evidence that most studies have included unrepresentative samples. For example, it is estimated that for family intervention studies, fewer than 35% of all potential patients are estimated to both meet the stringent inclusion criteria and agree to participate (Hogarty *et al.*, 1997; Weidmann *et al.*, 1994).

The problem of patient attrition in studies of people with schizophrenia compounds the restrictive entry criteria, making it difficult to obtain samples large enough to afford sufficient statistical power to detect the modest, albeit clinically worthwhile, differences between interventions that it is reasonable to expect to find. Kazdin and Bass (1989) suggest that for psychotherapy outcome studies, a minimum sample of 27 per group is needed to demonstrate the relatively large differences that may be expected in comparing

treatment with no treatment, whereas detection of the smaller differences expected when comparing active treatments requires no fewer than 70 patients in each group. Applying these criteria to studies of people with schizophrenia, although most family intervention studies have sufficient power to demonstrate effects over routine care, few studies comparing differing family interventions are adequately powered to detect likely differences among treatments (e.g. McFarlane *et al.*, 1995; Schooler *et al.*, 1997). It is therefore possible that worthwhile, although not overwhelmingly large, differences among treatments have gone undetected by this literature.

Different therapies contain 'common factors' that are curative but are not emphasized by the theories of change central to differing models of therapy

All forms of psychotherapy may be usefully conceptualized as comprising both 'specific' and 'non-specific' factors. Specific factors are those factors unique to each model, such as the identification of negative thoughts in CBT or making interpretations linking past and present relationships in psychodynamic psychotherapy. However, these specific techniques are estimated to account for only 12–15% of the variance across therapies (Lambert, 1992). Non-specific factors are the common factors that are likely to be found in all models of psychotherapy irrespective of theoretical orientation. These include understanding, warmth, attention from the therapist, instillation of hope and feeling supported, as well as the 'ritual' associated with the provision of therapy. Lambert and Bergin (1994, p. 149) suggest that non-specific factors are among the *largest* mediators of outcome and 'should not be viewed as theoretically inert or trivial'. The potential importance of non-specific factors is ignored consistently in many studies with people with schizophrenia. For example, Dickerson (2000) concluded that the superiority of CBT diminished when compared with other interventions employing equal amounts of therapist attention. The review by Barbato and D'Avanzo (2000) suggested that the efficacy of family interventions may be owing to common therapeutic factors. For example, Bellack, Haas, Schooler, and Flory (2000) compared a highly structured and manualized Applied Family Management intervention, containing a hypothesized specific effect of communication skills training, with a less intensive Supportive Family Management intervention. There were no differences in clinical outcomes, nor any differential improvement in family communication between the two interventions. Additionally, we have already referred to a process-orientated evaluation of a family intervention that found that non-specific factors such as support, backup and reassurance were more commonly cited by relatives as being the most helpful to participants than specific interventions (Budd & Hughes, 1997).

Common factors should not be viewed as therapeutic 'offcuts' to be discarded. Even if CBT is shown at some point to be clearly superior to supportive counselling, supportive counselling may still bring benefits to many patients and could potentially be offered by a larger number of staff who do not possess, and may not need, intensive CBT training. One of the most important common factors in psychotherapy is the quality of the therapeutic alliance formed between the client and the therapist, which is strongly predictive of subsequent outcomes (Roth & Parry, 1997). Current alliance research would have us view the therapeutic relationship as reflecting transactions between the therapist and client, rather than as a set of conditions provided by the therapist, or as merely reflecting the client's capacity to change. Consistent with this, Fadden (1998) suggests that failure of engagement in family intervention may be as much to do with therapist as family variables.

This suggests that further research is needed on the interplay between therapist and participant in family interventions, consistent with our contention that the contribution of non-specific factors has not been identified and isolated from the impact of specific factors in psychological intervention studies of people with schizophrenia. There is insufficient evidence within the schizophrenia literature that clearly delineates the relative contribution made by specific and non-specific effects of differing interventions. This lack of evidence again suggests that the schizophrenia literature has much to learn from the wider psychotherapy literature.

Investigator allegiance

We now turn to the second main finding from the wider psychotherapy literature in relation to evaluation of treatment efficacy: the phenomenon of investigator allegiance whereby a researcher's differential allegiance to the treatments under investigation is strongly associated with the results of comparative outcome studies. The relatively rare exceptions to the 'equivalent outcomes' rule can often be explained by such differential investigator allegiance. For example, a researcher comparing CBT with psychodynamic therapy is likely to find that CBT is the most effective treatment if their 'allegiance' is to CBT, and vice versa if their 'allegiance' is to psychodynamic models. Within the wider psychotherapy field, Luborsky *et al.* (1999) found that the investigators' own allegiance to the treatments under comparison was strongly predictive of outcome, accounting for fully 69% of the variance in outcomes of comparative studies. Luborsky *et al.* advanced on earlier studies of this relationship by combining measures of allegiance derived from three independent sources: judges' ratings of allegiance based on reading the research reports; ratings by scientific peers of the investigator's allegiance; and self-ratings of allegiance by the investigators themselves. Allegiance is not a question of dishonesty or wilful distortion of results; rather, it reflects differences in knowledge, skills and attitudes that unwittingly stack the cards in favour of an investigator's preferred treatment in myriad ways throughout the design, implementation and interpretation of a research study.

Examples of investigator allegiance from the schizophrenia literature

Significantly higher effect sizes have been found in studies of schizophrenia in which the authors had an allegiance to the experimental treatment compared with those studies where allegiance was unclear (effect size = .44 vs. .28; Mojtabai, Nicholson, & Carpenter, 1998). This highlights the need for comparative studies carried out to ensure that each condition can be provided with equal competence. We now 'unpack' the concept of investigator allegiance, following Luborsky *et al.*'s (1999) consideration of the ways in which investigator allegiance may exert its influence upon outcomes obtained by researchers, identifying potential examples of each in the schizophrenia literature. First, the researcher selects a less effective competing treatment. For example, the inadequate description of standard care, possibly leading to control groups being at higher risk of receiving inferior care and the effects of experimental effects being overestimated, has been identified in family intervention studies, with much less impressive results where the intervention being evaluated is compared with more robust versions of standard care (Barbato & D'Avanzo, 2000). Although Haddock *et al.* (1999) found no significant differences in a pilot investigation comparing CBT with

supportive counselling/psycho-education, the authors' description of the proposed main study suggests insufficient sensitivity to the problem of bias. The authors propose to remove psycho-education from the supportive counselling condition as this may be a specific CBT component. However, it could equally be argued that offering information is a component of supportive counselling, and that this comparison intervention will therefore be diluted, leading the comparison to be biased in favour of the CBT intervention. They also report that all therapy sessions will be completed according to protocol but only mention CBT-specific measures to ensure treatment fidelity, with no indication that treatments will be provided by investigators with equal allegiance to both interventions. Some schizophrenia studies have ignored the stricture of Wampold *et al.* (1997) that only bona fide therapies (i.e. those intended to be therapeutic) should be included, thereby inflating the potential bias because of investigators' allegiance to the expectedly active treatment. For example, Sensky *et al.*'s (2000) comparison intervention of 'befriending' deliberately discussed only neutral topics, avoiding discussion about symptoms and was inferior to a CBT intervention that actively targeted symptomatology.

Second, there is a trend for published reports to have the implied theme of superiority for the researcher's preferred approach, with studies the findings of which run counter to the author's allegiance remaining in the file drawer rather than being published. Luborsky *et al.* (1999) report that they were unable to identify one single report in the entire psychotherapy literature published by a founder of a treatment where the results ran counter to the founder's allegiance. A review of family interventions in schizophrenia by Pharoah *et al.* (2000) found a trend towards the null hypothesis when intervention studies were ordered by publication date indicating that the originators of these interventions achieved better results than their successors.

Third, the skill profile of the therapists may favour the allegiance of the researcher. For example, Haddock *et al.* (1999), Tarrier, Wittkowski *et al.* (1999) and Sensky *et al.* (2000) all appear to have used the same therapists for both the CBT and comparison intervention even though they seemed to be therapists with primary expertise in the use of CBT for people with psychosis.

Fourth, therapists engaged in a therapy to which the researcher has an allegiance may receive a boost in their morale, thus improving their performance as the impact of a researcher's positive expectations influences them. For example, the therapists in the Sensky *et al.* (2000) study were CBT-trained and provided CBT interventions according to a treatment manual written by the two lead researchers associated with the study.

A fifth area of potential bias, not suggested by Luborsky *et al.* (1999) but highlighted by Barbato and D'Avanzo (2000), concerns the restricted range of alternative interventions offered as comparisons. Both family and individual therapy studies tend to be variations on psycho-educational/behavioural interventions. Barbato and D'Avanzo (2000) specifically note that there have been no controlled studies comparing psycho-educational models with systemic models in the absence of an educational component. The lack of studies that have used psychodynamic interventions is an issue that warrants detailed consideration.

Acknowledging any potential value for psychodynamic interventions for people with schizophrenia is a controversial issue among many UK and US researchers on the basis of a widespread but empirically unsupported opinion that psychodynamic interventions are inappropriate for this group of patients either individually or with their families (Dixon & Lehman, 1995; Penn & Mueser, 1996). This may reflect the fact that for many years, psychodynamic practitioners persisted in the unhelpful ideology that

dysfunctional families caused schizophrenia. However, it would be equally unhelpful if psychodynamic interventions, as an adjunct to medication, were also discounted on ideological rather than empirical grounds. It would be consistent with the stress-vulnerability model to view a stressful childhood as *one* possible factor contributing to the stress that precipitates the onset of the illness in those with a genetic liability. No environmental risk factors alone have been identified that lead to the development of schizophrenia in the absence of an underlying genetic liability (Rutter & Plomin, 1997). Yet there is evidence that gene–environment interactions are important in the development of schizophrenia (Rutter & Plomin, 1997) and, specifically, that disturbed family environments during childhood can be a risk factor for those with a genetic liability for schizophrenia (Tienari *et al.*, 1994). Psychodynamic interventions may also be useful in helping patients with co-morbidity such as depression or interpersonal problems. People with schizophrenia are a heterogeneous group, and there is currently little evidential basis for proscribing or prescribing psychological interventions purely on diagnosis rather than an individual's suitability for differing interventions.

Mueser and Berenbaum (1990) reviewed 21 years of studies of psychodynamic therapy for patients with schizophrenia. They concluded that there was almost no evidence to support psychodynamic treatments improving patient outcomes, and indirect evidence that it may be harmful to some patients, suggesting a moratorium on the use of psychodynamic therapies for people with schizophrenia. However, inappropriate use of any intervention may be harmful. For example, Hogarty *et al.* (1997) found that a disorder specific — 'personal therapy' — resulted in higher relapse rates for patients living alone than a comparison supportive counselling intervention. Although personal therapy is not a CBT intervention, it is a structured intervention that includes psycho-education, stress coping and cognitive reframing components. This structured intervention resulted in cognitive overload and became toxic for patients who were also struggling to maintain basic environmental supports like housing and finances, as well as coping with their illness. Hogarty *et al.* (1997) hypothesize that this lack of clinical and environmental stability, when coupled with overloading interventions, could be one factor that led to their personal therapy, and unsuccessful interventions in other studies, being unsuccessful. They suggest that recommendations for a moratorium on future research on psychodynamic therapies are therefore 'premature' (Hogarty *et al.*, 1997, p. 1505).

Additionally, pro-CBT researchers have so far presented little data on any potential problematic effects of using CBT with people with schizophrenia (Jones, Cormac, Mata, & Campbell, 2000), or on identifying the weaknesses (as well as strengths) of the CBT approach in general (Holmes, 2000). Some psychodynamically oriented family interventions have been identified as unsuccessful in preventing patient relapse (e.g. Kottgen, Sonnichsen, Mollenhauer, & Jurth, 1984). However, successful family interventions incorporating psychodynamic principles or techniques have been carried out in both Scandinavia and the US (e.g. Levene, Newman, & Jefferies, 1989, 1990; Tuori *et al.*, 1998), and reports have begun to appear in British psychotherapy literature reporting on successful exploratory use of psychodynamic-interpersonal interventions with people with schizophrenia (Davenport, Hobson, & Margison, 2000).

In contrast to Mueser and Berenbaum (1990), a meta-analysis by Mojtabai *et al.* (1998) concluded that there was no evidence that psychodynamic therapies were either harmful or any more effective than other verbal treatment modalities for people

with schizophrenia. However, they did find lower (but non-significantly lower) effect sizes for psychodynamic psychotherapies (.27) compared with those for 'expressed emotion reduction programmes' (.56), 'other verbal treatments' (.38), and 'cognitive training programmes' (.41). These marginally different effect sizes might reflect underlying true differences between modalities masked by a lack of adequately powered studies with which to make true comparisons. For example, Malmberg and Fenton (2000) found only a few studies dating from the 1970s and 1980s to include in their review of individual psychodynamic therapy for people with schizophrenia. They concluded that there was little evidence of any positive effect for a psychodynamic approach, but wondered whether there 'is a bias away from research in this understudied area' (Malmberg & Fenton, 2000, pp. 10–11). Roth and Parry (1997, p. 372) make the point that 'where research has not been undertaken, absence of evidence for efficacy is not evidence of a lack of efficacy'.

It is our interpretation of the current evidence that there are insufficient studies of psychodynamic treatments and that the balance of investigator allegiance across the schizophrenia literature is against psychodynamic or supportive methods and in favour of CBT approaches. Our own allegiance as reviewers of the field is neither pro-psychodynamic nor anti-CBT, but is to even-handed evaluation of all models of therapy. Luborsky *et al.* (1999) offer suggestions for limiting the effects of investigator allegiance—research teams to: include researchers with a mix of therapy allegiances; correct the results for the impact of the researcher's allegiance; arrange for therapist selection and supervision for each treatment to be carried out by those with allegiance to that treatment; arrange for studies to be carried out by researchers with minimal allegiance to either treatment being compared; and arrange to have meta-analyses carried out by teams including researchers whose allegiances represent the full range of treatments under comparison. Only by taking such steps to ensure a level playing field can comparative research dependably identify the most effective psychological treatments of schizophrenia. Decisions to proscribe or prescribe psychological interventions should be based on empirical evidence that supports these decisions, not on ideology.

Conclusion

We have presented evidence that two of the main conclusions from the wider psychotherapy literature—the equal-outcomes paradox and the importance of investigator allegiance—are applicable to the schizophrenia literature. Stiles *et al.* (1986) concluded that the question 'Are all psychotherapies equivalent?' could only be answered by greater precision and specificity of theory and method in psychotherapy research. We would support a similar increase in research precision for studies of people with schizophrenia and suggest that the schizophrenia field needs to take on some of the lessons already learned in the wider field of psychotherapy research. There is a need for research where interventions are provided and evaluated without bias. Evaluation needs a more fine-grained analysis that can capture the relative impact of patient, therapist and intervention variables as well as the impact of the specific and non-specific aspects of differing interventions. This will ensure that the provision of psychological interventions to people with schizophrenia will be based on what is most likely to be most helpful for each individual patient rather than limited by ideologically based misinterpretations of a complex, uneven and somewhat equivocal evidence base.

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