

# Commentary: Psychological and Social Treatments for Schizophrenia: Not Just Old Remedies in New Bottles

by David Hemsley and Robin M. Murray

Mental health teams frequently use, and even more frequently claim to use, psychosocial treatments in the care of people with schizophrenia. Yet there remains a suspicion, particularly among patients' and relatives' groups, that such treatments are not as widely available as they ought to be. This failure to take up psychosocial treatments may be partly because they are not marketed by powerful organizations like drug companies. However, another reason is that psychiatrists are often skeptical whether psychosocial treatments are effective and whether they have been tested as rigorously as new drugs.

Sadly, there have been some grounds for this skepticism. Only too often a new social therapy has been compared with standard treatment and found to be superior. In many cases, however, the team that applied the innovative therapy has been led by an enthusiastic young researcher highly committed to the therapy under test. In comparison, the standard treatment has been that offered by an elderly psychiatrist practicing as he has done for the previous 30 years while dreaming of retirement and ways to poison the head of his hospital. Under such circumstances, the fact that the new treatment is found to be superior cannot be taken as indicating that its benefits are generalizable!

Fortunately, in the last few years, psychosocial researchers have discovered the placebo effect. The design of studies assessing psychosocial treatments has considerably improved, and the best of these studies can now measure up to the standards of those testing new antipsychotics. Consequently, we have learned more about (1) which of the psychosocial treatments are effective, (2) which aspects of them comprise the active ingredients, and (3) to whom they should be given.

These trends in psychological and social interventions for schizophrenia are readily demonstrable in this issue of the *Schizophrenia Bulletin*. Two of the featured articles concern traditional therapies—individual psychotherapy (Fenton, this issue) and vocational rehabilitation (Cook and Razzano, this issue)—that have waned in attraction but are now being reexamined. Since these two

articles are discussed by other commentators, we will not consider them further but instead concentrate on the articles by Dixon et al., Heinssen et al., Garety et al., Green et al., and Drake and Mueser.

## Psychoeducation

Research into the role of high expressed emotion (EE) in schizophrenia and into attempts to modify it was begun at the Maudsley Hospital, London, in the early 1970s by George Brown, Julian Leff, and colleagues (Brown et al. 1972) and brought to the United States a decade later by Ian Falloon. Subsequently, therapy aimed at lowering EE in families was supplemented by various behavioral interventions and rebranded as psychoeducation. Family interventions have now rippled out to reach China, and reach it big time! In their review, Dixon and colleagues (this issue) cite four trials from China, the largest of which involved 2,076 individuals assigned to the psychoeducation condition and 1,016 controls assigned to routine services. All four studies showed a dramatic beneficial effect for psychoeducation.

These results are not, of course, surprising since the control condition comprised “bare bones individual services.” Just as one can study the origins of the universe by observing light emitted from long dead stars in peripheral galaxies, so one can get a reflection of British psychiatric services in the 1970s, before treatments for “high EE” families were introduced, by examining these Chinese studies. Certainly, psychoeducation is better than current “bare bones” Chinese services or 1970s British services. But is it better than the general level of family support now provided in most Western countries? Here the picture is much less clear.

For example, Linszen and his coworkers (1996) from Holland show that family intervention packages bring no added benefit to the relatives of patients suffering their

Reprint requests should be sent to Dr. R.M. Murray, Institute of Psychiatry, De Crespigny Park, London SE5 8AF, England.

first episode of psychosis. They conclude that the families may not be ready to accept that their relative has a chronic illness to which they must accommodate themselves. An alternative view is that pathological relationships in the families of schizophrenia patients arise as a response to the immense stress of coping with a disturbed relative, and these relationships have not yet developed at the time of the first episode. Interestingly, the intervention caused a "near significant increase in relapse" in "low EE" families. Linszen and colleagues conclude that this may be because psychoeducation increased the stress level in these families by implying that something was wrong with their interaction! Thus, psychosocial therapies are not without adverse effects if wrongly targeted.

Several well-organized studies out of Pittsburgh, PA, by Hogarty and by Schooler also found that intensive psychoeducation programs brought little added benefit over standard treatments. Like these investigators, Dixon and her colleagues console themselves that this was because the control treatments were relatively sophisticated and effective. This conclusion is somewhat at variance, however, with the tenor of Dixon et al.'s article, which implies that more family psychoeducation is necessarily better.

What then is the current status of psychoeducation? Psychiatrists largely accept its value in theory, but surprisingly few use it. One reason is that so many schizophrenia patients have lost contact with their families (McCreadie et al. 1992). Another reason may be that family intervention still attracts hostility from families who see it as blaming them for the illness or its exacerbation. This reaction is understandable, given that the original odd mixture of "high EE" constituents—that is, critical comments, hostility, and overinvolvement—remain the measures to be changed in many psychoeducation packages. While the first two are legitimate targets, the third cannot always be regarded as detrimental. Indeed, as clinicians who run a unit for patients with treatment-resistant schizophrenia, we know that the very persistence of an overinvolved relative may bring the patient access to new treatments.

Unfortunately, Dixon and colleagues do not discuss recent family-genetic studies. These studies have shown that a proportion of the relatives of schizophrenia patients shows minor, or indeed not so minor, variants of the biological abnormalities found in schizophrenia patients, presumably because they are carrying one or more of the susceptibility genes for schizophrenia; these abnormalities include increased cerebral ventricular size, eye tracking abnormalities, schizotypal personality, and neuropsychological deficits (Wickham and Murray 1997; Sharma et al. 1998). Surely at some point, the two separate lines of research into the (1) biological abnormalities shown by relatives of schizophrenia sufferers and (2) their attitudes and behavior toward their sick relatives must meet.

## Psychosocial Skills Training

Psychosocial skills training for patients with schizophrenia is also a widely admired, if not necessarily widely practiced, therapy. Robert Liberman, a coauthor of Heinssen et al.'s article (this issue), has been particularly influential in its development. In their article, Heinssen, Liberman, and Kopelowicz provide a comprehensive review of the literature between 1994 and 1999, summarizing the considerable evidence that has accumulated about the effectiveness of social skills training and showing how thoroughly earlier recommendations have been taken on board. For example, Shepherd (1978a) suggested that "a slow rate of presentation and some kind of pure part or progressive part learning method may reduce information processing problems" (p. 258) and that sessions should be conducted in contexts other than the treatment group. Many social skills programs now apply both of these recommendations.

Heinssen and colleagues acknowledge that limited data are available on the important issue of the extent to which new skills generalize. They also point out the need for extremely extended intervention. Thus, Shepherd's (1978b) argument that it is useful to think of schizophrenia patients' social difficulties as chronic disabilities requiring effective management, rather than symptoms requiring treatment, retains considerable force.

Unfortunately, some of the problems that caused concern in the 1970s when psychosocial skills programs were introduced have not disappeared. There remains the vital question of the influence of schizophrenia-related cognitive impairment on the outcome of social skills training. The effect that this influence had in early studies (cf. Williams et al. 1976; Lauterbach et al. 1979) was extensively discussed (e.g., Hemsley 1979), as was the possible protective role of social withdrawal in those with marked cognitive dysfunction (e.g., Florin 1977; Hemsley 1978). Two decades later, Kopelowicz et al. (1997) note that many of the problems they encountered when implementing a social skills program for patients with the so-called deficit syndrome were probably attributable to the greater cognitive impairment shown by these patients. Such patients may require a less demanding social environment (Velligan et al. 1996).

Therefore, the issue of matching the complexity of response required to the cognitive capacity of the patient remains important, even if, as Spaulding and his colleagues suggest, deficits may in part be remediable. Unfortunately, less demanding environments are not easy to find in industrialized countries. In discussing the more benign outcome of schizophrenia in developing rather than developed countries, Jablensky (1987) pointed out that this could be due to the complex, conflicting, and

potentially disorienting cognitive requirements characteristic of more technologically sophisticated societies, requirements absent in developing countries.

## Cognitive Behavior Therapy

Like psychoeducation, the cognitive modification of delusions had its origins in the Maudsley Hospital in the early 1970s (Watts et al. 1973); unlike psychoeducation, it has taken almost 25 years for this treatment to be accepted. However, cognitive behavior therapy (CBT) is now the fastest growing treatment modality for psychosis in the United Kingdom, though it has yet to penetrate North America. This slow acceptance reflects the firmly held beliefs of psychiatrists that their patients cannot be talked out of their similarly firmly held beliefs.

Garety, Fowler, and Kuipers (this issue), leading figures in the application of CBT for psychosis, review four randomized controlled trials that have demonstrated CBT's efficacy. CBT applies the techniques that have been found useful in anxiety and depressive disorders to the dysfunctional models of self and the environment that psychotic patients hold. The approach starts with sessions aimed at identifying and measuring the target symptoms and behaviors and examining their antecedents and consequences.

Garety and colleagues illustrate the importance of developing preliminary goals of intervention that are shared between patient and therapist, but point out that these need not be identical to those goals agreed upon once the therapeutic relationship is established. Furthermore, patients' goals do not inevitably correspond to those of the family or society. As the authors note, this may be a particularly difficult issue when patients do not appear to be distressed by their delusions but their relatives are very worried. In such cases a reasonable aim may be to "encapsulate" delusions, that is, to allow the patient's belief conviction to remain, but to attempt to minimize other dimensions of the conviction, such as preoccupation, interference, and action.

The review emphasizes the need to present the patient with a model for the disturbance—moreover, a model appropriate to his or her educational level. Thus, a psychologist suffering from schizophrenia might be presented with his or her favored psychological model, even if this is itself in part delusional! An important aim of the CBT approach is to provide the patient with insight, since, as Dittman and Schuttler (1990) claim, this results in more systematic and adaptive coping strategies than those that patients spontaneously adopt.

One might expect that levels of thought disorder would predict ability to engage with and benefit from CBT. Garety et al. (1997) did not find this in their own

trial, but their measures were probably not sufficiently detailed to detect any such effect. Furthermore, the limited success reported for CBT with purely negative symptoms may be related to the severity of cognitive disturbance associated with this presentation (cf. Hemsley 1977). It is also possible that such patients are experiencing fluctuating and unstable disturbances of belief and perception that are difficult to assess accurately and therefore may pose problems for CBT.

There has been much less research on the effectiveness of CBT on hallucinations than on delusions (reviewed by Shergill et al. 1998), but some preliminary reports suggest success in diminishing the frequency of hallucinations. If this is confirmed as a direct effect, rather than simply on their emotional impact and interpretation, the mechanisms require clarification. Slade's (1976) model, which emphasizes the role of anxiety in increasing hallucinations, may prove relevant.

Indeed, an important aspect of the CBT approach is its emphasis on the importance of modifying nonpsychotic symptoms such as anxiety and depression. The success of antianxiety techniques in psychotic patients is consistent with much recent research demonstrating that preschizophrenia children often show social anxiety (Jones et al. 1994). The more limited success of techniques aimed at depression may be attributable to the multiple pathways to depression in psychosis, such as insight, prolonged overstimulation, loss of key reinforcers, and medication side effects (Hemsley 1996). The possible importance of the last of these is consistent with a recent demonstration of reduced access to happy memories in normal subjects administered haloperidol (Kumari et al. 1998).

## Neurocognitive Deficits

It is clear from our earlier comments that neurocognitive performance plays an important role in determining the limits to what can be achieved by psychosocial therapies. In 1996 Michael Green published an extremely influential review demonstrating that neurocognitive deficits predict the real-life outcome of psychosis better than the presence or absence of psychotic symptoms. In this issue of the *Bulletin*, Green and colleagues provide an update on the burgeoning literature and again highlight the consistent finding of highly significant relationships between cognitive performance and a range of outcome measures.

Once again, recent findings are consistent with earlier work. For example, Burstein et al. (1967, 1968) indicated that psychomotor assessments could predict work behavior, Cancro (1971) demonstrated a relationship between reaction time (RT) and subsequent hospitalization, and Pattie et al. (1975) reported that cognitive tasks predicted

change in industrial therapy ratings. And yet we are left with a vague feeling of dissatisfaction.

This feeling partly results from not clearly knowing what is being measured by the neuropsychological tests and hence not knowing the causal path to impaired real-life performance. For example, the nature of a continuous performance task may crucially affect the functions being assessed (Nuechterlein 1994), and these may relate differentially to state and trait measures. Similarly, Pantelis et al. (1999) have presented data that force us to reconsider in what particular way schizophrenic performance on the Wisconsin Card Sorting Task is abnormal.

Green and his colleagues make the interesting suggestion that "learning potential" may both increase the predictive power of cognitive assessments and provide a more plausible pathway to outcome measures. This concept of "learning potential" may overlap with the ability to "automatize" performance (cf. Schneider and Shiffrin 1977). If so, it would facilitate links with a broader research tradition. The transition from controlled to automatic processing as a result of practice involves the gradual inhibition of awareness of redundant information, and the failure to develop automaticity may be secondary to impaired operation of contextually elicited inhibitory processes (Hemsley 1994). Slower automatization might therefore be a candidate for inclusion in outcome studies. In part the RT measure employed by Wykes et al. (1992) reflects the problem schizophrenia patients have in adjusting to an incompatible stimulus-response pairing (cf. Hemsley 1976). Wykes (personal communication, June 16, 1999) finds that the patients who show no practice effect on this task have the poorest outcome.

One specific measure that might be used in further studies is the implicit learning RT task developed by Musen and Squire (1993). In the first half of this task, words are consistently presented in a particular color, in the second phase these pairings are changed and RT increases. This effect is reduced in schizophrenia patients (Steel 1998), suggesting a slowing in the formation of color-word associations or a weakening of contextual influences or both (cf. Cohen and Servan-Schreiber 1992; Hemsley 1994). Similar findings are reported by Green et al. (1997), who employed a serial RT task. It is likely that efficient real-life performance, such as in social situations, is heavily dependent on such implicit learning.

## Dual Diagnosis

For European clinicians such as ourselves, the most unusual of the articles in this issue is Drake and Mueser's addressing treatment programs for patients with the dual diagnosis of psychosis and substance abuse. Although substance abuse by schizophrenia patients is a problem in

Europe, it has not yet reached the epidemic proportions found in the United States; furthermore, the substances causing most concern appear different.

According to the review by Drake and Mueser, alcohol is the substance most commonly abused by American schizophrenia patients; in the United Kingdom at least, schizophrenia patients tend, if anything, to drink less alcohol than the general population (Bernadt et al. 1986; Grech 1998). Drake and Mueser also comment on the frequency of cocaine abuse, which is less of a problem in Europe. In contrast, cannabis is the substance most commonly abused by psychotic patients in most of Europe, especially in England and Holland. Cannabis abuse is associated with early relapse and a poorer outcome (Linszen et al. 1996) of psychosis, and there is active debate over whether or not it is a risk-increasing factor for the first episode; the majority opinion in the United Kingdom is that it is (Andreasson et al. 1987; Grech 1998).

Drake and Mueser make a strong case for the provision of integrated services for patients with dual diagnoses. American care providers have accumulated much more experience than their European counterparts in running such joined-up programs, and the evidence of this review is that they are worthwhile. Certainly, in the United Kingdom dual-diagnosis patients are often poorly served by the separate services, each of which demands that the other problem be solved before it can profitably engage. It could be argued that such integrated programs are not necessary outside the United States. Nevertheless, on the basis that most of America's bad habits reach Europe within a few years, it is as well to be forewarned about what problems lie before us and the most effective ways of addressing them. One particularly interesting piece of information is the evidence that prescription of clozapine seems to be associated with a diminution of illicit drug taking.

## What Is Missing?

Surprisingly, there is little mention in these articles, apart from that on dual diagnosis, on the role of assertive outreach and case management. This is a pity as it is our impression that health care purchasers and providers have widely adopted these approaches without adequate testing. To give a parochial example, the British government has based its program of community care for people with schizophrenia on the widespread implementation of case management. However, it is only now that the efficacy of case management has been tested in a U.K. setting. Burns et al. (1999) report a study in which 708 patients with chronic psychosis were randomized to either intensive or standard case management and then followed up for 2 years. There were no significant differences in any of the

outcome measures between the two groups. Where does this leave Britain's official community care policy?

Most of the articles in this issue make the point that psychosocial treatments should not be seen as an alternative, but rather as an adjunct, to antipsychotic medication, and yet they do not address the question of whether psychological intervention can be used to increase compliance with medication. Kemp et al. (1996, 1998) have done just that in a study in which patients with psychosis were randomized to either compliance therapy or treatment as usual.

Even though the intervention was simple and short-term, the group that had received the compliance therapy was clearly superior in terms of both compliance and general functioning at 6 and 18 months. Thus, a simple psychological intervention can be used to enhance compliance with prescribed antipsychotics; this in turn should enable patients to be more able to participate actively in psychosocial treatments, thus establishing a virtuous circle.

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### **The Authors**

David Hemsley, Ph.D., is Professor, Department of Psychological Medicine, Institute of Psychiatry, London, U.K. Robin M. Murray, Ph.D., is Head of Department, Department of Psychiatry, Institute of Psychiatry, London, U.K.

