Psychological Interventions For Psychosis: A Critical Review Of The Current Evidence

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Citation

Abstract

In this review, the current evidence for psychological interventions is critically appraised. Studies differ in both the techniques employed in therapy and the specific goals of treatment. Targeted outcomes include measures of overall symptomatology, social functioning and relapse rates. Whilst some researchers have focused on dysfunctional schemas, interventions range from an emphasis on problem solving and coping strategies, to the rational exploration of delusional beliefs and the use of reality testing. In short, there are broad variations in what is being tested and for whom.

The review reflects the results of a literature search using the keywords "psychological", "psychosocial", "psychotherapy" and "schizophrenia." Reference lists of retrieved papers were also examined for further relevant material. Lack of space permits a detailed examination of CBT alone, although an additional, closely related intervention is given consideration. Studies are divided into those focusing on unremitting, medication-resistant symptoms and those focusing on acute episodes of psychosis.

INTRODUCTION

Following the introduction of phenothiazines in the 1960's, psychiatry became increasingly divided into adherents of the psychodynamic and biological approaches (Fenton, 2000). Discordant ideological and scientific debates formed around the value of intensive psychotherapy versus medication. However, the past decade has seen a shift away from these ideological disputes towards an understanding that no single treatment can improve the symptoms of schizophrenia. Today, evidenced-based treatment is considered the standard for psychiatry. Hence, the scientific documentation of efficacy forms the basis upon which treatments are either considered viable or rejected (Carpenter, 2001).

Although neuroleptic medication remains the principal treatment for psychosis, between 25-50% of sufferers will continue to experience persistent and distressing symptoms (Garety et al, 2000). Patients may be subject to periodic relapse, despite ongoing adherence to medication regimes (Hogarty & Ulrich, 1998). Furthermore, patients are often reluctant to take long-term medication due to its unpleasant and even disabling side effects. As a result, many clinicians have seen the need to develop complementary treatments. The main areas investigated are those that involve some form of psychotherapy. However, compared to the many hundreds of studies evaluating pharmacological agents in schizophrenia, few controlled clinical trials of individual psychotherapy have taken place.

INDIVIDUAL PSYCHOTHERAPY FOR SCHIZOPHRENIA

Fenton (2000) provides both a comprehensive, historical account of the theory of individual psychotherapy for schizophrenia and a literature review of studies evaluating its efficacy. He warns against the search for a single common component to effective psychotherapy, believing that it could lead to a return of acrimonious ideological debate, thus obscuring further research. Such dogmatic adherence to a single technique applied to all patients is considered damaging and unhelpful (Fenton & McGlashan, 2000).

Malmberg and Fenton (2002) find no evidence to support any positive effect of psychodynamic, insight-orientated therapy for schizophrenia and comment that the possibility of negative effects seems never to have been considered. Similarly, Fenton (2000) finds little evidence to indicate a clear advantage of psychodynamic therapy over medication. Out of the six trials reviewed during the psychotherapy versus biology debate, the most promising approach proved to be the least analytical. Overall, groups treated with

medication always demonstrated superior outcomes, whether or not psychotherapy was offered. However, positive outcomes were found for an approach that focused on the specific and current problems adversely affecting the patient's functioning. Here began a move away from treatments founded on pychogenic aetiology, towards problem solving, cognitive-behavioural interventions.

CURRENT RESEARCH

In this review, the current evidence for psychological interventions is critically appraised. Studies differ in both the techniques employed in therapy and the specific goals of treatment. Targeted outcomes include measures of overall symptomatology, social functioning and relapse rates. Whilst some researchers have focused on dysfunctional schemas, interventions range from an emphasis on problem solving and coping strategies, to the rational exploration of delusional beliefs and the use of reality testing. In short, there are broad variations in what is being tested and for whom.

The review reflects the results of a literature search using the keywords "psychological", "psychosocial", "psychotherapy" and "schizophrenia." Reference lists of retrieved papers were also examined for further relevant material. Lack of space permits a detailed examination of CBT alone, although an additional, closely related intervention is given consideration. Studies are divided into those focusing on unremitting, medication-resistant symptoms and those focusing on acute episodes of psychosis.

COGNITIVE-BEHAVIOURAL THERAPY

Cognitive-behavioural therapy was developed for the treatment of neurotic disorders, such as anxiety and depression. As its efficacy in this area has grown (Haddock et al, 1998), so has the interest in its application to psychosis. Eells (2000) tells how the largely disappointing efforts of the psychodynamic approach in the past have tempered today's treatment methods, which are more modest and pragmatic in their aims. These methods are viewed as part of a comprehensive package of psychosocial interventions that assume a diathesis-stress model, in which pharmacology performs an important function. Furthermore, in addition to being more empirically based and often shorter-term in focus, CBT views psychotic phenomena as highly convoluted expressions of normal experiences (Beck & Rector, 2000). Finding a growing body of favourable evidence for psychotherapeutic interventions, Thornicroft and Susser (2001) suggest CBT is of proven benefit and thus

ready for wider assessment in non-experimental settings.

INTERVENTIONS FOR UNREMITTING PSYCHOTIC SYMPTOMS

An investigation into whether intensive CBT results in significant improvements in psychotic symptoms and relapse rates was conducted by Tarrier et al (1998a). Their study compared both cognitive therapy and supportive counselling to routine care. Intervention involved 20 hours of CBT delivered by experienced therapists over a 10-week period. The control group received the same intensity and duration of supportive counselling, centred on unconditional positive regard and the development of rapport. Both groups had experienced persistent symptoms for at least six months. Assessors were independent and blind to treatment assignments. Finding that the CBT group were more likely to experience a 50% reduction in symptoms and a reduced number of days in hospital, the authors conclude that CBT provides a significant advantage and is thus a potentially useful adjunct treatment for patients with chronic schizophrenia. Echoing the ideological disagreements of the past, Curtis (1999) comments that the supportive counselling group did not differ significantly in terms of outcomes to those patients who received CBT.

However, in a subsequent paper, describing a 12-month follow-up study (Tarrier et al, 1999), the advantages of CBT over supportive counselling appear to hold. The researchers found significant improvements in respect to a reduction in positive symptoms, whereas supportive counselling performed similarly to routine care. In terms of relapse rates, no differences were found between CBT, supportive counselling and routine care. Similarly, both CBT and supportive counselling proved equally as effective in producing small, non-significant improvements in negative symptoms. Patients who failed to complete treatment were more likely to be male, single, unemployed and have a lower I.Q. (Tarrier et al, 1998b).

A long-term trial of CBT is reported by Wiersma et al (2001). In a quantitative study, the effects of CBT with coping skills training on persistent auditory hallucinations and social functioning were explored. The study of 40 patients was conducted over four years and found durable effects on hallucinations and their burden to the individual sufferer. The majority of patients had over five years of contact with psychiatric services. A number of robust assessment tools were used, such as the Auditory Hallucinations Rating Scale (Haddock, 1994) and the

Positive and Negative Syndrome Scale (Kay et al, 1987). However, the study has several limitations. No control group was employed and the assessors were not independent. Furthermore, baseline measures for frequency and subjective burden of voices were obtained retrospectively, some two years after the start of treatment. Similarly, no baseline assessments of social functioning or psychopathology of schizophrenia were performed.

Complete disappearance of hallucinations occurred for 18% of patients, whilst 60% sustained improvement with regard to anxiety, loss of control and disturbance of thought. These effects generalised to daily functioning, with 67% showing sustained improvement in this area. However, the authors found that in a few cases, "booster sessions" were needed to strengthen these skills and enhance coping abilities in specific social situations.

In a 60-patient trial over nine months comparing CBT and standard care to standard care alone, no such generalisation into daily functioning was found (Kuipers et al, 1997, 1998). Patients had distressing symptoms that were resistant to medication and unremitting for at least six months. Treatment methods differ from those of Wiersma et al (2001) and Tarrier et al (1998). A more investigative, schema-focused approach is described, which involved eliciting the detail of the client's own interpretation of their problems, with particular attention paid to the development of delusional ideas and hallucinations from their first emergence and over time. The aims of therapy were extensive, in that they included a reduction in both frequency and severity of psychotic symptoms, a reduction in depression, anxiety and hopelessness, an increase in social functioning, an increase in self-regulation of relapse and the modification of dysfunctional schema. This contrasts with the approach adopted by Tarrier et al and Wiersma et al, where intervention focused on the development of coping strategies, training in problem solving and relapse prevention.

Although encouraging results were reported, the authors found that the therapeutic aims were achieved in part only. At the end of intervention, 64% of the treatment group compared to 47% of the control group achieved clinically significant improvements, produced mainly by changes in delusional distress and frequency of hallucinations (Kuipers et al, 1997). At follow-up, nine months after intervention, these improvements were marginally amplified for the CBT group, compared to a mere 17% improvement from baseline for patients who received standard care (Kuipers et al, 1998).

However, these gains did not generalise into other areas. Although negative cognitions, depression and social functioning were specifically targeted, no benefits were found for the intervention group. In an accompanying paper, Garety et al (1997) details the mechanisms of therapeutic change and concludes that specific effects on delusional thinking were of primary significance. For the CBT group at baseline, a degree of cognitive flexibility in delusional conviction proved a statistically significant predictor of good outcome. Other factors were greater insight and a higher number of admissions in the last five years. However, no correlation between I.Q. and better outcome was found.

The study suffers a number of methodological problems and limitations. Whilst independent of the trial, assessors were not blind to treatment allocation. Furthermore, no control intervention was offered. Thus in comparing CBT to standard care, any non-specific factors inherent in the therapeutic relationship remained uncontrolled. The authors indicate a "proactive outreach" approach was employed to follow-up non-attenders. Although additional therapy costs were offset by a reduction in service utilisation, no robust data is given to demonstrate the degree to which this approach was utilised, hence only limited conclusions can be drawn regarding its value to the clinical setting. Similarly, a specialised therapeutic style was adopted by highly experienced clinical psychologists, further questioning the duplication of the study's findings. Finally, the control group demonstrated higher baseline levels of self-esteem.

In a study designed to overcome many of these limitations, Sensky et al (2000) compared CBT with a non-specific befriending control intervention for clients in the post-acute phase of illness. Ninety patients received treatment over a nine-month period with follow-up at 18 months. Assessors were independent of the trial and blind to randomisation, to treatment allocation at baseline, at end of intervention and at follow-up. Both intervention and control group received routine care. Robust data is given to support the validity of assessment tools and the randomisation process. Furthermore, the paper provides a detailed account of the steps taken to exclude any possibility that improvements were attributable to medication changes. Quality control measures were employed to ensure that a blind assessor monitored therapy sessions.

The aims of therapy for the CBT group focused on reducing distress and disability and treating coexisting depression. As detailed in the authors' chosen treatment manual (Kingdon & Turkington, 1994), for those patients with systematised

delusions this was achieved by working at the schema level, beneath the resistant psychotic symptoms. Both duration and frequency of sessions were flexible to accommodate individual patient's needs, however therapists aimed for at least 45 minutes per week for the fist two months, at which point session frequency was reduced. The control group received an equal amount of therapist contact, with therapists aiming to provide empathic, nondirective support.

The authors found that both CBT and the supportive intervention led to clinically significant improvements in positive and negative symptoms at the end of treatment. However, in accordance with Tarrier et al (1999) and Kuipers et al (1998), differences between the groups emerged at the nine-month follow-up period. Patients who had received cognitive therapy continued to improve, whilst those in the befriending group did not, thus adding weight to the argument that the specific treatment benefits of CBT are effective, rather than non-specific factors. Furthermore, in contrast to Kuipers et al (1997, 1998) significant gains were also reported in the reduction of depression severity.

A strength of this study is that these outcomes appear replicable outside the research setting. Experienced psychiatric nurses with recognised CBT qualifications, rather than psychiatrists administered treatment, suggesting the need for generalised training amongst health care professionals. Furthermore, therapy sessions were not overly intensive and thus may be achievable in community mental health teams or the ward environment. However, as the authors admit, patients were selected to "represent the group most likely to benefit from direct effects of CBT", hence those with evidence of poor medication compliance were excluded. Given that non-compliance has been estimated at between 35-80% and is associated with 43% of admissions to psychiatric wards (Perkins & Repper, 1999), this limits the application of the study.

INTERVENTIONS FOR ACUTE PSYCHOSIS

Despite the predominance of research in the area of post-acute, drug-refractory schizophrenia, there is evidence that psychological interventions may also facilitate recovery from an acute episode. In a five-year study, Drury et al (1996a, 1996b, 2000) tested the effectiveness of CBT in acute psychosis. That 35% of the study's population were experiencing their first episode of psychosis is of clinical significance, as it reflects a view gaining ground that the early phase of a psychotic illness has a major influence on its long-term outcome (Birchwood et al, 1998; Drake et al,

2000; Garety & Jolley, 2000; Lenior et al, 2001). It is considered a "critical period" which impacts on future impairments and disabilities. This period is associated with the risk of negative effects on cognitive and social functioning occurring from changes in mental state and behaviour.

In the initial trial (Drury et al, 1996a), 40 patients were randomly allocated and compared to a control group. The treatment group received intensive CBT, consisting of individual, group and family sessions and a structured activities programme. Therapy targeted the modification of delusional beliefs and associated distress, negative symptoms and relapse prevention. The control group received a structured activities programme and non-specific counselling. Overall, for both groups mean therapist contact time was eight hours per week for six months. A limitation of the study is that assessors were neither independent nor blind to treatment allocation. Since the CBT intervention consisted of a number of different elements, the essential ingredients of therapeutic change were obscured. Furthermore, it is questionable whether any results generated by the study could be achieved outside the control trial setting, given the degree of intensive therapeutic contact.

Initially, the study produced promising results. CBT resulted in a significantly faster and more complete recovery from the psychotic episode. At nine-month follow-up, 95% of clients in the intervention group showed significant improvements in positive symptoms. This compared to 44% of the control group. Both groups showed similar improvements in negative symptoms. A marked reduction in delusional conviction was found but no corresponding reduction in preoccupation with delusional beliefs. Furthermore, depending on the definition of recovery from the acute phase of illness, a 25-50% reduction in recovery time was achieved (Drury et al, 1996b). However, at five-year follow-up the CBT group had lost most of these initial gains, performing similarly to the control group in terms of positive and negative symptoms (Drury et al, 2000). No significant differences in delusional conviction were found in either group. In addition, both groups showed a similar pattern of relapse. However, patients who had at most one relapse in the intervening years showed some marginal improvements in terms of positive symptoms and belief conviction.

Encouraging results in relapse prevention were found by Kemp et al (1996, 1998). Their randomised controlled trial focused on compliance therapy, a cognitive intervention that

has adapted techniques from motivational interviewing. It is described as a brief, pragmatic treatment, aimed at improving attitude to medication, promoting post-discharge compliance and developing insight. The treatment is intended to be widely applicable in the clinical setting (Surguladze et al, 2002).

The study population was drawn from consecutive admissions to a ward of the Maudsley Hospital over a 14-month period. Seventy-four clients with acute psychosis received a total of 4-6 sessions of compliance therapy twice weekly or the control treatment of non-specific counselling. The importance of treatment alliance and client participation in care is well recognised (Olfson, 2000), hence the study is clinical meaningful. Whilst reliable assessment instruments were used and robust baseline data obtained, limitations of the study include an overall 35% drop-out rate during the 18-month follow-up period. Furthermore, a researcher who was not blind to treatment status made initial and three-month follow-up ratings. At subsequent 12 and 18-month ratings, however, researchers were blind to treatment status. Compliance was measured by corroborating evidence from a number of independent sources such as relatives, family practitioner and CPN's. However, no direct compliance measures, such as urine or blood analysis, were employed, as these were either unavailable for all medication types or were considered excessively invasive.

The authors found that the goals of compliance therapy were achieved. For the treatment group, significant improvements in insight, compliance and attitudes to treatment were found. Similarly, advantages in social functioning and an increased number of days before readmission were reported. However, both intervention and control groups performed similarly in terms of significant improvements in positive and negative psychotic symptoms. Whilst having no difference in baseline psychiatric symptoms, the patients who dropped-out had lower baseline insight ratings and more severe extra-pyramidal side effects. Despite the high drop-out rate, the researchers comment that compliance therapy was generally acceptable to patients and proved adaptable to the busy clinical environment. Predictors of good outcome were voluntary status on admission, fewer side effects and, in contrast to Garety et al's (1997) study, higher I.Q.

CONCLUSION

Overall, the studies reviewed here are consistent in demonstrating the benefits of well-developed cognitive interventions for sufferers of schizophrenia. Less evident are the benefits of non-specific, supportive counselling, although this also appears to offer some advantages over routine care. Effects tend to be specific to the domain of positive symptoms, such as delusions and hallucinations. In this area, problem-solving, symptom-focused approaches appear effective, as do those based on the modification of dysfunctional schemas. Fewer trials demonstrate benefits in terms of negative symptoms. The debilitating effects on social functioning caused by schizophrenia appear more resilient and impervious to therapeutic change. However, conflicting results in this area suggest the means by which these interventions achieve therapeutic change is not well understood.

Evidence that cognitive interventions achieve a high satisfaction rate with clients (Kuipers, 1997; Kemp et al, 1996, 1998) is encouraging. However, a recent Cochrane review (Cormac et al, 2002) highlights how the efficacy of these procedures remains largely untested when applied by practitioners who are less experienced than those involved in clinical trials. This indicates that further pragmatic and methodically robust studies are needed to explore what treatment works best, for whom and under which conditions. In conducting these studies, researchers need to agree a template by which to determine the most crucial outcome measures. Furthermore, whilst not aiming to limit the scope of further research, studies should reflect the realities of caring for people with schizophrenia. Finally, research findings should be incorporated into a theoretical model of psychosis, which in turn, could inform both further research and current practice, thus facilitating the titration of therapeutic interventions according to clinical need.

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