Psychological Interventions in Early Psychosis

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The effectiveness of psychological treatments in schizophrenia has been explored in controlled trials over the last 15 years leading to the conclusion that they are an important adjunct to antipsychotic medication in the treatment of the disorder. Family interventions and cognitive-behavioral treatments have received the most attention. However, studies have mainly been carried out with individuals with chronic, treatment-resistant psychosis, where participants have already been stabilized on antipsychotic medication, and there has been little evaluation of approaches with people with a first episode of schizophrenia. This article will review the literature relating to cognitive-behavioral individual and family interventions in early psychosis.

The little evidence that exists suggests that family interventions and individual cognitive-behavioral interventions are acceptable to first-episode patients and that patients can be retained in treatment. In addition, some studies suggest that psychological treatments convey advantages over standard treatments for psychosis in terms of reducing the transition from pre-psychotic states to full-blown psychosis, reducing residual psychotic symptomatology, and improving caregiver outcomes.

Considerable work is needed to elucidate the specific needs of first-episode patients and to rigorously evaluate the effectiveness of psychological interventions. The challenges to be met in developing treatments in this area relate to addressing the developmental needs of this group, incorporating substance use routinely into interventions, and developing treatments that are specific to the phase of illness that the individuals are experiencing.

Key words: Schizophrenia/early psychosis/cognitive-behavioral treatment

Introduction

There has been considerable research over the past 15 years that provides support for the use of psychological interventions in psychosis.1 The nature of these treatments has been varied, although a substantial proportion of the work has been on psychological treatments that have focused on families2 or on cognitive-behaviorally oriented, individual treatment interventions.3 This article will specifically review this body of work and will not review other psychological approaches such as cognitive remediation, social skills training, interpersonal therapy, and intensive case management. These approaches have made important contributions to the treatment of schizophrenia and have been reviewed in detail elsewhere.4–7

Studies have demonstrated that providing cognitively oriented psychological treatments in addition to the usual biological treatments can be effective at reducing psychotic symptomatology and relapse and can increase the functioning of patients and their families. Typical interventions have involved providing psychoeducation, collaborative stress management, and goal setting for families8 and individual, collaborative cognitive-behavior therapy focused on reducing the distress and disruption caused by persistent hallucinations and delusions.9

Despite the promising findings published so far, the bulk of the research has been carried out with individuals with chronic, treatment-resistant psychosis, and there is a paucity of controlled trials of psychological treatment with first-episode and recent-onset psychosis. In fact, a fairly recent meta-analytic review could only find 3 randomized controlled trials that met its search criteria and concludes that, as yet, little could be said about the effectiveness of these types of psychological interventions for people experiencing recent-onset psychosis.10 Nevertheless, there have been considerable development and interest in this area over the last few years throughout the world. This has been reflected by government guidance on mental health policy implementation in the United Kingdom, which explicitly directs health care providers to ensure that first-episode teams are in place and that they provide cognitive-behavioral psychological interventions for people with first-onset psychosis for the 3 years following presentation to services. In addition, there are a number of controlled and uncontrolled service and treatment evaluations that have been recently published or are ongoing that have served to increase the evidence base surrounding the effectiveness of psychological interventions in early psychosis. However, there are some methodological considerations that influence the conclusions that can be made from these.
Methodological Issues

First, the use of a double-blind design, as is the benchmark approach in phase III clinical trials of a drug treatment, is not possible with psychological treatments. This makes it vital that it is used where blindness of outcome assessment to treatment allocation is possible. In addition, the choice of outcomes should include those that are relatively robust to the effects of blindness, such as relapse, hospitalization, and instrumental outcomes such as employment status in addition to patient self-report measures relating to symptoms, functioning, and affect.

Second, the choice of control group in psychological treatment studies is also important. The choice should take into account that, in general, psychological treatments are used in addition to treatment as usual, rather than as an alternative. The hypothesis in this area is usually that the psychological therapy has a specific effect over and above a nonspecific talking or supportive intervention. Ideally, this means the use of 2 control groups, 1 controlling for the nonspecific effects of talking treatments.

Third, it can be argued that in an area such as psychological treatments of psychosis it is vital to derive treatments from a sound theoretical base and build into trial design an explanatory component to test whether the hypothesized mechanism is actually that which mediates any effect. One example of an alternative explanation would be that the clinical effect of a psychological treatment is mediated inadvertently through another therapeutic mechanism, such as improved compliance with drug treatments.

A fourth issue is replicability. Cognitive-behavior therapy for psychosis typically involves a range of psychological techniques focusing on different aspects of psychopathology. The emphasis, particularly in Europe, is for the approach to be individually tailored according to individual clinical priorities and case formulation. In North America, the approach tends to be a more standardized, less flexible, manualized approach. Issues of replicability are important, given this situation. At the very least, the semiobjective demonstration of treatment fidelity, that is, that the treatment given adheres to a written procedural protocol, needs to be measured and reported. The interpretations and conclusions from this review need to take these methodological considerations into account.

Psychological Treatments in Early Psychosis

The focus of psychological treatment research in early psychosis has tended to fall into 4 main categories that relate to the phases that individuals may progress through from the onset of psychosis. These are described below:

1. interventions focusing on the prodromal or “high-risk” phase of early psychosis, where the individual has no “full-blown” psychotic symptoms but may be experiencing a deterioration in functioning and have some pre-psychotic ideas. This time may be especially pertinent if there is a high familial risk for psychosis.
2. interventions focusing on the period of onset of psychosis when the individual is having his or her first experience of mental health service for psychosis, that is, where clear psychotic symptoms have emerged. This phase may be short and relates closely to that described below.
3. interventions focusing on the recovery or post-psychosis phase, where the individual is attempting to regain premorbid functioning or reach an optimal level of functioning. There is some consensus among researchers and clinicians that the first 6 months should be a key time for psychological interventions. However, it has also been strongly felt that, in order to maximize the benefits of treatments for this group, they should be retained by services for up to 3 to 5 years following entry to fully optimize potential during this “critical period.”
4. interventions focused on the wider problems associated with first-episode psychosis. Individuals experiencing psychosis are at risk of developing a number of comorbid disorders. Common issues are the likelihood of increased risk of substance misuse, emotional disorders such as anxiety, depression, and suicide. Psychological treatments are well equipped to provide interventions for these additional problems and have been well evaluated in nonpsychosis and chronic psychosis populations. However, their use in early psychosis has not been well evaluated to date.
5. service-led interventions that have provided comprehensive care over the first-episode period consisting of multiple interventions. There have been a number of randomized, controlled studies investigating treatments directed during early psychosis that contain a psychological component. These are mostly evaluations of service-level interventions, such as Early Psychosis Prevention and Intervention Centre, Melbourne; the Lambeth Early Onset service, London; and others. The results of these evaluations are promising but are not considered here, since they do not selectivity assess the impact of psychological treatments.
risk of incipient psychosis. They describe how 40% of their sample made the transition to psychosis over a 9-month period. The improved ability to accurately define high risk has led some researchers to attempt to prevent psychosis with atypical antipsychotic medication and cognitive-behavior therapy (CBT). In a recent study, McGorry and colleagues have found that specific pharmacotherapy (low-dose risperidone) plus CBT, in comparison with supportive therapy and case management, reduced the risk of early transition to psychosis in an open, randomized trial of 59 young people at ultrahigh risk. There was a reduction in progression to psychosis for those treated at the end of the 6-month treatment, but this was not maintained at follow-up after a further 6-month period of no treatment. As this trial combined both drug and psychological treatments, however, the specific contribution of the cognitive-behavioral treatment cannot be determined.

In order to determine whether the use of psychological intervention alone could prevent transition to psychosis, Morrison et al. hypothesized that CBT would significantly reduce the transition rate at the end of treatment, in comparison with a treatment-as-usual control group. Help-seeking individuals were referred to the study from a range of health settings. In all, 63 met the Melbourne eligibility criteria on the Positive and Negative Syndrome Schedule (PANSS), which was mainly attenuated on the Positive and Negative Syndrome Schedule (PANSS). This was mainly attenuated on the Positive and Negative Syndrome Schedule (PANSS), which was mainly attenuated on the Positive and Negative Syndrome Schedule (PANSS) was 699.

Outcome assessment at 1 year showed that 6% in the CBT arm versus 22% in the monitoring-only arm had made a PANSS-defined transition to psychosis. Logistic regression demonstrated that CBT significantly reduced the likelihood of making the progression to psychosis as defined on the PANSS over 12 months. Transition outcome was also assessed categorically by blind rating of vignettes on DSM-IV criteria: 6% had made transition, compared to 26% on these criteria. It was also gauged pragmatically by the rate of commencement of antipsychotic medication by managing clinicians outside the trial: 6% of the CBT group had antipsychotics prescribed, compared to 30% of the control group. In addition, analysis of covariance showed that CBT also significantly improved the subclinical, positive symptoms of psychosis in this population over the 12-month period. These results suggest that a 6-month package of CBT may be effective in reducing transition to psychosis over a 12-month period in a help-seeking, high-risk group. The high rate of consent to randomization (95%) and the low dropout rate (14%) suggest that this is an acceptable intervention in this population.

**Psychological Interventions During the Acute First Episode of Psychosis**

Typically, the first entry of an individual into mainstream services with full-blown psychosis may not represent the actual onset of psychosis (see above). For many, this first contact may be a result of a gradual process of deterioration of mental health and interpersonal relations. It is not unusual for individuals to have been experiencing psychosis for some time, but they may not present to services until problems associated with this have reached a crisis point. For example, there may have been a buildup of symptoms and distress that have caused problems with carers or family. Commonly, substance use may also have contributed to a worsening of symptoms.

There have been few trials evaluating CBT in this phase of early psychosis. Drury et al. published good findings for CBT compared to treatment as usual in a small trial focused on acute, recent-onset psychosis, although not all participants were first episode and there were significant methodological problems with the study. With a similar sample, but with greater methodological rigor, Haddock et al. failed to replicate the positive findings of Drury et al. in relation to CBT. This small trial compared CBT to another psychological treatment, supportive counseling (SC). Both treatments resulted in significant improvements for participants, with neither treatment showing superiority. Only 1 methodologically rigorous trial has reported specifically on the impact of CBT in first-episode psychosis. The SOCRATES study evaluated the effectiveness of 2 psychological therapies (CBT and SC, each plus treatment as usual) compared to treatment as usual alone for individuals experiencing a first or second early psychotic episode requiring either hospitalization or intensive day care treatment. Participants meeting DSM-IV criteria for schizophrenia or a related disorder were allocated to a psychological treatment in addition to treatment as usual within 10 days of admission to the service. They were seen for up to 15 sessions within a therapy envelope of 5 weeks following inclusion. As a result, the participants were typically experiencing the most acute and distressing phase of their illness. The CBT and SC were manual based and supervised. In addition, psychological treatment sessions were audio taped and rated blindly to evaluate and confirm treatment fidelity. Patients were followed up over 18 months.

The randomized sample for analysis was 309 patients: 101 patients received cognitive-behavior therapy, 106 received supportive counseling, and 102 received routine care alone. The median age of the sample was 27.4 years,
70% were male, and 83% were in their first admission. Mean total score on the PANSS at baseline was 87, confirming that this was a severely ill sample. Blind assessments over the first 6 weeks showed a trend toward more rapid resolution of acute symptoms in the CBT group.

Post hoc analyses confirmed that the CBT group was significantly more improved than the routine care group at 4 weeks on PANSS positive symptom and delusion scale scores but that this effect had disappeared by 6 weeks. Follow-up at 18 months showed that the group who had received CBT in the first 5 weeks had a significantly lower PANSS total score ($p = .03$, effect size 0.44) and lower PANSS positive score ($p = .01$, effect size 0.43) than the routine care group, after adjusting for baseline score, time to assessment, clinical center, sex, inpatient versus day patient status, first versus second episode, and duration of untreated psychosis at baseline. On the primary outcome measures at 18 months, the SC group showed symptomatic scores intermediate between the CBT and routine care groups.

Analysis of relapse and readmission rates showed that the experimental treatment had no effect on this measure.

The overall conclusions from this trial are that a brief package of cognitive-behavior therapy in acute early schizophrenia accelerated improvement in target symptoms but that these gains were lost by 6 weeks, perhaps due to the powerful main effect of routine care—that is, drug treatment. The CBT intervention also led to improved symptomatic outcomes at 18 months compared to routine care alone. However these effects were small, although measurable and durable, and there was no effect on time to relapse.

Although both psychological treatments, CBT and SC, are superior to treatment as usual there are some differences when the impact of treatment on individual symptoms is examined. For example, individuals experiencing hallucinations appeared to far worse over 18 months if they had received SC than if they had received treatment as usual alone or CBT. In addition, although focused on early psychosis, the study accepted participants regardless of age of onset of illness, resulting in a sample that had participants over a wide age range. When outcomes were examined according to age, there were differences in response to the 2 psychological treatments. Younger patients tended to show greater benefits from SC compared to the other treatments, whereas for older patients, greater benefits occurred with CBT compared to SC. These findings are difficult to explain; however, the younger group was rated by therapists as being significantly more difficult to engage in therapy than the older group, perhaps suggesting that a psychotherapy that focuses predominantly on engaging patients may be especially pertinent for this relatively short, acute phase and that CBT, which requires a more active, collaborative relationship, may be more relevant once the individual is well engaged in the treatment approach.

These findings are preliminary and have yet to be replicated; however, they add weight to the notion that treatment packages for people experiencing early psychosis need to be individually tailored to their specific needs rather than applied homogenously across the group.

**Psychological Interventions in the Post-acute and Recovery Phase**

**Cognitive-Behavioral Family Interventions in Early Psychosis.** The impact of psychosis on the family in terms of decreased functioning for relatives and the links between expressed familial emotion on relapse of the schizophrenic member have been much described in people with chronic schizophrenia. There is now considerable evidence of efficacy for family intervention, including a Cochrane meta-analytic review and other systematic meta-analyses. The main measure of outcome used in family intervention studies has been reduction in relapse rates. Studies using the features described tend to reduce relapse rates by up to 40% compared to the rates of control groups over follow-up periods of 9 to 18 months, representing an effect size of about 0.4. Those who benefit show improved adherence to medication, and, in studies where expressed emotion is assessed, families show reductions. The benefits in some studies have continued up to 8 years but diminished over time.

The effectiveness of family intervention has been little studied in first-episode psychosis. In fact, early research suggested that the links between expressed emotion and subsequent relapse was less marked than in more chronic samples. More recent studies, though, have reported more similar findings to those found in chronic patient families in relation to carer distress, burden and expressed emotion in first-episode samples. These findings suggest that family intervention work during the early phase of psychosis is particularly important to minimize the likelihood of future relapse and aid recovery. In addition, given that many patients presenting with their first episode will still be living with families and carers and that they may be reliant both emotionally and financially on these relatives, the potential for families to play a key role in recovery programs is great.

Trials evaluating the effectiveness of family intervention in the first episode of psychosis have mostly been embedded in comprehensive treatment programs (such as the Early Psychosis Prevention Centre program in Melbourne and the Calgary Early Intervention program) that offer a range of intervention packages, making it impossible to assess the actual impact from the family intervention component alone. However, some conclusions can be made about retention, acceptability, and impact on carers. Addington et al. report that “most” of the families recruited to the Early Intervention program in Calgary (constituting 70% of the total number of individuals referred) stayed engaged in the program throughout its...
course (up to 3 years). In addition, relatives reported a significant improvement in their level of distress and negative aspects of caregiving over 2 years into the program. One informative trial is that of Lenior et al., who randomized 64 patients with early schizophrenia, 55% in their first episode, to receive family intervention or routine care alone. Relapse rates were reduced during the actual 12-month experimental treatment period but did not differ significantly between the 2 groups at 5-year follow-up, although the total time spent in inpatient care was reduced in the family intervention group.

**Individual CBT and Relapse Prevention.** Course and management in the 2 years after the first episode appear to be critical in determining long-term outcome. Relapse occurs in 20–35% at 1 year, 50–65% at 2 years, and 80% at 5 years. Treatment of the second and subsequent episodes is less satisfactory than treatment of the first episode, with failure to achieve remission in a further 15% at each episode.

Relapse prevention has, rightly, become a focus for individual psychological intervention, although there are no data specific to the first episode. Gumley and colleagues report a trial of 144 people with established schizophrenia who were operationally defined to be “relapse prone.” The authors demonstrate that cognitive-behavioral therapy delivered during the early signs of relapse was associated with a significant reduction in relapse rate at 12 months (CBT = 18.1% versus treatment as usual = 34.7%; Hazard Ratio = 0.47, p < .05). Acceptability of treatment was high. Of those randomized to CBT (n = 72), 66 (92%) engaged in the treatment.

Other groups have also targeted this “period” of the first episode as being a key time for intervention. Jackson and colleagues have described an intervention that attempts to address issues pertinent to recovery from a first episode, such as regaining a sense of self by helping patients to discuss the meaning and impact of their psychosis and to help individuals to identify potential sources of support that will aid their adaptation and recovery from psychosis (“COPE” therapy). Significant long-term benefits in illness variables, such as relapse, over a control group were not found, although those who received the intervention were significantly more likely to have “integrated” (as opposed to “sealed” over) their psychotic experiences than those who refused to take part in the intervention.

**Working With Comorbid Affective Symptoms.** The prevalence of comorbid disorders in schizophrenia is high, particularly for those with persistent and treatment-resistant psychotic symptoms. Although prevalence rates have been little studied in first-episode patients, data suggest that comorbid depression and anxiety are common (see 51). A recent study by Iqbal et al. that followed up a small sample of first-episode patients found that 45% of the sample went on to develop a post-psychotic depression during a 12-month follow-up period. In addition, people with schizophrenia are at greater risk of suicide during the early development of their illness. Addington et al. found that 15.1% of a sample entering a first-episode treatment program had attempted suicide prior to program entry.
treatment programs such as CBT have been well established as effective treatments for depression and other neurotic disorders in the nonpsychotic population, although they have not been evaluated as discrete treatments for these disorders for people who also have a psychotic disorder. However, Power and colleagues have developed a treatment intervention program aimed at reducing the risk of suicide in first-episode patients in Australia. The program (LifeSPAN) is a cognitively oriented psychological treatment program that has been evaluated in a small, randomized, controlled trial. Patients received 10 sessions of LifeSPAN therapy. Follow-up assessment revealed no significant differences between those receiving the therapy and those receiving standard care on measures of suicide ideation and suicide attempts. However, those receiving the therapy showed significantly greater improvements in hopelessness, an important correlate of depression and a risk factor for suicidal behavior.

Drug Treatment Nonadherence. Motivational interviewing aimed at reducing substance use is a good example of a psychological treatment whose effect is aimed at enhancing a known protective factor, antipsychotic drug treatment. People in the first episode of schizophrenia respond well to low doses of medication but are sensitive to the adverse effects, which contributes to high rates of nonadherence to maintenance drug treatment and consequent poor outcome.

Kemp et al. have used a form of therapy derived from motivational interviewing to enhance sufferers’ adherence to medication. In a clinical trial, patients admitted for acute relapse (not in the first episode) were randomized to receive routine care or routine care plus a brief package of motivational interviewing, adapted for schizophrenia sufferers and concentrating on ways to treat symptoms, reduce problems, and prevent relapse using antipsychotic medication. The experimental group showed clinically and statistically significant reduction in readmission rates and improvements in compliance over 18 months, as well as improvements in symptoms at the end of therapy but not after 18 months. Given the high rates of nonadherence following the first episode, it is important that this study is replicated in early schizophrenia. One attempt to replicate the results of this trial was unsuccessful.

The Future

This review has highlighted that cognitively oriented psychological interventions have an important role in the management of first-episode psychosis. However, more empirical trials are necessary to establish what treatments are necessary at what stage of the development of the illness and when it is cost-effective to provide them. For example, although individual CBT seems to be important during recovery from a first acute episode, it is less clear what its effectiveness is in reducing the onset of full-blown psychosis and aiding recovery once psychosis has fully emerged. Hence, the prediction of response to the most suitable interventions during specific phases of illness is an obvious area of further study. It is also possible that CBT interventions need to be further refined to better suit the needs of the early-onset group, so it will be necessary to elucidate what elements of treatment are the effective components. The exploration of the process of change that occurs during therapy will aid in refining therapies to specifically address individual patient needs. Part of this will include the development of treatment approaches that address the common comorbid problems in first-episode psychosis such as substance use, suicide, and affective problems. In addition, how the integration of other psychological approaches such as cognitive re-mediation, social rehabilitation, and case management approaches can be achieved is also an area where further study is required.

It is likely that the development of model programs integrating a range of different medical and psychological approaches will be the main focus for future development. Services configurations like those being evaluated by Early Psychosis Prevention and Intervention Center, Lambeth Early Onset, and the Calgary Early Intervention program, which provide comprehensive needs-led services for first-episode sufferers throughout the onset and early critical period of the disorder, are important, though the weakness of many of these in research terms is that it remains unclear which elements of complex programs, sometimes given to heterogeneous samples, are effective. As a result, further controlled trials designed to evaluate the effectiveness of treatments and which elements of those are effective, and for whom, are a priority.

Finally, although there has been much attention paid to evaluating psychological therapies in recent years, less attention has been paid to the dissemination and integration of these into services. The skills necessary to carry out CBT and family interventions are not routinely acquired during most mental health professional basic training and require further, specialist tuition and ongoing supervision. These pose considerable challenges to trainers and service providers as current mental health services may need to be reconfigured to integrate psychological approaches into more traditional medical models of treatment. Some research has evaluated such dissemination programs for CBT-oriented approaches with some success. For example, Barrowclough et al. integrated a family intervention program into routine clinical practice and showed benefits for families over the treatment period and 18-month follow-up. Turkington et al. have found that a brief CBT program delivered by trained community nurses to patients and families was effective in
Reducing symptoms, increasing insight, and reducing depression in a randomized controlled trial with chronically psychotic patients.62

Despite this promise, other studies have shown less convincing development in services. During the 1990s in the United Kingdom, a large program of training for mental health nurses was initiated that aimed to train them in the skills necessary to implement cognitive-behaviorally oriented family and individual treatment programs with a case management framework (the Thorn Initiative). The program was not rigorously evaluated, although benefits were shown for patients receiving the intervention.63 However, studies evaluating the amount to which trained staff continue to implement the techniques following training have shown that there is poor adherence to the approaches, with lack of management support, not enough time due to other work demands, and poor supervision as possible reasons for nonpractice of the approaches.64 These issues will need to be addressed to allow further development of evidence-based approaches in first-episode services.

References


