

## IV. Psychosocial Interventions

### General Principles

1. Optimal management requires the integration of medical and psychosocial interventions. Such interventions should not be seen as competing approaches but, in most cases, as necessary complementary interventions to improve clinical symptoms, functional outcome, and quality of life.
2. Effective psychosocial interventions may improve medication adherence, reduce risk of relapse and the need for readmission to hospital, reduce distress resulting from symptoms, improve functioning and quality of life, and provide support for patients, their families, and caregivers.
3. Common comorbid conditions such as substance abuse, anxiety disorders, and depression need to be recognized and addressed with psychosocial interventions.
4. Psychosocial interventions can be best implemented when acute symptomatology has been reduced and the patient can be successfully engaged in treatment.
5. Psychosocial interventions should be adjusted to the stage of the illness and needs of the patients and their families.
6. Listening and attending to the patient's concerns develops empathy, rapport, and a good therapeutic relationship. As well, it can improve engagement and adherence to treatment.
7. Patients, their families, and caregivers should be educated about the course and treatment of the disorder, as well as about ways to reduce risk of relapse. It is also important to provide a realistically hopeful attitude for the future. The physician is an extremely important contributor to this process.
8. The clinical team, the patient, and family members should develop shared, realistic goals for treatment and recovery. Progress toward these goals should be carefully monitored and evaluated.
9. Treatment providers should share plans for early recognition of relapse and crisis response with patient, family, and caregivers.
10. All patients should have access to evidence-based programs that develop skills for ADLs, meeting vocational and educational goals, managing finances, developing and maintaining social relationships, and coping with the impact of symptoms. (A useful Web-based reference is [www.mentalhealthpractices.org](http://www.mentalhealthpractices.org).)
11. Staff providing psychosocial interventions should be appropriately trained.

### Medication Adherence and Psychoeducation

Despite the effectiveness of psychopharmacological interventions in producing improved outcomes in schizophrenia, medication nonadherence occurs frequently (in up to 50% or more of cases) and for various reasons (123). A recent comprehensive review identified that the lack of awareness of illness was a key factor in medication nonadherence (124). Such lack of insight has been hypothesized by some to be a cognitive impairment associated with schizophrenia itself (125,126). Other issues contributing to nonadherence include concurrent alcohol or drug abuse, problems with the therapeutic alliance (127), medication side effects (128) and complicated dosage schedules, problems with access to treatment, and financial obstacles to obtaining medication (129). The impact of nonadherence is costly, not only for the person and his or her family but also more generally for the health care system (130).

Psychoeducational interventions that are aimed at increasing knowledge about the illness have shown some effectiveness in conveying facts, according to metaanalysis and systematic reviews (131,132), but have not been found to show increased adherence (123) unless also accompanied by motivational enhancement and the use of specific "behavioural tailoring" strategies such as reminders, prompting, and self-monitoring cues (133). Case reports highlight the importance of introducing concrete coping aids and behavioural compensation

methods, such as keeping medication regimens as simple as possible, “pillbox” dosette use, establishing a regular medication routine and monitoring it regularly, and including home visits as needed (134). Motivational strategies emphasize the links between medication adherence and benefits in the individual’s life circumstances as well as the heightened risk of relapse when medication is not taken.

### Vocational Interventions

Employment rates among individuals with schizophrenia and related disorders are substantially lower than in the general population (135–137). Employment status appears likely to have substantial impact on the economic circumstances of many patients and influences many aspects of quality of life. In the past, there was considerable emphasis on providing extensive preparation for employment before an individual was placed in a job setting; more recently, the emphasis appears to have been on placing individuals in competitive employment sooner and offering considerable after-placement job-support services. The latter approach, usually referred to as supported employment, includes the following elements: developing job opportunities appropriate for the individual, rapid placement that emphasizes competitive employment, providing ongoing support after job placement, and integrating vocational and mental health services. There have now been several studies contrasting supported employment with more traditional approaches (138–142). Recent metaanalyses of research findings concluded that the supported employment approach generally leads to better employment rates (135,143), although long-term job-retention rates may be less positive (144,145). There is no evidence that employment obtained with these methods leads to increased stress or exacerbation of symptoms (136,141,146); there is some, but not entirely consistent, evidence that such beneficial effects on employment status may have positive impacts on self-esteem, on aspects of psychiatric symptoms, and on the likelihood of relapse (144,147–149).

### Skills Training

Individuals with schizophrenia frequently have difficulties related to social interaction and coping with aspects of independent living. Such difficulties may result from several factors, including early illness onset, which interferes with development of social and living skills; the impact of some aspects of impaired cognitive functioning; and the impact of the illness and its associated stigma. Interventions used to address these issues include social skills and life skills training. Social skills training uses methods based on learning theory and attempts to improve interpersonal skills related to conversational skills, making friends, and social interaction. Methods include instruction about the significance of various verbal and nonverbal aspects of social behaviour, modelling,

role playing, behavioural rehearsal, corrective but supportive feedback, and behavioural homework and practice to increase generalization to the individual’s daily environment. Life skills training focuses on skills related to practical aspects of living, such as managing money and domestic skills, and personal self-care, such as grooming and hygiene.

Although there have been many reports interpreted as supporting the value of these interventions (for example, 149–151), the results of recent metaanalyses of true RCTs have indicated caution regarding their impact. Pilling and others examined the outcomes of 9 RCTs that could be analyzed on an intention-to-treat basis and concluded that there was no clear evidence that patients who received social skills training had better outcomes, compared with other active treatment conditions, on any of various measures, including relapse rates, global adjustment, social functioning, or quality of life (153). When Robertson and others examined the literature on life skills training, they found only 2 studies that met criteria for an unbiased RCT, and the results of the metaanalysis (based on only 38 patients) did not demonstrate clear effects (154). Individual reports (for example, 152,155–157) suggest the potential of these interventions (particularly social skills training) to improve outcomes, and it would be contentious to suggest that results of metaanalyses of rigorously selected RCTs should be the only evidence examined with reference to their effectiveness (for example, 152,158). In particular, the effectiveness of the interventions used in social skills training may be best assessed with very situationally specific behavioural measures rather than with the standardized measures favoured by formal metaanalyses (151,152). Nevertheless, the metaanalysis results certainly suggest a need for further, well-designed evaluations of these interventions.

### Cognitive-Behavioural Interventions

There is evidence for the effectiveness of cognitive-behavioural techniques in the treatment of several forms of psychopathology, including anxiety and affective disorders. In recent years there has been considerable interest in using cognitive-behavioural techniques in the treatment of psychotic disorders. When applied to schizophrenia and related disorders, the most frequently used cognitive-behavioural interventions include

- development of a collaborative understanding of the nature of the illness, which encourages the patient’s active involvement in treatment
- identification of factors exacerbating symptoms
- learning and strengthening skills for coping with and reducing symptoms and stress
- reducing physiological arousal

- testing of key beliefs that may be supporting delusional thinking
- development of problem-solving strategies to reduce relapse

There have been significant variations in the treatments used in controlled trials of CBT, and so it is difficult to assess the effectiveness of each specific intervention. Both individual and group formats have been used, although most research on impact has involved evaluation of individualized treatment approaches. There has been considerable variation in the frequency and duration of treatment formats (varying between 6 and 50 sessions). It appears that weekly or biweekly sessions over a period of 4 to 9 months are typical of the trials.

There have been several reviews of the evidence concerning the effectiveness of such interventions (159–162), the most recent being a Cochrane Review metaanalysis (163). The evidence available at this point suggests that, as well as reducing psychiatric symptoms, adding cognitive-behavioural interventions to standard care (including medication) can have an impact on time to discharge from hospital and on general psychological functioning. Although Cormac and others (163) concluded that there is little evidence that CBT has an impact on likelihood of relapse, one recent trial using cognitive-behavioural interventions focused on dealing with early signs of relapse has reported promising results in this respect (164). Several studies in this field have focused on demonstrating symptom reduction in patients who are otherwise considered to be treatment-resistant.

Reviewers have come to different conclusions regarding whether there are high rates of attrition from treatment with cognitive-behavioural interventions (159,161,163). Carrying out controlled trials of these interventions is challenging. While some researchers have used outcomes assessed by raters blind as to condition, more such studies are needed, and a wider variety of medium- and long-term outcomes should be assessed.

The extent to which cognitive-behavioural interventions lead to better outcomes regarding symptoms and mental state, compared with less specific supportive psychotherapy, is unclear. Many reviewers have reached different conclusions. Bechdolf and others recently reported a controlled trial comparing group-administered CBT with a simpler psychoeducation intervention (165). They found that, while the CBT condition had fewer postintervention hospitalizations, the 2 groups did not differ significantly on indices of clinical relapse, symptoms, or adherence to medication. There is general agreement on the need for more studies comparing the effectiveness of CBT and simpler, less resource-intensive, psychosocial interventions (159,162,163).

The opinion of authoritative commentators suggests that cognitive-behavioural treatment of schizophrenia and related disorders requires substantial training and experience and has to occur within the context of a good therapeutic relationship characterized by trust and respect, but empirical research relevant to these issues is sparse. One controlled trial suggests that community psychiatric nurses who received 10 days' training in CBT were able to provide interventions that reduced overall symptoms (as assessed by the Comprehensive Psychopathology Rating Scale), reduced depression, and improved insight but did not have an impact on symptoms specific to schizophrenia. Only the change in insight was sufficient to be considered clinically significant by the authors (166). There can be little doubt that resources for providing cognitive-behavioural interventions for psychotic disorders are often limited, and therefore, it is important that we know more about identifying those patients most likely to benefit from such interventions and when they are likely to be cost-effective (167).

### Family Interventions

Current approaches to family interventions recognize that families are often the primary caregivers and that they can consequently experience a burden from those demands (168). Regardless of whether the patient with schizophrenia is actually living with his or her family in the community, most families provide support and assistance to their ill relative. Families are often left in the position of assuming the role of caregiver, for which they are neither trained nor psychologically prepared (169). As well, professionals do not always accurately understand what factors caregivers find burdensome when coping with an ill relative (170). The degree and nature of burden has been found to vary with the phases of the disorder. In the early phase, families are faced with feelings of uncertainty and emotional shock. In later phases, families face dealing with the everyday impact of negative symptoms, such as lack of interests and loss of initiative (171).

Treatment efficacy can be enhanced and relapses can be prevented when family members participate in a structured program of family psychoeducation (172), which has been shown to relieve caregiver distress (173). There are core curriculum components to psychoeducational family treatment, an approach that offers empathy, knowledge sharing, and problem-solving skills training. Home visits are a part of some programs.

Family psychoeducational interventions should be introduced during the early phases of treatment when a patient is experiencing a first episode (174). There is some evidence that multiple-family groups may have more enduring benefit than individual approaches during the first episode (175). However, many families will not attend groups and need

individualized treatment and outreach. Educational interventions may subsequently need to be supplemented, depending on individual circumstances such as the needs of siblings and needs related to the illness phase. In working with family members, sensitivity to confidentiality issues is required, including the use of appropriate information-release forms, to maintain a trusting relationship with the patient. However, family members should not be underused: they provide a valuable consultation resource for mental health professionals, and they are allies in patient recovery efforts (176). Working with families should include listening to family members' concerns, exploring family expectations about treatment and their understanding of the patients' illness, making adjustments that acknowledge and respect family culture and values, assessing family members' capacity to cope with and support their ill relative, and developing a crisis plan. Mental health practitioners can also assist in linking family members to other ongoing supports as needed, including family organizations such as the Schizophrenia Society of Canada ([www.schizophrenia.ca](http://www.schizophrenia.ca)) or the Canadian Mental Health Association (CMHA, [www.cmha.ca](http://www.cmha.ca)).

### Cognitive Remediation

Individuals with schizophrenia and related disorders not only have disturbing and pathological thought content related to delusions and hallucinations, they can also have anomalies in thought form or information processing, such as difficulties with attention, learning, memory, executive functioning, and planning. When they occur, such cognitive deficits are often related to negative symptoms, appear to have substantial implications for an individual's daily functioning, and may compromise the individual's ability to benefit from psychosocial interventions (177,178). Recently, there has been increased interest in the possibility of developing interventions to help patients reduce such cognitive difficulties and (or) their impact, and these efforts are referred to by varying terms, the most common of which are cognitive remediation, cognitive training, and cognitive rehabilitation.

Such efforts usually involve one or more of 3 strategies: restorative approaches, in which efforts are made to reduce the underlying cognitive deficits; compensatory strategies, which aim to help patients work around or compensate for cognitive deficits; and environmental approaches, which try to provide situational supports, such as external reminders, to decrease the impact of cognitive deficits.

Several studies have examined the impact of cognitive remediation training strategies on standardized neuropsychological tests (179,180), but of greater clinical significance would be studies assessing the impact of such strategies on daily functioning. Although there are some encouraging initial reports that aspects of cognitive

remediation or compensatory strategies have beneficial real-life impact (181,182), several recent literature reviews conclude that there is a need for further research on the impact of cognitive remediation techniques on patients' functioning outside laboratory or other controlled settings. There is currently no clear and consistent evidence that such interventions have a significant effect in such domains (153,177,183–185). Hopefully, future research will provide more definitive evidence regarding these issues, but currently, there is not sufficient research to justify recommending cognitive retraining as part of routine clinical care.

### Peer Support, Self-Help, and Recovery

Over the past decade, the concept of recovery has been used increasingly to refer to both the process and outcome of efforts by individuals with schizophrenia to succeed in overcoming illness barriers (186). The "recovery vision" focuses on "consumer" involvement (empowerment) in setting rehabilitation goals leading to improved community functioning (not just stability of symptoms) and on the development of a "recovery-oriented system" that advocates for supports beyond standard health care (187). Key components of system-level change have been the introduction of self-help programs (188), including peer-run services (189), and the use of peer-support workers or peer providers as staff members of multidisciplinary teams (190) and alternative mental health delivery services.

Critical ingredients of peer-provider services hold promise for benefits beyond typical practices (191). These include their use of experiential knowledge ("street smarts") to enhance pragmatic support efforts and the positive impact of social role modelling. For example, peer-assistant workers, including graduates of previous training groups, have been incorporated into skills training groups to deliver some of the training, such as social skills role-play instruction or training as worker-assistants in collective kitchens. The effectiveness of peer providers in case-worker roles has not been well examined in controlled clinical research (192,193) and may be limited by their own state of recovery (191). There are modest findings from less rigorous studies (189) of some benefits, including improvements in self-esteem and increased social networks. Peer services and, more generally, recovery-oriented practitioner perspectives work toward maintaining and inspiring a sense of hope, levels of which have been consistently found to be unrelated to the actual severity of the psychotic symptoms (194). There have been some suggestions from a CMHA survey (195) that peer supports provide patients with increased satisfaction regarding their community adjustment and with increased feelings of self-worth.

## Stigma

Stigma and discrimination against people who suffer from severe mental illness, especially against those with schizophrenia, have been considered crucial barriers to recovery and successful community adjustment (196), indicated by obtaining desirable jobs and housing (“not in my neighbourhood”). Research findings confirm that most people with mental illness report such stigma-related experiences as stereotyped societal misconceptions about their propensity to violence or being blamed for not taking more responsibility in getting over their mental and emotional problems (197). A coping manual has been developed for dealing with dilemmas such as “to disclose or not disclose” illness with landlords or employers (198). Public education talks that actually include contact with a person with mental illness who tells his or her story have been shown to be most effective in changing societal attitudes (199).

## Associated Features and Special Situations

### *Treatment of Comorbid Symptoms*

Individuals with schizophrenia have relatively high rates of symptoms of stress, anxiety, and depression (200–202). There is evidence that stress, anxiety, and depression show covariation with positive symptoms of schizophrenia and may be precursors of relapse (203,204). Such symptoms of dysphoria may have a substantial independent impact on patients’ quality of life (205). While there is strong evidence that stress, anxiety, and depression in other populations can respond to psychosocial interventions, particularly forms of CBT, there is little research evaluating the impact of such interventions specifically among those with schizophrenia and related disorders. Many of the interventions described under CBT for the defining symptoms of schizophrenia (above) may have their effects on or be mediated through reductions in stress, anxiety, or depression, although only a few studies provide relevant data (166,206,207). A few recent studies have examined the effectiveness of transferring methods used with other clinical populations in reducing stress and dysphoria in schizophrenia patients; these have shown some promising results (208,209), but more research in this area is needed.

### *Substance Use*

Addressing the special needs of schizophrenia patients who have cooccurring substance use or abuse (termed concurrent disorders) presents several challenges for practitioners. First-episode psychosis has been found to be precipitated at an earlier age when associated with substance use (210), including higher rates of smoking found among adolescents later diagnosed with schizophrenia (211). Cannabis use has been associated with a doubled the risk of psychosis onset, according to a comprehensive review (212). For the long-term stable

phase of the illness, specialized interview methods (213) should be considered to identify concurrent substance abuse.

In terms of psychosocial treatments, difficulties in even engaging the patient in therapy pose the first and seemingly biggest obstacle to recovery (214). Mental health workers familiar with the stages of change model (215) recognize that many individuals who abuse substances are not even considering making a change in their substance use lifestyle, a phase termed precontemplation. Motivational interviewing (216) is a technique that has been shown to be effective in moving patients toward considering making changes (contemplation phase) and eventually taking action such as entering treatment. The most effective outpatient treatment for substance abuse disorders involves a comprehensive, integrated approach (217). The historical dual-treatment team approach not only lacks cohesiveness but has in the past provided discrepant messages on issues such as the role of medications in recovery and the failure to accommodate the addiction therapy to the cognitive learning deficits associated with schizophrenia. Integrated residential treatment, especially over a period of up to 1 year, has also proven to be successful, especially for those who do not respond to outpatient intervention (217). The prevalence of “legal” drug use, including nicotine, caffeine, and alcohol, has been found to be higher among individuals with schizophrenia (218). Significant associated health hazards exist, including complications with psychopharmacologic intervention. Specialized behaviour-based interventions for smoking cessation have been tailored successfully for schizophrenia patients (37). There are suggestions that patients treated with clozapine (219), and possibly other atypical antipsychotics, may smoke less after being switched from a first-generation treatment.

### *Prenatal Planning*

Although the image of a schizophrenia patient may be of someone who is single and living alone, there are estimates that up to one-half of people diagnosed with schizophrenia are married or living with an intimate partner (220). Where one or both of the partners have schizophrenia, clinicians are sometimes faced with tough questions from couples asking advice about the decision to have children. Several issues can be discussed with the couple. These include medication during the prenatal period (including the potential need to stop the medication and the ensuing risk for relapse), genetic risks that the child will develop schizophrenia (thought to be about 1 in 10 where one partner has schizophrenia and 4 in 10 where both partners have schizophrenia), risk for postpartum conditions, the responsibilities associated with parenting and handling caregiver demands, the availability of parenting supports (such as grandparents or, in some cases, the Children’s Aid Society), and more general emotional issues such as desires to

experience parenthood and both worries and wishes about having someone depend on them (221).

## **Psychosocial Interventions Across Illness Phases**

### *Acute Phase*

It is generally accepted that psychosocial interventions are difficult to implement and probably less effective during the acute phase of psychotic illness, when the ill person's thoughts and behaviours are often highly disrupted. However, there are 2 important caveats to this observation. The first is that, while it may not be optimal to provide structured and often subtle psychosocial interventions to an individual when he or she is acutely ill, those factors that facilitate the ill person's trust in clinicians and engagement in treatment during the acute phase are likely to also have beneficial effects for facilitating engagement in subsequent psychosocial interventions. Second, the acute phase of illness may be a critical period with respect to engaging families in psychosocial interventions. The response to families and the provision of basic education and support to them during the acute phase may critically influence their interest and willingness to later engage in ongoing family psychoeducation and support interventions. Although there has been little empirical research relevant to this point, many clinicians are convinced that the acute phase of illness can be a critical period for family engagement.

### *Stabilization Phase*

The stabilization phase provides an opportunity to assess the extent to which pharmacologic interventions are successful in bringing about remission of positive symptoms and the likely extent of ongoing negative symptoms and cognitive difficulties. As noted earlier, there is some evidence that

cognitive-behavioural intervention can be of value in reducing serious and disruptive psychosis symptoms (207). If the resources are available, this phase could offer an opportunity to introduce the individual to interventions that address positive symptoms that may otherwise become treatment-resistant. This also appears to be an opportunity to introduce interventions designed to address substance use or abuse as well as comorbid syndromes, such as anxiety, that may be making a major contribution to patient distress. Programs of structured activity and peer support may also be important in reducing a slide into social withdrawal and behavioural apathy. If possible, it is important in the stabilization phase to introduce families to the issues of ongoing treatment, monitoring of recovery, and support, rather than let them assume that resolution of an acute crisis is sufficient.

### *Stable Phase*

With the focus changing to functional recovery and preventing relapse, many psychosocial interventions become relevant. They include interventions that may have already been introduced to the patient in regard to substance use and reduction in residual and comorbid symptoms. In addition, interventions related to employment, education, and social activity (such as supported employment, social and ADL skills training, and compensatory interventions for cognitive dysfunctions) may be very relevant. For patients, educational and cognitive-behavioural intervention related to reducing stress and preventing relapse can be beneficial; parallel issues can also be addressed with family members. As noted in the section on assessment, it is important to tailor psychosocial interventions to the carefully assessed goals, needs, abilities, and circumstances of individuals, rather than assuming a "one size fits all" approach.

<b>Table 7 Recommendations</b>		
Recommendations	Evidence	Evidence level
<b>Psychoeducation</b>		
Psychoeducation is an important intervention that needs to be accompanied by training in practical illness management strategies to achieve medication treatment adherence and to prevent relapse.	Psychoeducation can improve knowledge about illness, but there are equivocal findings that it increases treatment adherence unless there are also motivational enhancement and behavioural strategies for taking medication as prescribed.	B
<b>Vocational interventions</b>		
A wide range of possibilities should be considered for patients who are able to work, including volunteer work, supported, or transitional employment.	Individuals who suffer from schizophrenia have historically had low rates of employment; meaningful vocational activity, including paid employment, can be positive for individuals' psychological health and quality of life.	B
For many patients it is important to formulate goals for competitive paid employment and, in general, supported employment programs appear to offer the best approach to meeting such goals.	Supported employment approaches result in greater success in obtaining competitive paid employment.	A
<b>Skills training</b>		
Social skills training should be available for patients who are having difficulty and (or) experiencing stress and anxiety related to social interaction.	Social skills training leads to better outcomes with reference to symptoms, social functioning, and quality of life, compared with other standard care and (or) other interventions such as supportive psychosocial intervention and occupational therapy.	B
Life skills training in an evidence-based format should be available for patients who are having difficulty with tasks of everyday living.	Life skills training leads to better outcomes with reference to social functioning and quality of life, compared with standard care.	B
<b>Cognitive-behavioural interventions</b>		
Cognitive therapy should be offered to treatment-resistant patients.	Randomized controlled studies have shown benefits of CBT for patients with treatment-resistant schizophrenia.	B
<b>Family interventions</b>		
Family interventions should be part of the routine care for patients with schizophrenia.	Patients with schizophrenia whose families receive psychoeducation demonstrate reduced rates of hospitalization and show delayed or reduced symptomatic relapse.	A
Family psychoeducation programs should last more than 9 months and include features of engagement, support, and skills-building, not simply information- or knowledge-sharing.		B

*continued*

**Table 7 Recommendations *continued***

Recommendations	Evidence	Evidence level
Peer support, self-help, and recovery		B
Local antistigma campaigns should include contact with people with schizophrenia.	Strategies to combat societal stigma and discrimination against the mentally ill are most effective when the public education includes contact with people who have schizophrenia telling their story.	C
Peer provider services should be included in the continuum of care; such services include consumer roles in group-based skills training, peer support, and public education programs.	Peer provider services contribute beneficial role-modelling and experiential knowledge but have not been adequately studied in controlled research designs.	
Treatment of comorbid symptoms		
Cognitive-behavioural interventions should be considered in the treatment of stress, anxiety, and depression in patients with schizophrenia; some adaptation of the techniques used in other populations may be necessary.	Symptoms of distress, anxiety, and depression occur in a substantial proportion of patients with schizophrenia.	B
	Psychosocial interventions, particularly cognitive-behavioural interventions used in other populations may be useful in reducing symptoms of stress, anxiety, and depression in patients with schizophrenia.	B
Substance use		
Integrated programs for concurrent substance use disorders should be available for people with schizophrenia	The optimal intervention is integrated treatment of both psychosis and substance use in a single program.	B