Psychosocial interventions for schizophrenia in children and adolescents

AUTHORS: Brian Skehan, MD, PhD, Yael Dvir, MD
SECTION EDITORS: David Brent, MD, Stephen Marder, MD
DEPUTY EDITOR: Michael Friedman, MD

All topics are updated as new evidence becomes available and our peer review process is complete.

Literature review current through: **Oct 2023.**
This topic last updated: **May 17, 2022.**

INTRODUCTION

Schizophrenia in children and adolescents is a syndrome consisting of positive and negative symptoms of psychosis that impact development and cognitive functioning. The etiology of this syndrome is poorly understood, but early diagnosis and treatment are critical to limit the morbidity of the disorder.

Childhood-onset schizophrenia usually represents a more severe form of the disorder with more prominent prepsychotic developmental disorders, structural brain abnormalities, and genetic risk factors [1-4].

This topic reviews psychosocial interventions for schizophrenia in children and adolescents. The epidemiology, pathogenesis, clinical manifestations, course, assessment, diagnosis, and treatment of schizophrenia in children are reviewed separately. The epidemiology, pathogenesis, clinical manifestations, course, assessment, diagnosis, and treatment of schizophrenia in adults (including long-acting injectable antipsychotics, clozapine, medication to treat side effects, and the evaluation and management of treatment-resistant schizophrenia) are also reviewed separately.

- (See "Schizophrenia in children and adolescents: Epidemiology, clinical features, assessment, and diagnosis".)
- (See "Schizophrenia in adults: Clinical features, assessment, and diagnosis".)

- (See "Schizophrenia in adults: Epidemiology and pathogenesis".)
- (See "Schizophrenia in adults: Maintenance therapy and side effect management".)
- (See "Schizophrenia in adults: Pharmacotherapy with long-acting injectable antipsychotic medication".)
- (See "Schizophrenia in adults: Psychosocial management".)
- (See "Evaluation and management of treatment-resistant schizophrenia".)
- (See "Schizophrenia in adults: Guidelines for prescribing clozapine".)

PSYCHOSOCIAL INTERVENTIONS

Psychosocial interventions for children/adolescents with schizophrenia, in our clinical experience, are important adjuncts to treatment with antipsychotic medication.

The availability of psychosocial treatments for children with schizophrenia varies widely internationally. In the United States, they are more likely to be available in major metropolitan areas with large academic medical centers rather than in smaller cities or more rural areas. Psychosocial treatment programs may be more likely to incorporate principles and techniques from modalities we describe rather than to deliver a series of specific, discrete interventions.

There have been few clinical trials of these interventions in youth; however, they are widely used clinically. Most were originally developed for adults; use in children requires customization to fit the patient's age, development, social setting, family, and risk factors.

Psychoeducation — Psychoeducation, best provided early in treatment and frequently reviewed, provides children and their parents/support persons information about the illness, medications, and other interventions. It is highly useful to have family members integrated into the treatment team and educated in order to support the youth effectively and to enhance compliance.

There are no clinical trials evaluating the efficacy of psychoeducational interventions for children/adolescents with schizophrenia and their families; however, in our clinical experience, developmentally appropriate psychoeducation is a critical component of care. Psychoeducation and family interventions for schizophrenia in adults are reviewed separately. (See "Schizophrenia in adults: Psychosocial management", section on 'Family-based Interventions'.)

Individual and family therapy — Individual and/or family therapy for children/adolescents with schizophrenia varies in content but typically includes some combination of education, support, and/or principles of problem solving therapy or cognitive-behavioral therapy (CBT).

Cognitive-behavioral therapy — CBT for children/adolescents with schizophrenia (and in some cases family members) consists of:

- Cognitive approaches to address maladaptive and delusional beliefs.
- Behavioral approaches, including social and vocational skills training. (See 'Skills training' below.)

Treatment goals of CBT include reducing the intensity of delusions and hallucinations (and related distress), improving social functioning, and promoting the active engagement of children and families in treatment.

Clinical trials have found mixed evidence for the efficacy of CBT in children/adolescents with schizophrenia [5-7]. As an example, a clinical trial randomly assigned 62 participants age 15 to 25 years with a first episode of psychosis to receive either CBT or a control condition [6]. After 14 weeks, both groups had reductions in positive and negative symptoms, but no difference was seen between them in symptomatic or functional improvement.

CBT is used in adult schizophrenia to treat patients with symptoms resistant to antipsychotic medication. In contrast, in our clinical experience, all children with schizophrenia could benefit from CBT.

CBT for schizophrenia in adults is reviewed separately. (See "Schizophrenia in adults: Psychosocial management", section on 'Cognitive-behavioral therapy'.)

Skills training — Social and vocational skills training are important components of psychosocial treatment for children. Surveys of patients consistently show positive functional outcomes as being equally, if not more, important to the patients than remission of symptoms [8]. Social skills training is aimed at children with observed deficits such as problems with attention and working memory (eg, poor affect regulation). All adolescents should receive age-appropriate vocational skills training, which may also include help with placement and support during employment.

A clinical trial supports the use of vocational skills training in this population [8]. Forty-one patients in the United Kingdom ages 15 to 25 years with schizophrenia were randomly assigned to receive individual placement and support or a control condition; patients assigned to the active intervention had higher rates of employment, earnings, and duration of employment compared with control group [9].

Social skills training for adults with schizophrenia is described separately. (See "Schizophrenia in adults: Psychosocial management", section on 'Social skills training'.)

Therapeutic schools — Therapeutic schools are used to educate children who struggle accessing the curriculum in a typical school setting due to mental illness or other emotional, behavioral, or psychological conditions. These schools vary but may offer academic assistance, counseling, behavior modification, individual and group therapy, as well as developmentally appropriate skill building to support these youth. Children or adolescents with schizophrenia who are treatment-resistant or who have associated cognitive/emotional challenges can benefit from therapeutic schools.

There are no clinical trials of the efficacy of therapeutic schools in youth with schizophrenia.

Cognitive enhancement/remediation — All youth with schizophrenia should receive cognitive enhancement therapy (or the similar cognitive remediation), if available, which consist of:

- Computer-based exercises aimed at slowing deterioration in attention, memory, language, and executive functioning [10].
- Social-cognitive group sessions for experiential learning and interpersonal interactions.

Clinical trials suggest that cognitive enhancement therapy or remediation may be superior to other psychotherapies:

- A two-year clinical trial randomly assigned 58 youth with early onset psychosis to receive either cognitive enhancement therapy or to enriched supportive therapy, finding that cognitive enhancement therapy led to superior results on social cognition, social adjustment, and symptomatology for cognition [11].
- A three-month trial of cognitive remediation therapy in 40 adolescents with schizophrenia was found to be superior for cognitive flexibility (as evidenced by the Wisconsin Card Sort Test) in comparison to standard therapy [12].

Although the availability of cognitive enhancement therapy, like other psychosocial interventions for youth with schizophrenia, is limited geographically, their availability is expanding to include online resources that can be done by the youth at home, which may provide benefit. Standardized definitions of cognitive remediation/enhancement components have not been well defined; further study is needed.

Cognitive remediation for adults with schizophrenia is described separately. (See "Schizophrenia in adults: Psychosocial management", section on 'Cognitive remediation'.)

FOR HIGH CLINICAL RISK

Psychosocial interventions paired with pharmacologic management have been tested for their ability to prevent or delay the onset of psychotic disorders in children at high (or “ultra-high”) clinical risk of developing a psychotic disorder. The criteria for these high-risk states vary, ranging from prodromal symptoms (ie, disorganized or unusual thought content such as paranoia or suspiciousness, disorganized behavior) to the presence of psychotic symptoms below the threshold of a psychotic disorder.

A clinical trial randomly assigned 51 youth/young adults (age range 14 to 30) at “ultra-high” risk for psychosis to receive either cognitive-behavioral therapy (CBT) or supportive therapy [13]. No differences were found between groups at 6- or 12-month follow-up, though both groups showed improvement from baseline in attenuated positive symptoms, anxiety, and depression.

The findings are consistent with our clinical experience in suggesting that all youth with these high-risk symptoms would benefit from supportive therapy or CBT as well as close clinical monitoring for conversion to psychosis.

SOCIETY GUIDELINE LINKS

Links to society and government-sponsored guidelines from selected countries and regions around the world are provided separately. (See "Society guideline links: Psychotic disorders".)

SUMMARY AND RECOMMENDATIONS

- **Introduction** – Schizophrenia in children and adolescents is a syndrome consisting of positive and negative symptoms of psychosis that impact development and cognitive functioning. The etiology of this syndrome is poorly understood, but early diagnosis and treatment are critical to limit the morbidity of the disorder. (See 'Introduction' above.)

  Antipsychotic medication is the cornerstone of treatment for schizophrenia in youth, augmented by psychosocial treatment.

- **Psychosocial interventions** – Psychosocial interventions are important adjuncts to antipsychotic treatment for children/adolescents with schizophrenia, but have received little study in clinical trials. (See 'Psychosocial interventions' above.)

  - **Psychoeducation** – Psychoeducation gives children and their parents/support persons information about the illness, medications, and other interventions. (See 'Psychoeducation' above.)

- **Individual and family therapy** – Individual and/or family therapy for children/adolescents with schizophrenia varies in content but typically includes some combination of education, support, and/or principles of problem solving therapy or cognitive-behavioral therapy. (See 'Individual and family therapy' above.)

- **Skills training** – Age-appropriate training in vocational skills and social skills are important components of psychosocial treatment for children. These interventions aim to prevent deterioration in vocational and interpersonal functioning. (See 'Skills training' above.)

- **Therapeutic schools** – Therapeutic schools are used to educate children who struggle accessing the curriculum in a typical school setting due to mental illness or other emotional, behavioral, or psychological conditions. (See 'Therapeutic schools' above.)

- **Cognitive enhancement and remediation** – Cognitive remediation therapy consists of computer-based exercises aimed at slowing deterioration in attention, memory, language, and executive functioning. Additionally social-cognitive group sessions offer experiential learning and interpersonal interactions. (See 'Cognitive enhancement/remediation' above.)

- **High clinical risk of psychosis** – Psychosocial interventions paired with pharmacologic management have been tested for their ability to prevent or delay the onset of psychotic disorders in children at high (or “ultra-high”) clinical risk of developing a psychotic disorder. (See 'For high clinical risk' above.)

Topic 112632 Version 10.0

→