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Family-based interpersonal psychotherapy for depressed preadolescents: an open-treatment trial

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Abstract

Aim—To conduct an open-treatment trial to evaluate the feasibility, acceptability and clinical outcomes of using a family-based adaptation of Interpersonal Psychotherapy for Depressed Adolescents with a sample of preadolescents (ages 9–12) presenting for outpatient treatment for depression.

Methods—Sixteen preadolescents who met criteria for a depressive disorder according to Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition participated in this open-treatment trial of family-based interpersonal psychotherapy (FB-IPT). Parents chose whether their preadolescents should receive FB-IPT only ($n = 10$) or FB-IPT with antide-pressant medication ($n = 6$). Pre- and post-treatment assessments included clinician-administered measures of depression and global functioning, and parent- and child-reported anxiety symptoms.

Results—FB-IPT was associated with high treatment compliance rates (88%) and was associated with significant decreases in preadolescents' depressive and anxiety symptoms. Preadolescents who received FB-IPT only were as likely as those receiving FB-IPT and medication to have significant reductions in depressive symptoms and anxiety symptoms, and to experience significant improvement in global functioning. Parents were more likely to choose combination treatment when their depressed preadolescents had a comorbid anxiety disorder.

Conclusions—Further research on FB-IPT is needed to establish its efficacy as compared with usual out-patient treatment, its ability to be disseminated to child clinicians with varying levels of training and in adequately powered randomized controlled trials that can detect group differences.

Keywords

depression; IPT; preadolescent; treatment

INTRODUCTION

Preadolescent depression is a 'gateway' condition that increases the risk for recurrent depression into adolescence and adulthood, particularly when there is a strong family loading for depression.[1–7] Depressed preadolescents experience marked interpersonal impairment, exemplified by frequent negative interactions and more distant relationships with parents, as well as more problematic (e.g. teasing) and fewer close peer relationships as compared with normal or psychiatric controls.[2,8–11] Depressed children also continue to

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experience significantly more difficulties in interpersonal relationships with parents and peers than do normal controls even after their symptoms remit.[12,13] Hence, preadolescent depression not only interferes with normative social development at a formative period but also results in residual impairments in preadolescents' interpersonal functioning, which may increase their risk for recurrent depression into adolescence and adulthood.

Although extensive clinical intervention research has been conducted on adult and adolescent depression, clinical interventions for preadolescent depression have been understudied. To date, there have been no large-scale efficacy studies comparing psychosocial treatments for preadolescent depression and, hence, no 'efficacious' treatments have been identified for this high-risk group.[14] A small body of treatment studies for childhood depression,[15–19] involving cognitive behaviour therapy (CBT) conducted with community samples in school-based settings, has yielded inconclusive findings about the effectiveness of CBT compared with relaxation training or supportive therapy.[20] However, CBT-based treatments that emphasize cognitive restructuring, a technique that relies heavily on metacognitive skills, may present difficulties for some preadolescents and younger children. This may render the cognitive aspect of CBT less effective in reducing depressive symptoms among younger children.[21] Thus, the area of early interventions for preadolescent depression remains open to developmentally appropriate, early psychosocial interventions for this population.

Interpersonal psychotherapy (IPT) is an effective, time-limited, manualized psychosocial treatment for depression in adults and adolescents[22,23] that focuses on improving interpersonal functioning. IPT addresses how interpersonal issues are related to the onset or maintenance of depressive symptoms (while recognizing that genetic, biological and personality factors also contribute to vulnerability for depression). Treatment is structured by a single 'problem area' that is temporally associated with the onset of depressive symptoms (grief, role disputes, role transitions and interpersonal deficits). In the active phase of treatment, patients work to understand the effects of the identified problem area on their interpersonal functioning, and learn better communication and problem-solving skills to increase their effectiveness and satisfaction in current relationships, thereby reducing depressive symptoms.

The treatment model of IPT is flexible enough to accommodate developmental adaptations to the identified problem areas and so as to provide a primary focus on the family context without compromising the treatment's integrity and effectiveness. Interpersonal Psychotherapy for Depressed Adolescents (IPT-A)[23] is a developmental adaptation of IPT that has been shown to be effective in decreasing adolescents' depressive symptoms and in improving their interpersonal functioning in an open-treatment trial,[24] randomized efficacy trials,[25,26] and a community-based effectiveness trial.[27] In addition, IPT-A focuses on emotional experiences and the communication of affect in relationships, and relies less on metacognitive strategies, which may result in a better fit with preadolescents' developmental competencies.

The IPT-A framework also can accommodate different levels of intervention, focusing on the identified preadolescent as well as parents or other family members. Parental involvement in any treatment is a critical developmental concern for depressed preadolescents as they are greatly affected by loss, conflict and transitions in their families, and may be at increased risk of experiencing negative family processes (e.g. marital conflict, poor parenting strategies and negative parent–child interactions) if they have at least one depressed parent.[9] IPT provides a framework for addressing negative interpersonal situations in the family that contribute to preadolescents' distress and for teaching both preadolescents and parents more effective communication and problem-solving strategies.

This study represents an open-treatment trial of clinically depressed preadolescents (ages 9–12) who sought psychiatric evaluation and treatment at an outpatient clinic affiliated with a large urban psychiatric hospital. The goals of this study were: (i) to demonstrate the feasibility and acceptability of family-based interpersonal psychotherapy (FB-IPT), a conjoint treatment for depressed preadolescents and their parents based on the framework and techniques outlined in IPT-A;[23,25] and (ii) to examine the preliminary clinical outcomes of depressed preadolescents treated with FB-IPT.

METHODS

Recruitment

All children between the ages of 9 and 12 who underwent a psychiatric assessment for pediatric depression at a large, urban, psychiatric hospital, and who carried a the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) diagnosis of a depressive disorder (major depressive disorder (MDD), dysthymic disorder, depressive disorder not otherwise specified (DD NOS) were eligible for participation in this open-treatment trial. During the psychiatric assessment, a trained, master's level clinician gathered a thorough developmental and psychosocial history before administering the *Schedule for Affective Disorders and Schizophrenia for School-Age Children – Present and Lifetime Episode Version*[28] (K-SADS-PL), a semi-structured diagnostic interview designed to assess current and past episodes of psychopathology in children and adolescents according to the Diagnostic and Statistics Manual of Mental Disorders, Third Edition Revised (DSM-III-R) and DSM-IV criteria. For each interview, the clinician rated individual psychiatric symptoms based on the information provided by the preadolescent and the parent. Discrepancies in child and parent report were resolved by the consensus of the clinician and attending psychiatrist, who oversaw each assessment, and diagnoses were established for depressive disorders and all Axis I disorders of childhood.

Eighteen of 20 preadolescents assessed in a 1-year period (90%) were diagnosed with a depressive disorder and had at least one parent willing to actively participate in weekly treatment. These families had previously provided informed consent/assent to be contacted about ongoing research projects at the psychiatric clinic. Of these families, 16 parents and their preadolescents provided informed consent/ assent to participate in this open-treatment trial (89%), which was approved by the Institutional Review Board of the University of Pittsburgh School of Medicine.

Sample characteristics

The preadolescents were approximately 11-years-old (mean age 10.73), and almost two-thirds of the sample was female (62%). The preadolescents were predominantly Caucasian (94%), but came from a range of socioeconomic backgrounds (25% on medical assistance). The majority of the preadolescents had experienced parental divorce (56%) and lived in single-parent or blended families. Fifty-six percent ($n = 9$) of the sample met DSM-IV criteria for MDD, with 31% ($n = 5$) meeting criteria for DD NOS (preadolescents with three to four symptoms of depression) and 13% with dysthymic disorder ($n = 2$). The majority of the preadolescents endorsed passive suicidal ideation (56%), but only a minority had engaged in self-injurious behaviour at the time of initial interview (19%). One-third of depressed preadolescents (33%) also met DSM-IV criteria for an anxiety disorder, whereas another 47% endorsed sub-threshold levels of anxiety on the K-SADS-PL. A small percentage of depressed preadolescents (25%) had comorbid attention deficit hyperactivity disorder, and 20% began taking stimulant medication prior to treatment for depression.

All preadolescents were offered antidepressant medication in addition to psychosocial treatment. Seventy-five percent of the parents chose psychosocial treatment only for their preadolescents who met diagnostic criteria for a depressive disorder ($n = 12$). Four families (25%) opted to begin a selective serotonin re-uptake inhibitor (SSRI) in addition to psychosocial treatment for treating their preadolescents' depressive disorders. Within the initial phase of therapy, two other families requested the addition of antidepressant medication to continued outpatient therapy, as their children's depressive symptoms worsened in weeks 3 and 5 respectively. These two subjects were then followed in the combination treatment group. Diagnostic data were collected for these preadolescents at their last FB-IPT session prior to beginning SSRI and were substituted as their pretreatment data for subsequent analyses.

Treatment protocol

The preadolescents and parents were offered a no-cost course of psychotherapy guided by the treatment manual for IPT-A.[23,25] Treatment was delivered by one of the authors, a clinical and development psychologist (LD) with extensive training in empirically supported psychotherapies for depressed youths and family models of intervention. This clinician worked closely with Dr Mufson, the developer of IPT-A. In this trial, one a priori modification was made to the IPT-A protocol: the parents were systematically involved in their preadolescents' weekly sessions, and IPT-A techniques were applied dyadically within the framework for the identified problem area. FB-IPT was administered in a manner consistent with the guiding principles of IPT-A, and treatment was driven by techniques relevant to each identified problem area.

Weekly FB-IPT sessions were divided into individual meetings with the preadolescents and conjoint or dyadic meetings with the parents according to the phase of treatment (initial, middle, termination). Phase I of FB-IPT typically consisted of four sessions. During individual meetings, the preadolescents reviewed their current depressive symptoms, completed the interpersonal inventory of important relationships and identified one of four interpersonal problem areas (grief, family dispute, family transition, interpersonal deficits) related to the onset of depressive symptoms. Individual meetings with the parents focused on gathering information about parental concerns and family stressors, and assigning the preadolescents a limited sick role. Together with their preadolescent, the parents were also involved in establishing a contract and goals to guide treatment.

Phase II of treatment was driven by the conceptualization and techniques specific to the preadolescents' identified problem area. The number of sessions during phase II was open-ended and dictated by the preadolescents' symptom improvement. In individual meetings, the preadolescents discussed recent interpersonal difficulties or events related to the loss, transition or dispute associated with their depressive symptoms. With the clinician, the preadolescents explored changes they could make to improve problems and interpersonal stressors through employing more effective communication styles and social perspective taking (communication analysis), and by generating alternative responses to distressing situations (decision analysis). The preadolescents were encouraged to practice new communication strategies and responses by role playing with the clinician. Dyadic sessions in phase II of treatment provided opportunities for the preadolescents to directly communicate emotions and concerns to their parents, and allowed the clinician to coach the preadolescents and their parents in using more effective communication and problem-solving skills.

The last phase of FB-IPT focused on terminating treatment, reviewing progress and establishing a plan for coping with recurrent depressive symptoms. In individual meetings, the preadolescents reviewed the relationship between the identified problem area and

depressive symptoms, and discussed the strategies they used to improve their interpersonal effectiveness. In dyadic meetings, the parents and their preadolescents talked about their efforts to apply new communication and decision-making skills at home, and about how these efforts have affected family relationships. The clinician also established a plan for monitoring symptoms and for initiating treatment in case of a subsequent depressive episode.

Outcome measures

The preadolescents were formally assessed prior to treatment to determine eligibility for the open-treatment trial and completed symptom checklists and assessments of depression upon termination.

Depressive symptoms—Depressive symptoms in children were measured by the *Children's Depression Rating Scale Revised* (CDRS-R).[29] This scale integrates information from multiple sources (parent, child, clinical observations) and has demonstrated high internal consistency (α = 0.85), good interrater reliability (r = 0.92) and good test–retest reliability.[29] In addition, the CDRS-R has been shown to be sensitive to treatment effects. CDRS-R scores below 28 have been used to index recovery from depression in other treatment studies.[30]

Anxiety symptoms—The *Self-Report for Childhood Anxiety Related Emotional Disorders, Parent Version (SCARED-P)* and *Child Versions (SCARED-C)*[31] are 41-item questionnaires that assess anxiety symptoms in children between the ages of 8–18. Each item is vated on a 3-point scale corresponding with the frequency of each anxiety symtom (never, sometimes, often). The aggregate score on the SCARED-P and SCARED-C was used to index preadolescents' anxiety symptoms. Both the child and parent SCARED have demonstrated good internal consistency (α = 0.74 and 0.93) and good test–retest reliability (intraclass correlation coefficients = 0.70 and 0.90). Total scores of 25 or higher have been shown to differentiate between children with and without anxiety disorders, and indicate good convergent validity compared with formal psychiatric diagnoses and/or structured psychiatric interviews.[32,33]

Global functioning—Children's global functioning was measured by the *Children's Global Adjustment Scale*,[34] used in conjunction with a standard clinical interview. The 100-point scale has clinical thresholds that indicate normative and impaired functioning. This scale has been used extensively in both clinical practice and research and has demonstrated good interrater (intraclass correlation = 0.84) and test–retest reliability (intraclass correlation = 0.85), and has established discriminant validity in identifying inpatient and outpatient clinic samples.[34]

RESULTS

Statistical analyses

The diagnostic characteristics of preadolescents receiving FB-IPT only and combination treatment (FB-IPT + SSRI) were compared using ANOVA and χ^2 as appropriate. Pre- and post-treatment measures of adolescents' psychiatric symptoms and global functioning were compared using paired sample t-tests. All values are reported as means ± SD, and P-values are based on two-tailed tests. Given the small sample size and the lack of power needed to examine differences between treatment groups, all analyses are exploratory. As such, no corrections for multiple comparisons were applied.

Preliminary analyses

Parents were more likely to choose a psychosocial treatment alone (FB-IPT) over combination treatment (psychosocial treatment and SSRI) for the treatment of preadolescent depression (62% FB-IPT only, 38% combination treatment). However, parents who chose to pursue an adjunctive trial of antidepressant medication for their depressed preadolescents were more likely to have preadolescents with a comorbid anxiety disorder (χ^2 (n = 15, df =1) =11.25, P <0.01). ANOVA revealed no significant group differences between preadolescents on antidepressant medication and medication-free preadolescents in pre- or post-treatment scores (see Table 1). Subsequently, the data for the entire sample were pooled for the analyses regarding treatment effects on preadolescents' depressive and anxious symptoms, and global functioning.

Primary analyses

Fourteen of the 16 preadolescents enrolled in this open-treatment trial completed treatment (i.e. attended four sessions for phase I and at least four sessions for phase II of FB-IPT), yielding a compliance rate of 88%. The preadolescents and their parents who completed a course of FB-IPT attended an average of 14 sessions (range 9–22). Of the non-completers, one family dropped out of treatment after the first session, reporting that they travelled for at least an hour to the treatment centre and could not consistently attend weekly appointments, and the other family that terminated treatment after only attending five sessions requested in-home family-based mental health services to cope with the suicide of a parent. Both of these preadolescents were included in intent-to-treat analyses.

At pretreatment evaluation, the preadolescents evidenced significant levels of depression with clinically significant functional impairment (see Table 1). The preadolescents' anxiety scores on the SCARED indicated subsyndromal anxiety symptoms, consistent with those reported in other samples of depressed children and adolescents.[35] Although the 31% of depressed preadolescents (n = 5) who met diagnostic criteria for an anxiety disorder based on the K-SADS-PL evidenced higher pretreatment anxiety scores on the SCARED, these scores did not differ significantly from those of preadolescents who did not have a comorbid anxiety disorder (parent report, $F_{1,13}$ = 3.77, P <0.10; child report, $F_{1,12}$ = 0.49, not significant). The structure of IPT and the identified problem areas appeared to successfully transfer to family issues related to the onset of depressive symptoms in preadolescents. Forty-four percent (n = 7) experienced a family dispute; 44% (n = 7) identified a family transition; 6% (n = 1) experienced the death of a family member, and 6% (n = 1) were classified as having interpersonal deficits, marked by social isolation and few interpersonal relationships.

Paired sample t-tests were conducted to determine if differences in the preadolescents' depressive and anxiety symptoms and in their global functioning were evident across pre- and post-treatment conditions in the open-treatment trial. The preadolescents' depressive symptoms captured by the CDRS-R indicate significant improvement from pre-to post-treatment (t(15) =7.98, P <0.001). The preadolescents also evidenced a significant decrease in anxiety symptoms from pre- to post-treatment assessments (parent report, t(12) =2.33, P <0.05; child report, t(12) =4.11, P < 0.01). The preadolescents' global functioning also significantly improved over the course of treatment (t(16) = −6.76, P <0.000).

DISCUSSION

The results from this open-treatment trial of FB-IPT demonstrate the feasibility of recruiting and retaining a sample of clinically depressed preadolescents for an early psychosocial intervention that actively involves their parents in weekly sessions. FB-IPT appears to be an

acceptable psychosocial intervention for depressed preadolescents and their parents, as evidenced by high treatment compliance, low attrition rates and favourable clinical outcomes for preadolescents completing treatment. Although we cannot determine the efficacy of FB-IPT from this study, preliminary findings that preadolescents who received FB-IPT were as likely as those receiving combination treatment (SSRI and FB-IPT) to have significant reductions in depressive symptoms and anxiety symptoms, and to experience significant improvement in global functioning are promising for pursuing future clinical research on FB-IPT.

The current study is one of the very few treatment studies that involve self-referred preadolescents with depression who present for evaluation and out-patient psychiatric treatment at mental health clinics. Consistent with epidemiological and family studies of prepubertal depression,[1,35–37] preadolescents presenting for outpatient treatment evidenced moderate to severe depressive symptoms with high rates of passive suicidal ideation and anxiety symptoms. Parents were more likely to choose a psychosocial intervention for treating their preadolescents' depressive disorder than medication. This finding may also reflect parental hesitations to choose medications for the treatment of preadolescent depression given the recent controversies regarding SSRI use in children and adolescents. However, parents were more likely to request medication in addition to FB-IPT when preadolescents also had a comorbid anxiety disorder. This finding is particularly interesting as a recent meta-analysis on the efficacy of SSRI medication for youth depression has indicated that SSRIs are very effective for the treatment of pediatric anxiety and have relatively low risk of adverse events.[38]

The results of the present study are promising although preliminary because of several methodological limitations. Because a single clinician (LD) provided treatment to all preadolescents and parents, this open-treatment trial cannot inform the reliability and treatment compliance of administering FB-IPT. An independent evaluator was available to collect post-treatment data in 25% of all cases; hence, the same clinician who conducted FB-IPT also collected the majority of post-treatment data on preadolescents' depressive symptoms and global functioning. However, concerns about clinician bias were reduced as post-treatment measures collected by the treating clinician did not significantly differ from those collected by the independent evaluator.

Other limitations include the open-ended length of FB-IPT that the preadolescents received and the small sample size. With an open-treatment design wherein patients receive treatment until their symptoms improve, it is difficult to ascertain whether the treatment or the length of treatment accounts for therapeutic outcomes. Hence, future studies are necessary to demonstrate the efficacy of a discrete number of FB-IPT sessions (e.g. 14 weeks) in comparison with treatment as usual (TAU) or in an attention-controlled condition (i.e. weekly case management or meetings with a school counselor). Because of having a small sample, this open-treatment trial was significantly underpowered and conclusions about the efficacy of FB-IPT cannot be drawn. Future studies that randomize a larger number of depressed preadolescents to FB-IPT and an alternative treatment condition remain necessary for establishing the efficacy of this novel psychosocial intervention. Assuming an intent-to-treat sample of 100 preadolescents, with 50 subjects receiving FB-IPT and 50 receiving TAU, a moderate effect size ($d = 0.56$) could be detected between treatment conditions within the usual parameters.

This preliminary open-treatment trial of FB-IPT for depressed preadolescents will be used to inform treatment modifications for use in future clinical trials. Future iterations of FB-IPT will include a narrative technique to facilitate the discussion of the identified interpersonal problem area with preadolescents. In collaboration with the clinician, preadolescents will be

asked to create a ‘book’ about their interpersonal problem area and their current experience with depression, which will broadly consist of preadolescents’ writings, drawings and/or photographs. These interpersonal narratives may serve as a concrete reminder of how interpersonal events affect depressive symptoms and how strategies they have learned during treatment may improve depressive symptoms by improving their relationships. Future iterations of FB-IPT will also integrate graded interpersonal exposure exercises into the existing IPT-A framework to address depressed preadolescents’ comorbid anxiety symptoms. During treatment, preadolescents will rehearse direct communication and negotiation skills through role playing low-, medium- and high-anxiety situations. ‘Work at home’ exercises will be encouraged so that preadolescents can practice applying their newly acquired skills to ‘real-life’ situations.

SUMMARY

Results from the present study demonstrate the feasibility and acceptability of FB-IPT to be a promising psychosocial treatment for preadolescent depression. Although we cannot draw definitive conclusions about its efficacy with this study, we will continue to conduct clinical research on FB-IPT as a short-term, psychosocial treatment that not only may improve preadolescents’ depressive symptoms and global functioning but may also reduce their comorbid anxiety symptoms.

References

1. Weissman MM, Wolk S, Wickramaratne P, et al. Children with prepubertal onset major depressive disorder and anxiety grown up. Arch Gen Psychiatry. 1999; 56:794–801. [PubMed: 12884885]
2. Birmaher, B.; Rozel, JS. The school age child. In: Goodyer, IM., editor. Unipolar Depression: A Lifespan Perspective. Cambridge: Oxford University Press; 2003. p. 47-65.
3. Angold A, Costello EJ, Farmer EMZ, Burns BJ, Erkanli A. Impaired but undiagnosed. J Am Acad Child Adolesc Psychiatry. 1999; 38:129–37. [PubMed: 9951211]
4. Asarnow JR, Goldstein MJ, Carlson GA, Perdue S, Bates S, Keller J. Childhood-onset depressive disorders a follow-up study of rates of rehospitalization and out-of-home placement among child psychiatric inpatients. J Affect Disord. 1988; 15:245–53. [PubMed: 2975297]
5. Emslie GJ, Rush AJ, Weinberg WA, Gullion CM, Rintelmann J, Hughes CW. Recurrence of major depressive disorder in hospitalized children and adolescents. J Am Acad Child Adolesc Psychiatry. 1997; 36:785–92. [PubMed: 9183133]
6. Goodyer IM, Herbert J, Secher SM, Pearson J. Short-term outcome of major depression: I. Comorbidity and severity at presentation as predictors of persistent disorder. J Am Acad Child Adolesc Psychiatry. 1997; 36:179–87. [PubMed: 9031570]
7. Wickramaratne P, Greenwald S, Weissman MM. Psychiatric disorders in the relatives of probands with prepubertal-onset or adolescent-onset major depression. J Am Acad Child Adolesc Psychiatry. 2000; 39:1396–405. [PubMed: 11068895]
8. Geller B, Craney JL, Bolhofner K, DelBello MP, Williams M, Zimmerman B. One year recovery and relapse rates of children with a prepubertal and early adolescent bipolar disorder phenotype. Am J Psychiatry. 2001; 158:303–5. [PubMed: 11156815]
9. Hammen C, Rudolph K, Weisz J, Rao U, Burge D. The context of depression in clinic-referred youth: neglected areas in treatment. J Am Acad Child Adolesc Psychiatry. 1999; 38:64–71. [PubMed: 9893418]
10. Hammen, C.; Rudolph, KD. Childhood depression. In: Mash, EJ.; Barkley, RA., editors. Child Psychopathology. New York: Guilford Press; 1996. p. 153-95.
11. Puig-Antich J, Lukens E, Davies M, Goetz D, Brennan-Quattrock J, Todak G. Psychosocial functioning in prepubertal major depressive disorders: I. Interpersonal relationships during the depressive episode. Arch Gen Psychiatry. 1985; 42:500–7. [PubMed: 3985760]

12. Kovacs M, Feinberg T, Crouse-Novak M, Paulauskas S, Pollock M, Finkelstein R. Depressive disorders in childhood: II. A longitudinal study of the risk for a subsequent major depression. Arch Gen Psychiatry. 1984; 41:643–9. [PubMed: 6732424]
13. Puig-Antich J, Lukens E, Davies M, Goetz D, Brennan-Quattrock J, Todak G. Psychosocial functioning in prepubertal major depressive disorders II. Interpersonal relationship after sustained recovery from affective episode. Arch Gen Psychiatry. 1985; 42:511–7. [PubMed: 3985761]
14. Chambless DL, Hollon SD. Defining empirically supported therapies. J Consult Clin Psychol. 1998; 66:7–18. [PubMed: 9489259]
15. Kahn JS, Kehle TJ, Jenson WR, Clark E. Comparison of cognitive-behavioural relaxation, and self-modeling interventions for depression among middle-school students. School Psych Rev. 1990; 19:196–211.
16. Liddle BJ, Spence SH. Cognitive-behaviour therapy with depressed primary school children: a cautionary note. Behav Psychother. 1990; 18:85–102.
17. Stark KD, Reynolds WM, Kaslow NJ. A comparison of the relative efficacy of self-control therapy and a behavioural problem-solving therapy for depression in children. J Abnorm Child Psychol. 1987; 15:91–113. [PubMed: 3571741]
18. Stark, KD.; Rouse, LW.; Livingston, R. Treatment of depression during childhood and adolescence: cognitive – behavioural procedures for the individual and family. In: Kendall, PC., editor. Child and Adolescent Therapy: Cognitive – Behavioural Procedures. New York: Guilford Press; 1991. p. 165-206.
19. Vostanis P, Feehan C, Grattan E, Bickerton W. A randomised controlled out-patient trial of cognitive-behavioural treatment for children and adolescents with depression: 9-month follow-up. J Affect Disord. 1996; 40:105–16. [PubMed: 8882920]
20. Compton SN, Burns BJ, Egger HL, Robertson E. Review of the evidence base for treatment of childhood psychopathology: internalizing disorders. J Consult Clin Psychol. 2002; 70:1240–66. [PubMed: 12472300]
21. Weisz JR, McCarty CA, Valeri SM. Effects of psychotherapy for depression in children and adolescents: a meta-analysis. Psych Bull. 2006; 132:132–49.
22. Klerman, G.; Weissman, MM.; Rounsaville, BJ.; Chevron, E. Interpersonal Psychotherapy of Depression. New York: Basic Books; 1984.
23. Mufson, L.; Dorta, KP.; Moreau, D.; Weissman, MM. Interpersonal Psychotherapy for Depressed Adolescents. 2. New York: Guilford Press; 2004.
24. Frank E, Kupfer DJ, Perel JM, et al. Three-year outcomes for maintenance therapies in recurrent depression. Arch Gen Psychiatry. 1990; 47:1093–9. [PubMed: 2244793]
25. Mufson L, Moreau D, Weissman MM, Wickramaratne P, Martin J, Samoilov A. Modification of interpersonal psychotherapy with depressed adolescents (IPT-A): phase I and II studies. J Am Acad Child Adolesc Psychiatry. 1994; 33:695–705. [PubMed: 8056733]
26. Mufson L, Weissman MM, Moreau D, Garfinkel R. Efficacy of interpersonal psychotherapy for depressed adolescents. Arch Gen Psychiatry. 1999; 56:573–9. [PubMed: 10359475]
27. Rossello J, Bernal G. The efficacy of cognitive-behavioural and interpersonal treatments for depression in Puerto Rican adolescents. J Consult Clin Psychol. 1999; 67:734–45. [PubMed: 10535240]
28. Kaufman J, Birmaher B, Brent D, et al. Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime version (K-SADS-PL): initial reliability and validity data. J Am Acad Child Adolesc Psychiatry. 1997; 36:980–8. [PubMed: 9204677]
29. Poznanski EO, Freeman LN, Mokros HB. Children's Depression Rating Scale – Revised. Psychopharmacol Bull. 1985; 21:979–89.
30. The Treatment for Adolescents with Depression Study Team. Treatment for Adolescents with Depression Study (TADS): rationale, design, and methods. J Am Acad Child Adolesc Psychiatry. 2004; 42:531–42.
31. Birmaher B, Khetarpal S, Brent D, et al. The Screen for Child Anxiety Related Emotional Disorders (SCARED): scale construction and psychometric characteristics. J Am Acad Child Adolesc Psychiatry. 1997; 36:545–53. [PubMed: 9100430]

32. Birmaher B, Brent DA, Chiappetta L, Bridge J, Monga S, Baugher M. Psychometric properties of the Screen for Child Anxiety Related Emotional Disorders scale (SCARED): a replication study. J Am Acad Child Adolesc Psychiatry. 1999; 38:1230–6. [PubMed: 10517055]

33. Khetarpal-Monga S, Birmaher B, Chiappetta L, et al. The Screen for Child Anxiety-Related Emotional Disorders (SCARED): convergent and divergent validity. Depress Anxiety. 2000; 12:85–91.

34. Shaffer D, Gould MS, Brasic J, Ambrosini P, Fisher P, Bird HA. Children's Global Assessment Scale (C-GAS). Arch Gen Psychiatry. 1983; 40:1228–31. [PubMed: 6639293]

35. Harrington R, Rutter M, Weissman M, et al. Psychiatric disorders in the relatives of depressed probands I. Comparison of prepubertal, adolescent and early adult onset cases. J Affect Disord. 1997; 42:9–22. [PubMed: 9089054]

36. Wickramaratne PJ, Greenwald S, Weissman MM. Psychiatric disorders in the relatives of probands with prepubertal-onset or adolescent-onset major depression. J Am Acad Child Adolesc Psychiatry. 2000; 39:1396–405. [PubMed: 11068895]

37. Kovacs M, Devlin B, Pollock M, Richards C, Mukerji P. A controlled family history study of childhood-onset depressive disorder. Arch Gen Psychiatry. 1997; 54:613–23. [PubMed: 9236545]

38. Bridge J, Iyengar S, Salary CB, et al. Clinical response and risk for reported suicidal ideation and suicide attempts in pediatric antidepressant treatment: a meta-analysis of randomized controlled trials. JAMA. 2007; 297:1683–96. [PubMed: 17440145]

TABLE 1

Symptom profiles and functioning of depressed preadolescents (mean, SD)

	FB-IPT only	FB-IPT +SSRI	Pooled sample
Pretreatment scores			
CDRS-R (n = 16)	43.6 (6.87)[a]	42.7 (2.42)[a]	43.3 (5.45)
CGAS (n = 16)	58.6 (3.13)[a]	57.5 (4.18)[a]	58.2 (3.47)
SCARED-Parent (n = 15)	12.8 (5.81)[a]	21.2 (13.21)[a]	16.1 (9.99)
SCARED-Child (n = 14)	18.5 (10.16)[a]	18.5 (13.68)[a]	18.5 (11.29)
Post-treatment scores			
CDRS-R (n = 16)	28.8 (10.52)[a]	22.7 (4.32)[a]	26.5 (9.06)
CGAS (n = 16)	73.0 (9.77)[a]	77.5 (12.15)[a]	74.7 (10.56)
SCARED-Parent (n = 13)	8.8 (6.03)[a]	10.8 (5.89)[a]	9.6 (5.81)
SCARED-Child (n = 13)	6.8 (9.44)[a]	5.4 (4.77)[a]	6.2 (7.75)

Note: Means (across rows) with different superscripts are significantly different at P-value <0.05. CDRS-R, Children's Depression Rating Scale Revised; CGAS, Children's Global Adjustment Scale; FB-IPT, family-based interpersonal psychotherapy; SCARED, Self-Report for Childhood Anxiety Related Emotional Disorders; SSRI, selective serotonin re-uptake inhibitor.