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Treatment of Preschool Depression with Parent Management Training: A Case Study

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Abstract

Depression in young children is a serious and unremitting problem that can negatively affect typical developmental trajectories. Although increasingly recognized as an important clinical issue for treatment, there exists a paucity of evidence-based treatments for preschool depression. The purpose of this case study is to demonstrate that a brief parent management training (PMT) intervention can be an effective treatment for preschool symptoms of depression, both in terms of reducing negative child affect and increasing positive emotional coping, as well as in reducing the disruptive behaviors that commonly present in conjunction with internalizing symptoms.

Keywords: Preschool depression; Internalizing; Parent management training

Introduction

Depression in young children has been recognized as a serious and unremitting problem affecting approximately 1-2% of preschoolers [1]. Depressed preschoolers typically present with symptoms similar to those demonstrated in older depressed children and adults, such as sadness and irritability, whining and crying, low energy, anhedonia, appetite and sleep problems, low selfesteem, inattention and focus difficulties and destructive or violent play [2]. Additionally, preschoolers with depressive symptoms are likely to also demonstrate externalizing symptoms such as tantrums, noncompliance and oppositionality [1].

Treatment of preschool depression is as important as treatment of depression at other developmental stages. Similar to depression in older children and adults, preschool depression is usually not a developmentally transient state but rather shows diagnostic chronicity over time. In a large systematically assessed sample [3] depressed preschoolers were found to be 4 times more likely to have depression two years later when compared to a community sample. The stability of depressive symptoms is most concerning when considered in light of the fact that depressive symptoms are correlated with other developmental difficulties. For example, depressed preschoolers show impairments in social development, cognitive development, and adaptive functioning when compared to healthy preschoolers [4]. Thus, treatment of depressive symptoms is an important early intervention supporting the overall well-being and positive development of the child.

Although Cognitive Behavioral Therapy has been shown to be an effective intervention for children as young as 7 years [5], there is a paucity of empirically tested treatment interventions to address preschool depression. In fact, a review of the literature indicated only one intervention [6], a parent management training program developed specifically for parents of depressed preschoolers. In this program, parents engaged in a 14-session intervention based upon a modified version of Parent Child Interaction Therapy [7], a widely recognized treatment program for children with disruptive behaviors. This intervention was modified for depressed preschoolers through the addition of an Emotional Development (ED) module, which focused upon helping parents facilitate their child's emotional development and enhance their child's ability to regulate negative emotions. Results of that study demonstrated a significant decrease in child depression scores, with concurrent improvements in externalizing symptoms [6], and adaptive functioning [8]. Although preliminary findings for this intervention are positive, the length of sessions required (14 treatment hours) presents considerable barriers to implementation in real-world settings.

In the present case report, we aim to show that a brief parent management training (PMT) intervention can be an effective treatment for preschool symptoms of depression – both in terms of reducing negative child affect and increasing positive emotional coping, as well as in reducing the disruptive behaviors that commonly present in conjunction with internalizing symptoms. Although not designed specifically to address symptoms of preschool depression, study authors hypothesized that PMT could reduce child internalizing symptoms through an increase in positive parent-child interactions, facilitation of appropriate parent expectations and responses to child behaviors, and promotion of adaptive child functioning – all positive effects that could buffer negative child affect and hopefully ameliorate depressive symptoms. The specific objectives of the present case report were to demonstrate: (1) the feasibility and family acceptability of treating a child with depression via a brief parent management program (2) clinically significant reduction in parent-reported internalizing symptoms after BBI; and (3) improvements in disruptive behavior after BBI.

Methods

Participant

"J.N." was a 4-year, 5-month old male who was referred by his pediatrician for psychological evaluation at a large children's hospital

for the primary concerns of behavioral difficulties and negative self-esteem. In terms of family demographics, the family identified as both racially and ethnically "White and East Indian". Both parents (biological mother and father) completed college, and both attended all treatment sessions. During the initial clinical interview, parents noted the following concerns: low frustration tolerance, frequent tantrums, excessive daily crying, apathy, negative self-talk, and recurring preoccupation with themes of death. J.N was also noted to engage in self-punishing behaviors after gentle discipline from parents. Based on parent report, history, and standardized measures, J.N. was diagnosed with Disruptive Behavior Disorder, Not Otherwise Specified, and Depression, Not Otherwise Specified. Unspecified categories were deemed most appropriate given J.N.'s age and presentation.

Measures

Behavior Assessment System for Children - Second Edition (BASC-2) Parent Rating Scales. The BASC-2 is a broad-band measure of child symptomatology with strong evidence supporting its reliability and validity [9]. Scores on BASC-2 scales are referenced against an age-appropriate, same-sex, general norm sample. On the BASC-2, T-scores less than 60 are categorized as "within normal limits". T-scores between 60 to 69 are considered "at-risk;" T-scores 70 and higher are considered "clinically significant." Internal consistencies for BASC-2 scales range from .72 to .93.

Disruptive Behavior Rating Scale (DBRS) Parent Version. The DBRS [10] is a narrow-band measure focused specifically on the assessment of symptoms of Attention Deficit Hyperactivity Disorder (ADHD) and Oppositional Defiant Disorder (ODD). Parents endorse the frequency (never through very often) with which their child exhibited DSM-IV-TR criteria (APA, 2000) for each disorder over the past 6 months. Procedure

J.N. and his parents participated in weekly 50 minute PMT sessions conducted by a postdoctoral fellow and supervised by a licensed clinical psychologist. PMT is a well-established therapeutic intervention developed to address disruptive behaviors in children and adolescents [11]. Specifically, J.N. participate in the Brief Behavioral Intervention (BBI), a manualized PMT program designed with a focus upon delivering the fewest number of treatment sessions possible in order to facilitate treatment accessibility and reduce patient attrition. BBI is effective in reducing disruptive behaviors of children aged 2-6 years [12] and in maintaining treatment gains one-year post-treatment [13]. However, BBI has never been empirically assessed in the treatment of depression. BBI consists of 5 core content sessions, each designed to deliver a specific behavioral management skill to parents or caregivers. Both parent and child attend sessions, enabling the therapist to instruct parents in the implementation of strategies directly with the child in the room. Core BBI content sessions include: identifying antecedents and consequences of problem behaviors within the child's daily routine, engaging in child-directed play, providing differential attention, delivering effective commands, and administration of timeout and logical consequences. Modifications to address depression were incorporated into the traditional BBI curriculum during sessions, and focused upon helping parents use child-directed play and differential attention to address issues of poor child emotional regulation, increase child emotional awareness, and augment child self-efficacy to tasks. For example, parents were taught to use planned ignoring strategies when the patient was expressing sadness in an inappropriate manner (tantrumming), but to use child-directed interaction (CDI) communication skills to increase parental empathy and responsiveness to emotional expression at other times. High levels of positive attending to small positive behaviors and child achievements were encouraged at all times in order to help the patient to note his own strengths and successes. Finally, basic routine planning, principles of effective commands and simple contingencies were utilized to help increase child socialization and behavioral activation in mastery and pleasure activities.

Results

Feasibility

The family participated in 5 BBI sessions over a period of 7 weeks. This length of treatment was consistent with the average course of BBI in treatment of disruptive behaviors (M=6.9 sessions; SD=2.1)[13] and much shorter in duration relative to other parent management training interventions [7]. The five core BBI sessions were successfully implemented in the typical order with the addition of modifications to address depression without extending the typical length of treatment. J.N.'s parents were able to master and effectively implement new skills and strategies with observable positive changes in J.N.'s behavior by treatment termination.

Reduction of parent-reported depressive symptoms

Before the first BBI session, J.N.'s parents reported clinically significant symptoms of depression on the BASC-2 (T=82). At the last session, J.N.'s BASC-2 depression (T=69) score was significantly reduced from pre- to post-treatment, reliable change index (RCI; [14])=-2.55, $p<.05$. This change reflected both a clinically significant and clinically meaningful reduction in symptoms as it reduced J.N.'s symptom severity one full standard deviation. J.N.'s depression score remained stable at 6-month follow-up (T=64).

Reduction of parent-reported disruptive symptoms

Before the first BBI session, J.N.'s parents reported 4 significant symptoms of inattention and 5 significant symptoms of hyperactivity/impulsivity on the Disruptive Behavior Rating Scale (inattention total score=13; hyperactivity/impulsivity total score=14). At the last session, J.N.'s DBRS hyperactivity/impulsivity score (7) was significantly reduced from pre- to post-treatment, RCI=-2.68, $p<.05$, with only one symptom still occurring often or more. J.N.'s DBRS inattention score was also reduced post-treatment (inattention total score=8), with only one symptom still occurring often or more, although this change did not reach clinical significance.

Discussion

Parent management training appears to be feasible as an initial intervention for preschool depression. The intervention was easily implemented by a therapist (a postdoctoral trainee) in a busy outpatient clinic within a major children's hospital. Totaling only 5 hourly treatment session hours, the intervention was also significantly less time-intensive than other parent management training programs such as PCIT [7] or the more recently developed treatment for preschool depression [6], both of which tend to require at least 10 -14 hourly treatment sessions to complete. Given that treatment attrition rates for PMT are high, with recent individual studies reporting drop-out from active treatment ranging from 32–47% [15-17], a brief

treatment model such as that of BBI is likely to be more accessible to families, thus allowing for more children to benefit from early behavioral intervention. This case study also demonstrates the potential for long-term maintenance of treatment gains despite the relatively brief treatment dose provided (5 clinical hours), as J.N's symptom reduction was well-maintained at 6-month follow-up. It is likely that ongoing parental implementation of parent management skills was a contributing factor to symptom amelioration over the post-treatment period, although this hypothesis will need to be evaluated further in other studies.

There are several limits to this case study. As this is the first study examining the utility of a brief PMT intervention in treatment of internalizing symptoms, it is not possible to compare effects of this study with the published PMT literature, as the existing literature has generally not reported data on internalizing symptoms. In the two papers examining the outcome of the modified PCIT intervention on preschool depression [6,8], different measurement tools used across studies make comparison of outcome data challenging. Although significant symptom change was seen in this case study as well as across the modified PCIT-interventions, the use of structured evaluation at pre and post-treatment would have strengthened this case-study's ability to more aptly speak to outcome comparisons across treatment interventions. Finally, this study would have been strengthened by use of a case-controlled study design. Plans are in place for further examination of this intervention to address these limitations.

In summary, results of this case study indicate that basic behavior management treatment protocols and the general training of parents in behavioral principles can be used to effectively treat more than just "disruptive behaviors". In this case, parent training of behavioural principles was successful in reducing both child depressive symptomatology and child disruptive behaviors, with only small individualized modifications to the traditional PMT treatment intervention. Given the developmental difficulty in using traditional individual therapy treatment models with preschoolers, the value of training parents in strategies to address child internalizing symptoms is clear. Further research investigations will be helpful in demonstrating the utility of this promising treatment approach for preschooler experience of internalizing symptoms and psychological distress.

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