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A Pilot Feasibility Study of Interpersonal Psychotherapy in Adolescents Diagnosed With Specific Learning Disorders, Attention Deficit Hyperactive Disorder, or Both With Depression and/or Anxiety Symptoms (IPT-ALD)

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Specific learning disorders (SLD) significantly interfere with academic functioning and interpersonal relationships and often co-occur with attention deficit/hyperactivity disorder (ADHD), depression, and anxiety symptoms. Most of the interventions for SLD adolescents have focused on enhancing cognitive and learning skills. Interpersonal psychotherapy for depressed adolescents (IPT-A) is a time-limited, evidenced-based psychotherapy for depressed adolescents. It combines interpersonal, emotional, and behavioral work. This is the first study to examine the feasibility and acceptability of IPT-A adapted for adolescents diagnosed with SLD, ADHD, or both with depression and anxiety symptoms (IPT-ALD). The participants consisted of 18 adolescents who started the treatment, ages 10–17 years (mean 12.57) while 15 completed the intervention. Seven out of the 15 completers were followed up after 3 months. The intervention included 15 weekly sessions and 3 follow-up sessions. The skills-based intervention focuses on an identified problem area and aims to improve the adolescent's coping with their SLD/ADHD challenges; reduce anxiety and depression symptoms; and improve interpersonal and social functioning. Results indicated that IPT-ALD is a feasible treatment to deliver with high satisfaction. Attachment to mother and school avoidance significantly improved from beginning to end of acute treatment. At 3-month follow-up, youths' self-reports indicated fewer general difficulties and more significant improvement in generalized anxiety, separation anxiety, social phobia, and school avoidance. Improvement at the 3-month follow-up indicated that some of the changes for these youths may have a delayed impact. Future studies should examine the effectiveness of the intervention in a randomized control trial.

Keywords: learning disorders, ADHD, depression, anxiety, interpersonal psychotherapy

The specific learning disorder (SLD) diagnosis, estimated to affect between 2% and 10% of school-age children, significantly interferes with academic achievement and activities of

daily living (American Psychiatric Association [APA], 2013). SLD often co-occurs with other psychiatric disorders such as attention deficit/hyperactivity disorder (ADHD; e.g., DuPaul,

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Gormley, & Laracy, 2013; Mattison & Mayes, 2012) and depression and anxiety disorders (e.g., Capozzi et al., 2008; Goldston et al., 2007; Klassen, Tze, & Hannok, 2013; Nelson & Harwood, 2011); SLDs are often associated with insecure attachment (Al-Yagon & Mikulincer, 2004a, 2004b) and deficits in social skills (Melzer & Krishnan, 2007). Adolescents with SLD report a lower prevalence of secure attachment with parents compared to their non-LD peers (Al-Yagon, 2007, 2010, 2011; Al-Yagon & Mikulincer, 2004a, 2004b). ADHD is a mental health disorder which is reflected in a persistent pattern of inattention, hyperactivity-impulsivity, or both (APA, 2013). Students with ADHD are characterized by internalizing symptoms (e.g., Barkley, 2006; Wehmeier et al., 2010) and difficulties in interpersonal relationships (e.g., Nijmeijer et al., 2008).

Most of the interventions among children and adolescents with SLD have focused on enhancing cognitive and learning skills, such as reading and writing abilities, mathematic skills, and memory functioning (e.g., Heath, 2007; Wexler, Vaughn, Roberts, & Denton, 2010). Fewer intervention programs have emphasized the social and emotional domains especially during adolescence (see Kavale & Mostert, 2004, for a review). Most of these programs include cognitive-behavioral therapy (Kroese, Dagnan, & Loumidis, 1997), social skills training (Vaughn, LaGreca, & Kuttler, 1999), academic motivational programs (Brier, 2007), and group treatment methods (e.g., Freilich & Shechtman, 2010). A previous study of ours (Kopelman-Rubin et al., 2012) examined an intervention which focused on the impact of SLD on both academic and emotional factors and included elements from Interpersonal Psychotherapy for Depressed Adolescents (IPT-A). These elements were limited to two IPT-A techniques: communication analysis and decision analysis, but did not include the problem area formulation nor the full IPT-A protocol (Mufson, Dorta, Moreau, & Weissman 2004).

IPT-A is a time-limited, evidenced-based psychotherapy for depressed, nonbipolar, nonpsychotic adolescents (Mufson, 2010; Mufson et al., 2004), adapted from IPT for adults (Weissman, Markowitz, & Klerman 2000). IPT-A is a good example of the psychotherapy integration movement in several ways. First, it is theoretically based on a combination of attachment theory (Bowlby, 1969), social psychiatry (Sullivan,

1953), and emotional and behavioral components. Second, although IPT-A maintains this theoretical orientation, it is open to incorporating ideas and strategies from other sources (Stuart, 2008). Lastly, IPT-A uses common factors of effective therapy such as working alliance, empathy, listening, and support (e.g., Horvath & Luborsky, 1993).

Similar to cognitive-behavioral therapy (CBT), IPT is a diagnosis-targeted, time-limited, present-focused treatment that encourages the patient to regain control of mood and functioning. CBT interventions typically focus on cognitions and include a social/interpersonal component as well, but IPT solely focuses on the interpersonal aspect of the mood difficulties. More specifically, IPT focuses on the link between the patient's mood symptoms and disturbing interpersonal life events/difficulties that trigger, maintain, or follow from the onset of the mood disorder symptoms. IPT is unique in its use of a framework of interpersonal problem areas and formulation that is used to guide the skills-building work. The family work is included to facilitate work on the identified problem area. IPT, however, usually does not include direct cognitive restructuring (although the assumption is that cognitions change following emotional/interpersonal work). This particular adaptation is unique in its targeting of both the interpersonal aspects of the mood as well as the interpersonal impact of the SLD/ADHD.

IPT-A's focus on the emotional and interpersonal aspects of the patient's struggles is relevant to adolescents diagnosed with SLD/ADHD. Previous studies have shown that the emotional and interpersonal issues in adolescents with SLD may be even more important than their actual SLD difficulties (Goldberg et al., 2003). IPT-A it has not been previously adapted for adolescents with SLD/ADHD. The aim of the current study was to examine the feasibility and acceptability of IPT-A adapted for adolescents diagnosed with SLD or ADHD with depression and anxiety symptoms (IPT-ALD).

Method

Participants

The participants consisted of 18 youths between the ages of 10 and 17 (mean age 12.57, $SD = 1.99$) who started the treatment. The final sample included 15 adolescents who had the

following diagnoses: SLD: 4 (26.6%); ADHD: 6 (40%); SLD + ADHD: 5 (33.3%). All of these subjects endorsed at least two subsyndromal depression or anxiety symptoms at intake. Among completers, one (6.7%) was diagnosed with depression, two (13%) with anxiety, and one (6.7%) with a tic disorder. In addition, five (33.3%) patients received stimulants before starting the treatment (four were prescribed methylphenidate and one was taking a selective serotonin re-uptake inhibitor). The socioeconomic status (SES) item indicated that 78.6% of the sample came from families with an average income. Most of the adolescents ($n = 13$, 86.7%) lived with both of their parents.

Procedure

Participants and their parents were referred to a specialized learning disorders clinic at Schneider Children's Medical Center in Israel and were diagnosed with a variety of specific learning disorders. Adolescents were self-referred or were referred by hospital or community providers. Inclusion criteria included SLD and ADHD diagnosis, depression and/or anxiety symptoms, normal range IQ, and regular class attendance. Exclusion criteria included intellectual disability, severe suicidal ideation/behavior, and psychosis. Symptoms were assessed during a clinical intake by the director of the LD clinic at the hospital (H. Argintaru). All participants completed questionnaires before and after the intervention. We were also able to follow seven participants (five males and two females; mean age = 12.86) for a 3-month follow-up period. The study was approved by the institutional review board committee of Schneider Children's Medical Center of Israel, and all parents signed an informed consent document.

Assessments

Adolescents completed assessments at baseline and postintervention. Pre- and postassessments included the following:

Demographic questionnaire. The demographic questionnaire included information on age, grade, gender, racial/ethnic background, household composition, and SES.

Attachment to parents. Participants completed the 15-item Hebrew adaptation (Granot & Maysless, 2001) of the Attachment Security Style Scale (Kerns, Klepac, & Cole, 1996). This

scale assesses adolescents' attachment security in parent-child relationships, using a 4-point "Some kids . . . other kids" format. Participants completed two versions of the scale; they completed it once about their relationship with their mother and a second time about their relationship with their father. Previous findings have demonstrated the validity and reliability of the Attachment Security Style Scale in early adolescents (Lieberman, Doyle, & Markiewicz, 1999). In our sample, Cronbach's alpha for the total scale at baseline was 0.87 for the child self-report referring to his mother and 0.81 for the child self-report referring to his father. Cronbach's alpha for the total scale at the end of IPT was 0.90 for the child self-report referring to his mother and 0.92 for the child self-report referring to his father. We computed two total scores for each participant by averaging the 15 items in each version of the scale. Higher scores reflect more attachment security toward mother and father.

Attachment representations of teachers. Participants completed the 25-item Children's Appraisal of Teacher as a Secure Base scale (Al-Yagon & Mikulincer, 2006). This scale assesses adolescents' perceptions of their homeroom teacher as an attachment figure along a 7-point scale. Previous findings demonstrated the validity and reliability of this scale (e.g., Al-Yagon & Mikulincer, 2004a, 2004b, 2006). The availability and acceptance subscale was comprised of 17 items, assessing the teacher as caring and as available in times of need (e.g., "My teacher is always there to help me when I need her"). The rejection subscale was comprised of eight items tapping the extent to which the adolescent perceived the teacher as rejecting (e.g., "My teacher makes me feel unwanted"). In our sample, Cronbach's alpha for the acceptance scale was 0.94, and 0.75 for the rejection scale at baseline. Cronbach's alpha for the acceptance scale was 0.96, and 0.61 for the rejection scale at the end of IPT. We computed two total scores for each participant by averaging the 17 availability-acceptance items and the 8 rejecting items. Higher scores reflect appraisals of homeroom teachers as more available-accepting and as more rejecting.

Depression. Depression was assessed using the Mood and Feelings Questionnaire (MFQ; Costello & Angold, 1988). This self-report questionnaire examines recent depressive

symptoms. Participants are asked to respond to 33 different statements which assess how the subject has been feeling over the past 2 weeks. Participants can regard each statement as 0 (not true), 1 (sometimes true), or 2 (true). MFQ scores may range between 0 and 66. The cut-off point for depressive disorders has been established as 26 or more. This point was used to dichotomously differentiate participants as either depressed or nondepressed. In our sample, Cronbach's alpha for the total scale was 0.89 for the child self-report, 0.84 for the mother self-report, and 0.91 for the father self-report and at baseline 0.88, 0.86, 0.93, respectively, at the end of treatment.

Anxiety. Screen for Child Anxiety-Related Emotional Disorders (SCARED; Birmaher et al., 1997). The 41-item SCARED is a self-report measure which distinguishes between anxiety disorders and other disorders and differentiates types of anxiety disorders. It is divided into five subscales: Panic/Somatic, Generalized Anxiety, Separation Anxiety, Social Anxiety, and School Avoidance. Each item describes specific feelings and behaviors, and patients rate the frequency which they experienced each during the last 2 weeks on a scale ranging from 0 (*almost never*) to 3 (*often*). The subscale scores are summed to obtain a total anxiety score; their calculated mean constitutes the global score. The SCARED has been found to have good reliability and validity in clinical settings (Birmaher et al., 1999). In our sample, Cronbach's alpha for the total scale at baseline was 0.92 for the child self-report, 0.84 for the mother self-report, and 0.93 for the father self-report. At the end of treatment alphas were 0.92, 0.83, and 0.79, respectively.

Functioning. The SAS-SR (Social Adjustment Scale; Weissman & Bothwell, 1976) is a self-report measure that assesses social functioning. A total score is computed by averaging all of the items on the measure. The SAS-SR also has four subscales: Friends, School, Family, and Dating. The Friends subscale assesses social functioning with peers, including frequency of contact and the ability to share feelings with friends. The School subscale assesses aspects of academic functioning including school attendance, academic performance, and interest in schoolwork. The Family subscale assesses family relationships, including the ability to talk to parents about problems and disappointment in family relationships.

The Dating subscale includes two items that assess the frequency of and interest in dating. Scores on each of the scales range from 1 to 5, with higher scores indicating greater dysfunction. Cronbach's alpha for the total SAS-SR at baseline was 0.92 and at the end of treatment was 0.65.

Strengths and Difficulties

The Strengths and Difficulties Questionnaire (Goodman, 1997) is a brief behavioral screening questionnaire. The questionnaire includes 25 items which are divided between five scales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior. Scores from the first four are added to generate a total difficulties score. At baseline, Cronbach's alpha for the difficulties subscale was 0.79, and 0.45 for the strengths scale. At the end of the intervention, Cronbach's alpha for the difficulties scale was 0.80, and 0.45 for the strengths scale.

Satisfaction. Satisfaction and Estimation of Progress Questionnaire (Kopelman-Rubin et al., 2012) consists of two yes/no questions ("Did IPT-ALD help you in general? Would you recommend IPT-ALD to a friend?") and three specific 1–7 Likert scale questions about improvement in school functioning, mood, and interpersonal relationships (e.g., "I think that following the intervention my school functioning/mood/interpersonal relationships have. . ."). The response options ranged from 1 (significantly improved) to 7 (significantly worsened). A lower score indicated greater satisfaction with the IPT.

Data Analysis

T test for paired samples was used to analyze differences between the variables from the beginning to the end of the IPT intervention (Tables 1–3). We also conducted an intent-to-treat analysis in which the beginning scores of the three patients who did not complete the intervention were carried forward. As the completers analysis and intent-to-treat analysis yielded similar results, we report the findings for the intent-to-treat analysis only ($n = 18$). Repeated-measures analysis and planned contrasts were conducted for differences between the beginning of IPT and the 3-month follow-up for the seven participants who completed the follow-up assessment (see Table 4).

Table 1
Child Assessment ($N = 18$)

Variable	Preassessment		Postassessment		T	Significance
	M	SD	M	SD		
Attachment security style, mother	29.77	10.11	36.69	12.37	-2.34*	.04
Attachment security style, father	31.85	8.64	34.46	10.66	-.91	.38
SCARED total	22.00	13.25	20.35	12.78	.87	.40
Panic	4.53	4.19	3.65	3.67	1.44	.17
Generalized anxiety disorders	5.47	4.12	5.24	4.55	.34	.74
Separation anxiety	4.12	2.85	3.94	2.90	.34	.74
Social phobia	6.06	3.82	5.29	3.37	1.10	.29
School avoidance	1.82	1.67	2.24	1.99	-1.44	.17
Mood and Feelings Questionnaire	10.88	8.82	8.94	6.62	1.27	.22
Social Adjustment Scale—Self-Report	2.11	.73	2.23	.45	-.90	.38
Children's appraisal of teacher as a secure base: acceptance	92.81	24.15	95.44	25.34	-.68	.51
Children's appraisal of teacher as a secure base: rejection	13.44	7.12	10.94	4.78	1.88	.08
SDQ—Strengths	6.93	1.90	7.64	1.98	-1.79	.10
SDQ—Difficulties	12.79	6.58	12.71	6.39	.09	.93

Note. SCARED = Screen for Child Anxiety-Related Emotional Disorders; SDQ = Strengths and Difficulties Questionnaire.

* $p < .05$.

IPT-ALD—the Intervention

IPT-ALD is a manual-based psychological intervention for adolescents who have been diagnosed with SLD/ADHD and suffer from depression and anxiety symptoms. The intervention aims to address three things: the adolescent's coping with their SLD/ADHD challenges, anxiety and depression symptoms, and interpersonal functioning. IPT-ALD consists of an acute phase (15 therapeutic sessions once a week) and a follow-up phase (total of 3 sessions over 3 months). During the acute phase, the IPT-ALD protocol includes a meeting at the school in which the homeroom teacher and school counselor are involved. The

follow-up sessions are conducted 2 weeks after the completion of the acute phase of the treatment and then 1 month and 3 months after termination.

The initial phase includes identifying and assessing the three parts of what we refer to as the "IPT-ALD triangle": Coping with SLD/ADHD, depression/anxiety symptoms, interpersonal relationships, and the association among the three. The initial phase also includes psychoeducation about SLD/ADHD including the identification, understanding, and conceptualization of the unique nature of the adolescent's SLD/ADHD profile. The adolescent and his or her parents are encouraged to be aware of the spe-

Table 2
Mother Assessments ($N = 18$)

Variable	Preassessment		Postassessment		T	Significance
	M	SD	M	SD		
SCARED total	17.80	9.06	16.40	8.39	.69	.50
SCARED	1.27	1.62	2.07	2.40	-1.74	.10
Generalized anxiety disorders	6.13	3.83	5.60	2.44	.84	.42
Separation anxiety	3.13	2.80	3.67	2.50	-.94	.36
Social phobia	5.40	3.68	4.00	3.46	1.78	.10
School avoidance	1.87	1.68	1.07	1.53	2.45*	.03
Mood and Feelings Questionnaire	8.73	6.40	7.73	6.68	.74	.47

Note. SCARED = Screen for Child Anxiety-Related Emotional Disorders.

* $p < .05$.

Table 3
Father Assessments (N = 18)

Variable	Baseline		Postintervention		<i>T</i>	Significance
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
SCARED total	17.50	12.82	15.07	11.26	.92	.37
Panic	2.57	3.92	2.07	3.27	.61	.55
Generalized anxiety disorders	5.36	4.38	4.64	4.03	1.01	.33
Separation anxiety	2.93	2.92	2.43	1.95	.80	.44
Social phobia	5.14	3.70	4.86	3.82	.37	.72
School avoidance	1.50	1.45	1.07	1.27	1.47	.17
Mood and Feelings Questionnaire	6.00	7.09	4.92	6.55	1.96	.07

Note. SCARED = Screen for Child Anxiety-Related Emotional Disorders.

cific strengths and weaknesses of the adolescent. A limited sick role is assigned such that the adolescent and his or her parents are able to understand that the teenager has a chronic disorder (SLD/ADHD) as well as symptoms of depression/anxiety that may affect the completion of normal activities and school performance. It is explained that SLD/ADHD are medical conditions that the patients were born with; moreover, although the disorder itself will not change, the goal is that the adolescent will learn how to live and cope with it better. The depression/anxiety symptoms were explained as "symptoms of medical illness which are treatable conditions, rather than the patients fault or personal defect." The limited sick role has the effect of defining all of these problems, excusing the patient from symptomatic self-blame and reducing significant others' criticism. The concept of the "limited sick role" is for the clinician, and that language is not necessarily imparted to the child; rather the concepts of the impact of the SLD and depression on their functioning is explained to them with the goal of removing blame and criticism in layman's terms that children can understand. Adolescents and parents are encouraged to be less critical of performance and more supportive of participation. As for the depression/anxiety symptoms, the patient and family learn about the symptoms so they can identify them. To address the interpersonal aspects of these intertwined disorders, the adolescent and therapist conduct an interpersonal inventory (using the closeness circles) to explore the adolescent's significant interpersonal relations and how these are linked to SLD and its challenges.

At the end of the first phase, the therapist identifies the problem area, which can be inter-

personal disputes, role transitions, or interpersonal deficits. The therapist also explains the theory and goals of IPT-ALD and sets the treatment contract with the adolescent and the parents. This phase also includes a school meeting with the adolescents, parents, and school staff. The purpose of the meeting is to strengthen cooperation and the "all of us facing SLD/ADHD" support network. In the school meeting, the therapist explains the adolescent's diagnosis and focuses on areas of strength upon which to build, as well as the implications of the adolescent's SLD/ADHD for his or her academic and emotional functioning at school.

The middle phase of the intervention includes learning and practicing effective interpersonal, emotional, and behavioral strategies within the identified problem area(s). In addition, this phase includes continuation of the work with parents and schools.

The interpersonal work in this phase includes clarification of expectations for the targeted relationship(s), as well as the development and practice of communication and social skills. This is done by conducting communication analyses in which the therapist and patient perform a thorough investigation of a specific dialogue or argument that occurred between the adolescent and another person, breaking it down into each specific verbalization. The analyses identify ways in which the adolescent's communication was ineffective and failed to achieve the goal of the communication. The target is to teach the adolescent to communicate in a more effective manner by increasing clarity, directness, and accuracy of the message. In addition, this phase frequently includes development and practice of interpersonal problem solving skills (i.e., decision analysis) in which the adolescent

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Table 4
Repeated-Measure Analysis: Preassessment, Postassessment, and 3-Month Follow-Up of IPT-ALD

Variable	Preassessment		Postassessment		3-month follow-up			Model significance		Planned contrast: Beginning of IPT versus 3-month follow-up		
	M	SD	M	SD	M	SD	F	Significance	Partial η^2	F	Significance	Partial η^2
Attachment Security Style—Mother	24.57	8.42	35.71	13.41	41.00	14.05	3.85	.07	.39	8.18	.03	.58
Attachment Security Style—Father	28.00	4.24	32.57	11.89	41.29	11.74	3.52	.06	.37	6.02	.05	.50
SCARED total	19.67	8.82	12.33	8.14	7.83	5.49	18.80	.00	.79	26.45	.00	.84
SCARED—Panic	3.17	2.48	1.00	.89	.83	1.17	6.49	.02	.56	5.98	.06	.54
SCARED—Generalized anxiety disorders	6.00	2.97	3.67	3.83	2.33	3.39	10.00	.00	.67	14.76	.01	.75
SCARED—Separation anxiety	4.00	2.19	2.33	2.73	1.50	1.22	7.35	.01	.60	16.30	.01	.77
SCARED—Social phobia	5.00	2.68	3.17	2.86	2.83	2.14	4.15	.05	.45	9.49	.03	.66
SCARED—School avoidance	1.50	1.52	2.17	2.32	.33	.82	4.43	.04	.47	8.45	.03	.63
Mood and Feelings Questionnaire	11.83	10.23	8.67	7.63	2.33	2.16	3.80	.06	.43	6.68	.05	.57
The Social Adjustment Scale—Self-Report	2.32	.67	2.33	.22	2.07	.29	.73	.51	.15	.67	.46	.14
Children's appraisal of teacher as a Secure Base Scale—Acceptance	103.40	26.04	113.20	4.44	108.60	12.58	.89	.45	.18	.53	.51	.12
Children's appraisal of teacher as a Secure Base Scale—Rejection	10.80	3.90	8.00	.00	8.00	.00	2.58	.14	.39	2.58	.18	.39
Strengths and Difficulties Questionnaire—Strengths	6.40	1.67	8.40	.89	8.00	1.87	6.00	.03	.60	5.57	.08	.58
Strengths and Difficulties Questionnaire—Difficulties	10.40	4.56	8.20	3.35	7.00	3.39	3.69	.07	.48	13.44	.02	.77

Note. SCARED = Screen for Child Anxiety-Related Emotional Disorders; IPT = Interpersonal Psychotherapy.

learns to find a solution to a problem by systematically evaluating and then selecting from different options. The communication and problem-solving skills learned often help the youth cope more adaptively with his or her SLD/ADHD.

The emotional work in the middle phase is often devoted to the exploration and expression of feelings including emotional regulation using emotion cards. A major component of this phase includes creating a linkage between affect and interpersonal events. This involves facilitating acceptance and the expression of painful affect about events or issues and relating these feeling states to changes in interpersonal relationships. The therapist helps the adolescent to use his affective experiences to make interpersonal changes which in turn will be likely to lead to more positive affective experiences and relationships.

Learning all the strategies requires frequent role playing (including playing both persons in the dyad) and work at home (i.e., "interpersonal experiments") to practice the strategies. Sessions also include monitoring anxiety and depression symptoms, coping with SLD/ADHD, and interpersonal functioning. Monitoring is done using a diagram which helps adolescents and parents to increase their awareness regarding the association between the three issues. The therapeutic relationship is used in this phase to practice skills and provide feedback. The current protocol also includes work on organizational strategies including the use of reminders via cell phone, organization of a task by setting goals and ways to achieve them, and desk organization. The termination phase of the acute treatment includes an explicit discussion of feelings regarding the end of treatment, as well as a review of successful strategies that were learned in the therapy, the goals that were accomplished, and identification of future difficult or stressful situations in which the new skills should be applied.

The manual attempts to provide a certain flexibility that enables the therapist to address the specific needs of every adolescent and his or her parents while adhering to a structured protocol. It also includes techniques for less verbal SLD adolescents. These include use of games, balls, balloons, and other play objects while learning and practicing the various skills.

Results

Three of the 18 dropped out of the study during the acute phase and therefore did not complete the IPT-A intervention. The final sample included 15 adolescents, 11 males and 4 females. The three who dropped did not differ from completers in diagnosis nor in demographic characteristics. Below we will describe the results from baseline to the end of the acute phase followed by an additional analysis of the seven patients who were evaluated at a 3-month follow-up.

Changes From Baseline to End of Treatment

According to the adolescents' self-reports, attachment to mother significantly increased ($p < .05$, $T = 2.34$) from baseline ($M = 29.77$, $SD = 10.11$) to the end of the acute IPT-ALD intervention ($M = 36.69$, $SD = 12.37$), indicating a more secure attachment style to mother. According to the mothers' reports, a significant decrease was observed in the school avoidance subscale ($p < .05$, $T = 2.45$). The level of school avoidance improved from baseline ($M = 1.87$, $SD = 1.68$) to post IPT-ALD intervention ($M = 1.07$, $SD = 1.53$; $p = .05$). None of the father assessments reached statistical significance (see Table 3). The Mood and Feelings Questionnaire (MFQ) total score revealed a nonsignificant decreasing direction ($p = .07$, $T = 1.96$) from baseline ($M = 6.00$, $SD = 7.09$) to postacute IPT-ALD intervention ($M = 4.92$, $SD = 6.55$). According to adolescent, mother, and father reports, most of the other assessments positively changed as indicated in Tables 1–3, but did not reach statistical significance. The most frequently identified problem area selected by the therapists was interpersonal deficits.

Adolescent 3-Month Follow-Up Assessment

According to the adolescents' self-reports, attachment to mother significantly increased ($p < .05$, $F = 8.18$) from baseline ($M = 24.57$, $SD = 8.42$) to 3-month follow-up assessment ($M = 41.00$, $SD = 14.05$), indicating a more secure attachment style to mother (see Table 4). Attachment to father showed an increase ($p = .05$, $F = 6.02$) from baseline to 3-month follow-up, but did not reach statistical significance. The

SCARED total score improved significantly ($p < .01$, $F = 26.45$) from baseline ($M = 19.67$, $SD = 8.82$) to follow-up assessment ($M = 7.83$, $SD = 5.49$), indicating a reduction in general anxiety. Additionally, there were significant improvements on the Generalized Anxiety Disorders, Separation Anxiety, Social Phobia, and School Avoidance subscales. The MFQ total score showed a decrease ($p = .05$, $F = 6.68$) from baseline ($M = 11.83$, $SD = 10.23$) to follow-up assessment ($M = 2.33$, $SD = 2.16$), but did not reach statistical significance. Lastly, the Difficulties scale in the Strengths and Difficulties Questionnaire (i.e., emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems) significantly improved ($p < .05$, $F = 13.44$) from baseline ($M = 10.40$, $SD = 4.56$) to follow-up assessment ($M = 7.00$, $SD = 3.39$), indicating a reduction in difficulties.

Satisfaction With IPT-ALD at End of Treatment

Level of satisfaction with the IPT-ALD was measured at the end of the treatment. The general satisfaction was high ($M = 2$, $SD = 0.90$). One hundred percent of the youths who completed treatment reported being satisfied in general. Moreover, 100% stated that they would recommend IPT-ALD to a friend. The means for school functioning, interpersonal relationships, and mood were 2.33 ($SD = 0.98$), 2.5 ($SD = 1.00$), 2.5 ($SD = 0.9$), respectively.

Discussion

The study's results suggest that IPT-ALD is a feasible treatment and that youth regard it with high satisfaction. The significant findings were that attachment to mother and school avoidance significantly improved from beginning to end of acute treatment. Other improvements were in the desired direction but were not statistically significant, probably due to the small sample size. Moreover, at 3-month follow-up, youths' self-reports indicated more significant improvement in generalized anxiety, separation anxiety, social phobia, and school avoidance. Similarly, at the 3-month follow-up, youths reported significantly fewer general difficulties. Improvement at the 3-month follow-up indicated that

these types of psychotherapeutic interventions may have a delayed impact for some children.

The improvement in attachment to mother is consistent with our previous study (Brunstein-Klomek et al., 2013) in which the significant change in attachment security to parents was mainly found in the relationship with mother but not in the relationship with father. These findings may be explained by a study by Al-Yagon (2012), which suggested a possible unique role played by adolescent attachment to each parent. Specifically, in Al-Yagon's (2012) study, adolescent-mother attachment was stronger than was adolescent-father attachment. Our findings are also in line with an additional study by Al-Yagon (2011), which indicated that children with LD reported lower attachment security toward their father as compared to their more typically developing peers. It is possible that attachment to father is based on different experiences (Grossmann et al., 2002; Lamb, 2002; Lieberman et al., 1999). Our findings indicate that attachment is a crucial component to target with SLD/ADHD adolescents. Improving the quality of attachment to both parents is especially important with these adolescents since dealing with SLD/ADHD and its associated emotional aspects may be much easier when the child feels that he is in a close and supportive relationship with both of his parents.

Our findings regarding the reduction in school avoidance indicate that when therapy focuses on dealing with learning, mood, and interpersonal aspects, school avoidance is reduced even when it was not directly discussed. This finding is consistent with those reported by Young et al. (2012), which found an impact of IPT-Adolescent Skills Training on school engagement, although the intervention did not directly address this construct.

The emphasis on the problem area of interpersonal deficits is not surprising given that children with SLD/ADHD have difficulties in social and interpersonal issues (APA, 2013). Many adolescents with SLD/ADHD lack the social and communication skills to establish and maintain appropriate relationships within and outside the family (e.g., Al-Yagon, 2012). Lack of skills may be a contributor to the development of depression/anxiety symptoms, a consequence of the depression/anxiety, and often-times both. The goals with these adolescents

should be to reduce their social isolation and to encourage the formation of relationships.

To conclude, IPT-ALD is a feasible treatment for adolescents diagnosed with SLD/ADHD and suffering from symptoms of depression/anxiety. The study limitations include its small sample size, large number of measures, and no control group. Further research in a randomized controlled clinical trial is needed to establish efficacy.

Case Illustration

In the following case illustration we present the course of IPT-ALD with a 10.5-year-old boy, David who lives with his parents and has two younger sisters. In order to protect confidentiality, we have changed the name and some of the patient and family information. David was referred to treatment due to a worsening of academic functioning in school, angry outbursts toward his parents and teachers, and decreased social interactions. Although David had a few friends, he felt lonely and isolated. A psychoeducational evaluation indicated general cognitive functioning in the high-average range, alongside fluctuations in attention and a weakness in executive functioning. In addition, a specific learning disorder was diagnosed. The evaluating psychologist hypothesized that the diminished academic functioning was also a consequence of his emotional state. The depression questionnaire (MFQ) indicated a score of 24 which was below the clinical cut-off for a depressive disorder; his responses on the SCARED indicated the presence of separation anxiety. On an attachment questionnaire (Kerns), David reported a lack of understanding by his parents and insecure relationships.

In the initial phase, psychoeducation was provided about the triangle of coping with SLD/ADD, mood, and interpersonal relationships. His diagnosis along with his difficulties, strengths, and their impact on school functioning were all explained. In addition, his depressive and anxiety symptoms were explained, including their impact on interpersonal functioning and learning. The interpersonal aspects of feeling lonely and feeling not being supported by parents were also discussed as was their influence on his mood and academic functioning. The gap between his and his parents' perceptions was presented to the family and it

was explained that this contributed to a feeling of lack of support. The parents reacted with surprise that David felt unsupported but also with warmth and empathy, which allowed a discussion about renewed expectations. An explanation of the limited sick role was given, which emphasized the SLD/ADD symptoms as a condition with which he was born and that the depression and anxiety symptoms are part of a medical disorder that impacts on his functioning. Most importantly, as his depression and anxiety symptoms decrease, he will begin to perform better at school and in his relationships. In the meantime, he is encouraged to keep doing his regular activities, and it will get easier and he will do better as his mood and anxiety symptoms decrease. The therapist emphasized the importance of supporting and understanding his functioning, in addition to encouraging him to restore his academic and social functioning. Part of this included the message that "We are all dealing with the difficulties together." In addition, an explanation about treatment structure, goals, and the purpose of the meeting in school was provided.

In the initial phase, David and the therapist completed the closeness circle and the interpersonal inventory, an assessment of significant relationships. These indicated difficulties in understanding social situations, including those with siblings as well as difficulty in expressing feelings and a tendency to hide his difficulties from his parents. These problems may be explained by David's SLD, fluctuations in attention, and weakness in executive functioning. When he did try to communicate, his parents reacted with long verbal explanations and undermined the importance of the issues raised, without paying attention to his feelings. When David felt most distressed, he erupted angrily in front of his parents and siblings, leading to reprimands and sanctions for his behavior, which usually made him feel worse. In school, when David tried to present his point of view, he did so angrily and harshly which resulted in reprimands and sanctions from the teacher without providing him with a response to his complaints. A school meeting was conducted as part of the initial phase in which teachers were updated about the findings and how they could support the treatment process. At the end of the initial phase, the problem area of interpersonal deficits was assigned. Although David was not

totally isolated, he felt very lonely. He had difficulties being part of the social group in class and did not have adaptive communication skills with his peers, parents, and teachers.

In the middle phase of treatment, David and his therapist learned and practiced communication and emotion regulation skills. In order to practice emotional regulation, work was done to increase awareness and acceptance of negative feelings by using emotion cards and practicing regulating these emotions with distraction or relaxation (breathing). Communication analysis was used to identify patterns of ineffective communication (e.g., indirect communication, hostile communication) at home and in class, and to learn alternative ways of direct, clear, and calm expression. This was done by role playing many of the problematic situations with his parents at home and in situations with peers and his teacher in class. An example of a situation in class was when a teacher said something which seemed unfair to David and then practicing how he could express his feelings directly and calmly.

David learned to communicate when he is regulated (we refer to this as a “Teen Tip,” “striking the iron when it is cold”). After a few sessions, David’s academic functioning improved, he met with friends more frequently, and felt less lonely. At this point, it was decided to spend time focusing on the anxiety symptoms. David was afraid to go upstairs alone at home and take a shower without somebody present in the next room. At first, he denied anxiety which created the need to speak about it openly when the parents were in the session. The work during and between sessions was focused on helping David speak openly with his parents about his anxiety so that they could help him try to better manage it.

The termination phase included reviewing the therapeutic achievements and the skills learned. An effort was made to generalize these skills to new situations in the future. This phase included a joint meeting with David and his parents. Emphasis was placed on the need for continued treatment, including more focus on anxiety symptoms.

Despite verbally reporting a significant improvement in his mood, the questionnaires at the end of treatment showed only a slight improvement (MFQ = 21, SCARED = 23). There was, however, significant improvement in com-

munication with parents and evidence of participation in more social gatherings. Interestingly, at the 3-month follow-up, David’s self-report of symptoms was significantly improved (MFQ = 4, SCARED = 4), suggesting a more delayed impact of the treatment. In the follow-up meetings, David reported a positive mood, enjoyment of increased socializing with peers, and improvement in his academic performance.

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