

THE EFFICACY OF INTERPERSONAL PSYCHOTHERAPY-ADOLESCENT SKILL
TRAINING (IPT-AST) IN PREVENTING DEPRESSION:

A MIXED METHODS APPROACH

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ABSTRACT

Adolescent depression is a prevalent and debilitating disorder that is associated with social and academic impairment, suicidality, comorbid psychiatric disorders, and high-risk behaviors (Horowitz, Garber, Ciesla, Young, & Mufson, 2007). Yet many adolescents experiencing depressive symptoms do not receive adequate services, and those that do often fail to achieve remission. This inconsistency in access and outcome warrants further investigation of prevention interventions, particularly those that can be delivered in settings where services are more accessible to youth, such as schools. One such intervention is Interpersonal Psychotherapy-Adolescent Skills Training (IPT-AST; Young & Mufson, 2003), a school-based indicated prevention program that has been shown to have significant effects on depression symptoms and overall functioning for adolescents (Young, Mufson, & Davies, 2006; Young, Mufson, & Gallop, 2010). The present study seeks to identify factors that impact intervention efficacy of IPT-AST by using a mixed methods approach. Systematic individual pragmatic case studies were conducted with a response and non-response case from Young et al. (2010), which evaluated the efficacy of IPT-AST in preventing adolescent depression compared with typical school counseling. Qualitative data from audio recordings of clinical evaluations and the group intervention were used in conjunction with quantitative data from self-report measures to examine experiences of the selected individuals during the intervention and throughout the subsequent 18 months. Case study findings suggest that individual factors, including attitude towards change, interpersonal history and functioning, anxiety symptoms, and cognitive style, contributed to discrepancies in intervention outcomes. Results also highlight the importance of establishing group trust and practicing interpersonal skills in a wide range of contexts, the implications of which are discussed for future research and program development.

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Case Context and Method

The results of randomized controlled trials (RCTs) examining psychological interventions for children and adolescents have been mixed. While certain studies suggest that psychotherapy and prevention programs are beneficial, others demonstrate that many youth who receive interventions continue to suffer from mental health problems (Weisz, 2004). Meta-analyses have found that the average effect size for treating youth depression is medium (0.34) and that the average effect size for preventing youth depression is small (0.15) (McCarty & Weisz, 2007; Stice, Shaw, Bohon, Marti, & Rohde, 2009). Furthermore, RCTs examining the efficacy of treatment for youth depression have yielded remission rates ranging from 37% to 64% (Brent et al., 1997; Kennard et al., 2006). Given these varied findings, a more granular analysis of the relationship between the intervention and outcomes is warranted and may optimize mental health care for youth in real world settings (Kazdin, 2007).

In an effort to sharpen our understanding of the parameters of intervention success, we need to examine the characteristics of the specific intervention, child, and setting that may impact outcomes. In doing so, it is also critical to consider the subset of youth who do not respond positively to intervention—an endeavor that is sometimes overlooked in clinical trials due to pressure to publish positive outcomes. Datillio, Edwards, and Fishman (2010) propose utilizing a mixed methods approach that synthesizes information uncovered from the RCT with both quantitative and qualitative data from a systematic examination of individual cases in the RCT (e.g., positive, negative, and mixed outcome cases all drawn from the experimental condition of the RCT). Supplementing the RCT with systematic case studies of varying outcomes permits a more nuanced examination of the diversity of responses to treatment and the potential role of individual and environmental characteristics. The qualitative component, in

particular, provides a narrative context for how group dynamics and setting may be impacting the implementation of the intervention. Relatedly, data collected from this study can help to identify potential predictors and moderators of IPT-AST for future studies, so that clinicians can individualize interventions and make more informed decisions during the referral process. This approach maintains empirical rigor, while allowing for a more differentiated analysis that is designed to improve best practices for youth interventions in community settings.

IPT-AST

One intervention for youth that has been examined via RCTs in community settings is Interpersonal Psychotherapy-Adolescent Skills Training (IPT-AST). IPT-AST is a school-based prevention program that has been adapted from the individual interpersonal psychotherapy model for the treatment of adolescent depression (IPT-A; Mufson, Dorta, Moreau, & Weissman, 2004) and its group modification (Mufson, Gallagher, Dorta, & Young, 2004). IPT-AST is a group program that targets students who have some elevated symptoms of depression, but who do not meet criteria for a diagnosis (i.e., an indicated prevention program for subsyndromal depression). The intervention is composed of groups with four to six adolescents, aged 12–16, and involves two individual pre-group sessions and eight group sessions. IPT-AST uses both psychoeducation and training in communication and interpersonal problem solving skills to achieve four goals: 1) reduce depressive symptoms, 2) prevent the onset of a depressive disorder, 3) improve interpersonal functioning by reducing interpersonal conflict and increasing social support, and 4) reduce the stigma of clinical interventions so that youth are more likely to seek help in the future, whether it be through treatment or informal support.

Study Aim

In light of the above as context and rationale, this study used a mixed methods approach to examine a response and non-response case selected from Young, Mufson, and Gallop (2010). This study (N=57) evaluated the efficacy of IPT-AST in preventing adolescent depression compared with typical school counseling. Information uncovered from these systematic individual pragmatic case studies has been synthesized with quantitative findings from Young et al. (2010) to identify individual, setting, and intervention factors that impact intervention efficacy.

Method

The Clinical Setting. The IPT-AST condition in Young et al. (2010) consisted of seven groups, which were conducted during or after school in three single-sex Catholic high schools in New York City. Participants in the study ranged in age from 13 to 17, and the average age was 14.5 years (SD=0.8). The majority of participants in the schools were female (59.7%), identified as Hispanic (73.7%), and lived in a single-parent home (70%) (Young et al., 2010).

Assessment. A two-step process was used to identify adolescents with subsyndromal depression. First, ninth and tenth grade students who consented to the study participated in a classroom-based screening during which they completed the Center for Epidemiologic Studies-Depression Scale (CES-D) (Radloff, 1977). The CES-D is a 20-item measure that assesses depressive symptoms over the past week. A score of 16 or higher has been shown to be indicative of elevated depressive symptoms in adult populations (Radloff, 1977), but more variable cutoff scores have been recommended for adolescents (e.g., Garrison, Addy, Jackson, McKeown, & Waller, 1991). The current study used a cut-off score of 16 to identify as many adolescents as possible who may be experiencing depressive symptoms. Thus, those who scored between 16 and 39 met eligibility criteria, and those who scored above 39 met with the Principal

Investigator, who conducted a risk assessment and determined eligibility for participation in the next phase of the study. Adolescents who were eligible were contacted by the research staff and interested families were invited to the school to learn more about the project and provide consent and assent (Figure 1). Students who consented participated in the second step of the eligibility screening by completing a more comprehensive psychodiagnostic evaluation.

The eligibility evaluation included a semi-structured diagnostic interview using (1) the Schedule for Affective Disorders and Schizophrenia for School-aged Children—Present and Lifetime Version (K-SADS-PL) (Kaufman, Birmaher, Brent, & Rao, 1997) and (2) the Children's Global Assessment Scale (CGAS) (Shaffer et al, 1983). Adolescents were deemed eligible for the intervention if they had at least two subthreshold or threshold depression symptoms on the K-SADS-PL, did not meet criteria for a current depressive episode, and had a CGAS score of 61 or higher, indicating that the adolescent had some minor impairments but was generally functioning well (Shaffer, Gould, Bird, & Fisher, 1983). Adolescents were excluded from the prevention program if they had a current diagnosis of depression, dysthymia, bipolar disorder, psychosis, panic disorder, obsessive-compulsive disorder, post-traumatic stress disorder, oppositional defiant disorder, conduct disorder, or untreated attention deficit hyperactivity disorder. Fifty-seven eligible students were randomized to either the IPT-AST or school counseling (SC) condition. Thirty-six adolescents were randomized to IPT-AST and 21 to SC.

Participants were scheduled to partake in the study over a period of approximately two years. The schedule and structure of contacts for the IPT-AST condition are summarized in Table 1. Data was collected at five time points: eligibility, baseline, post-intervention, and at 6-, 12-, and 18-months post-intervention. Adolescents also completed the CES-D mid-intervention.

At each time point, trained evaluators, who were blind to the intervention condition, conducted clinical interviews and assessed students using a battery of self-report measures. Adolescents were given \$15 for completing each assessment. The assessment consisted of the K-SADS-PL, CGAS, CES-D, and the Children's Depression Rating Scale-Revised (CDRS-R; Poznanski & Mokros, 1996), a 17-item clinician-rated instrument of depressive symptoms. Anxiety symptoms were assessed using the Screen for Child Anxiety Related Emotional Disorders (SCARED; Birmaher et al., 1999), a 41-item self-report instrument of subtypes of anxiety s (e.g. panic, somatic, social anxiety, generalized anxiety, and specific phobia). The battery also included measures of caregiver psychopathology, school and interpersonal functioning, and student attitudes towards the intervention. A summary of the assessment instruments is provided in Table 2.

Case-Selection Process. The cases selected for the pragmatic case studies were identified through careful examination of assessment data. Only students who participated in the IPT-AST condition of the RCT were considered. Students who attended fewer than five IPT-AST group sessions (the average number of group sessions attended by participants in the RCT) were not considered for the pragmatic case studies. This decision was made not only because these students were partial completers of the intervention, but also because the author felt that a qualitative analysis of group and individual components of the intervention would be less fruitful if students were absent from a majority of group sessions. Once these cases were excluded, the author identified groups that included both students classified as “non-responders” and “responders” to intervention. Students were considered non-responders if they received a depressive diagnosis (major depressive disorder or dysthymia) during the intervention or follow-up period. Three participants out of the 36 youth in the IPT-AST condition met criteria for a

depressive diagnosis during the project and two of this subset attended five or more groups. “Responders” were defined as students whose symptoms consistently decreased to below the clinical cutoff on the CES-D (16) over the course of the intervention and follow-up period and who did not meet criteria for a depressive diagnosis at any time point. Nineteen participants in the IPT-AST condition met response criteria, four of who were excluded because they were missing one or two data points. Thirteen of this subset attended five or more sessions. The authors also prioritized groups whose members completed all assessments for the study so that both group quantitative and qualitative data could be considered in the analyses. Table 3 illustrates the specific criteria met by each IPT-AST group in the case selection process.

As shown in Table 3, three out of seven IPT-AST groups in the study met these conditions and two groups (Group 1 and Group 7) had all evaluations completed. Group 1 was not selected because, despite meeting criteria for a depressive diagnosis in the follow-up, the non-responder in this group did not have consistently elevated CES-D scores. Thus, the author felt that this would not be as rich of a case to discuss. In addition, Group 1 was co-led by the dissertation chair, so Group 7 was also selected to minimize subjectivity. Group 7 consisted of five 9th grade female students. One student dropped out of the group after the two individual pre-group sessions, but she participated in all assessments. The other four members participated in all individual pre-group sessions and attended between three and eight group sessions. The selected case that benefited from the intervention (Menorka) participated in all individual and group sessions. The “non-response” case (Shelly) attended both individual sessions and six of the eight group sessions (Figure 2). Two doctoral level psychologists led the group and were trained and supervised by the developer of the IPT-AST intervention.

Design. The cases selected were analyzed and written according to the "pragmatic case study" model, which was developed by Fishman (1999, 2005) based on the "Disciplined Inquiry" approach of Peterson (1991). (The pragmatic case study model is also outlined and illustrated in the online journal, *Pragmatic Case Studies in Psychotherapy*.) The clinical evaluations and the intervention sessions were audiotaped to assess adherence to intervention techniques and to better address clinical issues. Qualitative data from progress notes and from these audio recordings of the assessments and intervention sessions were used in conjunction with quantitative data from self-report measures to examine the experiences of the selected individuals over the course of the study.

Confidentiality. Certain information has been modified, including names, biographical information, and the phrasing of quotations (which remain in quotes) from the intervention sessions to protect clients' identities and maintain confidentiality. Nevertheless, the clinical authenticity of these cases has been preserved.

The Clients

The Group

The demographics and baseline symptom profiles of members in the selected group are summarized and compared to means of participants in the IPT-AST condition in Table 4. Two students in the group identified themselves as Hispanic and African American; two, as Hispanic and White; and one, as Not-Hispanic and African American. Scores of group members on the CES-D ranged from 19 to 33 and averaged 25.4 ($SD = 6.23$), and scores on the CDRS-R ranged from 44 to 70 and averaged 58.8 ($SD = 8.8$). These scores were similar to the mean baseline scores of the IPT-AST participants in the RCT. Specifically, on the CES-D, the mean score for the IPT-AST participants was 26.56 ($SD = 6.72$), and on the CDRS-R, the mean score was 51.75

(SD=11.17). Group member's overall functioning, as measured by the CGAS, ranged from mild to moderate impairment and averaged 71.2 (SD=4.02), compared with an average of 70.75 (SD=4.12) in the IPT-AST condition.

Response Case: Menorka

Menorka was a 14-year old, Latina female in a 9th grade regular education class. She resided with her biological mother who had full-time employment. Menorka and her mother were on Medicaid and received food stamps; Menorka also reported that she was homeless for a brief period of time when she was younger. Menorka's parents separated when she was five years old and she had irregular contact with her biological father, who was incarcerated. Prior to his arrest, Menorka reported witnessing her father beat her mother as well as other partners on several occasions, but Menorka denied that her father physically abused her. Menorka described herself as "self-conscious," "quiet," and "lonely." She indicated that she had one best friend who did not attend her school and several school friends to whom she did not feel particularly close. She received mainly A's and B's in school and enjoyed attending church and competing on a gymnastics team.

Non-Response Case: Shelly

Shelly was a 15-year old, African American 9th grade student in regular education. She resided with her biological mother and stepfather, both of whom she got along with well. Shelly's mother had a college education and worked as a paralegal (they did not receive government assistance). Shelly's parents separated before she was born and she had not had contact with her father for several years. Shelly elaborated that she was not interested in having a relationship with her father because he had let her down on several occasions and he "never lived up to his promises." Shelly reported that she felt behavioral and emotional engagement in

class and was doing well in most courses; however, she indicated that she struggled in Math and Science, for which her current grades were a C and D. Shelly did not partake in clubs or after-school activities and when asked about her interests, she replied, “nothing.” However, Shelly reported a strong sense of faith and attended church weekly.

Guiding Conception with Research and Clinical Experience Support

Perhaps the most vulnerable developmental stage for the onset of depression is adolescence. Lifetime rates of depressive disorders, including Major Depressive Disorder and Dysthymia, almost double between the ages of 13 and 18 (Wagstaff & Polo, 2012). In 2011, 15.8% of teens had seriously considered attempting suicide (Centers for Disease Control and Prevention [CDC], 2012) and almost half of adolescents report at least subclinical depressive symptoms (Hankin, 2002). Adolescence is also categorized by an increase in social demands and stresses like negotiating friendships, the development of romantic relationships, and separation from caregivers. As such, a consistent finding in the literature is that an interpersonal life stressor often precedes adolescent depression. According to Davey, Yucel, and Allen (2008), almost half of adolescents experiencing their first episode of depression have had a relationship breakup in the previous year. Increases in depressive symptoms in adolescents have also been associated with maladaptive interpersonal behaviors (e.g. Conner-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000). Additionally, Pauneski et al. (2008) identified positive family and social relations as the strongest protective factors against depression. Given the central role of interpersonal functioning in the development of adolescent depression, an intervention, such as IPT-AST, which focuses on improving relationships and building interpersonal skills is a valuable and appropriate model for preventing the onset of depression.

Overview of Theory and Intervention

The IPT-AST intervention is based on an interpersonal theory of depression, which posits that depression occurs within an interpersonal context. In other words, there is a reciprocal interaction between depression and one's relationships. The components of the intervention are rooted in social and attachment theories that emphasize how disrupted attachments lead to ineffective communication patterns and to the subsequent development of psychological problems (Weissman, Markowitz, & Klerman, 2000). Within the interpersonal framework, an individual's depression symptoms and interpersonal functioning need to be considered in the conceptualization and addressed in treatment.

The IPT-AST intervention consists of two individual pre-group sessions and eight group sessions (IPT-AST; Young & Mufson, 2003). During the pre-group sessions, each group member meets with a group leader to orient her to the group, provide psychoeducation about depression and prevention, and identify goals to work towards during group. The group intervention is divided into three phases: initial, middle, and termination. The initial phase is focused on developing rapport among group members and educating them about depression, the interpersonal framework, and key interpersonal techniques through role plays and games. These strategies are aimed at decreasing interpersonal conflict, increasing interpersonal support, and improving communication. During the middle phase, group members help each other to apply these strategies to their own relationships as they work towards achieving goals identified during the pre-group sessions. The termination phase involves relapse prevention, skills review, and celebrating the group's efforts and progress.

IPT-AST is particularly appealing to adolescents because of the emphasis on interpersonal relationships and because it is short-term, which may be more acceptable for

adolescents resistant to intervention. The two pre-group sessions and eight group sessions can usually be conducted within a three-month period, which is typically the time interval for school semesters. The group aspect of IPT-AST is a central component of the model because it provides an opportunity for adolescents experiencing similar difficulties to connect with each other and allows them to practice these interpersonal skills in a comfortable and natural context.

Empirical Support for IPT-AST

Several RCTs have demonstrated that IPT-AST is at least as effective as a cognitive behavior (CB) group prevention program and more effective than school counseling in reducing depressive symptoms (Horowitz, Garber, Ciesla, Young, & Mufson, 2007; Young, Mufson, & Davies, 2006; Young, Mufson, & Gallop, 2010), and preventing the onset of depression diagnoses (Young et al., 2006; Young et al., 2010). Young et al. (2006) examined the efficacy of IPT-AST compared to a school counseling (SC) condition, which was intended to approximate the normal procedures for when a child has emotional difficulties in a school setting. Results from this initial investigation (N = 41) of IPT-AST found that students who participated in IPT-AST had significantly greater improvements in depressive symptoms and overall functioning compared with students receiving school counseling at post-intervention and at three and six-month follow-ups. Further, significantly fewer IPT-AST adolescents reported a depressive diagnosis during the follow-up period than did adolescents in the SC group. Additionally, Horowitz et al. (2007) conducted a universal prevention study comparing IPT-AST, a CB depression prevention group (CWS), and a waitlist control group. Because of the universal prevention design, the interventions were administered to all ninth grade students during a class period (not only students with subsyndromal depression). At post-intervention, adolescents in IPT-AST and CWS had significantly lower depressive symptoms compared with the waitlist

control, but the intervention groups did not significantly differ from each other. There were no significant differences between IPT-AST, CWS and the waitlist control group at a six-month follow-up.

The results of Young et al. (2010) extend these earlier findings. Adolescents in the IPT-AST condition reported greater change in depressive symptoms and overall functioning from baseline to post-intervention. At post-intervention, students in the IPT-AST condition reported significantly fewer depressive symptoms and better overall functioning compared with the control group. These findings were maintained at the six-month follow-up assessment. Further, none of the adolescents in the IPT-AST condition met criteria for a depressive diagnosis at post-intervention or at six-month follow-up, while four students (19.1%) in the SC condition met criteria for a depressive diagnosis during the 6-month follow-up (3 major depression, 1 dysthymia). Large effect sizes were observed at post-intervention and medium effect sizes were observed at the six-month follow up, which is more robust than other prevention interventions (Stice et al., 2009). These findings were no longer significant at 12-month and 18-month follow-ups. It is important to note that the non-significant findings at this stage of follow-up reflect continued improvements from SC adolescents and stable scores in the IPT-AST adolescents. Thus, this lack of significance does not imply a worsening of adolescents in the IPT-AST condition, but rather lower scores across both conditions as time elapsed. Corollary analyses have also demonstrated the positive impact of IPT-AST on anxiety symptoms and interpersonal functioning. Findings from these analyses show that adolescents in the IPT-AST condition had significantly greater reductions in anxiety symptoms (Young, Makover, Cohen, Mufson, & Benas, 2012) and reported significantly greater improvement in social functioning (Young, Kranzler, Gallop, & Mufson, 2012) compared to SC adolescents.

Thus, IPT-AST has shown promise as a prevention program for youth at-risk for depression, but additional knowledge is needed about moderators and ways to make outcomes more enduring for a wide range of youth. The case studies below provide a distinctive perspective in exploring potential indicators of response to IPT-AST and in identifying components of the setting and intervention that impact outcomes. This information can guide future research on both implementation of this model and other depression prevention programs.

Case Information

Menorka—Response Case

Presenting Problem and History. At her eligibility evaluation in 9th grade, Menorka endorsed four subthreshold symptoms of depression, including: anhedonia, indecision, non-restorative sleep, and worthlessness. Additionally, she reported experiencing clinical levels of depressed mood and fatigue. Menorka specified that on days when she feels sad, it is difficult to “get over the feeling.” Her CGAS score was a 73, indicating mild impairment. Menorka acknowledged that while her current depressive symptoms have impacted her relationship with her mother and friends, she does not feel that it interferes with her academic functioning. Menorka’s score on the CES-D (Total = 29) during the initial screening and her score on the CDRS-R (t-score = 62) during the baseline evaluation were both elevated. She endorsed several symptoms of depression, but based on the severity of her symptoms Menorka did not currently meet criteria for a mood disorder.

During the evaluation, Menorka explained that she has been experiencing these symptoms for the past month and a half because “it feels like I don’t have anyone.” Menorka elaborated that she has been spending less time with her friends because they are reportedly very preoccupied with their boyfriends. She expressed jealousy and sadness for being the only one of

her friends without a boyfriend. Similarly, she has been feeling increasingly lonely in the evenings because of recent changes to her mother's work schedule. Menorka used to spend evenings with her mother, but now she sees her for a few minutes after school and spends the remainder of the evening alone and bored. Additionally, Menorka reported that she struggles with her body image. She frequently compares herself to others and thinks she is fat. Menorka shared that upon looking in the mirror, she often thinks, "I don't like what I see." Furthermore, she indicated that it is difficult for her to attend a school where most of the students have both parents to provide for them and are from more financially stable homes. Menorka explained, "I only have a mom at home, so sometimes it's hard not to feel inferior to the other students."

When assessed for past psychopathology, Menorka met criteria for Depressive Disorder Not Otherwise Specified (DD NOS) due to a depressive episode in 8th grade. Specifically, Menorka was experiencing clinical levels of depressed mood, anhedonia, fatigue, worthlessness, and self-harm behavior and subthreshold levels of non-restorative sleep, diurnal mood variation, and passive suicidal ideation. Menorka explained that 8th grade was particularly difficult for her because of peer pressures to engage in various self-emancipating behaviors (e.g., sex and drug and alcohol use). In order to cope with these negative feelings and pressures, Menorka cut her wrists with a scissor or razor 1-2 times per month throughout 8th grade. In the spring of 8th grade, Menorka disclosed these incidents to her mother and has since stopped engaging in self-harm behaviors. Menorka experienced reprieve from her DD NOS symptoms throughout the summer months between eighth and ninth grade, but her symptoms began to re-emerge when she transitioned to 9th grade and started attending a new school.

During the eligibility evaluation Menorka also reported some symptoms consistent with Generalized Anxiety Disorder (GAD), which is supported by her responses on the SCARED

(Total=20; GAD = 9). However, the frequency and intensity of Menorka's anxiety symptoms were not severe enough to meet criteria for an anxiety disorder. In addition to anxiety and depression, Menorka's evaluator assessed for mania, psychosis, eating disorders, disruptive behavior disorders, attentional problems, tic disorders, substance use, and trauma history. Menorka denied any concerns in these areas.

Vulnerabilities and Strengths. Menorka has experienced several environmental stressors that may make her more vulnerable to developing depression, including past exposure to domestic violence, homelessness, economic hardship, and a single-parent home (Wolfe & Mash, 2006). She also has a reported history of substance abuse on her paternal side of the family and a history of depression on her maternal side of the family. During her baseline evaluation, Menorka's mother reported elevated symptoms of depression (CES-D = 20). In addition, Menorka's depressive episode in 8th grade increases her risk of experiencing a future episode. Moreover, Menorka's negative attributions about herself may also make her more vulnerable to depression (Cohen, Young, & Abela, 2012).

Nevertheless, Menorka exhibits several strengths that may have contributed to her positive response to the intervention. Self-report measures (outlined in Table 2) indicate that Menorka experiences a high sense of self-efficacy in school (SES: self-efficacy: 13; School Work: 15) as well as a high level of behavioral and emotional engagement in school (SARAC: Behavioral Engagement: 40; SARAC: Emotional Engagement: 39). She is also involved in several social activities (e.g., gymnastics team and church) and reports having some friendships. Furthermore, Menorka expressed that when she has a problem, she confides in her pastor and that her belief in God has helped her to overcome transient thoughts of death in the past.

Research indicates that religion and spirituality may serve as protective factors against depression and other psychopathology (Hill & Pargament, 2003; Paunesku et al., 2008).

Shelly—Non-Response Case

Presenting Problem and History. At her eligibility evaluation, Shelly endorsed three threshold symptoms of depression, including, fatigue, non-restorative sleep, and excessive guilt. Additionally, she reported experiencing four subthreshold symptoms of depressed mood, worthlessness, decreased appetite, and rejection sensitivity. Her CGAS score was a 68, indicating mild to moderate impairment in her overall functioning. Shelly's reported elevated symptoms of depression and impairment are supported by results from supplemental measures, which ranged from scores indicating mild depressive symptoms (CES-D = 19) at the initial screening to moderate depressive symptoms (CDRS-R, t-score = 70) during her baseline evaluation. It is important to note that the baseline evaluation occurred one month after the initial screening, and this time interval may relate to the discrepancy in the severity of Shelly's symptoms on these depression measures. Furthermore, the interview and CDRS-R data suggest that Shelly's symptoms worsened during this time period. Although Shelly endorsed several current symptoms of depression, the severity and intensity of these symptoms did not warrant a depression diagnosis.

Shelly reported a long history of being bullied by her peers, but indicated that her depressive symptoms worsened in 7th grade after two embarrassing situations during which she was excessively teased and rumors were spread about her. At this time, Shelly's stepfather also moved into her home, which was initially a difficult transition for her. Shelly elaborated that she cried several times a week due to feeling ostracized by peers and admitted that she had passive suicidal thoughts on a few occasions. Shelly's depressive symptoms persisted throughout 7th

and 8th grade, but were not severe enough to warrant a diagnosis. These symptoms lifted during the summer before 9th grade. When she started high school in September, however, her symptoms returned, although not as intensely. Shelly explained that her experience with bullying has been better in high school, but that she still has moments of wanting to cry and difficulty trusting others. Shelly also indicated that with the exception of one best friend with whom she had a falling out, she has never developed any close friendships. She reported being very self-conscious of how others perceive her and is hesitant to confide in others because of her long history of being rejected and betrayed by her friends and her father. Furthermore, Shelly elaborated that because she feels uncomfortable expressing her negative feelings to others, she copes by withdrawing to her room, “crying [her] eyes out,” writing in her journal, and praying.

In addition to her depressive symptoms, Shelly met criteria for a current insect phobia and reported elevated levels of anxiety (e.g., excessive worry about how others will perceive her, reassurance seeking behaviors, muscle tension, and shaking); Shelly’s scores on a standardized measure of anxiety disorders indicate some social phobia symptoms (SCARED: Total=18, Social Phobia = 9). However, these symptoms were not severe enough to merit an anxiety diagnosis. Shelly also reported experiencing various hallucinations since age seven. Nevertheless, the content of her hallucinations were either religious or juvenile in nature, and thus, did not suggest clear psychopathology. For example, Shelly stated that she occasionally thinks she sees her cat, who passed away when she was young. She also indicated that on a few occasions after listening to gospel songs, Shelly believed that God was speaking to her. Shelly is influenced by her cousin, who is a devout Christian and who tells Shelly that she often “speaks with God.” In addition to anxiety and depression, Shelly’s evaluator assessed for mania, eating disorders,

disruptive behavior disorders, attentional problems, tic disorders, substance use, and trauma history. Shelly denied any concerns in these areas.

Vulnerabilities and Strengths. Shelly has experienced several interpersonal stressors that may contribute to her vulnerability to depression, including, minimal parental support from her father, excessive and persistent bullying, and a lack of stable peer relationships (Allen, Insabella, Porter, Smith, Land, & Phillips, 2006; Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007). Shelly also has a history of anxiety and depression on her maternal side of the family, and her mother endorsed elevated levels of depression during her initial evaluation (CES-D = 21). Yet, Shelly's strong sense of faith and weekly involvement with her church may serve as protective factors (Hill & Pargament, 2003; Paunesku et al., 2008). She also has a positive sense of self-efficacy in school (SES: Self-efficacy: 11) and reported behavioral and emotional engagement in class (SARAC: Behavioral Engagement: 36; Emotional Engagement: 30).

Formulation, Goals, and Treatment Plan

An IPT case formulation typically involves identification of a specific interpersonal problem area that is thought to play a central role in the development and maintenance of an individual's depression. Thus, the goal of treatment in IPT is to simultaneously decrease depression symptoms and interpersonal problems by improving the identified problem area through the use of communication and interpersonal problem solving strategies (Mufson, Dorta, Moreau, & Weissman, 2004; Weissman, Markowitz, & Klerman, 2000). However, because IPT-AST is a group prevention model, the intervention teaches communication and interpersonal problem-solving skills that can be applied to multiple relationships, rather than focusing on a primary interpersonal problem area. Nevertheless, during their individual pre-group sessions students are asked to identify one or two interpersonal goals that they would like to work on over

the course of group. These goals are frequently, but not always, related to one of three interpersonal problem areas: interpersonal role transitions (e.g., new school, divorce, and new sibling), interpersonal role disputes (e.g., independence from parents, hierarchical friendships, and responsibility), and/or interpersonal deficits (e.g., social withdrawal and limited friendship).

Both Menorka and Shelly seem to be experiencing depression symptoms as they navigate the transition from middle school to the new responsibilities and pressures of high school. In addition to this transition, Menorka's symptoms of depression seem to have been exacerbated by recent changes in the amount of time spent with friends and family and the resulting distance she feels in these relationships. Menorka explained that she has been feeling increasingly lonely and down since her friends started spending more time with their boyfriends and since her mother began a new job that no longer permits them to spend evenings together. Because of this change in schedule, Menorka also visits less often with her Godmother, with whom she is very close. Due to the irritability associated with her depressive symptoms, Menorka has felt annoyed even when she has the chance to spend time with friends and family. Thus, Menorka's specific intervention goals were to 1) figure out ways to feel closer to and spend more time with her family and friends, and 2) express her feelings of frustration to her friends and family rather than withdrawing or arguing with them.

On the other hand, Shelly's depressive symptoms seem to be related to longstanding interpersonal deficits. More specifically, she struggles to trust others at her school and has ongoing concerns about being judged and bullied by peers. Furthermore, Shelly reported that she does not feel that she can confide in her mother, nor does she feel adequately supported by her. These negative interpersonal experiences and lack of support have contributed to Shelly's sad mood and social withdrawal. Accordingly, Shelly's group goals were to identify people in

whom she can confide at school and to communicate more effectively with her mother about needing support.

Course of Intervention

Overview of Pre-group Sessions

Prior to beginning group sessions, group members have two individual sessions with a group leader during which the leader acquires relevant interpersonal information and orients the group member to the group format. Session length varies depending on school logistics and scheduling, but is usually between 30 and 45 minutes. The sessions involve reviewing the group member's mood and symptoms over the past week, educating her about depression, prevention, and the IPT model, conducting an interpersonal inventory, and identifying goals for group.

The interpersonal inventory is an essential component of the IPT-AST intervention because it provides the clinician with information about the characteristics of the important relationships in the adolescent's life. During the interpersonal inventory, the adolescent uses concentric circles to visually represent his or her world interpersonally. The group member puts her name at the center and places important people in the other circles depending on their level of closeness and emotional impact on the group member. After this closeness circle has been created, the clinician assesses the strengths and weaknesses of each relationship, any recent changes in the relationship, and interpersonal patterns to be addressed during group (Mufson et al., 2004). The group leader also uses the closeness circle to help demonstrate the connection between the adolescent's relationships and her mood. Finally, the closeness circle is used to collaboratively develop individual goals to work towards during group.

All five group members (Menorka, Shelly, Sasha, Emma, and Joy) attended two individual pre-group sessions with one of the group clinicians, who are both doctoral level psychologists.

Menorka—Pre-group Sessions. Menorka's first pre-group session was not audio-recorded and is thus unavailable for qualitative analysis. However, according to the progress note for this session, Menorka endorsed six symptoms of depression, including irritability, anhedonia, fatigue, indecisiveness, low self-esteem, and headaches. She also reported an average mood of 4 on a scale of 1 to 10 (1 being the happiest and 10 being the worst).

During the second pre-group session, Menorka reported that her mood over the past week was a 3 and endorsed four depressive symptoms: difficulty sleeping, fatigue, decreased appetite, and frequent stomachaches. Menorka elaborated that she typically felt these symptoms when she was alone at night and waiting for her mother to return home from work. Once again, Menorka expressed intense worry over her mother's safety coming home late at night.

Menorka spent the remainder of the session using the closeness circle to describe her relationships with her best friends, mother, and Godmother. Menorka reported a history of strong and stable relationships with friends and family. However, she indicated that over the past few months, her relationships have been strained by changing circumstances (e.g., best friends spending more time with boyfriends and changes to mom's work schedule). Menorka elaborated that she used to speak to her two best friends weekly, but both have recently been spending more time with boys instead of with her. Menorka reported she often feels frustrated, sad, and "left out," which leads her to feel annoyed about other situations involving these friends. When the group clinician asked how Menorka handles these negative emotions, she indicated

that she either sends angry text messages or completely avoids the problem, both of which Menorka admitted contribute to a worsening of her mood.

After describing the recent changes in relationships with her friends, Menorka discussed how she is no longer able to have daily visits with her Godmother because of her mother's new work schedule. Menorka explained that she feels particularly close to her Godmother and confides in her about everything, even boys. Unfortunately, now she hardly sees her outside of church. Because Menorka expressed sadness about spending less time with her friends and family, she and the clinician established a primary goal of helping her to feel closer to her Godmother and friends. The clinician also suggested that it might be helpful for Menorka to let people know when she feels irritated sooner so that she does not carry these distressing emotions and engages in fewer arguments. When the clinician presented this second goal, Menorka expressed concern about offending her friends if she explicitly acknowledged her irritability. The clinician validated her concern and explained that using the communication strategies in group would help her to both express her feelings and monitor the reactions of her friends. Menorka seemed satisfied with this response.

Throughout the session, Menorka exhibited a quiet demeanor and used a soft-spoken tone; she was cooperative and responsive when prompted. Menorka seemed to be aware of her emotions in specific interpersonal situations and how these interactions negatively impacted her mood. Additionally, she clearly articulated specific elements of her relationships that she wanted to change. Furthermore, Menorka seemed sensitive to her friends' perspectives, as evidenced by her guilt about the possibility of offending them. These qualities suggest that Menorka is interpersonally oriented and values her relationships. The clinician also developed excellent rapport with Menorka by explaining the group process, giving her a chance to ask questions, and

allowing time to collaboratively develop goals. Menorka's interest in and positive attitude towards the group were reflected in her questions and her request to have a letter sent to her homeroom teacher so that he could remind her to attend the group after school.

Shelly—Pre-group Sessions. During both of her pre-group sessions, Shelly indicated that her average mood over the past week was a 7 on a scale of 1 to 10 (1 being the best and 10 being the worst). She also endorsed seven depression symptoms, including irritability, anhedonia, insomnia, fatigue, decreased appetite, excessive guilt, and worthlessness.

On Shelly's closeness circle, she included several family members (e.g., mother, Grandmother, uncle, aunt, and cousin), a school friend, and God. Shelly expressed that she felt close to most members of her family and that she did not have a contentious relationship with any of them. However, Shelly emphasized that she keeps the majority of her thoughts and feelings to herself. Shelly added that when she is feeling down or annoyed about something, she usually withdraws to her bedroom and writes about it in her journal. She rarely shares her emotions or problems with anyone, except her cousin. When the clinician asked Shelly to elaborate, Shelly described several invalidating experiences during which she had shared a problem with either a family member or a friend and they had told her to "just get over it." Shelly explained, "I am afraid people will think my thoughts are stupid and tell me to get over it, so I don't say anything at all and let out my feelings when I am by myself." Shelly also mentioned several past and current incidents when she expressed herself to a classmate and was either betrayed or bullied. Despite alluding to a lack of support from and mistrust of others, Shelly indicated that she wanted her relationships to stay the same. A few times during the session, the clinician encouraged Shelly to consider the possibility of change, but Shelly seemed satisfied with her relationships, despite the identified problems. Nevertheless, Shelly articulated

that she wanted to spend more time outside of school with one of her classmates with whom she felt that she could joke and be herself.

Throughout the discussion of interpersonal relationships, Shelly alluded to a general discomfort and unhappiness at her new school. For example, Shelly preferred to schedule her pre-group sessions during her lunch period. Arguably, when a student requests to miss lunch, which is the only opportunity to freely socialize during the school day, it may be indicative of a student's feelings of social isolation in the school. This hypothesis is supported by the fact that during the second pre-group session, Shelly stated, "I have no one at this school, I am alone." Even though Shelly reported that she is getting bullied less at her current school than in the past, this transition has been difficult for her because she feels that she does not have the support of teachers. Shelly acknowledged that she misses having a teacher who she can trust with her problems, like she had at her previous school. Despite these current challenges, Shelly spoke at length about how her faith in God keeps her strong and hopeful about the future. She indicated that she prays daily and "prays extra when I am feeling sad." She acknowledged that God has saved her multiple times and helps her to overcome her struggles with self-esteem.

Because of time constraints, Shelly and the clinician only had 20 seconds to discuss goals prior to her returning to class. The clinician very quickly informed Shelly of two goals to consider working toward in group: 1) find people who she can trust and feel close with and 2) find ways to talk to her mother about how she wants her to be more supportive of her. Shelly responded, "Okay" and abruptly left for class. It is unclear how much Shelly internalized these goals and how motivated she was to work towards them. If the clinician had more time, it may have been helpful to have a more extensive discussion about creating goals so that Shelly could have felt ownership over the process and investment in achieving them. Furthermore, it may

have been helpful to make the goals more specific and aligned with Shelly's interests. For example, Shelly's goals could have been 1) spend more time outside of school with the classmate with whom she feels comfortable and 2) identify a teacher or school staff member with whom she can develop a supportive relationship. Shelly and the clinician also did not have time to discuss the structure of the group and Shelly's possible concerns about participating in group.

Shelly's speech was monotone, had a slowed tempo, and conveyed a sense of distress and sadness. She paused before responding to questions and was very hesitant to share information with the clinician. For example, when Shelly was describing how she was unable to discuss certain topics with her mother, she told the clinician, "I don't want to say it to you either because it's really private." Shelly's responses were often vague and the clinician had to ask several follow-up questions to understand the details of her experience in the situation. Nevertheless, Shelly became more animated when talking about her relationship with her cousin and with God. She also shared more information as she became increasingly comfortable with the clinician and was forthcoming about her loneliness and low self-esteem.

Initial Phase

The initial phase of IPT-AST is comprised of sessions one through three. These sessions are focused on developing rapport among group members, educating them about depression, and introducing the interpersonal skills that will be used over the course of group. Because group members are just beginning to develop comfort in the group setting, they are not expected to disclose personal information during this phase of the intervention. As with all group sessions, group members begin each session completing a checklist of depression symptoms and rating their mood on a scale of 1 to 10 (1 being the best and 10 being the worst).

Group 1

Both group leaders and three group members (Emma, Menorka, and Shelly) attended the initial group. After playing a rapport-building game, group members established group rules aimed at creating a comfortable and safe environment. Notably, some girls expressed concern about the potential imbalance of participation among group members. For example, Emma expressed that in previous groups she has felt uncomfortable because she was the only one contributing to the discussion. The group discussed ways to increase participation and comfort level. Next, group members learned about the symptoms of depression and engaged in activities to practice distinguishing between individuals who are depressed and those who have symptoms of depression that are not severe enough to meet criteria for a diagnosis. The group concluded with a discussion of common challenges that teenagers typically experience. Group members seemed to connect over shared experiences with peer pressure, family expectations, finding trustworthy friends, and concerns about boys and body image. Group leaders assured the girls that the interpersonal skills they would learn during group could help them to effectively navigate these issues and improve their mood. Finally, the girls shared their preference not to meet in the library, as the open space did not feel private. Group leaders were receptive to these concerns and the decision was made to meet the following week in a classroom.

Menorka. Menorka's mood rating over the past week was a 4. On her depression checklist, she indicated that she sometimes feels hopeless, irritable, wants to nap, and has difficulty making decisions. She also marked that she is experiencing decreased appetite, stomachaches, and difficulty sleeping. Menorka was cooperative and actively participated in group activities and discussions.

Shelly. Shelly's mood rating over the past week was a 6. On her depression checklist, she indicated that she sometimes feels sad, irritable, worthless, and has less energy. She also marked that she is experiencing guilt and having difficulty making decisions. Shelly presented as shy and spoke in a soft, monotone voice, but participated in all group activities and some discussions.

Group 2

Both group leaders and three group members (Emma, Sasha, Menorka) attended the second group. Unfortunately, Shelly forgot about group and went straight home after school. Because this was Sasha's first session, group rules were reviewed and the girls played an abbreviated rapport-building game to welcome Sasha. The session focused on educating group members about how interpersonal interactions relate to mood. Group members practiced saying phrases using different tones and words to demonstrate how both verbal and nonverbal cues convey different feelings. Group members also learned how to conduct a communication analysis to assess the effect that these cues have on an individual's mood and on the outcome of a conversation. A communication analysis involves collecting detailed information about the conversation in terms of what people said, how and when they said it, and how they felt in the situation. Group members participated in role plays to demonstrate these concepts. They all seemed to strongly identify with the hypothetical role-play situations, so much so that they each disclosed a personal example of a similar experience. Clinicians underscored these parallel experiences and praised students for their courage to share personal information with the group. Both clinicians also tried to use the language of group members and consulted them as "experts" on being a teenager. This unassuming and open stance was encouraging for the girls, as they seemed to enjoy "educating" the clinicians on typical teen responses and issues.

Menorka. Menorka's mood rating over the past week was a 3. On her depression checklist, she indicated that she sometimes feels worthless, has less energy, difficulty falling asleep, and wants to nap. She also marked that she is experiencing increased irritability, a change in appetite, stomachaches, and difficulty making decisions. Menorka was rather quiet, but participated when appropriate. She was empathic towards others and particularly adept at noticing when individuals were experiencing conflicting emotions simultaneously.

Shelly. Shelly's mood and symptoms of depression were not documented for the second group because she did not attend the session.

Group 3

One group leader and two group members (Menorka and Emma) participated in the third group. The other group leader was unable to attend because of conflicting childcare responsibilities. Shelly notified group leaders in advance that she would not be attending because she was missing school for her birthday, and Sasha did not show up for the session. Despite the small showing, Group 3 was very productive. The group clinician introduced the interpersonal skills to Menorka and Emma. The remainder of the session involved generating examples of these skills and using role plays to practice using them in relevant situations. After practicing with two hypothetical situations, Emma volunteered to use the skills to plan a conversation she wanted to have with her mother about dating boys. With the help of the group clinician and Menorka, Emma scripted the potential conversation and practiced the skills in a role-play. Menorka also shared with the group that she already successfully implemented certain strategies, and as a result, she has been able to confide in and feel closer to her mother. Menorka explained that last week her mother was eavesdropping on a phone conversation with a boy,

whom she liked. However, instead of exploding as she may have done in the past, Menorka remembered what she had learned in last group's session. She stated:

I used to always have a tone with my mom. I thought about what I learned in here and I tried to change my tone and attitude. I used a calm voice when I told her about the boy and I apologized for being on the phone with him. It was the first time she responded well to me, and I could treat her like a friend. I felt like she understood me.

Throughout the session, the clinician was supportive and encouraging of group members. Instead of directly challenging faulty communication, she used Socratic questioning to facilitate their own discovery of the utility of a specific comment or idea. Furthermore, in order to set up the group for realistic success, she also emphasized that these skills take practice and may require multiple conversations. At the conclusion of the session, Emma expressed relief about having both a plan and skills to help her articulate her thoughts more effectively to her mother.

However, Emma shared that she was concerned about the dynamics of the group for two reasons. First, Emma explained that in an earlier conversation that day, Sasha had indicated that she was uncertain about continuing with group, especially given that it was after school. Second, Emma expressed frustration that she was participating more in group discussions compared to other group members, in particular, Sasha and Shelly. Emma elaborated that if Shelly and Sasha had been present, she would not have been as forthcoming with her personal problems during this session. Emma clarified that it was easy to share in front of Menorka because they were good friends, but that Sasha and Shelly's quiet demeanor made her more hesitant to disclose information. Menorka added that it was difficult to trust group members with her personal experiences if other group members did not reciprocate this exchange of information. The clinician validated both of their concerns and engaged the girls in problem solving about how to increase attendance as well as trust within the group.

Menorka. Menorka's mood rating over the past week was a 2. On her depression checklist, she indicated that she sometimes feels worthless and irritable, has a decreased appetite, less energy, and difficulty sleeping and making decisions. She also marked that she has been taking more naps and feels like sleeping all of the time.

During Group 3, Menorka not only demonstrated excellent knowledge of the skills, but she also initiated using these skills to approach interpersonal situations differently in her own life. During the initial phase, group members are typically encouraged to notice how their mood and relationships influence each other in between sessions, but they are not usually assigned formal homework of practicing these interpersonal skills until the middle phase of the intervention. Early on in the intervention, Menorka started to test out these interpersonal techniques and use them to directly achieve one of her group goals: become closer to friends and family. Additionally, both the praise she received from the group leader for practicing the skills and the positive outcome of her conversation were encouraging and may have made Menorka more likely to use these skills moving forward.

Furthermore, Menorka's insightful comments throughout the session suggest that her skills comprehension exceeds that of other group members. Two specific examples depict Menorka's internalization of the skills, particularly the strategy of "putting yourself in other people's shoes." The group was discussing how their mothers are strict about allowing them to date boys. When the group leader asked about possible reasons for their mothers' sternness, Emma replied, "they don't understand, they are just too concerned, that's it," while Menorka offered the possibility that their mothers "grew up differently than us—they are from a different generation." Menorka put herself in her mother's shoes to consider plausible reasons for her behavior.

Likewise, when planning for Emma's conversation with her mother, the group leader inquired about how a mother might feel if her daughter approached her and stated, "Mom, I know you are worried about something happening to me and that you just want what's best..." Emma responded that she thought the mother would feel even more upset and annoyed. Menorka indicated that if she was the mother, the statement would probably make her feel "stress-free because it communicates to me that my daughter knows how I am feeling. I would probably be more likely to let her go." Menorka's response suggests that she fully grasps the concept of "putting yourself in other's shoes," and also, that she understands the positive impact this strategy can have on the outcome of a conversation.

Shelly. Shelly's mood and symptoms of depression were not documented for the third group because she did not attend the session.

Middle Phase

The middle phase of IPT-AST consists of sessions four through six. During the middle phase, group members use the interpersonal techniques learned in the initial phase to work on recent interpersonal problems, often related to their goals from the pre-group sessions. Typically, a group member provides a short synopsis of her problem, which is followed by a communication analysis of her most recent interpersonal interaction. During the communication analysis, group leaders assess the impact of specific verbal and nonverbal communication on the individual's feelings and the outcome of the conversation. Next, group members problem solve, discuss interpersonal techniques that might be useful in a future conversation, and script a new conversation, incorporating these specific skills. Once the group member has a plan for a new conversation, she usually participates in at least one role-play with other group members so that she has the opportunity to practice using the skills in a realistic context. Other group members

either participate in the role-play (as friend, mother, etc.) or act as coaches who hold up cards with the communication strategies to help keep group members on track. During this phase, group members are encouraged to test out these techniques at home and to provide the group with feedback about their experiences.

Group 4

Both group leaders and two group members (Shelly, Menorka) attended session four. It is important to note that Group 4 was rescheduled, and because of the school testing schedule, the only possible time to hold group four was the day before Group 5. Shelly and Menorka were the only two group members who were available to attend Groups 4 and 5 on consecutive days. Because Shelly had been absent for prior sessions that focused on the interpersonal techniques, Group 4 started with a review of these skills. Group leaders encouraged Menorka to explain each skill to Shelly, a task at which she excelled. Menorka provided a comprehensive description of the skills, even for those that consisted of multiple components. For example, when explaining “strike while the iron is cold,” Menorka indicated, “this means that when you want to bring up an issue with someone you need to initiate when they are calm, not irritated or busy, and when you are cool and not angry or tense.” Menorka accurately emphasized that when using this skill, an individual should be aware of both her mood and that of the other person. After reviewing the skills, the remaining time was split between working on Menorka’s and Shelly’s recent interpersonal interactions.

Menorka discussed a situation in which her friend was mad at her for losing her gym uniform and was nervous they would both get in trouble. Menorka had borrowed her friend’s gym uniform earlier in the day and lost it (as she had done with her own). When Menorka explained to her friend what had happened, the friend became very angry with her.

Menorka elaborated that she had already ordered new shirts for both of them, but that the order takes several weeks to process and the school is very strict about wearing uniforms at all times. The group leaders engaged in problem solving with Menorka to determine her options moving forward. Menorka decided to ask the dean for help with the situation as well as to have a follow-up conversation with her friend. The group discussed interpersonal techniques that would be helpful in both situations, which included finding an opportune time to approach her friend and the dean. Menorka planned to talk to her friend the next morning before school and to speak with the dean directly after school. Menorka decided to use “put yourself in the other person’s shoes” for both situations. For example, she practiced saying to her friend, “I could understand if you are still mad at me because you trusted me enough to lend me your shirt. I know I am responsible, but I didn’t mean to lose it.” With the assistance of group leaders, she also generated a list of possible solutions to present to the dean (e.g., giving her friend a pass or letting both of them wear a white shirt). Once Menorka felt confident about the goals of each conversation and how she wanted to communicate her points, she practiced with Shelly.

Shelly discussed a problem she was having with a boy who liked her, but with whom she only wanted to be friends. Shelly explained that a boy at her church asked her out twice, but she did not know how to decline the offer. Shelly elaborated that she enjoys being friendly with this person, but that she is not interested in him romantically. The group discussed interpersonal techniques that might be helpful for Shelly to use to explain her feelings to her friend. Shelly’s goal was to “say in the nicest way possible that we should remain friends.” Once this goal had been set, Shelly practiced “putting herself in her friend’s shoes” and using “I feel” statements during a role-play with Menorka. Shelly incorporated advice from the planning stage, stating, “I really like you and I hope that we can stay friends. I know you might be angry at me, but I hope

we can still talk because I will always be here.” Even after the role-play, Shelly remained concerned and felt guilty about letting down her friend. The group discussed the importance of having the conversation and helpful behaviors in which she could engage afterwards to feel better (e.g., talking with her cousin or making an effort to say hello to the boy).

Because there were only two group members, the session was structured more like two individual sessions, with group leaders both focusing efforts on the identified adolescent, rather than a session involving rich group discussion. This structure allowed group members to receive more individualized attention from leaders, but also may have detracted from the group dynamic.

Menorka. Menorka’s mood rating over the past week was a 1. On her depression checklist, she indicated that she sometimes has less energy, headaches, and difficulty making decisions. She also marked a decrease in appetite and increase in her naps. As part of the mid-intervention assessment, Menorka completed the CES-D, for which her score was a 19, indicating elevated symptoms. Although higher than the mid-intervention mean of the IPT-AST condition (16.33, SD=7.68), this score was in the normative range compared to other participants. Menorka’s score also markedly decreased from her CES-D score at the eligibility evaluation, which was a 29.

Menorka was cooperative and remained focused throughout the session. She listened to group leader suggestions and tried to incorporate them into the role plays. However, Menorka expressed feeling very guilty about the situation and repeatedly stated that this problem was her responsibility. She ultimately agreed to approach the dean, but was initially hesitant to assert herself and expressed some doubt about being understood by the school administration. Additionally, Menorka reported a moderate level of anxiety. On a few occasions she made comments such as, “when I hurt others, it makes me really worried to the point where I can’t

focus on anything in school, I feel tense, and I don't sleep. I definitely won't be sleeping tonight." Group leaders validated her feelings and Shelly reassured her that if she were in her friend's position, Shelly would forgive Menorka. Furthermore, when the group leader inquired about how Menorka was feeling at the end of the role plays, she replied, "I feel very relieved."

Shelly. Shelly's mood rating over the past week was a 7. On her depression checklist, she indicated that she sometimes feels sad and worthless and has difficulty sleeping and making decisions. She also marked that she feels more irritable and guilty and that she has been taking more naps. As part of the mid-intervention assessment, Shelly completed the CES-D, for which her score was a 24, indicating depression symptoms at the clinical level, which was higher than her score of 19 during the eligibility evaluation (this score is also one SD above the mean of IPT-AST participant scores at mid-intervention).

During the first portion of the session, Shelly spoke in a very soft, almost inaudible voice and responded to questioning with one-word answers. It is important to note that Shelly missed the last two groups during which group members were informed that the group would become more personal starting in session four. Thus, she may have been a bit hesitant to participate because the structure of this group was very different from Group 1, the last group she attended. In addition to being hesitant to share details of the situation with the group, Shelly seemed unlikely to carry through with the conversation. The group leaders worked with Shelly to specify a good time to talk with her friend, but Shelly joked stating, "New Years," "in ten years," or gave a vague answer. Group leaders emphasized the importance of following through with the conversation and Shelly seemed receptive to these points, but continued to express doubt. Additionally, Shelly performed well while practicing in the role-play with Menorka. Yet, when

the group leaders inquired about how she felt afterwards, she responded, “I feel horrible about how I did.” This negative reaction reflects Shelly’s pervasive negative self-concept.

Group 5

Both group leaders and three group members (Shelly, Menorka, and Emma) attended session five, which was held the day after group 4. After group members completed their depression checklists, group leaders checked in about their experiences with work at home. Emma indicated that she had not spoken to her mother about dating because her family has been busy preparing to move to a new house. On the other hand, Menorka reported that she spoke with both the dean and her friend, and that both conversations went really well. The dean gave them a pass for gym and her friend seemed to be more understanding. Group leaders encouraged Shelly to summarize the situation involving her male friend, but Shelly refused, so the group leaders provided an abbreviated synopsis.

Group leaders also took time to address a quiet tension that seemed to stifle participation at the beginning of the session. Shelly’s shyness about sharing her work from group yesterday, triggered an irritated feeling in Emma. Usually boisterous and talkative, Emma became equally resistant to participating. When group leaders asked Emma to elaborate on her planned conversation with her mother, she vaguely replied, “I wanted to talk to her about something.” When Shelly briefly left the room to take a phone call, Emma reflected on her own behavior, indicating that she was not talking because Shelly was not talking. Similarly, when group leaders asked who wanted to work on an issue, they were met with silence. Group leaders responded by acknowledging that absences have made it more difficult to share issues and inquiring about ways to help people feel more comfortable and safe. Emma took charge of the discussion, stating, “I understand if you have a personal issue you don’t want to share, but make

it seem like you are part of this group. Don't act like you don't want to be here. We are all here for the same reason." This spurred a conversation about reciprocal sharing and ways to signal to others that you are listening and engaged. Group members seemed to feel an increased sense of comfort and willingness to participate after the discussion.

The remainder of the session was spent practicing implementing the communication and problem solving skills in both hypothetical and personal situations. Group leaders started the session with hypothetical situations because group members were initially reluctant to discuss personal situations. The pertinent content of the hypothetical situations led group members to eventually discuss their own interpersonal concerns. Menorka planned a conversation with her cousin, who has been teasing her. Shelly sought help about ways to make trustworthy friends, and Emma discussed her feelings about moving away from her friends and extended family. At the conclusion of group, everyone was encouraged to continue the interpersonal work from session over the next week and to report back to the group about their experiences.

Menorka. Menorka's mood rating over the past week was a 1. On her depression checklist, she indicated that she sometimes experiences anhedonia, decreased appetite, headaches, fatigue, difficulty falling asleep, and worthlessness.

Because of the strained group dynamic, Menorka was initially hesitant to raise an interpersonal issue with the group. However, the hypothetical situation that was selected for the group to practice using the skills resembled a recent experience with her cousin. With encouragement from the group, Menorka ultimately shared her problem. She explained that her cousin has been bothering her and calling her fat. Menorka hypothesized that these insults were an attempt to get her attention because they have been spending less time together, but she also acknowledged that these comments were very hurtful because she is self-conscious about her

body image. The group discussed how Menorka could use the interpersonal strategies to express how she is feeling to her cousin and present alternative ways to get her attention. It was suggested that Menorka bring up these concerns when they are at an arcade and in a relaxed mood over the weekend. Menorka and Emma role-played the conversation, which barely needed modification from group leaders. Menorka acknowledged her interpersonal strength of “putting herself in other people’s shoes,” but added that she needs to work on decreasing her frequency of using “always” and “never” in conversations. After the role-play, group leaders asked how she was feeling and Menorka responded, “I feel relieved. He understood what I was saying and I could really say how I feel. I don’t think he will do it anymore after we have this conversation.”

Shelly. Shelly’s mood rating over the past week was a 6. On her depression checklist, she indicated that she sometimes feels irritable, worthless, and guilty, has difficulty sleeping and making decisions, and has been taking more naps.

Like Menorka, Shelly was also reluctant to share and needed prompting and encouragement from group leaders. As usual, she spoke in a low, soft tone and provided short answers absent of details. Nevertheless, the second hypothetical scenario resonated with Shelly’s most difficult interpersonal challenge. The card described a situation in which a girl was feeling lonely, but did not know how to make friends. After reading the card, Shelly immediately stated, “This is hard for me.”

This disclosure led to a rich discussion of suggestions for initiating friendships, including giving compliments, offering to help, introducing oneself, or joining an activity. Shelly was open to introducing herself, but was less interested in group activities. During the discussion, Menorka shared her initial thoughts about Shelly when meeting her last summer: “I really liked you and wanted to be friends with you; you were less quiet.” This resulted in an embarrassed

grin spreading across Shelly's face. She explained that the summer was easier because there were fewer people, so she felt less intimidated. Shelly added that she has a much easier time making friends at church than at school, where people are not trustworthy. She stated, "I don't tell many people my secrets. I want someone who will be truthful with me because most people are fake. Some girls are mean because I'm not in their category." Emma validated Shelly's experience of shyness by sharing a story about how her cousin used to be the same way, but has learned to become more open. There was not time for a role play, but group leaders asked Shelly to consider a few people who she wants to become closer to and next session would focus on rehearsing a possible conversation to have with them. Shelly agreed to think of potential candidates. This conversation about making friends seemed to unite the group and increase empathy. However, interpersonal techniques were not explicitly referenced, and, unlike Menorka, Shelly did not have the chance to actively practice the skills during the session.

Group 6

Both group leaders and four group members (Menorka, Shelly, Emma, and Sasha) attended Group 6. Of note, Sasha had not been present since Group 2, so not only was this group her first middle phase session, but she was also unfamiliar with the interpersonal skills. After group members completed their depression checklists, group leaders checked in about their experiences with work at home. Emma and Sasha both reported that they had conversations about dating with their parents. Emma indicated that in her conversation with her mother she used some of the strategies that she had practiced during group. Additionally, Menorka approached her cousin about his tendency to tease her. She reported that her cousin was very receptive to her suggestions and they had already made plans twice since her conversation. Shelly indicated that she tried to be friendlier towards people at school by saying "hi," but did

not have the chance to identify specific individuals with whom she wanted to become closer.

The remainder of group was spent planning a follow-up conversation that Emma could have with her mother as well as discussing issues around parent trust. At the conclusion of group, leaders encouraged members to spend the upcoming week working on their goals. This instance was the first mention of interpersonal goals since pre-group sessions, and these goals were not reviewed. Thus, some group members may have been unclear about the nature of their homework.

Menorka. Menorka's mood rating over the past week was a 2. On her depression checklist, she indicated that she sometimes experiences less energy, decreased appetite, difficulty making decisions, and stomachaches. She also marked that she has been taking more naps.

Menorka's presence during session six was more passive, but she spoke freely when prompted. She also became quite animated when sharing her experience using the interpersonal strategies with her cousin. She stated:

At first it felt scary because I didn't want to use the wrong words and hurt him. I was nervous about making a mistake. I tried to remember what we practiced and avoid using "always" and "never." It ended up being really good.

This excerpt illustrates Menorka's insight about the role of communication in the outcome of a conversation and the impact it has on both her feelings and those of the other person. Furthermore, although Menorka's worry about harming others seemed distressing, it is indicative of how much she values her relationships.

Shelly. Shelly's mood rating over the past week was a 5. On her depression checklist, she indicated that she sometimes experiences sadness, irritability, less energy, and difficulty making decisions. She also marked that she has been feeling guiltier.

Shelly was difficult to engage during this session and typically remained silent when asked questions. When group leaders inquired about whether she had identified potential friends

at school or church, she responded curtly, “I have friends at church.” Group leaders seemed to sense her hesitancy and did not push Shelly further, despite the initial plan for the session to practice how Shelly could engage with people to get to know them better. However, Shelly indicated that for the first time she followed through with part of her homework by trying to be friendlier to classmates. She explained, “I tried to get over my shyness and just come out. I said hi to them and they seemed a little shocked because usually I am really quiet.” Shelly’s upbeat tone suggested that she seemed relatively satisfied with the outcome of her efforts. Even though her social initiation was a critical feat, Shelly didn’t practice using the specific interpersonal strategies outside of the group setting, which is the main goal of the middle phase.

Termination Phase

The termination phase consists of Groups 7 and 8 and involves celebrating progress, discussing helpful and difficult strategies and their applicability to future interpersonal situations, and identifying personal warning signs of depression and appropriate prevention steps. Group members also discuss characteristics of other members that make them supportive and the importance of choosing friends based on these qualities.

Group 7

Both group leaders and three group members (Shelly, Menorka, and Emma) attended session seven. Group members completed their depression checklists and discussed experiences with their homework. Menorka shared that she had another follow-up conversation with her cousin about the positive changes in their relationship, and that as a result of this ongoing communication, she feels like he “really cares and listens to me now.” Group leaders suggested that to maintain these interpersonal gains, Menorka consider having another conversation during which she uses “I feel” statements to express her increased positive feelings since towards her

cousin he has stopped teasing her. Menorka was in favor of this idea and agreed to initiate this conversation before the final group.

Next, members reviewed their mood ratings over the course of the group and shared notable changes. Most group members indicated that their mood improved as group progressed, but Shelly reported that her mood worsened. When reflecting on this pattern, she bravely expressed to the group, “It is hard for me to be happy.” This comment led to a discussion of helpful coping strategies group members use when they feel down, such as talking to a friend or family member. Shelly responded to these suggestions, confessing that she neither knew who to confide in nor how to approach people about her feelings. The next thirty minutes of the session were dedicated to supporting Shelly and helping her to problem solve this challenge. Group members and leaders validated her feelings. Menorka shared that she has felt down in the past and Emma reassured Shelly that she wanted to help her feel better. Group leaders guided Shelly to identify a trusted family member, her cousin, and collaboratively planned and role-played a conversation using the interpersonal skills.

The group also discussed how outward presentations might not always be consistent with internal feelings (e.g., Shelly’s shyness was initially misinterpreted in group as disinterest and not wanting help), and the importance of being explicit in communications about needs. Group leaders also emphasized that interpersonal skills can be used to strengthen positive relationships in addition to problem solving about negative interpersonal interactions. The group then identified helpful and challenging skills and processed feelings about the group ending.

Menorka. Menorka’s mood rating over the past week was a 2. On her depression checklist, she indicated that she sometimes experiences decreased appetite, less energy, worthlessness, and headaches.

Menorka presented as cheerful and hopeful throughout the session. Her change in communication patterns over the course of group was evident in her commentary on how her improved mood is related to changes in her relationship with her mom. She explained:

My mood is going up. I'm talking to my mom more, especially if I don't like something or I don't feel comfortable, and I use the techniques. The other night I put myself in her shoes after I broke a phone rule and we ended up joking with each other instead of yelling.

Despite her noted progress, Menorka indicated that it is still difficult for her to use the “be specific” strategy because she has a tendency to say “always” and “never” in conversation.

Shelly. Shelly's mood rating over the past week was a 7. On her depression checklist, she indicated that she sometimes experiences sadness, irritability, less energy, and passive suicidal ideation. She also marked that she has been napping more and that it has been increasingly difficult for her to make decisions.

Group 7 seemed pivotal for Shelly as it was the first time she allowed herself to be vulnerable in front of the group by sharing her interpersonal difficulties and her internal struggle. Instead of giving one-word answers or being non-responsive, Shelly seemed to accept her central role. She was less guarded with her feelings, more open about her concerns, and more outwardly engaged in the group activities. This change was evidenced by her more audible voice, relaxed demeanor, and the frequent commentary by other group members that it was nice to see her smile and be herself around them. Below is an excerpt from the session that illustrates how the tremendous support and validation from group members empowered Shelly to disclose her current challenges. The conversation begins after a group leader inquires about why Shelly believes her mood has worsened over the course of group.

Shelly: I try to feel better, but sometimes I feel bad about myself. Sometimes I just cry. I write in my journal to express myself because I don't want to say it to anyone. I want to keep it to myself.

Group Leader: What do you think keeps you from sharing it with others?

Shelly: I don't want to say.

Emma: It's ok, you can say it in here. We won't judge you.

Shelly: I try to tell myself to get over it, but I feel ugly. I'm not sure I'm a good person. I don't trust people to help me.

Emma: I wasn't sure if you wanted our help in the beginning. You didn't talk or smile. But now you are a blossoming flower. You are expressing how you feel and you don't have to be in that shell. It's nice.

Menorka: Yeah, like it made me feel good when you asked me if I was coming to group today. I liked that you came to talk to me.

Group Leader: How does it feel to hear that?

Shelly: Good (smiling)

This dialogue demonstrates how the group serves as a social lab for leaders to gather data about members' real life social interactions with peers and allows members to receive direct feedback about their interpersonal presence. For example, a group leader pointed out Shelly's tendency to have negative expectations of herself and others, which often leads her to be more shy and reserved. The leader encouraged Shelly to accept the possibility that people generally want to help her, but often don't know she wants help because of her guarded presentation.

When discussing strategies, Shelly identified, "strike while the iron is cold" as most difficult for her. Perhaps this challenge of knowing when to initiate conversation hindered Shelly in successfully practicing the skills outside of the group setting. Nonetheless, Shelly left the session with information about how others perceive her and how this is sometimes different from her internal experience of a situation. Most importantly, she seemed to have ended group more confident that her peers wanted to support and help her. This session seemed in many

ways transformative for Shelly but might have been even more effective if these issues were addressed during the middle phase, so she could have extended these lessons outside of group and specifically worked on using interpersonal strategies to improve her friendships.

Group 8

Both group leaders and four group members (Shelly, Menorka, Emma, and Sasha) attended Group 8. After completing depression checklists and checking in about homework, the group discussed individual improvements with relationships and how this resulted in people feeling better. Next, leaders helped members to identify warning signs and discussed appropriate steps to take if members begin to notice these symptoms in the future. The group also discussed the qualities of supportive group members and how these characteristics represented those of a good friend (e.g., loyalty, trust, and giving good advice). Finally, group leaders elicited general feedback about the group process and celebrated the completion of the intervention with food and certificates. Group members acknowledged that trust was a barrier to group progress. They suggested encouraging group members to share personal information earlier and felt that giving examples of things former group members disclosed might help. Group members also indicated that trust is an issue throughout the school, not only because of the frequent peer gossip, but also because they don't feel that they can trust the administration, especially the guidance counselor.

Menorka. Menorka's mood rating over the past week was a 1. On her depression checklist, she indicated that she sometimes experiences irritability, decreased appetite, less energy, and stomachaches/headaches. She also marked that she been taking more naps.

Menorka shared that she had another conversation with her cousin, informing him that she has enjoyed spending more time with him and appreciates that he is no longer teasing her. When considering her own accomplishments in group, she stated, "before I would let things

bother me and not talk to people about it. Now, with the tips you have given us, it puts us in a better position to talk when we feel upset.” Menorka identified the following personal warning signs of depression: decreased appetite, less energy, and difficulty sleeping when she is worried.

Shelly. Shelly’s mood rating over the past week was a 3. On her depression checklist, she indicated that she sometimes experiences irritability, guilt, and feels like napping more often. She also marked that it has been increasingly difficult for her to make decisions.

Shelly’s mood markedly improved after receiving critical feedback from the group during Group 7. She shared that she was unable to have the conversation with her cousin, but that she spoke briefly to a girl in church (no details were provided). Shelly added that throughout the group she has been working on talking more to friends, trusting others, and being more open with how she feels. Shelly identified the following warning signs of depression: sadness, worthlessness, difficulty sleeping, and getting upset over more trivial matters.

Therapy Monitoring and Use of Feedback Information

Symptom Monitoring

Depression symptoms were monitored weekly by depression checklists that adolescents completed at the beginning of each session. The depression checklist consisted of 15 questions about the adolescent’s feelings and behaviors over the past week. Additionally, mood was monitored weekly by a mood rating scale at the bottom of each depression checklist.

Adolescents circled a number on the scale, which ranged from one to 10, one indicating “the best you have ever felt,” and 10 indicating, “the most depressed you have ever felt.” Finally, adolescent’s depression symptoms were also monitored by administration of the CES-D at pre-intervention, mid-intervention (Group 4), and post-intervention. Figure 3 illustrates the change in Menorka and Shelly’s reported mood over the course of the intervention.

As can be observed, Menorka's mood steadily improved and Shelly's mood remained consistently negative until the final session.

Feedback Information

Group leaders received on-going weekly feedback via supervision by the principal investigator (PI). Supervision was based on the PI's review of session audio-recordings and involved discussion of use of IPT-AST strategies and how to modify sessions accordingly. Additionally, group session content was adjusted based on adolescents' compliance with homework and reported experiences using the interpersonal strategies. Group leaders also began each group session by asking about current interpersonal problems, and this information was incorporated into the session agenda.

Concluding Evaluation of Therapy Process and Outcome

Quantitative Evaluation

The results on the standardized self-report measures completed by Menorka, Shelly, and their parents are summarized in Table 5. The battery of assessments evaluated depression and anxiety symptoms as well as school, social, and family variables. Figures 4 through 8 illustrate the change in Menorka and Shelly's depression symptoms, anxiety symptoms, parent-child conflict, and overall functioning over the course of the study. The details and significance of these results are explained in the sections that follow. Overall, the quantitative data indicated a positive effect of intervention for Menorka that was maintained over the next 18 months, and slight improvement from Shelly during the intervention with significant difficulties emerging during the follow-up phase.

Menorka's Positive Outcome

Symptoms and Overall Functioning. Based on diagnostic interviews using the K-SADS, Menorka did not fulfill the criteria for any diagnosis at the post-intervention, six-month, 12-month, or 18-month follow-up assessments. Menorka denied experiencing clinical symptoms of depression at the post-intervention and 12-month evaluations, but endorsed sad mood and non-restorative sleep at the six-month follow-up and decreased appetite at the 18-month follow-up. Furthermore, Menorka consistently reported positive social relationships and good academic functioning throughout the follow-up phase of the study. In particular, she indicated that she continued to feel very close with her mother. However, during the six-month evaluation, Menorka reported some self-consciousness around peers due to body image concerns. As illustrated in Figures 4 through 6, Menorka's reported depressive symptoms (CES-D, CDRS-R) decreased and her overall functioning (CGAS) steadily improved at each time point. Furthermore, Menorka's scores on the CES-D were lower than the mean of IPT-AST participants at each time point after baseline (Table 5). According to her scores on the SCARED (Figure 7), Menorka's subthreshold anxiety symptoms also decreased over the course of the intervention, and these results were maintained at each follow-up time point.

Nevertheless, there is some discrepancy in the pattern of change of Menorka's reported depressive symptoms according to each measure. She reported a large decrease in symptoms between pre and post-intervention on the CES-D (29 to 7), which tapered during the follow-up phase (7, 3, 4). On the other hand, Menorka reported a small decrease in symptoms between pre and post-intervention on the CDRS-R (62 to 60), but her score dropped more significantly during the follow-up phase (37, 30, 51). In their review of rating scales for internalizing disorders, Myers and Winters (2002) recommend using both self-report and clinician-administered rating

scales to provide the most accurate assessment of depressive symptoms. They also caution that rating scales, such as the CES-D and the CDRS-R, should not be used independently as diagnostic tools, but rather as a way to monitor symptoms over time. The CES-D assesses symptoms over a one-week period and the questions focus more on emotional domains of depression, while the CDRS-R captures symptoms over a two-week period and includes more physiological questions and items not specific to depressive symptoms (e.g., school functioning, social withdrawal) (Elmqvist, Melton, Croarkin, & McClintock, 2010; Myers & Winters, 2002). Due to these instruments capturing slightly different time periods and information and their differing administration modalities (e.g., clinician administered vs. self-report), scores on these measures may vary. Yet, despite Menorka's discrepancy in scores, her score on both the CDRS-R and the CES-D reflect clinical symptoms in the normative range throughout the follow-up phase. Nonetheless, their inconsistency highlights the need to incorporate multiple forms of assessment when identifying the trajectory of a client's symptoms.

Social and School Variable. According to scores on self-report measures (CBQ, PSS, SAS-SR, SES, SARAC), which are defined in Table 2, Menorka's overall school and social functioning either remained consistent or improved. Menorka reported a decrease in parent-child conflict with her mother from pre- to post-intervention (CBQ Child: 3 to 0), which was maintained throughout the follow-up period (Figure 8). Likewise, her mother indicated a notable decrease in their negative communication and conflict from pre- to post-intervention (CBQ parent: 12 to 4). Additionally, Menorka's perceived support from family (PSS family) increased and her perceived support from friends (PSS friends) remained high and stable. Her scores on these indices were also higher than mean scores of participants in the IPT-AST condition at all time points. With respect to school measures, Menorka reported a high sense of self-efficacy in

school, ability to complete schoolwork (SES), and school engagement throughout the study (SARAC), which was also greater than the mean for IPT-AST participants at all time points.

Attitude Toward Intervention. On the Attitude Toward Intervention Scale, Menorka reported that she found the intervention to be very helpful, and that she felt confident about group ending. She was also reportedly satisfied with the length of the intervention and did not indicate a need for individual services. However, Menorka reported that she would have liked there to be more opportunities for parent involvement during the intervention process. These post-intervention attitudes are consistent with Menorka's positive attitude towards the intervention during her pre-group sessions when she expressed excitement about group starting, and asked for the group leader to write her homeroom teacher a letter so that he could remind her to attend.

Shelly's Negative Outcome

Symptoms and Overall Functioning. Based on diagnostic interviews using the K-SADS, Shelly met criteria for a past episode of DD NOS at the 12-month evaluation as well as a past episode of MDD at the 18-month evaluation, both of which coincided with an interpersonal event that had occurred in the prior six months. Additionally, Shelly endorsed three threshold symptoms of depression (irritability, fatigue, and negative self-image) during the post-intervention assessment and depressed mood at the clinical level during the six-month evaluation. She also consistently reported increased conflict with her mother and stepfather throughout the follow-up phase, impaired academic functioning, romantic discord, and lack of peer support. For example, during the post-intervention assessment, Shelly indicated that she feels like an "outcast," and during the six-month assessment she reported having few friends and peer rejection.

Shelly explained that her DD NOS episode occurred two months prior to the 12-month follow-up and was triggered by an explosive argument with her mother. After the argument, Shelly indicated that she had thoughts of wanting to “disappear” or “run away.” According to caregiver self-report measures during the 12-month follow-up, Shelly’s mother also appeared to be experiencing depressive symptoms at the clinical level (CES-D = 38). Parental depression has been indicated as a risk factor for adolescent depression (Mazza et al., 2010; Wolfe & Mash, 2006). In addition to Shelly’s biological predisposition, her mother’s depression may have impacted the parent-child interactions that preceded Shelly’s depressive episode. During the 18-month follow-up, Shelly reported that she had an MDD episode over the summer months. At this time, she had a break up with her girlfriend, and simultaneously, her mother found out she was bisexual and disclosed this information to her extended family.

As can be observed in Figures 4 through 6, Shelly’s reported depressive symptoms (CES-D, CDRS-R), and overall functioning (CGAS) fluctuated and did not consistently improve. Similarly, Shelly’s scores on the SCARED indicate that her anxiety symptoms remained high throughout the study and reached the clinical level on several indices, including GAD, panic, and social phobia, at the six-month follow-up. Shelly’s scores on self-report measures of anxiety and depression are consistent with her verbal reports during the diagnostic interviews at each time point, during which she reported subthreshold symptoms of social phobia and GAD. Both during the intervention and follow-up phases, Shelly’s report of depressive symptoms, anxiety symptoms and overall functioning were more severe than the mean of participants in the IPT-AST condition (Table 5).

Social and School Variables. As indicated during her follow-up assessments, Shelly's social functioning seemed to deteriorate over the course of the study. Shelly's reported conflict with both her mother and stepfather (CBQ Child) increased slightly during the intervention and continued to worsen throughout the follow-up phase (Figure 8). Additionally, Shelly's mother reported high parent-child conflict and negative communication both at pre-intervention and at all subsequent follow-ups (CBQ Parent: 8, 8, 7, 8). Conversely, Shelly's responses on the PSS and SAS reflect a stable level of perceived support from family. Yet, her perceived support from friends decreased between pre and post-intervention (PSS Friends: 11 to 5; SAS Friends: 2.67 to 3) and fluctuated at subsequent time points. Notably, both of her post-intervention scores on measures of perceived peer support were greater than one SD below the IPT-AST condition mean. Furthermore, Shelly reported low academic functioning during the follow-up diagnostic interviews and a decrease in emotional engagement in school (SARAC). However, she reported a stable and adequate sense of self-efficacy and ability to complete her work in school (SES) that was consistent with reports of other IPT-AST participants throughout the study (Table 5).

Attitude Toward Intervention. On the Attitude Toward Intervention Scale, Shelly reported that the intervention was very helpful and indicated that she felt neutral about group ending. However, she reported that she felt the length of the intervention was too long and she would have preferred more individual services.

Qualitative Evaluation: Contributing Variables to Intervention Outcomes

1) Individual Factors

Attitude towards change. Menorka's positive attitude towards change was apparent from the outset of the intervention. When asked about possible changes in her relationships during pre-group sessions, she volunteered several, which made the task of developing her goals relatively straightforward. Additionally, Menorka showed initiative by practicing the new interpersonal strategies at home during the initial phase of the intervention even though members were not yet expected to practice at home. These early attempts to modify her communication patterns may have been rewarding, and thus, increased the likelihood that she would continue to work on changing her interactions with others. Menorka also voluntarily identified IPT-AST strategies that were more difficult for her (being specific) and actively worked on improving her use of these strategies.

In contrast, Shelly exhibited resistance to change in the pre-group sessions that persisted throughout the intervention. Despite acknowledging dissatisfaction in her relationships, Shelly indicated that she wanted her relationships to stay the same. Additionally, even though Shelly participated in role plays during group, she avoided selecting a specific time to have these actual conversations, which suggests some reluctance to change. This apparent contrast in Shelly and Menorka's attitude towards change parallels their divergent outcomes.

Worthlessness. Shelly and Menorka both endorsed feelings of worthlessness at baseline and at various points throughout the group. Yet, Menorka's feelings of worthlessness seemed to be mostly related to her negative body image (i.e., her concern about being overweight compared to peers), whereas Shelly's negative self-concept appeared to be more pervasive.

Shelly expressed both during group and evaluations that it was difficult to be happy because she felt “ugly,” disliked by others, and “not a good person.” Given that Shelly disclosed that she was bisexual during the 18-month evaluation, it is also possible that she was questioning her sexual identity at the time of the groups. Research has shown that at different stages of sexual identity development, individuals may be at greater risk of psychological distress and negative self-concept (Cochran, 2003; Meyer, 2013). Furthermore, sexual minority individuals are vulnerable to internalizing the “sexual stigma” prevalent in society, and thus, may adopt society’s negative attitudes about themselves and engage in negative self-evaluation (Glassgold, 2009). Because of the severity of Shelly’s symptoms of worthlessness and her global negative self-concept, she may have been more suited to an individual intervention where she may have felt more comfortable addressing these sensitive issues. However, even in her individual sessions, she expressed discomfort sharing personal information with the group leader. This suggests that she may have been hesitant to disclose her feelings and concerns even within the context of an individual intervention.

Negative cognitive style. Shelly not only expressed negative beliefs about herself during group, but her statements also suggested that she tends to make negative attributions. For example, in her pre-group session, she described that her classmates are always giggling together and she is certain that they are making fun of her. She also reported negative expectations of how others will respond to her. For example, Shelly explained that she is reluctant to confide in her mother or Godmother because they would most likely respond, “Just get over it.” Similarly, Shelly shared that her peers are fake and do not want to help her, so she does not confide in anyone and has difficulty trusting the intentions of others. Perhaps, Shelly was hesitant to confide in her group for fear that they too would hurt or embarrass her. This negative

expectation may have inhibited her level of engagement and acceptance of other group members' support. Additionally, these negative attributions about both her family and classmates may have deterred Shelly from asking for help and/or sharing her feelings outside of group. On the other hand, Menorka welcomed support from the group and although anxious, seemed hopeful that others would respond well to her attempts to use the interpersonal strategies.

Social phobia symptoms. Shelly and Menorka both reported subsyndromal anxiety at baseline, but Shelly reported more symptoms of social anxiety and Menorka reported more symptoms of generalized anxiety. Shelly's social anxiety symptoms seem to have stemmed in part from a specific episode in 7th grade during which she was repeatedly teased after forgetting words during a presentation. Her extensive history of bullying, betrayal, and social rejection has also contributed to Shelly's more reserved and anxious presentation. These qualities may have affected her ability to feel comfortable and develop rapport with the group. For example, Shelly refused to share certain information during both her pre-group and group sessions. Because Shelly was resistant to share, it made it more difficult for the group to give her targeted help earlier in the intervention. Furthermore, Shelly acknowledged that the most difficult IPT-AST skill for her to implement was, "strike while the iron is cold." Shelly's apparent difficulty of knowing when and how to initiate conversations is demonstrative of her social anxiety symptoms, and may have contributed to her difficulty completing group homework and her overall experience in the intervention. As a result, Shelly's anxiety symptoms seemed to worsen over the course of the study (Figure 7) and may have interfered with intervention efficacy.

Conversely, as Menorka became more adept at using the IPT-AST skills in her conversations, she seemed to become less anxious about the possible negative outcomes of having these conversations. In her pre-group session, Menorka worried about how her friends

would respond when she shared with them her feelings of frustration and hurt. However, she was able to express these negative emotions in conversations with her mother and her cousin during the intervention and to see others respond favorably. At times, Menorka's anxiety even seemed to impel her to complete the IPT-AST homework. For example, Menorka was so anxious about the situation with her friend and the gym shirt that she engaged in both conversations practiced in group the following day. Overall, the intervention seemed to have a positive impact on Menorka's anxiety, as illustrated by the notable decrease in reported symptoms throughout the intervention and follow-up period (Figure 7).

Interpersonal history. Another important individual factor to consider in the differences in intervention effect is interpersonal histories. During the interpersonal inventory, Menorka reported a history of supportive relationships with friends and family, but indicated that she was experiencing a recent negative change in these relationships (i.e., feeling more distant from and arguing more with friends, Godmother, and mother). Thus, Menorka's goals evolved based on a desire to regain this closeness that she had previously experienced in her relationships.

Conversely, Shelly reported a long history of invalidating social experiences, betrayal, and rejection from both peers and family, rather than a recent change in her relationships. It is certainly possible that because of its short duration, group structure, and educational framework, IPT-AST was not an appropriate modality to address Shelly's persistent and ingrained interpersonal problems and resulting interpersonal deficits and social withdrawal.

2) Intervention Factors: Potential Mechanisms of Change

Setting and accomplishing goals. Menorka's and Shelly's experiences with setting and working towards goals were considerably different during the group and may have impacted their divergent outcomes. Because of time constraints during the pre-group sessions, Shelly did not have the chance to develop her own goals. The clinician created goals that directly addressed Shelly's interpersonal problems (i.e., find people whom she can trust and get more support from her mother); yet, they ran out of time to discuss the feasibility of these goals and Shelly's investment in them, and to modify them accordingly. Given Shelly's significant interpersonal deficits, these broad goals may have been too ambitious for her. Perhaps, something more manageable would have been to ask her classmate, with whom she already feels comfortable, to sit together at lunch or to hang out after school.

Conversely, during pre-group sessions Menorka had ample time to develop and modify her goals so that they felt doable for her. Menorka's work in group was also directly related to her goals of feeling closer to and communicating with others about her negative emotions. For example, Menorka communicated effectively with her cousin and mother about her feelings of hurt and frustration, which resulted in her feeling closer to both of them. Perhaps, because Menorka actively participated in the development of her goals, they were more salient to her than to other group members during the intervention (individual goals were not explicitly mentioned until Group 6 and were not reviewed).

Shelly's interpersonal problems were also discussed during the intervention, but she did not effectively work on her goals outside of the group setting. Group members engaged in two rich discussions about Shelly's difficulties establishing friendships and trusting others. And, Shelly took the important initial steps of acknowledging her difficulties and seeking support

from group members, but she barely used the interpersonal skills to directly work on her goals. Individual booster sessions may have been an ideal opportunity for Shelly to more actively and directly work on her goals.

In a broader context, Shelly did not achieve the focal goal of each intervention phase. The main goals of the initial phase are to develop trust among group members and to learn the interpersonal strategies. The main goal of the middle phase is to improve relationships through practice of these strategies. Because Shelly was absent during Groups 2 and 3, the sessions during which the interpersonal strategies are taught, Shelly entered the middle phase of the intervention without knowledge of the skills. She also did not have a chance to develop trust with other group members during the initial phase, which may have been particularly important for Shelly given her social anxiety symptoms and more guarded demeanor. As previously mentioned, Shelly engaged in productive discussions about her interpersonal difficulties, but she did not effectively work on improving a specific relationship through practice of the skills during the middle phase. In contrast, Menorka fulfilled the goals at each phase of the intervention.

Skills comprehension and practice. Not only was Menorka present during Groups 2 and 3 when the skills were taught, but she also personally taught Shelly the skills in Group 4. By actively teaching the skills, Menorka may have extended her own understanding of these interpersonal concepts; it also allowed group leaders to check for any misunderstandings. Additionally, Menorka's insightful comments while problem solving and planning conversations reflected a level of skills comprehension beyond that of other group members (see summary of Group 3). Because Shelly missed the psychoeducation sessions and did not often contribute to planning conversations in group, it is unclear how much she internalized the IPT-AST skills.

Furthermore, Menorka successfully used the IPT-AST skills in five conversations outside of group, all of which had positive outcomes and impact on her mood (e.g., mother, dean, friend, cousin, and cousin follow-up). Additionally, Menorka actively participated in group role plays to plan for these conversations and consistently reported at the end of each role-play that she felt either “relieved,” “good,” or “more understood.” Thus, practicing the skills in session seemed to have an immediate positive impact on Menorka’s mood.

Conversely, Shelly practiced being more outgoing with others outside of group (e.g., saying “hi”), but did not have extensive conversations where she employed the strategies to improve a specific relationship. Moreover, role plays did not seem to have an immediate positive impact on her mood, as she indicated after one role-play that she still felt “horrible” and “guilty.” The exception to this was during Group 7, when Shelly opened up and practiced the skills in a role play conversation about how she needed more support from her cousin. Subsequently, Shelly’s reported mood rating improved for the first time between sessions (7 to 3). If Shelly had been able to actively engage and practice the skills as she did in group 7 throughout the middle phase, it is possible that she may have experienced similar improvements in her mood at other points during the intervention.

3) Group Factors

Group dynamics may have also contributed to the difference in intervention effects for Menorka and Shelly. It is possible that Menorka felt more comfortable in group given her history of friendship with Emma. Yet, this friendship dyad may have had the opposing effect on Shelly in terms of her comfort and sense of belonging within the group. Shelly’s reserved demeanor was initially misinterpreted by Emma and Menorka as apathy and sometimes resulted in a stifled discussion. Once group leaders helped members to reframe their perception of Shelly

as shy instead of disinterested, they became more outwardly supportive of her. As a result, Shelly was able to be more expressive and forthcoming; however, this shift in group dynamic did not occur until Groups 6 and 7. Furthermore, it seemed like Sasha's intermittent attendance detracted at times from the trust that was gradually evolving within the group.

Nevertheless, group leaders were sensitive and adept at directly addressing trust and comfort issues as they surfaced. It is important to note that this observed reluctance to trust may also reflect the level of trust in the overall school environment. Group members requested to change the location of the group room to a more private setting early on in the intervention, and they adamantly expressed that they could not trust the school guidance counselor with personal information. Additionally, at various points during group, group members discussed how teachers and staff were unapproachable when students had problems. Thus, the school culture may have contributed to the group's continued challenges to trust each other. Given Shelly's trying relationship history, she may have been more vulnerable to these trust issues than Menorka.

Synthesis of Findings from RCT and Case Study Approaches

Case Study Findings that Support Young et al. (2010)

Many of these case study findings support the results of Young et al. (2010) as well as the outcomes of previous studies and corollary analyses of IPT-AST (Young, Gallop, & Mufson, 2009; Young, Kranzler, Gallop, & Mufson, 2012; Young et al., 2012; Young, Mufson, & Davies, 2006). Menorka's consistent reduction in depressive symptoms and improvement in overall functioning, as noted on standardized measures and during her evaluations, is consistent with the significant decrease in depressive symptoms and improvement in overall functioning observed in the IPT-AST condition in Young et al. (2010) and in a prior study of IPT-AST (Young et al.,

2006). Furthermore, Shelly's decline in functioning and onset of depression paralleled the trajectory of other non-responders to IPT-AST who experienced depressive episodes six months or more after the intervention phase (Young et al., 2010). The reported improvements in Menorka's mother-child conflict and perceived interpersonal supports are also consistent with corollary findings of significant reductions in mother-child conflict (Young et al., 2009) and improved social functioning (Young et al., 2012) for adolescents in IPT-AST.

Similar to most participants in Young et al. (2010), Menorka and Shelly both reported subthreshold symptoms of anxiety at baseline, and the trajectory of their anxiety symptoms paralleled that of their depressive symptoms. Menorka's anxiety outcomes support findings from Young et al. (2012) in that her anxiety consistently decreased throughout the intervention and follow-up phase. On the other hand, Shelly's anxiety symptoms decreased minimally during the active phase of the intervention and increased to the clinical level during the follow-up phase, paralleling the trajectory of her depressive symptoms. Notably, Menorka endorsed several GAD symptoms, whereas Shelly reported primarily social anxiety symptoms. Previous studies have documented that interpersonally focused interventions may be particularly beneficial for adolescents with comorbid symptoms of depression and GAD due to the common interpersonal nature of worries in the GAD population (Roemer, Molina, & Borkovec, 1997; Young et al., 2012). Conversely, Young et al. (2012) found minimal reductions in social anxiety during the intervention and follow-up phase, and other studies suggest that adolescents with comorbid social anxiety and depression have worse treatment outcomes (Young et al., 2012). The case study illustrated that Shelly's social anxiety interfered with her ability to participate in and benefit from the group, and as a result, may have also negatively impacted her depression outcome. Thus, the role of social anxiety as a predictor of change in depressive symptoms in

IPT-AST should continue to be examined. Future studies should also investigate the efficacy of IPT-AST as a transdiagnostic preventative intervention for adolescents with comorbid subclinical symptoms of depression and GAD, as the communication and interpersonal problem solving skills taught in IPT-AST may be particularly relevant for adolescents with this clinical profile (see Young, Mufson & Benas, 2013 for a discussion of IPT as a transdiagnostic approach for youth depression and anxiety).

Case Study Findings that Extend Young et al. (2010)

Young et al. (2010) demonstrated that IPT-AST is an effective indicated prevention program for adolescents with subsyndromal depression. However, Shelly and Menorka possessed risk factors of depression beyond their subclinical depressive symptoms. It is important to consider the potential link between these additional risk factors and intervention outcomes. Both Shelly and Menorka reported a family history of depression and Menorka reported a previous episode of DD NOS. In addition, Menorka reported a history of environmental stressors (e.g., homelessness, exposure to domestic violence, single-parent household, and economic hardship), whereas Shelly reported a history of interpersonal dysfunction (e.g., bullying, peer rejection, lack of stable peer relationships, social withdrawal, and limited and inconsistent parental support).

Several research studies have linked environmental stressors, notably, low socioeconomic status (SES) and poverty, to family conflict and depression in children and adolescents (Mazza et al., 2010; McLeod & Nonnemaker, 2000; Wadsworth & Compas, 2002; Wolfe & Mash, 2006). The study sample in Young et al. (2010) and in previous IPT-AST and IPT-A efficacy research consisted primarily of adolescents from low-income households (e.g., Mufson et al., 2004; Young, Mufson, & Davies, 2006). The robust intervention effects from these studies along with

Menorka's positive outcome indicate that youth who experience economic distress can benefit from IPT interventions. This may be particularly true for adolescents who are interpersonally oriented, such as Menorka. Her initiative in making interpersonal changes and concern for how her own behaviors affected her friends and family suggest a high degree of sociotropy, which has been identified as a possible moderator of IPT-AST (Horowitz et al., 2007). Menorka worked diligently to make positive changes in her interpersonal relationships, which, in turn, may have decreased her risk for depression in spite of these significant environmental stressors. In this way, the IPT-AST intervention fostered Menorka's interpersonal strengths.

Research has also documented that social behavioral deficits, such as social helplessness and ineffective interpersonal problem solving, and low social support predict depression in youth (Abela & Hanken, 2008; Prinstein & Aikins, 2004). Although interpersonal interventions target interpersonal problems by teaching communication and problem solving skills, patients identified as having "interpersonal deficits" are thought to fare worse in treatment. For instance, Sotsky et al. (1991) found that elevated social dysfunction was associated with poorer outcomes in IPT. However, a more recent efficacy study of IPT with depressed adults found that treatment outcomes were unrelated to patients' identified interpersonal problem areas, which included role disputes, role transitions, interpersonal deficits, and grief (Levenson et al., 2010).

The relative efficacy of IPT interventions with specific interpersonal goals or problem areas has not yet been examined in adolescents. Despite IPT-AST's explicit focus on bolstering interpersonal skills, it is possible that adolescents, like Shelly, who suffer from chronic interpersonal deficits and low social support, require a different intervention modality. It may be difficult for adolescents with a history of chronic interpersonal dysfunction not only to engage in the group, but also to work on these pervasive interpersonal deficits given the format and content

of the sessions. Hypothetical scenarios used in the initial phase typically involve conflict with peers and/or family members and middle phase work is primarily focused on applying the skills to specific interpersonal events, such as approaching a teacher about a problem, sharing feelings with a friend, or negotiating responsibilities with caregivers. When there is an absence of a specific interpersonal event, and instead, the goal is to become closer with others (as with Shelly), it may be more challenging to incorporate this into group examples and to apply the skills. Future research should examine whether IPT-AST is more effective for youth who have specific interpersonal events to work on rather than a goal of increasing relationships and decreasing social withdrawal.

In addition to the potential significance of an adolescent's interpersonal history, qualitative analyses highlight the disparity in the extent to which Menorka and Shelly internalized and practiced the IPT-AST skills. Shelly was absent for Groups 2 and 3, which is when the skills are introduced and taught to group members. Group leaders reviewed the skills in Group 4 with Shelly, but it is possible that missing these critical educational sessions affected her level of comprehension. In addition, Shelly practiced the skills much less than Menorka in and out of session. Menorka practiced using the IPT-AST skills to improve her communication in various interpersonal situations, including asserting herself with school staff, problem solving peer conflict, strengthening her relationship with her cousin, and communicating more effectively with her mother about house rules. Perhaps because of the range of situations addressed and the frequency at which she practiced, Menorka's ability to implement the skills generalized to more situations, making her better equipped to cope with future interpersonal challenges.

On the other hand, Shelly's work during group was mostly focused on discussions about developing trustworthy friendships. Her subsequent DD NOS and MDD episodes were preceded by interpersonal events that involved parental conflict and a break-up as opposed to issues around friendship, the context in which she discussed and minimally practiced skills during group. Both parent-child conflict and relationship break-ups are associated with increased risk for depression (e.g., Allen et al., 2006; Davey, Yucel, & Allen, 2008; Eberhart & Hammen, 2006; Joyner & Udry, 2000; La Greca & Harrison, 2005; Sheeber, Davis, Leve, Hops, & Tildesley, 2007; Stice, Ragan, & Randall, 2004). It is possible that Shelly was ill equipped to handle these interpersonal events given her lack of practice during the group, both generally and specifically related to interpersonal conflict. The active components of an intervention cannot be adequately assessed in a case study design, but larger scale studies should examine the interaction between the multiple components of skills practice to determine whether skills comprehension, frequency of practice, and/or the specific interpersonal scenarios practiced are associated with intervention outcomes. Relatedly, future studies should identify whether missing the educational component of the initial phase (Groups 2 and 3) affects skills comprehension and intervention outcomes.

Furthermore, the experiences of sexual-minority youth in IPT-AST and other group interventions warrant further examination. During the follow-up phase, Shelly disclosed to her evaluator that she had been in romantic relationships with males as well as with a female. Shelly's sexual identity was never formally discussed during the intervention phase, but she reported that she spoke with family members about "boys" and briefly discussed an interpersonal issue regarding a male peer during group. Not enough information is known about the chronology of Shelly's stages of sexual identity development and the study timeline to

understand the relationship between these respective experiences. However, if Shelly was questioning her sexual orientation during the intervention phase, this may have contributed to her visible discomfort confiding in a group focused primarily on heterosexual romantic relationships and composed of heterosexual females. Even in the first group when members were charged with the task of educating group leaders about common problems teens face, the topic of sexual orientation was not elicited. Adolescents who identify as sexual minorities may experience minority stress, and are thus, at greater risk for psychological distress, depression, negative self-concept, and peer victimization (Cochran, 2003; Meyer, 2013). The components of minority stress can certainly affect an adolescent's comfort level, self-perception, and interactions with others during groups like IPT-AST, particularly for individuals with low levels of peer trust and support like Shelly. Thus, the relationship between an adolescent's sexual orientation, qualitative experience in IPT-AST, and intervention outcomes should continue to be explored.

The case study findings also convey the relevance of cognitive mechanisms in intervention outcomes. Stable cognitive vulnerability factors, including a depressogenic inferential style, typically emerge by adolescence and have been indicated in the development of depression across the lifespan (Abela & Hanken, 2008; Cohen, Young, & Abela, 2012). Moreover, Prinstein and Aikins (2004) found that for adolescents with high levels of depressogenic attributions peer rejection predicted depressive symptoms. Although not formally assessed during the intervention, Shelly's thoughts of worthlessness and negative expectations of interpersonal events, in particular related to peer rejection and victimization, reflect a depressogenic inferential style. Furthermore, Shelly's negative attitude towards change throughout the intervention conveyed a hopeless attitude that is consistent with a negative cognitive style.

It is possible that these pervasive depressogenic cognitions developed in part from Shelly's invalidating interpersonal history, and it is critical to acknowledge the potential influence of both of these factors on her ability to engage with other group members, participate in activities, and conduct work at home. For example, Shelly may have been reluctant to try out the communication skills outside of group because of her negative expectation that ultimately people won't like her. Similarly, she may have worried about confiding in group members if her assumption was that people will judge her and won't understand her challenges. On the other hand, Menorka's negative self-concept seemed to be limited to concerns about her body image. Even when Menorka acknowledged that it was hurtful for her cousin to call her "fat," she interpreted his behavior as an attempt to get attention from her rather than internalizing the insults. Menorka undoubtedly expressed worry about her relationships and acknowledged her own anxieties about using the skills, but this worry seemed to drive her efforts to modify her communication in her relationships. Further investigation of the relationship between cognitive and interpersonal vulnerabilities and intervention outcomes will help to distinguish the specific type of individual risk profiles that are well suited for IPT-AST and those that may benefit from an intervention that utilizes different processes.

Implications for Future Research and Implementation

The above mixed methods analysis highlights the importance of repeated practice of IPT-AST skills in various, relevant interpersonal scenarios while receiving feedback from trusted peers. These findings raise the question of optimal dosage of the intervention with respect to three specific areas: 1) developing group trust, 2) providing sufficient opportunities for skills practice, and 3) modifying the intervention for adolescents with specific clinical profiles.

In schools, in particular, establishing and maintaining a safe and comfortable group setting is difficult due to several obstacles, including, peer interactions outside of group, the prevalence of gossip, potential school staff involvement, and the stigma commonly associated with receiving mental health services. One barrier to Shelly's ability to use the group to strengthen her communication skills was her guardedness and mistrust of other group members. However, towards the end of group, Shelly was the focus of some very powerful discussions during which she opened up to group members about her difficulties making friends and received pertinent feedback about how she comes across to others. Because this discussion did not occur until Group 6, she was unable to incorporate the feedback into her skills practice during the middle phase. Likewise, several group members were reluctant to share because of expressed concerns about the climate of trust and support within the group and even within the school. Additional IPT-AST group sessions may have nurtured greater intimacy and trust, and subsequently, increased engagement from Shelly and other group members during middle phase sessions. In their meta-analysis of school-based depression prevention programs, Callear and Christensen (2010) found that groups consisting of eight to 12 sessions were an optimal duration for students to process and apply new skills. Extending the number of groups in the intervention by a few sessions may also permit interpersonal skill building with a wider range of interpersonal situations. For example, most of the hypothetical role plays outlined in the manual as well as the student-generated discussions about interpersonal events are focused on specific problems that typically involve conflict (perhaps because these are easier to identify and share). Additional sessions may allow for more opportunities to discuss application of the skills to other interpersonal goals, such as making friends and increasing interpersonal supports. This added

opportunity for practice could increase the likelihood of generalization, and thus, the potential preventative effect of the intervention.

Moreover, supplementing the IPT-AST groups with individual sessions during or after the intervention might also allow for more personalized work on interpersonal goals, especially for more sensitive topics (e.g., sexual orientation, divorce, or abuse). Dr. Young is currently investigating the efficacy of a modified version of IPT-AST that includes an individual mid-group session and four monthly individual booster sessions following the group intervention. Individual mid-group and booster sessions allow group leaders the opportunity to re-evaluate interpersonal goals, continuously assess skills comprehension, and address additional relevant interpersonal issues. However, it is important to account for logistical factors that impact implementation. Extending the intervention with additional group and/or individual sessions increases cost, school space needs, and time commitment from staff and students. Thus, the identified potential benefits of a longer intervention warrant further empirical investigation and should involve evaluation of these other implementation factors.

Finally, it is important to consider the variables previously discussed and how these may be used to inform intervention suitability and options for levels of care. Shelly's social anxiety, depressogenic inferential style, chronic interpersonal deficits, and resistance to change, were all identified as influential factors in her negative intervention outcome. Statistical associations and causal conclusions cannot be drawn from these analyses; however, the individual systematic pragmatic case studies illustrate how these factors affected Shelly's experience in group and eventual development of depression. On the other hand, IPT-AST may have served as a strength-based approach for Menorka, who is interpersonally oriented, because it directly targeted this skill set. Further investigation of these potential moderators will help identify

adolescents who may be better suited for a different modality or intervention as well as those, like Menorka, who will greatly benefit from IPT-AST. Furthermore, as an indicated prevention intervention, IPT-AST could be considered within an individualized stepped care approach to depression prevention in adolescents. Continuous assessment of these variables can help differentiate adolescents who are likely to acquire the tools to prevent depression after the IPT-AST intervention and those who may require a higher level of care, such as subsequent individual booster sessions or adjunct individual or family therapy.

Conclusion

Menorka's case study underscores how, in spite of her economic stressors and history of depression, her positive attitude towards change, eagerness to utilize the skills, sociotropy, and history of positive interpersonal relationships facilitated her engagement with the intervention and subsequent mastery of the skills. As a result, the positive intervention effect was apparent not just in the reduction of her depressive and anxiety symptoms, but also in the notable improvements in her interpersonal relationships, self-concept, and overall functioning. Conversely, Shelly's absences, interpersonal deficits, social anxiety, and negative cognitive style made it difficult for her to fully engage and practice skills with the group to increase and strengthen her relationships. Shelly's challenges with trust were also apparent in the group as a whole and even extended to group members' feelings of support and trust within the school. Hopefully, the individual, intervention, and setting characteristics identified and discussed in these systematic pragmatic case studies will inform future research and implementation so that we can better understand who benefits from IPT-AST and how the intervention can be tailored to generate more long-term effects in preventing adolescent depression.

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Tables and Figures

Table 1: *Structure of Contacts for IPT-AST Condition*

Contact Type	Time from Initial Contact	Assessment or Intervention	Group or Individual	Duration (minutes)	Instruments Administered
1. Screening	0 wks	Assessment	NA	A: 15	A: CES-D
2. Consent Meeting	1-2 wks	NA	Individual	A: 30	P: Demographics, General Medical, CES-D, FHS, CBQ, FMSS
3. Eligibility Evaluation	2-3 wks	Assessment	Individual	A: 90-120	A: K-SADS-PL, CGAS
4. Baseline Evaluation	4 wks	Assessment	Individual	P: 60 A: 60	A: CDRS-R, SCARED, SAS-SR, CBQ, PSS, CASA, SARAC, ICI-S, Self-Efficacy
5. Individual Pre-Group sessions	5-6 wks	Intervention	Individual	A: 45 (2x)	NA
6. IPT-AST Groups	7-15 wks	Intervention	Group	A: 90 (8x)	A: Depression Checklist, Mood Rating Scale
7. Mid-Group Evaluation	11 wks	Assessment	Individual	A: 10	A: CES-D
8. Post-Group Evaluation	16 wks (4 m)	Assessment	Individual	P: 20 A: 150	P: CES-D, CBQ, FMSS, ATT A: K-SADS-PL, CDRS-R, CES-D, SCARED, CGAS, SAS-SR, CBQ, PSS, CASA, ATT, SARAC, ICI-S, Self-efficacy
9. 6-month Evaluation	40 wks (10 m)	Assessment	Individual	P: 10 A: 150	P: CES-D, CBQ A: K-SADS-PL, CDRS-R, CES-D, SCARED, CGAS, SAS-SR, CBQ, PSS, CASA, SARAC, ICI-S, Self-efficacy
10. 12-month Evaluation	64 wks (16 m)	Assessment	Individual	P: 10 A: 150	P: CES-D, CBQ A: K-SADS-PL, CDRS-R, CES-D, SCARED, CGAS, SAS-SR, CBQ, PSS, CASA, SARAC, ICI-S, Self-efficacy
11. 18-month Evaluation	88 wks (22 m)	Assessment	Individual	P: 10 A: 150	P: CES-D, CBQ A: K-SADS-PL, CDRS-R, CES-D, SCARED, CGAS, SAS-SR, CBQ, PSS, CASA, SARAC, ICI-S, Self-efficacy

A = Adolescent

P = Parent

Table 2: *Assessment Instruments*

General Information <ul style="list-style-type: none"> ○ Demographic Instrument (DEM) ○ General Medical History (GMH)
Parental Psychopathology <ul style="list-style-type: none"> ○ Center for Epidemiological Studies-Depression Scale (CES-D) ○ Family History Screen (FHS)
Adolescents Psychopathology and Functioning <ul style="list-style-type: none"> ○ Schedule for Affective Disorders and Schizophrenia for School-aged Children – Present and Lifetime Version (K-SADS-PL) ○ Children's Depression Rating Scale-Revised (CDRS-R) ○ Center for Epidemiological Studies-Depression Scale (CES-D) ○ Screen for Child Anxiety Related Emotional Disorders (SCARED) ○ Children's Global Assessment Scale (CGAS)
Interpersonal Measures <ul style="list-style-type: none"> ○ The Conflict Behavior Questionnaire (CBQ) ○ Perceived Social Support (PSS) ○ Social Adjustment Scale-Self Report (SAS-SR)
Intervention Measures <ul style="list-style-type: none"> ○ Attitude Toward Intervention Questionnaire (ATI)
School Measures <ul style="list-style-type: none"> ○ Student's Achievement Relevant Actions in the Classroom (SARAC) ○ Self-Efficacy in School (SES)

Table 3: *Criterion for Group Selection*

Group	Completed __% of evaluations	Included responder with all assessments completed	Included non-responder with all assessments completed	Responder and non-responder attended at least 5 group sessions
1	100	X	X	X
2	100	X		
3	86	X	X	
4	100	X		
5	92	X		
6	97	X		
7	100	X	X	X

Table 4: *Pre-Intervention Demographics and Symptom Profiles of Group Members compared to IPT-AST Condition Means*

Case	Sex	Age	Ethnicity	Race	CES-D	CDRS-R	CGAS	SCARED Total
1 (Shelly)	F	15	Not Hispanic	African American	19	70	68	18
2 (Menokra)	F	14	Hispanic	White	29	62	73	20
3	F	14	Not Hispanic	African American	19	55	75	23
4	F	14	Hispanic	White	33	44	65	11
5	F	14	Hispanic	African American	27	63	75	11
IPT-AST Condition: Mean (SD)	55.6% F	14.57 (.68)	69.4% Hispanic	41.7 % African American	26.56 (6.72)	51.75 (11.17)	70.75 (4.12)	22.53 (9.73)

Table 5: Quantitative Data of Cases Compared to Means of IPT-AST Participants at Five Time Point

Scale	Pre-treatment			Post-Treatment			6-month			12-month			18-month		
	Menorka	Shelly	IPT-AST	Menorka	Shelly	IPT-AST	Menorka	Shelly	IPT-AST	Menorka	Shelly	IPT-AST	Menorka	Shelly	IPT-AST
Depression Symptoms															
CES-D	29*	19*	26.56*	7	16*	10.86	7	24*	12.5	3	29*	10.76	4	19*	9.53
CDRS-R	62	70*	51.75	60	62	44.24	37	62	40.1	30	64*	44.01	51	57	39.47
K-SADS Depressive Diagnosis	None	None	0	None	None	0	None	None	0	None	DD NOS	2	None	MDD	1
CGAS (Overall Functioning)	73	68	70.75	78	72	76.63	78	74	78.41	80	70	77.62	77	65	79.38
Parent CES-D	20*	21*	12.17	7	19*	11.15	30*	30*	12.14	38*	38*	12.58	15	9	8.81
Anxiety Symptoms (SCARED)															
Total	20	18	22.53	10	16	12.77	7	29*	13.03	5	19	9.15	3	19	8.16
Paric	2	3	4.22	1	2	1.91	1	8*	2.32	1	4	1.56	0	5	1.28
GAD	9	2	7.33	4	6	3.94	5	10*	4.65	3	3	3.29	2	8	2.97
Social Phobia	1	9	5.56	1	7	4.54	0	8*	3.53	0	7	2.91	0	7	2.84
Social Supports															
PSS Family	13	17	13.94	19	19	15.11	19	19	14.55	20	15	15.82	20	17	16.22
PSS Friends	20	11	15.69	20	5	16.8	19	18	17.03	20	16	17.21	20	16	17.75
Social Functioning															
SAS School	1.33	1.67	1.81	1	1.17	1.65	1	1.67	1.58	1.17	1.67	1.64	1.33	1.33	1.47
SAS Friends	1.78	2.67	2.18	1.33	3	1.76	1.22	1.89	1.84	1.11	1.89	1.7	1.44	2.22	1.65
SAS Family	1.67	1.5	2.1	1.67	2.17	1.81	1.67	1.83	1.81	1.17	1.83	1.67	1.83	2	1.54
SAS Dating	3	3.5	3.33	3	3	2.66	3	3	2.75	3	1.5	2.59	2.5	2.5	2.5
SAS Total	1.74	2.17	2.16	1.48	2.3	1.82	1.43	1.91	1.84	1.3	1.78	1.75	1.61	1.96	1.66
Family Conflict (CBQ)															
CBQ Mom (Child)	3	1	5.06	0	3	4.17	1	4	4.15	0	5	3.71	1	8	3.59
CBQ Dad (Child)	0	0	5.6	2	3	5.27	2	6	6.63	0	15	5.7	11	11	3.68
CBQ Parent	12	8	6.44	4	8	6.47	5	5	5.86	3	7	6	3	8	4.5
School Factors															
SARAC Behavioral Engagement	40	36	30.58	37	35	31.14	40	31	30.94	40	29	30.97	37	36	32.63
SARAC Emotional Engagement	39	30	30.72	37	27	32.57	40	25	32.68	40	27	31.76	35	26	33
Self-Efficacy in School	13	11	11.25	13	10	11.46	15	11	11.68	15	12	11	12	12	12.48
School Work	15	9	11.06	14	12	11.4	15	13	11.5	15	10	10.8	12	10	11.62

*Clinically significant

Figure 1: Consort Flowchart.

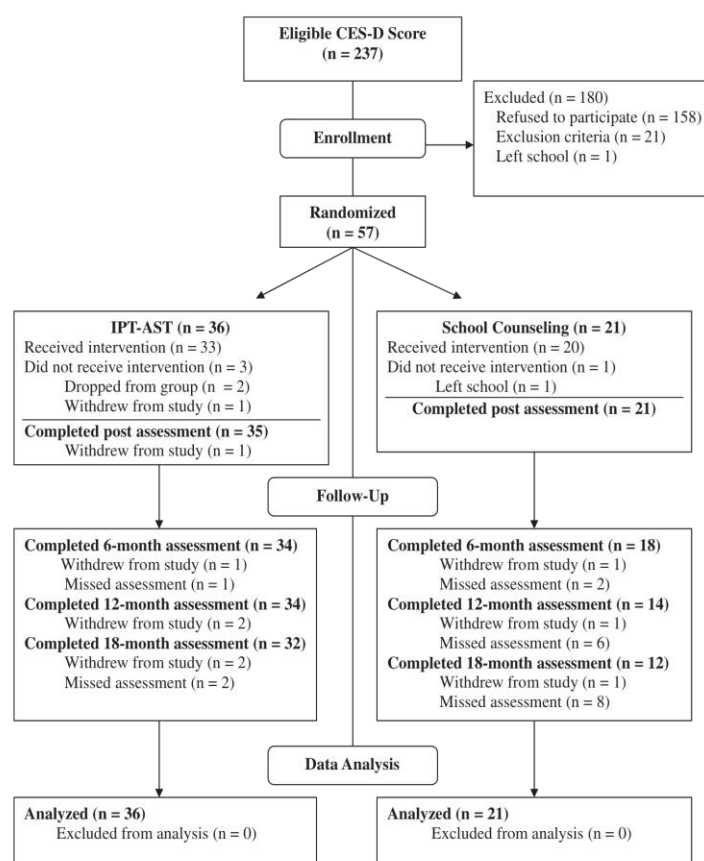


Figure 2: Intervention Attendance.

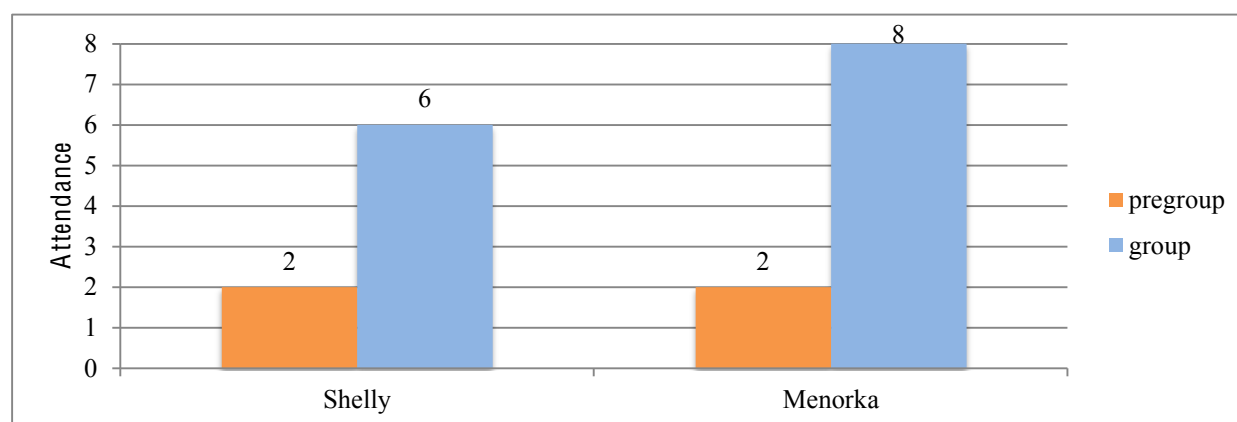


Figure 3: Profile Plots for Mood Ratings over the Course of the Intervention.

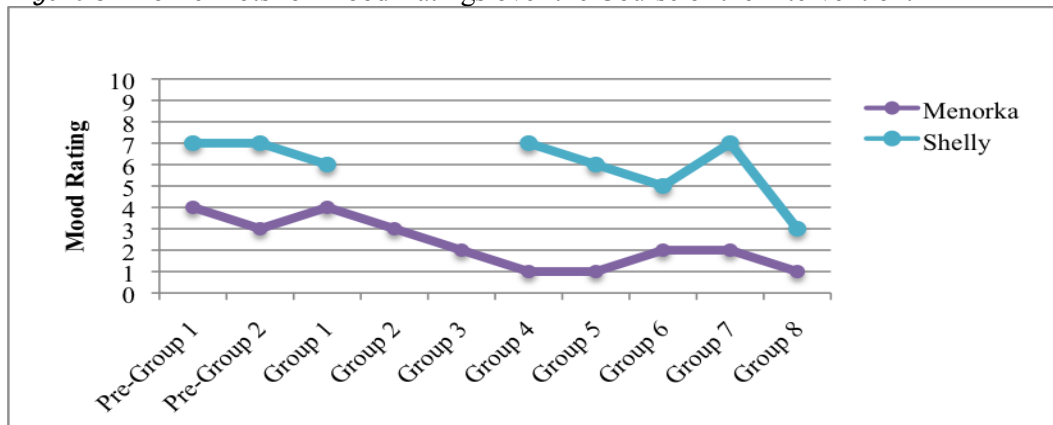


Figure 4: Profile Plots for the Center for Epidemiologic Studies-Depression Scale (CES-D).

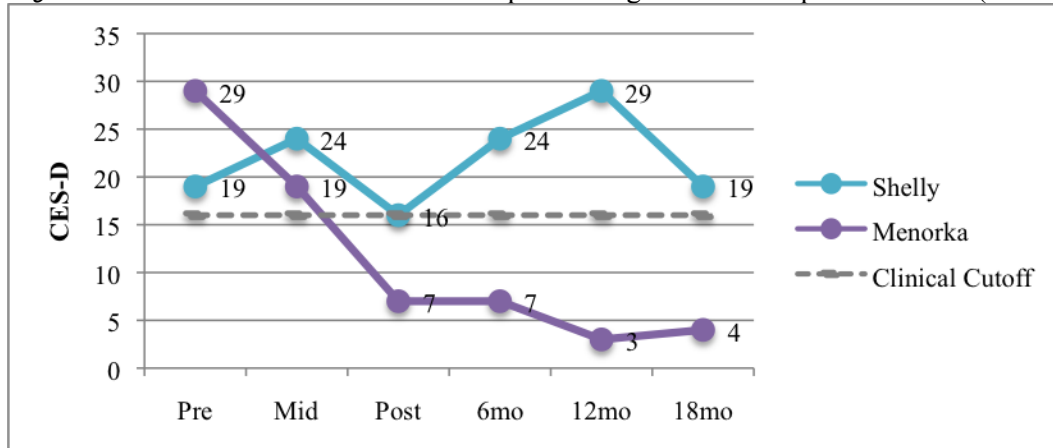


Figure 5: Profile Plots for the Children's Depression Rating Scale-Revised (CDRS-R).

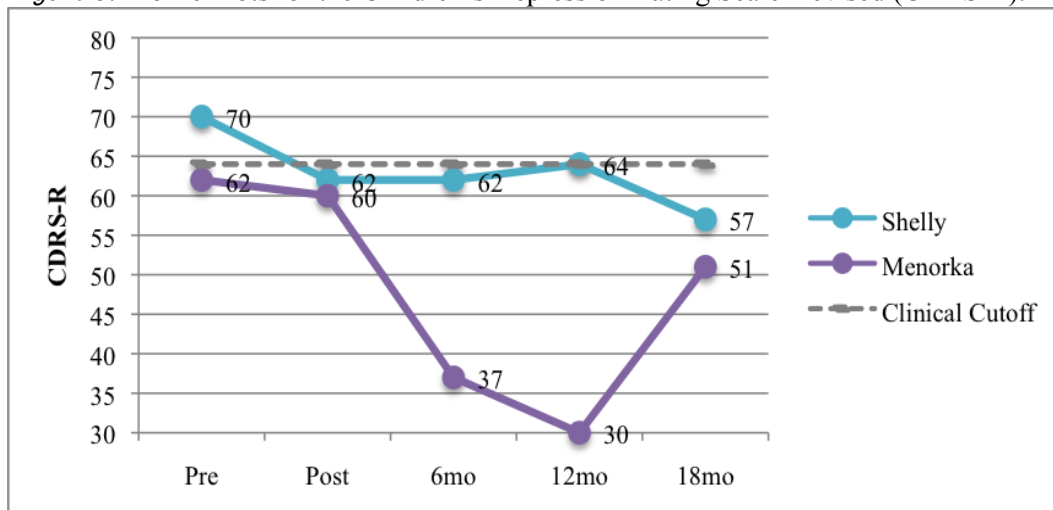


Figure 6: Profile Plots for the Children's Global Assessment Scale (CGAS).

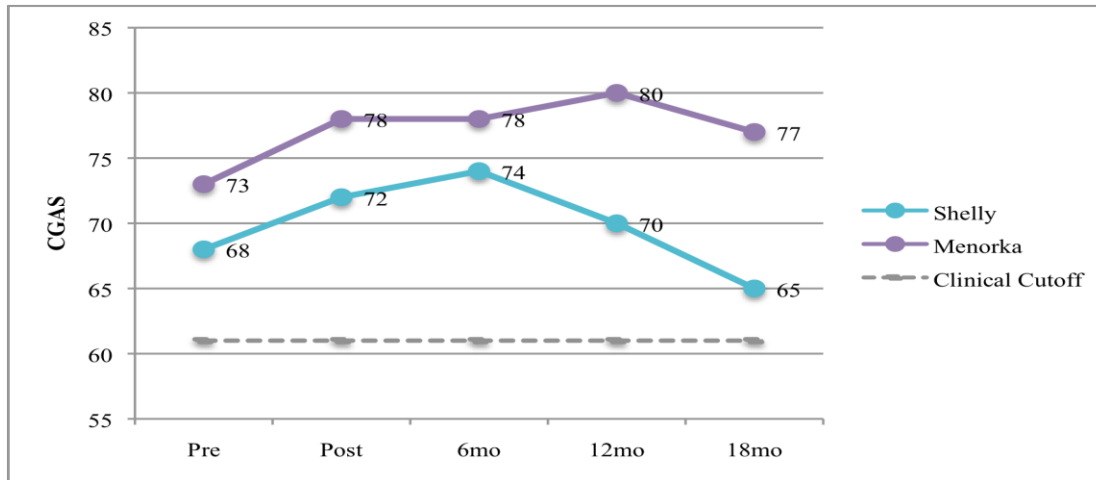


Figure 7: Profile Plots for the Screen for Child Anxiety Related Emotional Disorders (SCARED).

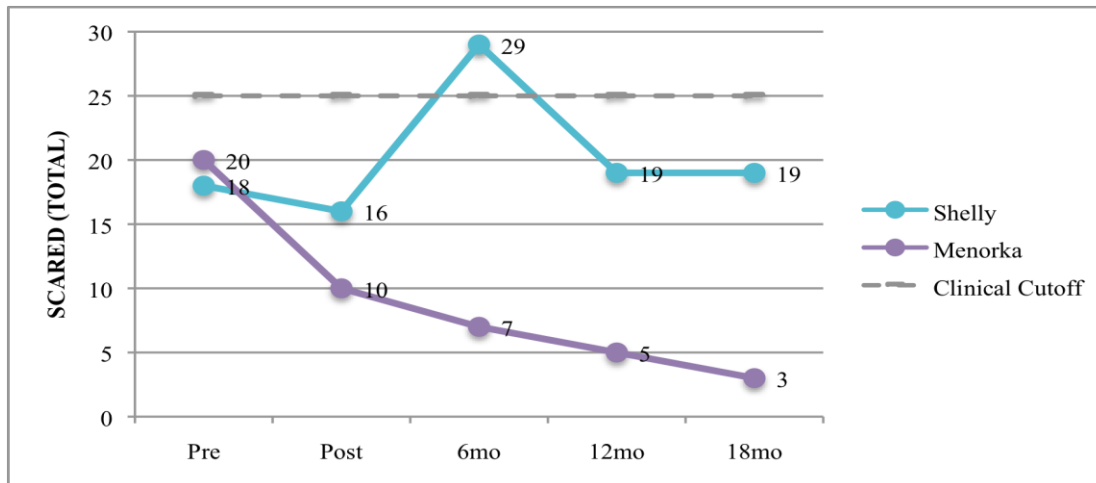


Figure 8: Profile Plots for the Conflict Behavior Questionnaire (CBQ).

