

TRAINING SCHOOL MENTAL HEALTH PROFESSIONALS IN A SCHOOL-  
BASED DEPRESSION PREVENTION PROGRAM: UNDERSTANDING  
IMPLEMENTATION OUTCOMES

By

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## ABSTRACT OF THE THESIS

Training School Mental Health Professionals in a School-Based Depression Prevention

Program: Understanding Implementation Outcomes

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Interpersonal Psychotherapy-Adolescent Skills Training (IPT-AST) is an efficacious group depression preventive intervention for teenagers with elevated depressive symptoms. While its efficacy has been well established, the next step is to determine whether IPT-AST can be implemented in schools. Research suggests there exist certain obstacles to the implementation of evidence-based interventions in the community, including organizational factors, provider characteristics, and program features. The proposed project, an initial step toward the implementation of IPT-AST in schools, assessed the feasibility and acceptability of a preliminary IPT-AST workshop for school mental health professionals and examined provider and organizational factors associated with implementation-related outcomes. The research team held a one-day IPT-AST workshop for school mental health professionals from select New Jersey public middle and high schools. Thirty-eight participants completed self-report forms at pre-workshop and 37 at post-workshop. At the end of the workshop, participants reported high training satisfaction and significantly greater knowledge of core IPT-AST techniques and processes. From this data, organizational resources emerged as a significant positive predictor of readiness (i.e., preparedness and confidence to deliver the intervention) and

age emerged as a trend level negative predictor of implementation commitment. The finding that a one-day workshop can be both satisfactory to participants and sufficient for increasing knowledge of psychological interventions is consistent with the literature. Additionally, the finding that organizational factors and age are important for implementation is also consistent with previous research. Overall, these results support the initial feasibility and acceptability of a one-day IPT-AST workshop to train school mental health professionals in the intervention. Moreover, they suggest that we may need to increase organizational resources in schools so that school mental health professionals are ready to implement this intervention. Additionally, the results suggest the importance of finding new and different ways to reach older and more experienced mental health professionals. This research may inform future IPT-AST training workshops and implementation support to better fit the diverse needs and capacities of schools and school mental health professionals.

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## **Introduction**

Depression is a major public health concern; a disease with substantial social and economic impacts (Murray & Lopez, 1996; Smit et al., 2006). Adolescence is a time when depressive disorders and symptoms tend to rise particularly dramatically, afflicting approximately 15 to 20% of teenagers (Lewinsohn, Clarke, Seeley, & Rohde, 1994). Adolescent depression is associated with significant problems across multiple domains, including interpersonal difficulties, impaired school functioning, and increased risk for substance abuse, teenage pregnancy, and suicide (Fergusson & Woodward, 2002). It is also a major risk factor for the development of future depressive episodes (Lewinsohn, Rohde, Klein, & Seeley, 1999). Moreover, depressive symptoms, even without a full diagnosis, can be highly impairing. High levels of depressive symptoms have been associated with academic problems (Clarke et al., 1995) and drug and alcohol abuse (Riggs, Baker, Mikulich, Young, & Crowley, 1995). Further, elevated symptoms often endure over time (Garrison, Jackson, Marsteller, McKeown, & Addy, 1990), and teenagers with depressive symptoms are two to three times more likely to develop major depression in adulthood (Pine, Cohen, Cohen, & Brook, 1999).

### **Importance of Preventing Depression**

Adolescent depression presents a clear public health issue for the nation. Consequently, there has been great interest not only in the development of treatments for adolescent depression, but also in prevention (Muñoz, Mrazek, & Haggerty, 1996). Efforts to prevent depression are critical as they may diminish the risk of onset and curtail the need for ongoing treatment (Hollon et al., 2002). In addition, given that prevention may preclude the need for more intensive, recurrent treatment later on it is

likely to be cost-effective and may help in reducing the economic burden of the disease (Smit et al., 2006). This is particularly important given the chronic recurrent course of the disorder, the negative outcomes associated with depression and depressive symptoms, and the heightened risk of developing depression during adolescence.

### **School-Based Intervention**

Of concern, research shows that most children and adolescents do not access the mental health care they need (U.S. Department of Health and Human Services, 1999). Schools, however, appear to be vitally important for providing better mental health assistance to our nation's youth. Evidence suggests that schools are the primary providers of mental health services for children and adolescents (Burns et al., 1995; Satcher, 2000; U.S. Department of Health and Human Services, 1999) with up to as many as 75% of youth accessing care in schools (Rones & Hoagwood, 2000). School-based services eliminate some of the traditional barriers to care, such as transportation, child care, and stigma (Stephan, Weist, Kataoka, Adelsheim, & Mills, 2007). Moreover, schools, which allow for the inclusion of a broader range of youth beyond that of a community clinic or hospital, increase the opportunity to target problems before they reach diagnostic criteria and may be particularly promising avenues for the delivery of prevention programs.

The examination of schools as a delivery system for packaged therapeutic programs has been the topic of a burgeoning literature in professional psychology (Domitrovich et al., 2008; Weist et al., 2014). Schools have demonstrated the capacity to deliver mental health prevention programs, but little is known about the quality of services being provided or how sustainable these services are (Langley, Nadeem, Kataoka, Stein, & Jaycox, 2010). Recent research has emphasized the importance of



transportability studies (i.e., investigations of the strategies needed to encourage effective adoption and execution of evidence based treatments in school settings) and dissemination studies (i.e., investigation of distribution methods that promote sustainability over time within schools) (Southam-Gerow & McLeod, 2013).

While schools are the logical delivery system for youth prevention programs, few depression prevention interventions have been incorporated into schools (Gillham et al., 2007). Further research is warranted, as schools may serve as a largely untapped avenue for preventing adolescent depression.

### **Interpersonal Psychotherapy-Adolescent Skills Training (IPT-AST)**

IPT-AST (Young & Mufson, 2003), also known as “Teen Talk,” is a school-based preventive group intervention for adolescent depression that offers to fill this void. IPT-AST is an indicated prevention program, designed for youth in grades 7 to 10 who endorse subthreshold symptoms of depression but do not meet DSM-IV-TR criteria for Major Depressive Disorder (MDD). IPT-AST was adapted from Interpersonal Psychotherapy (IPT; Weissman, Markowitz, & Klerman, 2008) and Interpersonal Psychotherapy for Depressed Adolescents (IPT-A; Mufson et al., 2004; Mufson, Weissman, Moreau, & Garfinkel, 1999; Rosselló & Bernal, 1999), both efficacious time-limited treatments for depression. IPT-AST is grounded in the idea that depression occurs in an interpersonal context. Depressive symptoms impact relationships, which, in turn, affect mood. The goal of IPT-AST is to improve an individual’s depressive symptoms by targeting and making improvements in the interpersonal context in which the symptoms occur (Young & Mufson, 2003). In groups, adolescents learn about depression and develop interpersonal skills that can be applied to various relationships.

The results from two efficacy studies of IPT-AST are encouraging: adolescents in the 7<sup>th</sup> to 10<sup>th</sup> grades receiving IPT-AST reported significantly fewer depressive symptoms, fewer depression diagnoses, and better overall functioning than youth receiving usual school counseling (Young, Mufson, & Davies, 2006; Young, Mufson, & Gallop, 2010). Additionally, adolescents receiving IPT-AST reported significantly greater reductions in anxiety symptoms (Young, Makover, et al., 2012) and showed significantly greater improvements in social functioning compared to adolescents in school counseling (Young, Kranzler, Gallop, & Mufson, 2012). In both of these studies masters and doctoral level psychologists, social workers, and psychiatrists delivered the intervention in school; a majority of participants were female, Hispanic, and living in single-parent households. The findings from these studies suggest that IPT-AST may fill an important need for prevention and quality mental healthcare in schools.

### **Moving Interventions into Community Settings**

There remains, however, a critical research-practice gap – what is known about efficacious prevention through evidence-based programs is not routinely provided to individuals outside of research studies (Proctor et al., 2009). Considerably more work is necessary on this topic, termed translational research, in order to disseminate evidence-based interventions, such as IPT-AST (Spoth et al., 2013).

It is useful, first, to consider the literature on effectiveness, which examines the degree to which programs provide beneficial effects when delivered in “real world” clinical settings (Gartlehner, Hansen, Nissman, Lohr, & Carey, 2006). The most extensive effectiveness research to date comes from the social and emotional learning (SEL) literature. A recent meta-analysis was conducted to examine the effectiveness of

213 school-based universal SEL prevention programs (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). This study found overwhelming support for the effectiveness of these programs, 53% of which were delivered by teachers, and 26% of which were multicomponent programs (i.e., they involved a teacher-administered classroom intervention supplemented by a parent-component or school-wide initiative), when implemented with fidelity. Across all of the studies, intervention participants demonstrated significantly better social and emotional skills, behavior and attitudes, and academic achievement compared to control participants. This research suggests that school teaching staff can effectively deliver universal SEL prevention programs.

On the other hand, there is less evidence for the effectiveness of universal depression prevention programs implemented by teachers and school staff. For example, Harnett and Dadds (2004) found no evidence for the effectiveness of a universal depression prevention program called the Resourceful Adolescent Program (RAP) for students aged 12 to 16 years old when the program was delivered by teachers in the classroom as part of the regular school curriculum. Additionally, results from two effectiveness studies of the Penn Resiliency Project (PRP), a cognitive-behavioral school-based depression prevention program, suggested that PRP's positive effects on depression were smaller or non-significant when the intervention was delivered to middle school students by teachers, school mental health professionals, and other school staff not affiliated with the research team (Challen, Machin, & Gillham, 2014; Gillham et al., 2007). These results are consistent with findings that psychotherapy often has stronger effects in university-based research trials than in clinical studies in community settings (Weisz, Donenberg, Han, & Weiss, 1995).

However, there is initial evidence for the efficacy of indicated depression prevention programs delivered by school mental health professionals. To our knowledge, there exist only two effectiveness trials of selective/indicated depression programs for adolescents (Arnarson & Craighead, 2009, 2011; Rohde, Stice, Shaw, & Brière, 2014). One study, a randomized controlled trial of a brief 6-session cognitive behavioral group depression prevention program for students aged 13 to 19 compared to a bibliotherapy condition and a brochure-only control condition provided promising results. School counselors and nursing staff delivered the cognitive behavioral group intervention outside of the normal classroom. The bibliotherapy condition consisted of reading *Feeling Good* (Burns, 1980), which provided practical cognitive behavioral strategies for preventing and reducing negative mood. In the brochure-only condition, participants were provided with a pamphlet about MDD and received local treatment recommendations. The cognitive behavioral intervention was found to significantly reduce onset of MDD relative to the other two conditions at the end of treatment and at 6-month follow-up. However, there were no significant differences between groups in terms of depressive symptom severity at 6-month follow-up (Rohde et al., 2014).

In a second study, “at risk” ninth graders, who endorsed depressive symptoms or demonstrated a negative attributional style, were randomized to a cognitive behavioral prevention program or a treatment as usual (TAU), assessment-only control condition. The novel cognitive behavioral program was designed to incorporate effective elements of existing depression prevention programs. The 14-week long program was delivered by school psychologists in small groups (6-8 students) intended to foster adaptive coping skills, and enhance self-esteem and well-being. TAU participants received assessments at

the end of the program and at 6-month follow-up; they were allowed to seek treatment elsewhere at any time. Results showed that the prevention group had a significantly lower rate of MDD and dysthymia compared to the control group following treatment and at 6-month follow-up (Arnarson & Craighead, 2009). The preventive effects of the program were sustained at 12-month follow-up, with only two participants in the prevention group developing MDD or dysthymia compared to 13 TAU participants (Arnarson & Craighead, 2011).

More research is necessary to examine the effectiveness with which school mental health professionals, such as school counselors, nurses, and psychologists, can deliver indicated depression prevention programs for adolescents. This is particularly true for more interpersonally oriented interventions, such as IPT-AST, for which there has been no effectiveness research to date. The most relevant effectiveness study of interpersonal psychotherapy looked at whether community clinicians in urban school-based health clinics could effectively deliver IPT-A (an individual treatment upon which IPT-AST is based) to depressed adolescents (Mufson et al., 2004). Indeed, youth receiving IPT-A showed reductions in depressive symptoms and improved social and global functioning. Adolescents in IPT-A also improved faster and were significantly better after 8 consecutive weeks of treatment compared to teenagers who received treatment as usual (TAU). Randomization in this study occurred at both the clinician and student level (i.e., half of the clinicians in each school were randomly assigned to receive training in and deliver IPT-A, and students were randomly assigned to IPT-A or TAU within schools). TAU closely resembled supportive counseling, consisting of whatever psychological treatment the adolescent would have received outside of the study. Most of

the adolescents in TAU received individual therapy, though a few also participated in group or family therapy. These results are promising and suggest that community clinicians can be trained to effectively deliver interpersonally oriented interventions. However, this study utilized clinicians working in specialized school-based health clinics rather than traditional school mental health professionals. Further, IPT-A is a treatment for adolescent depression rather than a preventive intervention.

### **Implementation by School Mental Health Professionals**

While many universal prevention programs have traditionally utilized teachers as implementers (Durlak et al., 2011), there has been an increasing call for school mental health professionals to take a leadership role in prevention efforts (Kress & Elias, 2006). There are several reasons why school mental health professionals would be the appropriate implementers for an indicated prevention program like IPT-AST. First, indicated programs tend to be conducted in small groups with at-risk individuals so that the content and methods of the program can be uniquely adapted to address the specific needs and characteristics of the group. Often these programs require students to be withdrawn from class, attend sessions before or after school, or attend sessions off campus (Wolfe, Dozois, Fisman, & DePace, 2008). Therefore, teachers are not able to deliver indicated programs as part of the regular classroom curriculum. Second, there is little to no evidence to suggest the effectiveness of depression prevention programs delivered by teachers (Challen et al., 2014; Gillham et al., 2007; Harnett & Dadds, 2004). Third, preventive programs implemented by teachers, such as PRP and RAP, generally involve specific lesson plans explicitly laid out in the intervention manual. However, the IPT-AST manual was not intended to be delivered as a structured classroom lesson.

School mental health professionals may have more experience conducting counseling groups and thus may be better equipped to deliver prevention programs like IPT-AST that do not come with pre-arranged lesson plans. Finally, as an indicated program, IPT-AST involves symptom assessment. In any type of intervention, there is the possibility that a participant's condition will deteriorate despite the intervention. Therefore, facilitators must always be watching for and prepared to handle worsening symptoms. School mental health professionals may be better equipped than teachers to deal with circumstances in which a student's condition deteriorates throughout the course of the program.

### **Factors Important to School-Based Implementation**

The literature suggests four factors, which are particularly important for the implementation of school-based programs: organizational context, program features, provider characteristics, and adequate training and technical assistance (Rohrbach, Grana, Sussman, & Valente, 2006). For instance, one study found that both provider factors (i.e., teacher burnout and efficacy) and organizational factors (i.e., administration support) were related to self-reported implementation of a school-based SEL curriculum delivered by teachers (Ransford, Greenberg, Domitrovich, Small, & Jacobson, 2009). Another study demonstrated that school psychologists' positive beliefs about the acceptability and efficacy of an intervention and their perceptions about the presence of sufficient organizational resources and administrator support determined implementation potential in schools (Forman, Fagley, Chu, & Walkup, 2012). Other research has generally found that strong administrative support for an intervention, positive organizational climate (i.e., a high degree of trust and collaboration between faculty, staff, and administration),

and stability in resources and personnel increase the likelihood of implementation (Rohrbach et al., 2006).

Notably, empirical research examining the influence of provider characteristics on implementation in schools is largely lacking (Domitrovich et al., 2008). Some literature has suggested that background, level of experience, and other provider characteristics may moderate implementation and program effects (Glasgow, Lichtenstein, & Marcus, 2003). Research suggests that implementation is enhanced when program providers are familiar with the program approach and have a strong sense of self-efficacy in carrying it out (Rohrbach et al., 2006). Research also shows that many school counselors spend more time than they want to on clerical and administrative duties, such as class scheduling, which are not directly related to counseling students (Scarborough, 2005). Therefore, in order to deliver mental health services, some counselors may have to acquire new clinical skills (Lockhart & Keys, 1998). School mental health professionals who do not have many clinical responsibilities at school or who must develop new skills to deliver evidence-based interventions may find these programs more difficult to learn (Fixen, Naoom, Blase, Friedman, & Wallace, 2005) and less acceptable, efficacious, and worthy of implementation (Rohrbach et al., 2006). More research is necessary to understand precisely how various provider characteristics and organizational factors impact the implementation of evidence-based preventive interventions by school mental health professionals.

### **The Current Study**

The current study falls within the pre-adoption phase of Type II Translation research, which “focuses on intervention, consumer, provider and organizational



characteristics that could influence the ultimate adoption of EBIs [evidence-based interventions]” (Spoth et al., 2013, p. 323). School mental health professionals attended a one-day IPT-AST workshop and completed self-report forms at pre- and post-workshop. The aims were twofold: (1) to provide an initial estimation of the acceptability and feasibility of a one-day IPT-AST training for school mental health professionals; and (2) to explore the relations between provider characteristics (e.g., level of education, years of experience), organizational factors (e.g., positive school climate and organizational resources), and implementation-related outcomes (e.g., acceptability/efficacy, implementation commitment, and readiness). With regard to the first aim, it was hypothesized that this study would provide initial support for the acceptability and feasibility of a brief IPT-AST workshop to train school mental health professionals in the intervention. Specifically, IPT-AST knowledge was predicted to significantly increase following training and counselors were predicted to rate their training satisfaction as positive. Additionally, since participating counselors were likely to come into the study with positive feelings toward the intervention due to their prior involvement in the Depression Prevention Initiative, it was predicted that their beliefs about the acceptability/efficacy of IPT-AST and commitment to implement the intervention would be high and stable from pre- to post-workshop. With regard to the second aim, no a priori hypotheses were made, as these analyses were exploratory; the goal was to elucidate factors that predicted implementation-related outcomes with respect to IPT-AST to inform future larger-scale transportability studies of the intervention.

## **Method**

### **Participants**

Participants were school mental health professionals drawn from public middle and high schools from 7 school districts across central New Jersey. Mental health professionals from these 7 school districts were involved in the Depression Prevention Initiative, an NIMH-funded randomized controlled trial of IPT-AST conducted by Dr. Jami Young, a developer of this intervention. Guidance departments at the 7 participating districts were invited via email to attend a one-day training in IPT-AST conducted by Dr. Young as a service for their involvement in the Depression Prevention Initiative. School mental health professionals consented both to completing pre- and post-workshop questionnaires as well as to a brief phone interview at the end of the school year to qualitatively assess IPT-AST implementation as well as barriers and facilitators to implementation. This qualitative analysis is being conducted in collaboration with the current study, but the results presented here are restricted to the quantitative analysis of the pre- and post-workshop measures.

Forty-nine school mental health professionals were in attendance at the training; 77.6% ( $N = 38$ ) participated in the current study. Two attendees were ineligible to participate because of late arrival and 9 declined participation. Among the 9 attendees that declined, there was confusion about whether consenting required them to implement IPT-AST at their schools. Though study personnel carefully explained that the consent form did not oblige them to implement the intervention, they ultimately declined participation.

The majority of participants were female (77.5%,  $n = 31$ ) and of non-minority status (71.1%,  $n = 27$ ). Of the 11 minority participants, 10% ( $n = 4$ ) were African American; 5% ( $n = 2$ ) were Asian; and 12.5% ( $n = 5$ ) were Hispanic. The participants

ranged in age from 25 to 70 years old ( $M = 42.95$ ,  $SD = 12.68$ ). The majority of participants ( $n = 34$ , 89.5%) received Master's degrees in various areas of counseling ( $n = 21$ , 55.3%), social work ( $n = 7$ , 18.4%), school psychology ( $n = 5$ , 13.2%), and education ( $n = 1$ , 2.6%). Two participants (5.3%) earned doctoral degrees (i.e., Ed.D. and Psy.D.). Two participants (5.3%) held bachelor's degrees. Several participants ( $n = 6$ , 15.8%) had an additional advanced degree in a related field, such as marriage and family therapy or counseling services. Of note, one of the participants with a BA and four of the participants with Master's degrees in school psychology were doctoral students. For parsimony and to explore the impact of level of education (i.e., master's degree versus doctoral degree) on outcome, degree data was recoded into a binary variable, doctoral degree earned or expected ( $n = 7$ ). This variable included the two doctoral level professionals and five doctoral students. Participants' experience working in schools since receiving their degree ranged from 0 to 30 years ( $M = 10.70$ ,  $SD = 7.52$ ) and their experience working at their current school ranged from 0 to 35 years ( $M = 7.97$ ,  $SD = 7.35$ ). See Table 1 for details.

## **Procedure**

All school mental health professionals in attendance at the training were invited to participate in the current study, which was approved by the Institutional Review Board at Rutgers University. There were no exclusion criteria. Participants in the current study were not paid for completing pre- and post-workshop measures. This was justified in two ways: (1) participants received a free training workshop, and (2) paying participants would decrease the generalizability of the findings since other school mental health professionals would be unlikely to receive a monetary incentive for attending a training

workshop. Participants were paid \$30 for their involvement in the qualitative interviews, which occurred at the end of the 2013-2014 school year.

Research staff approached all training attendees about participating in the current study. Those who were interested consented before the start of the workshop. School mental health professionals who did not participate in the study were still permitted to attend the training. Participants completed self-report forms at pre- and post-workshop.

The workshop ran five-and-a-half hours long and included three specific educational components: (1) instruction in the early, middle, and termination phases of the intervention and core intervention techniques, (2) brief demonstrations of pre-group and group sessions, and (3) role play with supervision. The training did not address specific implementation factors, such as scheduling logistics and harnessing organizational support. The workshop was modeled after previous IPT-AST workshops delivered by Dr. Young.

## **Measures**

**Demographic Questionnaire.** Demographic data was assessed using a questionnaire adapted for this study from one used by Mufson and colleagues in an unpublished effectiveness study conducted with community clinicians in British Columbia. Demographic questions included background characteristics (e.g., gender, age, ethnicity), professional characteristics (e.g., years of experience since training, years of experience in current school), and educational history (e.g., type of degree program).

**Positive School Climate.** Positive school climate was assessed using a 19-item measure ( $\alpha = .86$ ), adapted from a longer 40-item version that was used in the Metropolitan Area Child Study (MACS; Eron et al., 2002). All items were rated on a 5-

point Likert scale where 1 = *never true* and 5 = *always true*. The original 40-item measure assessed three dimensions of school climate: (1) negative relationships; (2) administrative leadership; and (3) supportive climate (Gregory, Henry, & Schoeny, 2007). The abbreviated 19-item measure utilized select items from all 3 scales; all 5 negative relationship climate items were retained; 8 items of greatest theoretical relevance were selected from the administrative leadership scale; and 6 items were selected from the supportive climate scale. For the sake of parsimony in the current study, we examined school climate as a unitary construct. This was justified by a high alpha, which suggested that the items loaded together (DeVellis, 2012). Further, large correlations between the factors in the Gregory et al. (2007) paper (i.e., all  $r$ 's > .70, all  $p$ 's < .05) suggest that the three factors may be tapping a similar construct.

**School Counselor Activity Rating Scale.** Participants also completed the School Counselor Activity Rating Scale (SCARS; Scarborough, 2005), a 45-item measure assessing the amount of time spent performing various professional duties. Using this scale, participants rated how frequently they perform a given activity on a 5-point verbal frequency scale where 1 = *never* and 5 = *routinely*. An initial study of the scale found support for a four-factor solution representing counseling activities (10 items), consultation activities (7 items), curriculum activities (8 items), and coordination activities (9 items). Positive results on the validity and reliability of the scale were reported, suggesting that the SCARS has utility for measuring how school counselors spend their time in school (SCARS; Scarborough, 2005). The current study utilized data from two-subcales of primary interest, counseling activities ( $\alpha = .77$ ) and curriculum activities ( $\alpha = .93$ ). These activities, which involve direct counseling of students or

conducting classroom activities regarding mental health and well-being, were theoretically related to the outcome variables of interest.

**IPT-AST Knowledge.** Knowledge of IPT-AST techniques was assessed using a novel 15-item multiple-choice questionnaire developed for this study. The measure included questions about core intervention techniques (e.g., Which of the following is NOT a primary component of IPT-AST: a. Communication analysis; b. Functional analysis of behavior; c. Psychoeducation; or d. Interpersonal skill-building) and processes relevant to early, middle, and late stages of the intervention (e.g., Which of the following is an essential component of the termination phase: a. Having each group member rate the progress made toward their goals on a scale of 1-10; b. Giving each group member a written progress report of their accomplishments and continued areas of growth; c. Referring all group members to additional services; or d. Discussing the interpersonal strategies that were most useful and most challenging).

**Implementation Potential Scale.** The Implementation Potential Scale (IPS; Forman et al., 2012) is a 25-item measure assessing four factors related to implementation: (1) acceptability/efficacy (e.g., “This would be an acceptable intervention for students at my school”), which comprises 10 items; (2) organizational resources (e.g., “Given my workload, the time and effort needed to implement this intervention is reasonable”), which comprises 3 items; (3) administrator support (e.g., “My district-level administrators would view this intervention in a positive way”), which comprises 3 items; and (4) implementation commitment (e.g., “I would be willing to use this intervention”), which comprises 9 items. Items are rated on a 6-point Likert Scale where 1 = *strongly disagree* and 6 = *strongly agree*. Positive results on the validity and

reliability of the IPS were reported in an initial study (Forman et al., 2012). In the current study, acceptability/efficacy, organizational resources, administrator support, and implementation commitment were all found to have acceptable internal consistency at pre-workshop ( $\alpha = .93$ ;  $\alpha = .87$ ;  $\alpha = .88$ ; and  $\alpha = .91$ , respectively). Additionally, analyses utilized acceptability/efficacy and implementation commitment measured at post-workshop, which were also found to have acceptable internal consistency ( $\alpha = .95$  and  $\alpha = .97$  respectively).

**Training Satisfaction.** Self-reported training satisfaction was assessed using a 4-item scale developed by Turner, Nicholson, and Sanders (2011) ( $\alpha = .91$ ). The items assessed the quality of the training presentation; the amount of active participation provided; the quality of the course content; and overall satisfaction with the training. Items were rated on a 7-point scale where higher scores represented better quality (1 = *strongly disagree* and 7 = *strongly agree*).

**Readiness:** Two IPT-AST specific items were added to the training satisfaction questionnaire to assess confidence in delivering the intervention and whether the training prepared counselors to deliver the program. In exploratory analyses, these two items (i.e., “How confident are you in your ability to conduct IPT-AST groups at your school?” and “The training prepared me to deliver IPT-AST”) were found to be highly correlated ( $r = .68$ ,  $p < .001$ ). Due to theoretical relatedness and high correlation, these items were combined to form a 2-item measure of readiness ( $\alpha = .81$ ). Both items were rated on a 7-point scale where higher scores represented better preparedness or higher confidence.

### **Schedule of Measures**

The following 5 measures were administered pre-workshop: demographic questionnaire, positive school climate, the SCARS, the IPT-AST knowledge questionnaire, and the IPS. The IPT-AST knowledge questionnaire and IPS were re-administered post-workshop. Two additional constructs were measured post-workshop, training satisfaction and readiness.

### **Primary Aims**

The first aim involved assessing the initial acceptability and feasibility of a one-day IPT-AST training workshop for school mental health professionals by examining: (1) changes in knowledge of IPT-AST techniques from pre- to post-workshop, (2) satisfaction ratings measured post-workshop, and (3) changes in beliefs about the acceptability/efficacy of the intervention and implementation commitment from pre- to post-workshop.

The second aim explored relations between provider characteristics, organizational factors, beliefs about the acceptability/efficacy of IPT-AST, implementation commitment, and readiness. Provider characteristics and organizational factors were examined as predictor variables, and acceptability/efficacy, implementation commitment, and readiness as outcome variables. The following provider characteristics were examined: gender, age, minority status, number of years at current school, years of experience since training, hours spent counseling students, degree level (i.e., doctoral degree earned or expected vs. master's degree), time spent on counseling activities, and time spent on curriculum activities. The following organizational factors were also explored: administrator support, organizational resources, and positive school climate.

### **Data Analysis**



**Aim 1.** The acceptability and feasibility of training school mental health professionals in IPT-AST during a one-day workshop was assessed by exploring pre- and post-workshop data from the IPT-AST knowledge questionnaire and the acceptability/efficacy and implementation commitment subscales of the IPS. Paired samples t-tests were run to explore changes in IPT-AST knowledge, acceptability/efficacy, and implementation commitment from pre- to post-workshop. Additionally, post-workshop data from the training satisfaction questionnaire were examined descriptively. On the 7-point training satisfaction scale, scores of 3 or below were considered negative, scores of 4 were considered neutral, and scores of 5 or greater were considered positive.

**Aim 2.** Several analyses were utilized to explore the relationship between predictor and outcome variables. Independent samples t-tests were conducted to examine associations between readiness and binary predictor variables (i.e., gender, minority status, and degree level). An analysis of covariance (ANCOVA) was used to examine the relationship between acceptability/efficacy and gender, minority status, and degree level. An ANCOVA was also used to assess the associations between implementation commitment and gender, minority status, and degree level. Pre-workshop scores for acceptability/efficacy and implementation commitment were included as covariates in these analyses.

Bivariate correlations were used to examine the associations between readiness and continuous independent variables. Partial correlations were utilized to examine associations between acceptability/efficacy and implementation commitment and continuous independent variables, controlling for pre-workshop scores.

Predictor variables that were correlated with outcome at a significant or trend level were entered into a univariate or multivariate regression model. Separate regression models were planned for all 3 outcome variables. Predictor variables were entered stepwise into the model based on their individual correlations with the outcome variables. For the models predicting implementation commitment and acceptability/efficacy, pre-workshop scores were included as covariates in step-one of the model.

## **Results**

### **Preliminary Analyses**

Data from all 38 participants were retained for analysis. Data were screened for outliers, skewness, and normality. To assist in the determination of normality, Shapiro and Wilk (1965) provide a test statistic that has been demonstrated to yield more power than other tests. The Shapiro-Wilk test statistic ranges from 0 to 1, with larger values of the statistic indicating a near normal measure. For small to medium sample sizes ( $n \geq 50$ ), values around 0.90 indicate near normality. For small sample sizes ( $n$ 's between 25 and 50), values exceeding 0.85 indicate near normality. The threshold are rules of thumb to address the bias of the statistical significance of the W-statistic with smaller sample sizes (Razali & Wah, 2011) and should be coupled with visuals such as Q-Q plots. For the current analyses, a conservative Shapiro-Wilk statistic of .875 was used to indicate near normality because the sample size ( $N = 38$ ) fell between 25 and 50. Deviations in normality were observed for IPT-AST knowledge, implementation commitment at post-workshop, and readiness. Box-cox transformations were applied to these variables to achieve approximate normality. Unless otherwise indicated, IPT-AST knowledge cubed,

readiness squared, and post-implementation commitment squared are used in all following analyses.

Additionally, composite scores were created as follows: training satisfaction = mean ratings on four items (quality, amount of active participation, content, and overall satisfaction); positive school climate = mean ratings on five reverse scored items and remaining 14 items; readiness = mean ratings on two items (confidence and preparedness to deliver IPT-AST). See Table 1 for the means, standard deviations, and ranges for all study variables prior to transformation.

### **Aim 1**

**Change in IPT-AST Knowledge.** There was a significant increase in scores on the IPT-AST knowledge questionnaire from pre- to post-workshop ( $t(36) = -8.10, p < .001, d = -1.90$ ). While the scores of most participants increased from pre- to post-workshop, four of the participants (10.8%) had lower post-workshop scores. The percentage change in scores ranged from a 31% decrease to a 180% increase. Only 5 participants (13.2%) scored above 85% at pre-workshop; 27 participants (72.97%) scored above 85% at post-workshop. On the original scale, scores increased by an average of 3.62 points ( $SD = 2.98, d = 1.21$ ) and 50.82%, corresponding to a large effect.

**Training Satisfaction.** At the conclusion of the workshop, participants reported relatively high ratings of satisfaction (on 7-point scales) in terms of the quality of the training presentation ( $M = 5.73, SD = 1.26$ ), the amount of active participation provided ( $M = 5.86, SD = 1.38$ ), the content of the workshop ( $M = 5.78, SD = 1.33$ ), and overall satisfaction ( $M = 5.84, SD = 1.21$ ). Averaging across all four items, mean training satisfaction was 5.80 ( $SD = 1.11$ ) and median training satisfaction was 6. Scores equal to

or less than 3 were considered negative, scores of 4 were considered neutral, and scores greater than or equal to 5 were considered positive. Only 5 participants (13.2%) had one or more scores in the negative category across all 4 items, and none of these participants had all four scores in the negative range. Conversely, 28 participants (75.7%) rated all training satisfaction items in the positive range.

**Change in Acceptability/Efficacy and Implementation Commitment.** The IPS was delivered pre- and post-workshop to examine changes in the acceptability/efficacy and implementation commitment subscales. No significant changes from pre- to post-workshop were found for either the acceptability/efficacy subscale ( $t(36) = 1.06, p = .30$ ) nor the implementation commitment subscale ( $t(36) = .64, p = .53$ ). Mean change on the acceptability/efficacy subscale from pre- to post- workshop was .14 ( $SD = .80, d = .18$ ), and mean change on the implementation commitment subscale was -.19 ( $SD = .97, d = -.20$ ). Results showed that over the course of the workshop acceptability/efficacy scores marginally increased while implementation commitment scores marginally decreased, both with small and non-significant effects. This finding is in line with preliminary hypotheses that these scores would not significantly change from pre- to post-workshop due to the high initial buy-in of the participants in this particular sample.

## **Aim 2**

**Relationship between Predictor Variables and Outcomes.** No significant differences in readiness were found for gender ( $t(35) = -.72, p = .47$ ), minority status ( $t(35) = 1.36, p = .18$ ) or degree level ( $t(35) = -.81, p = .42$ ). For acceptability/efficacy-post, there were no significant main effects for gender ( $F(1,34) = .95, p = .34$ ), minority status ( $F(1,34) = 1.26, p = .27$ ) or degree ( $F(1,34) = 1.60, p = .21$ ), controlling for

acceptability/efficacy-pre. Similarly, for implementation commitment-post there were no significant main effects for gender ( $F(1,34) = 1.57, p = .22$ ), minority status ( $F(1,34) = .51, p = .48$ ) or degree ( $F(1,34) = 2.17, p = .15$ ), controlling for implementation commitment-pre. Thus, no significant differences for gender, minority status, or degree level were observed for any of the outcome variables.

Readiness was found to significantly correlate with organizational resources ( $r = .66, p < .001$ ) and administrator support ( $r = .55, p < .001$ ). Controlling for implementation commitment pre, implementation commitment post was correlated with age at a trend level ( $r = -.32, p = .06$ ). However, controlling for acceptability/efficacy pre, acceptability/efficacy post was not correlated with any of the outcome variables at a significant (i.e.,  $p$ -values of  $< .05$ ) or trend level (i.e.,  $p$ -values of  $< .10$ ). See Table 2 for all correlation and partial correlation results.

**Univariate and Multivariate Regression Models.** Three separate regression analyses were planned to predict each outcome variable from the organizational factors and provider characteristics that were significant or trending toward significance in the bivariate and partial correlations. However, since no variables emerged as significant or trend-level predictors of acceptability/efficacy, no regression model was run for this outcome variable. For implementation commitment, one variable, age, emerged as a trend level predictor of outcome so a univariate regression model was run. For readiness, two predictors, organizational resources and administrator support were significant predictors of outcome so a multivariate regression model was used.

The results of the regression analysis for implementation commitment indicated that the total variability in implementation commitment explained by age was significant

( $F(2,33) = 10.06, p < .001$ ). Age accounted for 37.9% of the variance in implementation commitment post-workshop. The unique contribution made by age was significant at a trend level ( $\beta = -.177$  ( $SE = .092$ ),  $t(33) = -1.91, p = .064, \eta^2 = .10$ ).

For the multivariate regression model predicting readiness, organizational resources and administrator support were entered stepwise into the model since both were significant bivariate correlates of readiness; organizational resources was entered into step one and administrator support into step two. Although administrator support was significantly correlated with readiness, its unique contribution in predicting readiness was not significant ( $\beta = 1.52$  ( $SE = 1.86$ ),  $t(34) = .82, p = .42, \eta^2 = .02$ ). Therefore, administrator support was dropped. The final univariate regression model included organizational resources only. The total variability in readiness explained by organizational resources was significant ( $F(1,35) = 26.84, p < .001$ ). Organizational resources significantly predicted readiness ( $\beta = 6.33$  ( $SE = 1.22$ ),  $t(35) = 5.18, p < .001, \eta^2 = .43$ ), accounting for 43.4% of the variance in outcome.

### **Post Hoc Analyses**

Although organizational resources and age emerged as predictors of outcome, these relationships were not consistent across the three outcome variables. Additionally, certain variables that we expected to emerge as significant predictors of outcome, such as positive school climate and counseling activities, did not emerge. Post hoc analyses were conducted to explore these issues.

First, positive school climate, counseling activities, curriculum activities, organizational resources, and administrator support were examined for restricted range. Ranges for these variables can be found in Table 1. Box plots were examined for each

item on each scale, and the following exhibited restricted range: 18 of 19 positive school climate items, all items on the organizational resources and administrator support scales, all items on the curriculum activities scale, and 7 of 10 items on the counseling activities scale. The social science literature suggests that restriction of range may result in smaller correlations than would exist in an unrestricted population (Hays, 1988; Zimmerman & Williams, 2000). This lack of variance in scores across multiple predictor variables may help explain why more significant relationships failed to emerge from the data.

Second, we explored the degree to which the current sample differed from a normed sample by comparing sample means. The means for the positive school climate scales in this sample were significantly lower than the normed means in Gregory et al. (2007;  $p < .001$  for administrative leadership,  $p = .035$  for negative relationships climate, and  $p < .001$  for supportive climate). This suggests that compared to the normed sample, our sample reported a less positive school climate. In contrast, the current sample reported greater administrator support ( $p = .06$ ) and organizational resources ( $p = .08$ ) than the normed sample (Forman et al., 2012), though significance was only at a trend level. With regard to the SCARS, normed means for curriculum and counseling activities were reported separately for middle and high school counselors (Scarborough, 2005). With respect to counseling activities, there was a significant difference between the sample mean and the normed mean for middle school counselors ( $p < .001$ ) and high school counselors ( $p < .001$ ) such that the participants in the current study reported significantly greater time spent on counseling activities. With regard to curriculum activities, there was a significant difference between the sample mean and the normed mean for high school counselors ( $p < .001$ ), such that participants in the current study

reported significantly greater time spent on curriculum activities; there was no significant difference for middle school counselors. Overall, this suggests that the participants in the current study spend significantly more time on counseling and curriculum activities than a normed sample of counselors. Taken together, these comparisons suggest that our sample is somewhat different from other normed samples.

The test-retest reliability of the IPS was examined as another possible explanation for the current study's mixed findings. Results show that test-retest reliability was low for the acceptability/efficacy scale ( $r = .400, p < .014$ ) and the implementation commitment scale ( $r = .53, p = .001$ ), questionable for the organizational resources scale ( $r = .68, p < .001$ ), and acceptable for the administrator support scale ( $r = .77, p < .001$ ). Low test-retest reliability on the acceptability/efficacy and implementation commitment scales might be reasonably expected because these factors are likely to be influenced by participation in a workshop; however, the other factors also demonstrated change and this is less explicable. Given that the IPS is a relatively new measure with limited data on its test-retest reliability and factor structure (see discussion below), it is unclear whether it was the best measure to answer study questions, particularly since it was completed pre- and post-workshop and was used to assess both independent and dependent variables.

Although relationships were not consistent across acceptability/efficacy and implementation commitment, these two factors were highly correlated ( $r = .80, p < .001$ ), suggesting that they may be tapping a similar general concept. Thus, as a final step, the factor structure of the IPS was explored to examine whether acceptability/efficacy and implementation commitment represented a more unitary dimension rather than discrete factors. Though our sample size is far below the recommended sample size for factor



analysis, this work was supplemental and a means of exploring the inconsistent findings across outcome variables. A pooled exploratory factor analyses was conducted for pre- and post-workshop IPS data. The factor structure did not hold for either time point and the factor structure did not replicate at the two time points; this was true even after removing those participants whose scores changed drastically (i.e.,  $\pm 3$  points) over the course of the five-and-a-half hour workshop and after removing those IPS items for which the associations between pre- and post-workshop scores were unusually low. See Table 3 for results. The lack of consistency in the factor structure of the IPS from pre- to post-workshop and lack of convergence with the factor structure of the normed sample may be another possible explanation for the mixed findings in the current study.

### **Discussion**

The first aim of the study was to examine the acceptability and feasibility of a one-day IPT-AST workshop to train school mental health professionals in the intervention by evaluating changes in IPT-AST knowledge, training satisfaction levels, and changes in acceptability/efficacy and implementation commitment as measured on the IPS. We found that knowledge significantly improved following a one-day workshop, suggesting that participants were generally able to learn core IPT-AST techniques and processes from a brief training. This is consistent with previous literature suggesting that a one-day workshop is sufficient for facilitating the acquisition of knowledge of therapeutic interventions (Herschell, Kolko, Baumann, & Davis, 2010).

Despite the finding that the workshop generally increased IPT-AST knowledge, 4 participants experienced a drop in post-workshop scores. Of these 4 participants, two had scores drop by one point, one had a score that dropped by two points, and one had a score

that dropped by four points. The response patterns of these 4 participants differed significantly from pre- to post-workshop, reflecting highly dissimilar responses across both administrations of the measure. This finding suggests that the drop in scores may not be systematic, but better explained by random guessing, lack of concentration during the workshop, or rushing to finish at the end of the day. Furthermore, these counselors all scored relatively high at pre-workshop, at least 1.5 standard deviations above the mean, reducing the likelihood that their scores would change in a positive direction at post-workshop. Indeed, the participant who experienced the greatest drop in score from pre- to post-workshop also had the highest pre-workshop score, scoring a 13 out of 15.

Further, an item-level analysis of the knowledge questionnaire was conducted. Participants appeared to have particular difficulty with 3 of the IPT-AST knowledge items, reflected by a large percentage of incorrect responses (over 30% of participants answered each of these 3 items incorrectly) at post-workshop. This finding suggests that these items may be discarded or amended in future iterations of the measure. However, even after removing these items, the 4 previously identified participants still had a drop in knowledge score from pre- to post-workshop.

Training satisfaction was also examined. A majority of participants reported satisfaction with the training experience across all 4 satisfaction dimensions (quality of the training presentation, active participation, content, and overall satisfaction), suggesting that overall, school mental health professionals were pleased with the workshop. However, there were 5 participants who reported dissatisfaction across some of these dimensions, though no one reported dissatisfaction across all 4. All but one of these participants had 14 or more years of experience since their graduate training; one

had 5 years of experience. There is some research to suggest that more experienced mental health professionals may be less likely to hold positive beliefs about the adoption of EBI's (Aarons, 2004) because they may be more set in their ways and less willing to learn new practices. Thus, one explanation for training dissatisfaction among this subset of participants may be that they were on average more experienced than the other participants in the study and thus may have been less interested in and satisfied with the training experience. Perhaps these more experienced participants felt like they already had sufficient tools to address students' mental health difficulties or perhaps the techniques taught may have differed considerably from how these individuals typically approach counseling. Additionally, one of these participants had a 4-point drop in IPT-AST knowledge score post-workshop, suggesting that there may be something unique to this individual; perhaps she was annoyed at the end of the workshop and rushing to finish. Moreover, two of the participants who reported some dissatisfaction with the training, also reported dramatically lower acceptability/efficacy and implementation commitment scores at post-workshop, suggesting some consistency in their negative impressions of the workshop and intervention. The experiences of these two participants, however, do not seem to be representative of the majority of participants.

Additionally, self-reported ratings of acceptability/efficacy and implementation commitment were examined for change from pre- to post-workshop. Participants in the current study may have come to the workshop with particularly favorable attitudes toward the intervention due to their affiliation with the Depression Prevention Initiative. Indeed, mean acceptability/efficacy and implementation commitment were high at pre-workshop (both above 4 on a 6-point scale) and remained high (both above 4 on a 6-point

scale) at post-workshop. There were two participants whose scores changed dramatically from pre- to post-workshop (i.e., by more than 3 points on 9 or more items); overall, their acceptability/efficacy and implementation commitment scores decreased. These participants also reported dissatisfaction with the training experience. Excluding these two participants, mean level changes appear to be representative of the sample as a whole. Taken together, these results provide initial evidence for the acceptability and feasibility of a one-day IPT-AST workshop to train school mental health professionals in the intervention.

The second aim was to explore the relations between provider characteristics, organizational factors, and beliefs about the acceptability/efficacy of the intervention as well as implementation commitment and readiness. We found that organizational resources predicted readiness to deliver IPT-AST; those participants who reported having greater access to organizational resources, were more likely to report feeling prepared and confident in their ability to deliver IPT-AST. Interestingly, though both organizational resources and administrator support correlated with readiness, only organizational resources remained significant in the regression model. One possible explanation is that organizational resources, as conceptualized on the IPS, represent a broader construct than administrator support, encompassing more organizational considerations. The organizational resources scale asks whether mental health professionals have the time and effort necessary to implement an intervention given their workload, whether they believe they have access to the resources necessary to implement the intervention, and whether they believe they would be able to obtain assistance and advice to help with implementation. The administrator support scale, on the other hand,

questions whether mental health professionals have principal and district-level support for implementing the intervention and whether they are generally encouraged to implement new programs at their school. Thus, the organizational resources scale may tap a greater number of organizational factors considered to be important for implementation (Fixen et al., 2005). This finding suggests that implementation efforts may be most successful when schools are adequately resourced. Therefore, future efforts may explore ways of increasing organizational resources in schools prior to implementation so that school mental health professionals feel ready to implement new interventions.

Additionally, we found that age predicted implementation commitment at a trend level; younger participants rated their implementation commitment higher than older participants. The current results are consistent with previous findings. A study assessing provider attitudes towards EBI's found that interns endorsed more positive beliefs about the adoption of EBI's relative to professional providers (Aarons, 2004). Indeed, graduate students and interns may be more willing and eager to learn and implement new interventions than older, more experienced mental health professionals. There is some evidence that pre-professionals may be particularly amenable to learning new practices because of more malleable knowledge structures (Day, Arthur, & Gettman, 2001). Moreover, with increased training in evidence-based practice in graduate training programs (Baker, 2009; Kratchowill & Shernoff, 2004), younger mental health professionals may find these methods to be more familiar and appealing because they are more consistent with their training experiences. Taken together, these results suggest that future training efforts may specifically target younger school mental health professionals

(e.g., those enrolled in graduate training programs or newly graduated) since these individuals may be more committed to implementing EBIs. Additional efforts should also be made to persuade more experienced clinicians of the importance of these interventions. Research suggests that providers may be less likely to adopt new practices when they are viewed as divergent from their current practices (Aarons, 2004). Therefore, additional efforts may be required to assure experienced school mental health professionals that EBIs are complimentary to the types of interventions they typically do and are relevant for the problems their students experience. Additionally, schools may aid in this process by encouraging the use of EBIs, creating an environment in which these types of activities fit well with the roles and responsibilities of school mental health professionals.

Consistent with previous research, organizational resources and age emerged as important predictors of outcome in this study. However, relationships were not consistent across all three implementation-related outcome variables. Post-hoc analyses, which were conducted to explore these mixed results, suggested that our sample was different from other normed samples. First, the current sample was significantly lower on positive school climate compared to a normed sample from Gregory et al. (2007). Previous research has found a significant positive effect of school climate on implementation of evidence-based prevention programs (Gittelsohn et al., 2003; Gregory et al., 2007). Likewise, we predicted that climate would influence counselors' willingness to implement a new program, their beliefs about the interventions' efficacy, and their readiness to implement. Contrary to our predictions, however, positive school climate was not found to be predictive of any of the outcome variables. A possible explanation is

restricted range, which was observed for a majority of the school climate items. The limited variability of many of these items may have made it difficult to detect a significant effect of climate on outcome.

Second, mean ratings of organizational resources and administrator support in the current sample were greater than means from a normed sample (Forman et al., 2012), though this was at a trend level. Perhaps, schools that were involved in the Depression Prevention Initiative were able to participate because they were better resourced and had more supportive administrations than other schools. Interestingly, however, while counselors rated their level of organizational resources and administrator support as higher than a normed sample, positive school climate was rated lower than a normed sample. Intuitively, these variables should be related. However, the normed samples for these scales were different, which may help to explain why our sample was higher on one and lower on the other.

Third, our sample was again significantly different from a normed sample with regard to time spent on counseling and curriculum activities. Participants in the current study reported spending significantly more time conducting counseling activities and curriculum activities than a normed sample of middle and high school counselors. Thus, participants in the current study may be particularly qualified and comfortable delivering interventions like IPT-AST because their roles and responsibilities at school may be more clinically oriented. Alternatively, this may be an artifact of participating in the Depression Prevention Initiative; because we required participating school mental health professionals to run groups in the preceding years, they may have done more counseling than they otherwise would have. Interestingly, time spent on counseling and curriculum

activities was not found to be predictive of acceptability/efficacy, implementation commitment, or readiness. Perhaps these variables did not emerge as significant predictors because the participants were already comfortable conducting counseling and curriculum-related activities. There may not have been sufficient range on these variables to look at how differences predicted acceptability/efficacy, implementation commitment or readiness. It may also suggest that these variables may not be as important as originally expected for predicting implementation-related outcomes.

Additionally, we explored the test-retest reliability of the IPS as another possible explanation for the current study's mixed results. On the acceptability/efficacy and implementation commitment scales, low test-retest reliability would not necessarily be indicative of an issue with the measure; a training workshop would be expected to influence these types of variables. However, little change would be expected on the organizational resources and administrator support scales, as a workshop would be unlikely to influence these factors. Yet, questionable test-retest reliability was observed for the organizational resources scale, suggesting that participants' responses from pre- to post-workshop were not as stable as expected on this factor. Possible explanations for this may be fatigue or rushing to finish at the end of the workshop, which may have led participants to answer questions inconsistently or at random.

Finally, due to a high correlation between acceptability/efficacy and implementation commitment, we explored the factor structure of the IPS to examine whether acceptability/efficacy and implementation commitment truly represented two distinct dimensions. We found: (1) a lack of consistency in the factor structure of the IPS from pre- to post-workshop, and (2) a lack of convergence with the original IPS factor



structure. The lack of convergence with the original IPS factor structure at either time point suggests that the original 4 factors may not be reliable in the current sample. Additionally, the inconsistent factor structure from pre- to post-workshop suggests that the factors may have been tapping different constructs at both time points, serving as a further reason for the mixed findings in the current study. Given the importance of examining factors related to implementation, future research should confirm the psychometric properties of the IPS and develop other measures that assess organizational factors related to implementation.

There are several limitations to the current study. One significant limitation is the small sample size, which resulted in limited power to detect small effects, and restricted the number and type of analyses we were able to adequately conduct. A second issue is the limited generalizability of the findings. We utilized a convenience sample, school mental health professionals in participating school districts where the Depression Prevention Initiative was being conducted. Though these counselors did not come to the workshop with prior knowledge of IPT-AST, they may not be representative of school mental health professionals from districts that are not part of the Depression Prevention Initiative. A third limitation is the use of the IPS scales as both predictors and outcomes. Self-report forms that measure implementation-related variables are scarce. This particular measure was selected because it was relevant to the current study and because to our knowledge no other validated measures existed. However, using the same measure as both a predictor and an outcome is potentially problematic. Pre-workshop IPS scores were used as covariates in the analyses, and one possibility is that baseline scores

accounted for too much of the variance in outcome, potentially masking significant effects.

### **Summary**

More work in the pre-adoption phase of IPT-AST is indicated, and future studies should address several issues. First, replication of this study with a larger more representative sample will be necessary to substantiate the results and increase power. Second, future studies may explore the effects of a more intensive training program, which involves ongoing technical assistance and consultation, as these components have been found to be important for both the development and retention of skills (Miller, Yahne, Moyers, Martinez, & Pirritano, 2004) and for implementation (Kelly et al., 2000). Third, it will be important to create longer lag time between pre- and post- assessments in order to allow for greater change with the passage of time. Fourth, it would be useful to employ quantitative measures to assess dosage and fidelity of implementation if school mental health professionals decide to implement this intervention.

Research thus far has focused on the efficacy of IPT-AST when delivered by research staff. However, in order to maximize the reach of this intervention, it will be necessary to train school mental health professionals to deliver IPT-AST and to understand the factors that facilitate and impede training and implementation. The results support the initial acceptability and feasibility of a one-day workshop to train school mental health professionals in IPT-AST: participants rated high levels of satisfaction with a one-day IPT-AST workshop, knowledge of IPT-AST increased, and commitment to implement the intervention and ratings of acceptability/efficacy were high at the end of the workshop. This study is also a first step in exploring factors important for

implementation of IPT-AST. While a number of hypothesized predictors were found to be unrelated to implementation-related outcomes in the current study, future research should pay particular attention to the two variables that emerged, organizational resources and provider age. More work continues to be necessary in the pre-adoption phase of type II translational research to explore factors important for gaining buy-in and commitment to implement IPT-AST prior to its full-scale dissemination. Additionally, if age and organizational resources affect commitment to implement and readiness to deliver the intervention, it may be important to target these factors in future training and implementation efforts and develop effective ways of doing so.

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**Table 1. Descriptives of all study variables (N = 38 at Pre-Workshop, N = 37 at Post-Workshop)**

	Mean (SD) / <i>n</i> (%)	Range
<b>Counselor Characteristics</b>		
Age	43 (12.7)	25 - 70
Male, <i>n</i> (%)	7 (18.4%)	
Female, <i>n</i> (%)	31 (77.5%)	
Minority status, <i>n</i> (%)	11 (28.9%)	
Non-minority status, <i>n</i> (%)	27 (71.1%)	
Bachelor's degree, <i>n</i> (%)	2 (5.3%)	
Masters' degree, <i>n</i> (%)	34 (89.5%)	
Doctoral degree, <i>n</i> (%)	2 (5.3%)	
Years in current school	7.97 (7.35)	0 - 35
Years experience since training	10.70 (7.52)	0 - 30
Hours spent counseling students	21.55 (10.10)	4 - 42.50
<b>Pre-Workshop Scores</b>		
IPT-AST Knowledge	9.24 (2.38)	5 - 13
Positive School Climate <sup>a</sup>	3.22 (.45)	2.42 - 4.21
Counseling Activities	3.86 (.54)	2.40 - 5
Curriculum Activities	2.53 (.93)	1 - 4.25
Acceptability/Efficacy	4.65 (.60)	3 - 6
Implementation Commitment	4.31 (.63)	3 - 5.78
Organizational Resources	4.11 (.92)	1.33 - 5.67
Administrator Support	4.56 (.90)	3 - 6
<b>Post-Workshop Scores</b>		
IPT-AST Knowledge	12.86 (1.57)	9 - 15
Acceptability/Efficacy	4.76 (.83)	2 - 6
Implementation Commitment	4.12 (1.15)	1.44 - 5.56
Organizational Resources	3.62 (1.16)	1 - 5.33
Administrator Support	4.36 (.75)	2.67 - 6
Training Satisfaction <sup>b</sup>	5.80 (1.11)	2.5 - 7
Quality of Presentation	5.73 (1.26)	2 - 7
Active Participation	5.86 (1.38)	1 - 7
Content	5.78 (1.33)	2 - 7
Overall Satisfaction	5.84 (1.21)	2 - 7
Readiness <sup>c</sup>	5.53 (.87)	3.5 - 6.5

Note. <sup>a</sup> Positive School Climate is the average of the Negative Relationships Climate, Administrative Leadership, and Supportive Climate Subscales from the Metropolitan Area Child Study Climate Measure

<sup>b</sup> Training Satisfaction is the average of all four satisfaction items: quality, participation, content, and overall satisfaction

<sup>c</sup> Readiness is the average of two items: (1) The training prepared me to deliver IPT-AST and (2) How confident are you in your ability to conduct IPT-AST groups at your school.

**Table 2. Correlations and partial correlations among provider characteristics, organizational factors, and outcome variables (N = 37).**

	Predictor Variables								
	Positive School Climate	Organizational Resources <sup>c</sup>	Administrator Support <sup>e</sup>	Counseling Activities <sup>d</sup>	Curriculum Activities <sup>d</sup>	Age	Years in current school	Years experience since training	Hours spent counseling students
Outcome Variables									
Acceptability/Efficacy <sup>ac</sup>	-.26	.19	-.04	-.02	-.06	-.19	-.19	-.06	.05
Implementation Commitment <sup>abc</sup>	-.25	.19	-.13	.06	.13	-.32*	-.18	-.17	-.23
Readiness <sup>b</sup>	.11	.66**	.55**	.15	.16	.10	.03	.01	-.11

Note. \*  $p < .10$ , \*\*  $p < .001$

<sup>a</sup> Partial Correlations were used, controlling for Acceptability/Efficacy and Implementation Commitment pre-workshop scores respectively

<sup>b</sup> Transformed variables; Implementation Commitment and Readiness were squared to achieve approximate normality

<sup>c</sup> Subscales from the IPS

<sup>d</sup> Subscales from the SCARS

**Table 3. IPS items and rotated component loadings from exploratory factor analysis (N = 38 at Pre, N = 37 at Post).**

Items	Component				
	1	2	3	4	5
<i>Pre-workshop</i>					
8. Overall, the intervention would be beneficial for students at my school	<b>.881</b>	.197	.116	.158	.047
2. I would suggest the use of this intervention to other school mental health professionals	<b>.826</b>	.056	.449	.151	.069
7. This intervention is likely to affect students in a positive way	<b>.763</b>	.205	-.147	.240	.201
1. This would be an acceptable intervention for students at my school	<b>.750</b>	.114	.399	.146	.080
6. I like the procedures used in this intervention	<b>.726</b>	.211	-.148	.186	.383
5. This intervention is consistent with my general approach to working with students	<b>.708</b>	.055	.190	.274	.281
10. Most school mental health professionals in similar jobs would view this intervention in a positive way	<b>.673</b>	.394	.062	.118	.129
9. This intervention is supported by the research	<b>.670</b>	.184	.208	.177	.226
12. I believe any resources (supplies, equipment, space) needed to implement this intervention would be available to me	.254	<b>.794</b>	-.007	.348	.100
16. In general, I am encouraged to implement new programs at my school	.129	<b>.764</b>	.173	.457	.085
13. I believe that if I needed assistance and advice to help with implementation, I would be able to obtain it	.342	<b>.729</b>	.259	.230	.095
11. Given my workload, the time and effort needed to implement this intervention is reasonable	.134	<b>.679</b>	.207	-.015	.269
22. I would be willing to spend time outside of work to make an intervention like this happen	-.019	.324	<b>.757</b>	.026	.216
21. I would pursue training to deliver this intervention	.394	.125	<b>.694</b>	.240	.198
14. My principal would view this intervention in a positive way	.357	.340	.143	<b>.804</b>	.083
15. My district level administrators would view this intervention in a positive way	.233	.355	.303	<b>.727</b>	.137
18. If we implemented this intervention, I would do better at my job	.143	.339	.220	.070	<b>.788</b>
19. Implementing this intervention at school would make me a better school mental health professional	.307	.017	.354	.085	<b>.786</b>

17. Among my usual professional activities, I would rank this as a high priority	.229	.125	.110	.291	<b>.505</b>
<i>Unmatched items</i>					
3. Most school mental health professionals would find this intervention suitable for preventing depression	.588	.542	.390	-.184	-.070
4. The intervention would NOT result in negative side effects for the students	.344	.141	-.042	.371	.226
20. I would be willing to use this intervention	.485	-.068	.400	.431	.282
23. I would speak up at meetings to facilitate the implementation of such an intervention	.073	.500	.474	.390	.302
24. I would advocate for this intervention at my school	.175	.429	.596	.343	.401
25. It would be worth my time and energy to implement this intervention	.338	.178	.551	.529	.324
<hr/> <i>Post-workshop</i> <hr/>					
25. It would be worth my time and energy to implement this intervention	<b>.835</b>	.346	.330	.187	-
24. I would advocate for this intervention at my school	<b>.828</b>	.280	.286	.255	-
18. If we implemented this intervention, I would do better at my job	<b>.773</b>	.205	.405	.237	-
22. I would be willing to spend time outside of work to make an intervention like this happen	<b>.764</b>	.246	.258	.336	-
23. I would speak up at meetings to facilitate the implementation of such an intervention	<b>.751</b>	.309	.160	.423	-
19. Implementing this intervention at school would make me a better school mental health professional	<b>.737</b>	.117	.416	.073	-
17. Among my usual professional activities, I would rank this as a high priority	<b>.703</b>	.470	.297	.193	-
21. I would pursue training to deliver this intervention	<b>.681</b>	.496	.322	.095	-
4. The intervention would NOT result in negative side effects for the students	.195	<b>.779</b>	.046	.269	-
7. This intervention is likely to affect students in a positive way	.257	<b>.766</b>	.420	.093	-
6. I like the procedures used in this intervention	.360	<b>.717</b>	.449	-.058	-
9. This intervention is supported by the research	.223	<b>.534</b>	.391	.290	-
1. This would be an acceptable intervention for students at my school	.423	.259	<b>.739</b>	.021	-
2. I would suggest the use of this intervention to other school mental health professionals	.389	.408	<b>.718</b>	.066	-
3. Most school mental health professionals would find this intervention suitable for	.395	.316	<b>.708</b>	.292	-

preventing depression						
12. I believe any resources (supplies, equipment, space) needed to implement this intervention would be available to me	.055	.076	.222	<b>.951</b>	-	
13. I believe that if I needed assistance and advice to help with implementation, I would be able to obtain it	.265	.065	.194	<b>.832</b>	-	
16. In general, I am encouraged to implement new programs at my school	.102	-.027	-.133	<b>.749</b>	-	
<i>Unmatched items</i>						
5. This intervention is consistent with my general approach to working with students	.364	.561	.480	-.061	-	
8. Overall, the intervention would be beneficial for students at my school	.438	.471	.633	.185	-	
10. Most school mental health professionals in similar jobs would view this intervention in a positive way	.253	.682	.543	.081	-	
11. Given my workload, the time and effort needed to implement this intervention is reasonable	.439	.318	.186	.550	-	
14. My principal would view this intervention in a positive way	.376	.329	.598	.440	-	
15. My district level administrators would view this intervention in a positive way	.353	.268	.499	.466	-	
20. I would be willing to use this intervention	.566	.637	.206	-.098	-	

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## Appendix A. Demographics Questionnaire.

Instructions: For the following items, please provide some information about yourself.

1. **Gender:**                    Male                    Female
2. **Date of birth:** \_\_\_\_/\_\_\_\_/\_\_\_\_ (mm/dd/yy)
3. **Your ethnic group** (please check all that apply):
  - a. \_\_\_\_ White, non-Hispanic
  - b. \_\_\_\_ African American or Black
  - c. \_\_\_\_ Asian or Asian American
  - d. \_\_\_\_ Latino or Hispanic American
  - e. \_\_\_\_ Native American
  - f. \_\_\_\_ Other ethnic group: \_\_\_\_\_
4. **Job Title:**
  - a. \_\_\_\_ School Psychologist
  - b. \_\_\_\_ Social Worker
  - c. \_\_\_\_ Child Study Team Member
  - d. \_\_\_\_ Guidance Counselor
  - e. \_\_\_\_ Other: \_\_\_\_\_
5. **Number of years worked in current school:** \_\_\_\_\_
6. **Educational History:**

*Number of years of graduate training:*

  - a. \_\_\_\_ 1 year or less
  - b. \_\_\_\_ 2 years
  - c. \_\_\_\_ 3 years
  - d. \_\_\_\_ 4 years
  - e. \_\_\_\_ 5 or more years
  - f. *Type of Graduate Program:*  
\_\_\_\_\_
  - g. *Degree Received:*  
\_\_\_\_\_
7. **Internship/Externship/Field Placements:**
  - a. Did you participate in internships/externships/field placements? *Circle:* Yes  
No
  - b. *If yes, how many placements?* \_\_\_\_\_
  - c. *If yes, how many months of placements altogether?* \_\_\_\_\_
8. **How many years of experience working in schools do you have since you finished your training?** \_\_\_\_\_

9. **During the period in which you were maximally active, how many hours per week on average did you spend counseling students about psychological, emotional, or related problems?** \_\_\_\_\_

10. **Professional Licenses:**

- |    |   |     |    |
|----|---|-----|----|
| a. | Do you currently hold any licenses?     | Yes | No |
| b. | <i>If yes</i> , please list them: _____ |     |    |
- 

11. **Private Practice:**

- |    |  |     |    |
|----|--|-----|----|
| a. | Do you have a private practice?        | Yes | No |
| b. | <i>If yes</i> , please describe: _____ |     |    |
-



## Appendix B. IPT-AST Knowledge Questionnaire.

Instructions: Read the following brief description of Teen Talk and then answer the questions that follow by circling the BEST answer.

**Interpersonal Psychotherapy-Adolescent Skills Training (IPT-AST)**, also known as **Teen Talk**, has been found to be an effective group prevention program for adolescent depression in two previous studies. IPT-AST is grounded in the idea that there is a circular link between our mood and our interpersonal relationships. IPT-AST involves one to two individual pre-group session(s) before the group starts, 8 group sessions, and an individual mid-group session that occurs after the 4<sup>th</sup> group session. Sessions generally occur weekly.

1. IPT-AST is based on the theory that:
  - a. Depressive symptoms are caused by bad relationships
  - b. Depressive symptoms are caused by distorted thoughts
  - c. Depressive symptoms occur in the context of relationships
  - d. Depressive symptoms occur in the context of maladaptive behaviors, which decrease positive rewards
  
2. Which of the following elements of psychoeducation provide the foundation for IPT-AST:
  - a. Labeling and describing different emotions
  - b. Learning the relationship between thoughts, feelings, and behaviors
  - c. Learning the relationship between feelings and interpersonal interactions
  - d. Recognizing the body's typical reaction to stress
  
3. In conducting the interpersonal inventory, it is recommended that the group leader:
  - a. Discuss important relationships from the teen's past
  - b. Discuss relationships that are most important to the teen or which impact his/her mood
  - c. Discuss only those relationships in the inner circle of the closeness circle
  - d. Discuss every individual that the student places on the closeness circle in great detail
  
4. Which of the following is NOT a primary component of IPT-AST:
  - a. Communication analysis
  - b. Functional analysis of behavior
  - c. Psychoeducation
  - d. Interpersonal skill-building
  
5. In IPT-AST, the initial phase of group is intended to accomplish:
  - a. Teaching youth to monitor their thoughts and feelings
  - b. Getting to know other group members and learning new interpersonal techniques
  - c. Sharing goals for group and mood ratings with other group members
  - d. Doing targeted work on interpersonal goals
  
6. Interpersonal skill building in IPT-AST utilizes which of the following techniques:

- a. Behavioral activation
  - b. Role playing
  - c. Self-monitoring
  - d. Assertiveness training
7. Which of the following is NOT an interpersonal strategy taught in IPT-AST:
- a. Strike while the iron is cold
  - b. Put yourself in their shoes
  - c. What you don't say speaks volumes
  - d. Don't give up
8. Which statement best applies to a communication analysis:
- a. It involves listening to recordings of conversations in order to conduct a proper analysis
  - b. It is the primary technique utilized in the pre-group sessions
  - c. It teaches the impact of words and tone on the other person's response
  - d. It helps students to link their negative thoughts with how they interact with others
9. When conducting a role play, the group leader should:
- a. Model the conversation before the role play begins
  - b. Involve other group members as actors and coaches
  - c. Always play the part of the other person in order to control the level of difficulty of the conversation
  - d. Write down the script of the conversation so that all group members can read along
10. Which statement best applies to the middle phase sessions:
- a. A review of symptoms occurs at the end of the session
  - b. The group leader lets the group talk about whatever they want to talk about in these sessions
  - c. Session content will vary based on the interpersonal issues that group members bring up
  - d. Group members are asked to identify their warning symptoms of depression
11. The primary purpose of the individual mid-group session is to:
- a. Help the teen identify group members he/she could be friends with after group
  - b. Review the teen's goals and engage in targeted work on these goals
  - c. Assess for symptoms of depression in a more private setting
  - d. Meet the teen's parents in order to improve the accuracy of role plays conducted in group
12. "Work at home" is an important component of IPT-AST because it:
- a. Helps create group cohesion, as all group members are assigned the same task each week
  - b. Encourages group members to practice the interpersonal skills learned in group in an individualized manner
  - c. Is a way for the group leaders to assess which group members have paid the most attention in group
  - d. Serves as a predictor of who will benefit the most from the program

13. Which of the following is an essential component of the termination phase:
- Having each group member rate the progress made toward their goals on a scale of 1-10
  - Giving each group member a written progress report of their accomplishments and continued areas of growth
  - Referring all group members to additional services
  - Discussing the interpersonal strategies that were most useful and most challenging
14. Throughout the intervention the group leader emphasizes the
- Link between interpersonal problems and depressive symptoms
  - Link between negative thoughts and depressive symptoms
  - Link between passivity in activities and depressive symptoms
  - Link between stress and depressive symptoms
15. IPT-AST is NOT intended for:
- Adolescents with depression
  - Adolescents with depressive symptoms
  - Adolescents with social skills deficits
  - Adolescents with interpersonal difficulties

**Appendix C. Positive School Climate Questionnaire (adapted from Gregory, Henry & Schoeny, 2007).**

Instructions: For the following items, please select the choice that BEST describes your agreement or disagreement with each statement.

	Never true	Rarely true	Somewhat true	Often true	Always true
1. I often have to justify some people's actions or opinions to other people at school	1	2	3	4	5
2. I get "caught in the middle" of other people's problems at school	1	2	3	4	5
3. There are certain staff members at school who are often in conflict with each other	1	2	3	4	5
4. Someone at school shared some important information with me and then asked me not to tell anyone else	1	2	3	4	5
5. People at school tell me their criticisms of others	1	2	3	4	5
6. Our principal is a good spokesman before the superintendent and the board for our interests and needs	1	2	3	4	5
7. Time and effort in the curriculum are provided to address the social and emotional needs of students	1	2	3	4	5
8. At this school, information flows smoothly through channels	1	2	3	4	5
9. Administration and staff collaborate towards making this school run effectively; there is little administrator-staff tension	1	2	3	4	5
10. Each staff member is clear about his or her responsibilities	1	2	3	4	5
11. The principal works to help me succeed in meeting the special needs of students	1	2	3	4	5
12. The administration at this school trusts the judgment of the staff in solving problems	1	2	3	4	5
13. There is enough time in the school calendar to accomplish almost all that the staff is expected to accomplish	1	2	3	4	5
14. In this school even low-achieving students are respected	1	2	3	4	5
15. Teachers or staff from one area or grade level respect those from other areas	1	2	3	4	5

16. Students can count on staff to listen to their side of the story and to be fair	1	2	3	4	5
17. The staff trusts students to use good judgment	1	2	3	4	5
18. Teachers and staff generally have a strong personal commitment to achieving goals set by and for this school	1	2	3	4	5
19. Differences between individuals and groups (both among staff and students) are considered to contribute to the richness of the school, not as divisive influences	1	2	3	4	5

### Appendix D. School Counselor Activity Rating Scale (Scarborough, 2005).

Instructions: For the following 51 items, please select the choice that BEST describes the frequency with which you perform each function.

	I never do this	I rarely do this	I occasionally do this	I frequently do this	I routinely do this
<b>Counseling Activities</b>					
1. Counsel with students regarding personal/family concerns	1	2	3	4	5
2. Counsel with students regarding student behavior	1	2	3	4	5
3. Counsel with students regarding crisis/emergency issues	1	2	3	4	5
4. Counsel with students regarding relationships (e.g., family, friends, romantic)	1	2	3	4	5
5. Provide small group counseling addressing relationships/social skills	1	2	3	4	5
6. Provide small group counseling for academic issues	1	2	3	4	5
7. Conduct small groups regarding family/personal issues (e.g., divorce, death)	1	2	3	4	5
8. Conduct small group counseling for students regarding substance abuse issues (own use or family/friend use)	1	2	3	4	5
9. Follow-up on individual and group counseling participants	1	2	3	4	5
10. Counsel students regarding academic issues	1	2	3	4	5
<b>Consultation Activities</b>					
11. Consult with school staff concerning student behavior	1	2	3	4	5
12. Consult with community and school agencies concerning individual students	1	2	3	4	5
13. Consult with parents regarding child/adolescent development issues	1	2	3	4	5

14. Coordinate referrals for students and/or families to community or education professionals (e.g., mental health, speech pathology, medical assessment)	1	2	3	4	5
15. Assist in identifying exceptional children (special education)	1	2	3	4	5
16. Provide consultation for administrators (regarding school policy, programs, staff and/or students)	1	2	3	4	5
17. Participate in team/grade level/subject team meetings	1	2	3	4	5
Curriculum Activities					
18. Conduct classroom activities to introduce yourself and explain the counseling program to all students	1	2	3	4	5
19. Conduct classroom lessons addressing career development and the world of work	1	2	3	4	5
20. Conduct classroom lessons on various personal and/or social traits (e.g., responsibility, respect, etc.)	1	2	3	4	5
21. Conduct classroom lessons on relating to others (family, friends)	1	2	3	4	5
22. Conduct classroom lessons on personal growth and development issues	1	2	3	4	5
23. Conduct classroom lessons on conflict resolution	1	2	3	4	5
24. Conduct classroom lessons regarding substance abuse	1	2	3	4	5
25. Conduct classroom lessons on personal safety issues	1	2	3	4	5
Coordination Activities					
26. Coordinate special events and programs for school around academic, career, or personal/social issues (e.g., career day, drug awareness week, test prep)	1	2	3	4	5

27. Coordinate and maintain a comprehensive school counseling program	1	2	3	4	5
28. Inform parents about the role, training, program, and interventions of a school mental health professional within the context of your school	1	2	3	4	5
29. Conduct or coordinate parent education classes or workshops	1	2	3	4	5
30. Coordinate school-wide response for crisis management and intervention	1	2	3	4	5
31. Inform teachers/administrators about the role, training program, and interventions of a school mental health professional within the context of your school	1	2	3	4	5
32. Conduct or coordinate teacher in-service programs	1	2	3	4	5
33. Keep track of how time is being spent on the functions that you perform	1	2	3	4	5
34. Attend professional development activities (e.g., state conferences, local in-services)	1	2	3	4	5
35. Coordinate with an advisory team to analyze and respond to school counseling program needs	1	2	3	4	5
36. Formally evaluate student progress as a result of participation in individual/group counseling from student, teacher and/or parent perspectives	1	2	3	4	5
37. Conduct needs assessments and counseling program evaluations from parents, faculty, and/or students	1	2	3	4	5
38. Coordinate orientation process/activities for students	1	2	3	4	5
Other activities					
39. Participate on committees within the school	1	2	3	4	5



40. Coordinate the standardized testing program	1	2	3	4	5
41. Organize outreach to low income families (i.e., Thanksgiving dinners, Holiday families)	1	2	3	4	5
42. Respond to health issues (e.g., check for lice, eye screening, 504 coordination)	1	2	3	4	5
43. Perform hall, bus, cafeteria duty	1	2	3	4	5
44. Schedule students for classes	1	2	3	4	5
45. Enroll students in and/or withdraw students from school	1	2	3	4	5
46. Maintain/complete educational records/reports (cumulative files, test scores, attendance reports, drop-out reports)	1	2	3	4	5
47. Handle discipline of students	1	2	3	4	5
48. Substitute teach and/or cover classes for teachers at your school	1	2	3	4	5
49. College advisement	1	2	3	4	5
50. Psychological/vocational testing and report writing	1	2	3	4	5

**Appendix E. Implementation Potential Scale (Forman, Fagley, Chu, & Walkup, 2012).**

Instructions: For the following 25 items, please select the choice that BEST describes your agreement or disagreement with each statement as it relates to IPT-AST (Teen Talk).

	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
<b>Acceptability/Efficacy</b>						
1. This would be an acceptable intervention for students at my school	1	2	3	4	5	6
2. I would suggest the use of this intervention to other school mental health professionals	1	2	3	4	5	6
3. Most school mental health professionals would find this intervention suitable for preventing depression	1	2	3	4	5	6
4. The intervention would NOT result in negative side effects for the students	1	2	3	4	5	6
5. This intervention is consistent with my general approach to working with students	1	2	3	4	5	6
6. I like the procedures used in this intervention	1	2	3	4	5	6
7. This intervention is likely to affect students in a positive way	1	2	3	4	5	6
8. Overall, the intervention would be beneficial for students at my school	1	2	3	4	5	6
9. This intervention is supported by the research	1	2	3	4	5	6
10. Most school mental health professionals in similar jobs would view this intervention	1	2	3	4	5	6

in a positive way						
<b>Organizational Resources</b>						
11. Given my workload, the time and effort needed to implement this intervention is reasonable	1	2	3	4	5	6
12. I believe any resources (supplies, equipment, space) needed to implement this intervention would be available to me	1	2	3	4	5	6
13. I believe that if I needed assistance and advice to help with implementation, I would be able to obtain it	1	2	3	4	5	6
<b>Administrator Support</b>						
14. My principal would view this intervention in a positive way	1	2	3	4	5	6
15. My district level administrators would view this intervention in a positive way	1	2	3	4	5	6
16. In general, I am encouraged to implement new programs at my school	1	2	3	4	5	6
<b>Implementation Commitment</b>						
17. Among my usual professional activities, I would rank this as a high priority	1	2	3	4	5	6
18. If we implemented this intervention, I would do better at my job	1	2	3	4	5	6
19. Implementing this intervention at school would make me a better school mental health professional	1	2	3	4	5	6

20. I would be willing to use this intervention	1	2	3	4	5	6
21. I would pursue training to deliver this intervention	1	2	3	4	5	6
22. I would be willing to spend time outside of work to make an intervention like this happen	1	2	3	4	5	6
23. I would speak up at meetings to facilitate the implementation of such an intervention	1	2	3	4	5	6
24. I would advocate for this intervention at my school	1	2	3	4	5	6
25. It would be worth my time and energy to implement this intervention	1	2	3	4	5	6

**Appendix F. Training Satisfaction Questionnaire (adapted from Turner, Nicholson, & Sanders, 2011)**

Instructions: For the following 5 items, please select the choice that BEST describes your training experience

	Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
1. I was satisfied with the quality of the training presentation	1	2	3	4	5	6	7
2. I was satisfied with the amount of active participation provided	1	2	3	4	5	6	7
3. I was satisfied with the course content	1	2	3	4	5	6	7
4. Overall, I was satisfied with the training	1	2	3	4	5	6	7
5. The training prepared me to deliver IPT-AST	1	2	3	4	5	6	7

Instructions: For the following item, please select the choice that BEST describes how you feel.

	Definitely not confident	Not confident	Slightly not confident	Neutral	Slightly confident	Confident	Definitely confident
How confident are you in your ability to conduct IPT-AST groups at your school?	1	2	3	4	5	6	7