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School-Based Mental Health Services for Youth: A Study of Usual Care

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UNIVERSITY OF MIAMI

SCHOOL-BASED MENTAL HEALTH SERVICES FOR YOUTH: A STUDY
OF USUAL CARE

By

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<u>School-Based Mental Health Services for Youth:</u>
<u>A Study of Usual Care.</u>

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Usual care of youth emotional and behavioral disorders is important to study in

order to target dissemination efforts and to provide a baseline from which these efforts

can be evaluated. Treatment for youth psychological concerns occurs primarily in

educational settings. However, little is known about the types and frequency of treatment

services received by youth in school settings. Aims of this investigation were: 1) to

modify a self-report questionnaire of therapy procedures for use by school-based

personnel, 2) to identify clinical characteristics of school-based mental health providers,

3) to identify therapy techniques used in school-based mental health treatment for youth,

and 4) to identify child, clinician, and organizational variables associated with the use of

cognitive and behavioral treatment strategies, the dominant evidence-based approach for

psychological disorders in youth, in school based settings.

Data collection occurred through two stages: qualitative interviews utilized to

pretest and modify survey items with seven participants, followed by more extensive and

updated surveys administered electronically to 97 school-based mental health providers

in the state of Florida. Qualitative data from phase one of data collection indicated that a

shortened Therapy Procedures Checklist is well-suited for use with school based mental

health clinicians. Results from phase two of this investigation indicated that there is great

variability in clinical characteristics of school-based mental health providers, with the majority of school-based mental health providers reporting that they are licensed and that their highest level of education is a master's degree. Results also indicated high variability in the primary presenting problem, length of sessions, average number of sessions, and treatment techniques utilized with students. Predictors of cognitive, behavioral, and psychodynamic strategy use in schools were also examined. Use of behavioral strategies was negatively associated with child age, and was more commonly reported for use with youth exhibiting externalizing concerns versus internalizing concerns. Results of this investigation highlight the variability in school-based mental health service provision and potential challenges to implementation of traditional evidence-based treatments to this setting.

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Chapter 1: Introduction

Approximately 13% of youth experience emotional or behavioral difficulties and significant, related impairment (Merikangas, He, Brody, Fisher, Bourdon, & Koretz 2010). While many evidence-based treatments for youth mental illness exist (see David-Ferdon & Kaslow, 2008; Eyberg, Nelson, & Boggs, 2008; Silverman, Pina, & Viswevaran, 2008), psychological disturbance often goes undetected and untreated in child and adolescent populations (Green et al., 2013; Kataoka, Zhang, & Wells, 2002; Leaf, Alegria, Cohen, et al., 1996; Merikangas et al., 2010; Merkikangas et al., 2011; Zimmerman, 2005). Additionally, when treatment is received, it usually is not evidence-based (e.g. Garland, Brookman-Frazee, Hurlburt, Accurso, Zoffness, Haine, & Ganger, 2010; Weersing & Weisz, 2002) and generally underperforms existent, evidence-based treatments (e.g. Weisz, Jensen-Doss, & Hawley, 2006). However, our understanding of usual care received by youth is somewhat limited to services received in specialty mental health settings, and investigators have yet to examine typical intervention practices used in school-based settings. Given that more than half (60.1%) of youth who are treated for mental illness enter the service sector through school settings and the majority of these youth only receive services through the school system (Farmer, Burns, Phillips, Angold, & Costello, 2003), this represents a significant gap in our understanding of child and adolescent mental health services.

The study of usual care

Garland, Bickman and Chorpita (2010) argue that a comprehensive understanding of both empirically supported treatments and usual care practices is necessary to close the gap between science and typical clinical practice. While the development and testing of

evidence-based practices has received considerable attention over the past few decades, typical care provided by practitioners for youth psychopathology is just beginning to be understood (Garland et al., 2010). Garland and colleagues (2010) proposed that the study of usual care can help focus quality improvement efforts through the identification of specific discrepancies between evidence-based treatment approaches and usual care, and can also aid in the identification of treatment approaches that are promising in community contexts. Therefore, a comprehensive understanding of usual care, which may include information about the general theoretical approach and specific therapeutic techniques currently employed by a practitioner, is needed to inform dissemination efforts.

Youth receive treatment for mental health concerns in a variety of different locations including specialty mental health settings, educational settings, medical settings, and through the juvenile justice system (SAMSHA, 2012). A national survey indicated that in the year 2011, 12.7% of youth age 12 to 17 received services through specialty mental health services (SAMHSA, 2012). Specialty mental health services consist of both outpatient (e.g. mental health clinics, in-home services, partial day hospitals) and inpatient (e.g. hospital, residential treatment, therapeutic foster care homes) settings. When specialty mental health service settings are combined, they represent the largest sector of mental health services to youth. However, 11.9% of youth aged 12 to 17 received mental health services through school settings alone, making this the largest single service location for the provision of youth mental health services (SAMSHA, 2012). Of note, the majority of youth receive services through more than one

service sector (Merikangas et al., 2010), with most children and adolescents initiating services through the school system (Farmer et al., 2003).

      Characteristics of usual care in specialty mental health settings. To date, research on usual care practices for youth have largely focused on those provided in community mental health (CMH) agencies. Based on these research efforts, we now know that boys are more likely to receive services than girls in younger age groups, and girls are more heavily represented in adolescent referrals to CMH sites (Garland et al., 2013). Investigations into usual care research have also shown that the most common reasons for referral indicated for initiating youth services at CMH sites include disruptive behavior problems, attention difficulties, and depressive symptoms (Garland et al., 2001; Merikangas et al., 2010; SAMSHA, 2012).

      Of critical importance to dissemination efforts are findings that evidence-based approaches are rarely utilized in the treatment of youth psychopathology by community clinicians (e.g. Garland et al., 2010; Weersing & Weisz, 2002; Weisz et al., 2009). For example, while evidence-based treatment of anxiety and depression in youth consist of cognitive-behavioral and interpersonal therapies (David-Ferdon & Kaslow, 2008; Silverman, Pina, & Viswevaran, 2008), community-based clinicians reportedly use psychodynamic, family therapy and eclectic strategies more frequently in the treatment of youth internalizing disorders (Weersing & Weisz, 2002; Weisz et al., 2009). Similar discrepancies are noted in the treatment of youth externalizing disorders. Eyberg, and colleagues (2008) identified sixteen evidence-based treatments for children and adolescents with disruptive behavior disorders. These treatments consist of protocols heavily based in cognitive-behavioral (e.g. Kazdin, 2003; Lochman, Barry, & Pardini,

2003) and behavioral techniques (e.g. Brinkmeyer & Eyberg, 2003; Webster-Stratton & Reid, 2003). However, treatment of youth disruptive behavior disorders in community settings is marked by greater variability in the amount and type of care received (Garland et al., 2010). Additionally, when clinicians use behavioral techniques, they spend less time implementing these strategies with families and may not be as thorough in their teaching of these skills (Garland et al., 2010).

Another challenge that faces the dissemination of evidence-based treatments to usual care settings is the finding that there may be a reduction in efficacy when evidence-based treatments are implemented in community settings versus effects seen in research settings (e.g. Weisz, et al., 2006). In a meta-analysis of 32 randomized trials that directly compared usual care versus evidence-based treatments, Weisz and colleagues (2006) found that treatment effects fell within the small to medium range when implemented in community settings, with many studies showing no advantage of evidence-based treatments over usual care. One potential reason for this drop in efficacy is that youth treated in University-based research trials differ from community-referred youth among a number of important dimensions. For example, clinically referred youth have higher levels of diagnostic comorbidity, externalizing behaviors, and greater clinical severity than youth recruited to research clinics (e.g. Ehrenreich-May, Southam-Gerow, Hourigan, Wright, Pincus, & Weisz, 2011; Southam-Gerow, Chorpita, Miller, & Gleacher, 2008). Additionally, children who present for treatment at community-based clinics are more ethnically diverse, come from lower income families, and are more likely to come from single-parent households (Ehrenreich-May et al., 2011; Southam-Gerow, Weisz, & Kendall, 2003). There are also differences in provider characteristics that may be

contributing to the reduced efficacy of evidence-based treatments in community settings. For example, community-based clinicians are unable to devote the time to specialized training and ongoing supervision that research therapists often undergo (Weisz, Ugueto, Cheron, & Herren, 2013).

In order to optimize treatment received in real world settings, Weisz and colleagues (2005) recommended the use of a deployment-focused model of treatment development (DFM: Weisz, Jensen, & McLeod, 2005), which emphasizes the inclusion of feedback from community clinicians early in treatment development. Aligned with this model, Chorpita and Weisz (2005) developed the Modular Approach to Therapy for Children with Anxiety, Depression, Trauma or Conduct Problems (MATCH-ADTC; Chorpita & Weisz, 2009) by using information about clinically-referred youth, community clinicians, and community treatment settings. In a randomized effectiveness trial, this treatment outperformed both usual care and standard manualized protocols in the reduction of youth internalizing and externalizing symptoms (Weisz et al., 2012). In this way, an understanding of usual care services has aided in the improvement of treatment delivered to youth in specialty mental health settings. School-based mental health treatment provision may also benefit from a similar examination of current practices.

School-based treatment of youth mental health concerns

As stated previously, educational settings are the single most common service setting for the provision of child mental health treatments (Costello, He, Sampson, Kessler, & Merikangas, 2014; Farmer et al., 2003; Green et al., 2013; Husky, Sheridan, McGuire, & Olfson, 2011; SAMHSA, 2010). School-based provision of mental health

services provides many advantages over other community-based services, such as reduced transportation needs and fewer financial barriers to treatment. For example, Husky and colleagues (2011) followed youth referred to various mental health service sectors for psychological treatment and found that the majority of youth referred to school–based mental health services accessed treatment (80.2%), while less than half of those referred to specialty mental health services accessed treatment (41.9%). Additionally, while specialty mental health services are underutilized by ethnic minority youth (Garland, Lau, Yeh, McCabe, Hough, & Landsverk; 2005), differences in service provision have not been observed across ethnic groups in school-based services (Costello et al, 2014; Lyon, Ludwig, Vander Stoep, Gudmundsen, & McCauley, 2013). Another advantage of school-based mental health services is that youth may prefer them over specialty mental health services (Burns, Costello, Angold et al., 1995), as they may reduce stigma related to seeking care and may be able to provide youth with a comfortable and familiar environment in which to receive services (Mufson, Dorta, Olfson, Weissman, & Hoagwood, 2004). School-based treatment provision also provides youth with the opportunity to practice skills in real world settings, therefore increasing the likelihood of skill generalization (Evans, Langberg, & Williams, 2002).

Academic researchers in the field of clinical psychology have made great strides in developing efficacious prevention and treatment protocols. For example, many universal prevention programs appear efficacious in the prevention of youth behavior and emotional difficulties in school settings (see Calear & Christensen, 2010; Neil & Christensen, 2009; Sugai, Horner, & Gresham, 2002). Similarly, many selective and indicated prevention programs have demonstrated efficacy in the prevention of youth

mental health concerns when delivered in school settings (see Calear & Christensen, 2010; Neil & Christensen, 2009). There are also many intervention protocols that have been developed and proven to address interfering mental health concerns within school settings. Such intervention approaches include interpersonal, cognitive-behavioral, and behavioral treatments targeting reduction of depressive symptoms (e.g. Mufson et al., 2004; Shirk, Kaplinski, & Gudmundsen; 2009), anxiety symptoms (e.g. Masia-Warner, Fisher, Shrout, Rathor, & Klein, 2007), and behavioral difficulties (e.g. Owens, Richerson, Beilstein, Crane, & Murphy, 2005) in educational settings. In accordance with the DFM for treatment development (Weisz et al., 2005), several of these intervention models have shown efficacy when delivered by school-based personnel (e.g. Mufson et al., 2004). Nonetheless, a comprehensive understanding of current intervention practices is needed to focus dissemination efforts and optimize treatments currently in place.

Usual care in school settings

Results from the few investigations into usual care in school mental health services suggest that there is much variability and fragmentation in the provision of school-based mental health care in the United States (Foster, Rollefson, Doksum, Noonan, Robinson, & Teich, 2005). For instance, schools vary in the organization and delivery of services. In a national survey of school-based mental health services, approximately 50% of schools reported using only school or district personnel to provide mental health services to students, 23% reported combining school and district personnel with the use of outside providers, and the remaining schools reported relying solely on the use of outside community providers for student mental health services (Foster et al., 2005). Additionally, while most schools have between two and five staff providing

mental health services; this differs greatly between schools, with 3% of schools having no staff providing mental health services and 6% of schools having 10 or more staff members providing mental health care (Foster et al., 2005). There is also much variability in the professions of school-based mental health providers. School-based mental health providers may be clinical psychologists, school/guidance counselors, nurses, social workers, mental health counselors, substance abuse counselors, counseling psychologists, or psychiatrists (Foster et al., 2005). The amount of time spent in mental health service provision may also vary by profession. School counselors, psychologists and social workers report spending between 48% and 57% of their time engaged in provision of mental health care, while school nurses report spending about 30% of their time engaged in these activities (Foster et al., 2005).

Youth referral reasons also vary by service provider. Kelly and Lucek (2011) identified academic problems as the primary referral reason for students meeting with school counselors and school psychologists. However, in terms of direct mental health concerns, they identified emotional problems as being the most frequent referral reason to school counselors and behavior problems as the most common referral reason to school psychologists. When examining total school-based referrals, Foster and colleagues (2005) identified social, interpersonal or family problems as being the most common referral reasons for youth across school levels. However, gender differences in school-based referrals are noted, as behavior problems were reported as top referral reasons for male students, while anxiety and adjustment issues were noted as common referral reasons for female students (Kelly & Lucek, 2011).

Kelly and Lucek (2011) also provide valuable information about the format of school-based mental health services. School-based mental health providers reported providing services primarily through an individual counseling format, with 60% report providing counseling to individual students "all of the time" or "most of the time." The second most common format for school-based mental health provision is in the group counseling format (Kelly & Lucek, 2011). In spite of our growing understanding of school-based mental health delivery of treatment, little is known about the actual procedures used by school-based mental health professionals in the treatment of youth emotional and behavioral distress (Kelly & Lucek, 2011).

The techniques used in school-based care are likely to differ substantially from community-based services for several reasons. First, graduate programs for school-based mental health providers often do not provide training in evidence-based interventions (e.g. Shernoff, Kratochwill, & Stoiber, 2003). Miller and Jome (2010) conducted a national survey of school psychologists and found that while they believed the treatment of depressive symptoms is a part of their job, they feel underprepared to treat such concerns. A second reason that school based treatment is likely to differ from community based treatment is that school-based mental health providers are in a unique position to collaborate with other school personnel in the implementation of treatment techniques and therefore are expected to utilize these resources frequently (Foster et al., 2005). Third, school-based mental health treatment providers may experience unique barriers in comparison to community providers, such as difficulty engaging parents, limited time, and competing responsibilities, such as crisis intervention (Langley, Nadeem, Kataoka, Stein, & Jaycox, 2010).

Research on intervention techniques used in school-based mental health treatment is extremely limited. The last known study of these aspects of school-based usual care was conducted over two decades ago and was limited to treatment provided by school psychologists only (Prout, Alexander, Fletcher, Memis, & Miller, 1993). Additionally, investigators examined broad therapeutic strategies in this study (e.g. "cognitive training") as opposed to specific intervention techniques (e.g. "training the child to recognize maladaptive thoughts"). That study identified that "supportive/relationship building" was the most common strategy used by school psychologists and that "individual counseling" was the most common method of treatment delivery (Prout et al., 1993). While Prout and colleagues (1993) shed light on intervention techniques used during that time, many treatment developments have occurred over the past few decades and school-based provision of mental health services has likely changed dramatically (Calear & Christensen, 2010; Kelly et al., 2010; Neil & Christensen, 2009; Sugai, Horner, & Gresham, 2002). Therefore, an updated study of usual care practices by school-based mental health clinicians is warranted.

Provider, youth, and organizational associations with evidence-based treatment use

In order to best target implementation and dissemination efforts, investigators have examined predictors of evidence-based treatment use. While the study of usual care in youth mental health treatment is still in its infancy, a few studies have identified predictors of evidence-based practice by community clinicians. For example, Brookman and colleagues (2010) examined predictors of evidence-based practice in the treatment of youth disruptive behavior disorders. Children who were more likely to receive evidence-based techniques were older and came from families with parents that possessed a higher

educational level (Brookman-Frazee et al., 2010). Additionally, therapists who reported

having a cognitive-behavioral or behavioral theoretical orientation were more likely to

use evidence-based practices in the treatment of youth disruptive behavior disorders

(Brookman-Frazee et al., 2010). In a survey of mental health practitioners' self-reported

use of evidence-based treatments, Nelson and Steele (2007) found that the presence of

practitioner training in evidence-based practice, higher levels of perceived openness of

the clinical setting toward EBPs, and clinicians' positive attitudes toward evidence-based

practice were all associated with greater self-reported evidence-based practice use

(Nelson & Steele, 2007). Additionally, in a survey of community-based clinicians

working under a state mandate to provide evidence-based care, Jensen-Doss, Hawley,

Lopez, and Osterberg (2009) found that provider positive attitudes towards evidence-

based treatments, positive attitudes towards training in such treatments, higher ratings of

clinician reported agency support, and low numbers of clinician reported treatment

barriers were associated with greater clinician reported evidence-based treatment use

(Jensen-Doss et al., 2009).

In addition to these youth and provider-level characteristics, the organizational

social context has also been associated with attitudes toward evidence-based practice

(Aarons, Glisson, Green, Hoagwood, Kelleher, & Landsverk, 2012) and use of cognitive

behavioral strategies (Beidas et al., 2015) among community clinicians. Organizational

social context is defined by two separate, but related constructs: *organizational culture*

and *climate*. Organizational culture includes the norms and expectations of the

organization for its members and is measured by the behavioral expectations reported by

members of the organization (Glisson et al., 2008). Organizational climate is defined as

the psychological impact of the organizational environment on workers (Glisson & Hemmelgarn, 1998; Glisson & James, 2002) and includes a provider's level of stress, functionality, and engagement (Glisson et al., 2008). While both organizational culture and climate have previously been associated with staff turnover and service quality (Glisson & Hemmelgarn, 1998; Glisson, et al., 2008), organizational culture is uniquely related to sustainability of new program implementation. Therefore, organizational culture is particularly important to examine in evidence-based treatment dissemination and implementation efforts.

Current Investigation

Many psychosocial interventions appear to show efficacy in the school environment, as delivered by both research teams and school clinicians (e.g. Masia-Warner et al., 2007; Mufson et al., 2004; Owens et al., 2005). However, little is known about the treatment techniques currently being used by school-based mental health clinicians in the treatment of youth emotional and behavioral concerns and how existent evidence-based approaches may compare to such usual care. A comprehensive understanding of usual care practices and predictors of evidence-based practice use by school-based clinicians is needed to optimize youth treatment and focus dissemination efforts in this setting. Therefore, primary aims for this investigation are as follows:

Aim 1. Given that there are no known measures that examine the use of therapeutic strategies by school-based providers, the first aim of this investigation is to modify an existent self-report questionnaire of therapy techniques previously developed and validated in community mental health settings for use with practitioners working in school-based settings.

Aim 1, Exploratory Components. Given that there have not been any recent investigations examining usual care provided to youth for psychological concerns in school settings, there were no formal hypotheses regarding the intervention techniques that would be reported by participants during qualitative interviews. Therefore, this aim was primarily exploratory.

Aim 1, Hypothesis 1. It was expected that a commonly used questionnaire regarding therapeutic techniques utilized with youth exhibiting behavioral and emotional concerns in community mental health agencies could be shortened to reduce participant burden and used with clinicians providing services in school-based settings. It was expected that the shortened subscales of the Therapy Procedures Checklist-Revised with Family Items (TPC-RF; Weersing et al., 2002) would demonstrate good internal consistency when used with school based mental health providers.

Aim 2. Few studies to date have examined professional characteristics of school-based mental health professionals. Therefore, a primary aim of this study is to describe self-reported characteristics of school-based practitioners as they potentially relate to their intervention work with students (e.g. theoretical orientation, number of years working in the field, use of manualized treatments, caseloads, etc.).

Aim 2, Exploratory Components. There are few investigations that have examined clinical characteristics (e.g. theoretical orientation, caseloads etc.) of school-based mental health professionals. Therefore, this aim was entirely exploratory in nature.

Aim 3. While investigators have recently shed some light on what occurs during usual treatment sessions at community mental health sites, relatively less is known about the characteristics of treatments provided by school-based practitioners. Therefore, a

major aim of this investigation is to identify commonly used treatment strategies reported by school-based mental health clinicians in their treatment of youth psychopathology and adjustment. Additionally, no research to date has examined characteristics of treatment sessions in school-based provision of care (e.g. number of sessions, average length of sessions). Thus, collection of such information will be vital to the current investigation.

Aim 3, Hypothesis 1. Research into usual care practices of community-based clinicians indicate that such clinicians more frequently utilize psychodynamic and eclectic strategies in the treatment of youth psychopathology than cognitive or behavioral strategies (Weersing & Weisz, 2002). Therefore, it was expected that school-based clinicians would similarly report using a range of strategies and would report using more psychodynamic strategies than behavioral or cognitive strategies in the treatment of youth symptoms.

Aim 4. The final aim of this study is to examine predictors of the use of cognitive and behavioral strategies in the treatment of youth in school settings. Given that cognitive and behavioral strategies are primary modalities of evidence-based care for children and adolescents and are efficacious in the treatment of disruptive behavior problems (Eyberg et al., 2008) and internalizing difficulties in youth (David-Ferdon & Kaslow, 2008; Silverman et al., 2008), a primary goal of this study is to understand student, clinician and organizational factors that may be associated with providers use of cognitive and behavioral treatment techniques in school settings.

Aim 4, Hypothesis 1. Given that school-based clinicians report difficulties identifying and treating youth with internalizing distress (e.g. Miller & Jome, 2010), and given the widespread use of evidence-based prevention strategies for the management of

youth behavior difficulties in school settings (e.g. SWPBS; Horner, Sugai, & Anderson, 2010), it was expected that youth with externalizing difficulties would receive cognitive and behavioral intervention strategies more frequently than youth with internalizing disorders as indicated by school practitioners surveyed.

  Aim 4, Exploratory Components. No recent studies have examined therapeutic techniques delivered by school-based mental health providers; therefore, it was unknown whether professional characteristics, such as profession, years of experience, or age would predict evidence-based treatment provision.

  Aim 4, Hypothesis 2. Given that community-based clinicians who work in organizations with proficient cultures have more accepting attitudes toward evidence-based treatments (Aarons et al., 2012), it was expected that clinician reports of organizational support would be positively associated with reported use of cognitive and behavioral treatment strategies.

Chapter 2: Method

Participants

For phase one, participants consisted of seven school-based mental health workers recruited through listserv announcements to Florida Association of School Social Workers (FASSW), postings on the Florida School Counselor Association (FSCA) website, and emails sent to local agencies. Participants in phase one consisted of five school counselors, one school psychologist, and one school social worker. They ranged in age from 31-45 years old ($M = 38.29$, $SD = 4.83$), and were predominantly female (86%). Participants identified as Caucasian (71.4%), Black (14.3%), and other race/ethnicity (14.3%). 14.3% of participants identified as Hispanic/Latino.

Participants in the second phase of data collection consisted of 97 school-based mental health providers working in the state of Florida. Participants in the current investigation were limited to clinicians working in the state of Florida, given between-state differences in the organization of school-based mental health services (Berkeley, Bender, Peaster, & Saunders, 2009). Participants were based on targeted recruitment from six randomly selected school districts within the state of Florida. In order to be certain that small and large school divisions were equally represented, a stratification method was used that is similar to prior school-based mental health research (Evans, Koch, Brady, Meszaros, & Sadler, 2013). School districts were stratified by size (i.e., large vs. small) based on data from the National Institute for Education Statistics (U.S. Department of Education, National Center for Education Statistics, 2013). School districts were then randomly selected so that one of the largest five school divisions in the

state was randomly selected and 5 of the remaining 62 school divisions were randomly selected, for a total of six school divisions.

Prior to survey distribution, approval was obtained from the superintendent of each randomly selected school district. Formal research review applications were submitted for school districts with a formal research review process. In the event when superintendents were unable to be reached to provide approval, additional outreach was made in attempt to obtain permission. After a minimum of three unsuccessful outreach attempts, the identified school district was no longer included in the investigation. In order to obtain six participating school districts, outreach was made to 12 school districts. Five school districts were unresponsive to outreach, and one school district refused participation in the investigation upon initial contact. Alternate school districts were then chosen from the randomly ordered list until administrators from six school districts approved. One of these school districts required that permission be obtained from each principal prior to contacting school staff. In this school district, an email was sent to the principal of each school, and permission was obtained electronically prior to contacting participants.

Each school district's department of student services was contacted in order to obtain information about the school district's method of providing school-based mental health services. Potential participants were identified at this time via respective departments of student services and email addresses were obtained, when not publically available. Two school districts refused to share email addresses. In these instance, district administrators were asked to distribute the survey to relevant personnel. These

administrators provided information on the number of school-based providers to whom they sent the email in order to obtain the overall response rate, described below.

Questionnaires were emailed to a total of 253 providers. All questionnaires were conducted via LimeSurvey, a secure internet-based survey software. LimeSurvey is securely linked to the University of Miami's Department of Psychology internet server, where data collected from the surveys were stored. Twenty-eight of these providers were recruited via a link to the survey forwarded by school personnel, per preference of the administrator. The remaining 225 potential participants were contacted directly through a series of four emails. Online surveys were originally attempted by 128 providers, for an initial response rate of 50.6%. Of these 128 surveys, 21 surveys were begun, but not completed. 107 surveys were completed, for an overall response rate of 42.3%. Ten of the remaining 107 participants (9.4%) indicated in the first two questions that he or she did not provide direct intervention services to youth in the schools; and therefore the survey was programmed to discontinue administration of the remaining questions. Participants from four of the six school districts completed the entire survey. Response rate by school district is described in Table 1.

Data from phase two was analyzed only for participants with complete survey data. The decision to include only those with complete data was made given online survey methods that allowed each participant to attempt the questionnaire multiple times prior to submission. Given that all attempts were recorded, it is uncertain whether incomplete data represents prior attempts by survey completers. The final sample of survey completers included 97 school-based mental health providers. The final sample was predominantly female (91.8%) and ranged in age from 26 – 76 years ($M = 46.24$, SD

= 10.66). Participants identified as Caucasian (81.4%), Black/African American (10.3%), and Other (8.2%). 40.2% of participants identified as Hispanic/Latino. Participants consisted of school counselors (71.1%), school psychologists (11.3%), school social workers (10.3%), and other providers including community mental health counselors (3.1%), clinical psychologists (2.1%), a behavior analyst (1.0%), and a bachelor's level program specialist (1.0%). See Table 2 for participant demographic information. The majority of participants reported that their primary work location was an elementary school (38.1%); with many clinicians also working in high schools (24.7%) and middle schools (19.6%). See Table 3 for additional school characteristics. Participant schools were located in 39 separate zip codes.

Measures

Therapy Procedures Checklist – revised with family items (TPC - RF; Weersing et al., 2002). The TPC-RF is a 62-item therapist-report measure that assesses use of different child therapy techniques. The measure contains three subscales (Psychodynamic, Cognitive, and Behavioral), and additional family items that were later added by the original authors. Scales in the original measure have shown excellent internal consistency (all rs > .86) and good test–retest reliability (all αs > .75) in multiple samples of community-based therapists and psychiatrists working with youth (Weersing et al., 2002).

In the current investigation, this measure was modified by removing items from each subscale in order to shorten the survey and to reduce participant burden. Additional items were also added after pretesting, and generated through qualitative interviews with school-based mental health clinicians. This measure's modification for school-based

clinicians was conducted with permission from the measure's primary author (V.R. Weersing, personal communication June 26, 2013). The modification of this measure is fully explained below. In the modified TPC, each subscale (Behavioral, Cognitive, and Psychodynamic) contains eight items, with total scales ranging from 8-40. See Appendix A for for final survey, including the modified Therapy Procedures Checklist-School Form (TPC-SF).

Demographic and Background Questionnaire. The Demographic and Background Questionnaire is a measure designed specifically for this study. Questions address clinician characteristics (e.g. age, degree, years of experience) and experiences related specifically to the provision of services to youth in educational settings (e.g. number of referrals for various concerns, number of other staff who provide mental health services). Additionally, questions examining organizational culture were created during qualitative interviews in phase one of data collection.

Procedure

The *first step* in data collection included qualitative interviews and pretesting of survey items with seven school-based mental health clinicians. Participants were emailed a link to the electronic survey within 24 hours prior to the scheduled interview. Participants were instructed to complete the questionnaire prior to the interview. The electronic survey included space for feedback on each page. During a scheduled phone call, the interviewer obtained information about survey completion and unclear items.

After pretesting the questionnaire, additional open-ended questions were asked regarding participants provision of services in the school setting. Interviews were audio-recorded and transcribed verbatim. Two coders, one doctoral student in clinical

psychology, and one undergraduate student in psychology reviewed interview transcripts to identify common themes regarding school-based treatment strategies and organizational supports and barriers. After reviewing the first two transcripts independently, the reviewers spoke to organize the concepts, define themes, and design a preliminary codebook. The reviewers communicated following coding of each transcript to review the codes assigned. The codebook was refined, with new codes added, until all transcripts were coded. Codes were then refined, and collapsed as appropriate. The eight most representative treatment themes of the original 16 identified were used to form TPC questionnaire items. The 11 most representative organizational themes were selected from the original 32 identified to form the organizational questions within the Demographic and Background Questionnaire. Additionally, an Exploratory Factor Analysis (described in Results) was conducted with the eight newly added items to the Therapy Procedures Checklist to determine the factor structure of these newly added items.

The TPC-RF was modified in order to both reduce the length of the survey and to best represent work completed within the school setting. Specifically, 13 items from the TPC-RF were removed during pre-testing following participant feedback, as participants stated that these strategies were not applicable to school-based work or were difficult to understand. Eight additional items were added, based on qualitative data obtained during interviews. See Results for descriptive information about these items. The measure was also shortened following phase one in response to feedback regarding the length of the questionnaire and participant burden. The eight items with the highest factor loadings on each of the psychodynamic, behavioral, and cognitive subscales were retained in the final

survey. Additionally, the five remaining items that did not originally fit into one of the TPC-RF subscales were also retained in the revised questionnaire. All additional items were removed.

The *second step* of data collection occurred through the administration of online questionnaires, modified in the first step of data collection. As noted, a link to the online questionnaire was emailed to 253 school-based mental health clinicians. Survey methods outlined by Dillman, Smyth, and Christian (2009) were modified and used to ensure optimal response from clinicians. These methods included four emails. The first email alerted the clinician to the questionnaire. The second email was sent one week following the first outreach, and stated the purpose of the survey and a link to the electronic questionnaire. A five-dollar electronic gift card was sent separately and within twelve hours prior to the second email. The third and fourth emails consisted of a thank-you/follow-up reminder and a link to the survey. These emails were sent approximately three and four weeks following the initial email.

Chapter 3: Data Analytic Plan and Results

Aim 1, Exploratory Components.

The eight most representative themes identified during qualitative interviews are listed in Appendix B. Half of these themes consist of techniques aimed at improving emotion regulation strategies (e.g. "working with youth to identify adaptive coping strategies," "working with youth to identify trigger points for strong emotions"). Three of these strategies consist of techniques aimed at improving social skills and addressing interpersonal difficulties (e.g. "teaching social skills by role-playing in session," "mediating youth conflict through open communication in office"). The remaining item includes assisting with general problem solving skills ("working with youth to identify different approaches to resolving problems").

In order to determine the factor structure of the newly added TPC items, an exploratory factor analysis was conducted. First, items were examined for skew and kurtosis. Preliminary analyses indicated approximately normal distributions. Bivariate correlations between the new TPC items were then examined. All variables correlated with at least six other items, indicating support for the examination of the factor structure of these variables.

An exploratory factor analysis was run with all eight new items. The Kaiser-Meyer-Olkin measure of sampling adequacy was .84, above the recommended value of .60, and Bartlett's test of sphericity was significant ($\chi^2 (28) = 293.01$, $p < .01$). Additionally, the communalities were all above .50 (see Table 4 for communalities and factor loadings of new TPC-SF items), further confirming that each item shared some

common variance with other items. Given these overall indicators, factor analysis was conducted with these eight items.

Given anticipated correlation between underlying factors, principal components analysis with oblique rotation (direct oblimin) was used. The analysis produced two factors with an eigenvalue greater than 1. The scree test also revealed two factors. The two factor solution was selected and accounted for 62.5% of the variance in TPC scores. The results of the factor analysis revealed factors relating to interpersonal problem solving and emotion regulation. All items had primary loadings over .40 and only one item had a cross-loading above .40 ("working with the youth to identify trigger points for strong emotions"). This item was placed on the emotion regulation subscale given its theoretical relationship to other emotion-focused items on this subscale.

Internal consistency for each of the scales was examined using Cronbach's alpha. The alphas were acceptable for both the Interpersonal scale (.78) and for the Emotion Regulation scale (.78). Descriptive statistics for the Interpersonal and Emotion Regulation subscales are described in Table 5. There was a moderate correlation between Interpersonal and Emotion Regulation subscales, $r = 0.68$, $p < 0.01$, supporting the choice of the oblimin rotation for the EFA. A confirmatory factor analysis was unable to be run using all items in the TPC-SF, given that a sample size of approximately 300 would have been needed to conduct this analysis (Tabachnik & Fidel, 2007). Therefore, it is unknown whether these newly added items may also load onto the already established subscales of the TPC. Subsequent analyses using these new subscales are performed in a cautious and preliminary method and are not reported as main results of the current investigation.

Aim 1, Hypothesis 1.

Cronbach's alphas were calculated for the cognitive, behavioral and psychodynamic subscales in order to determine psychometric properties of the shortened TPC when used with school-based mental health providers. Prior to examining internal consistency for the original TPC subscales, data was examined for skew and kurtosis. Approximately normal distributions were found. Internal consistencies were found to be excellent for the behavioral ($\alpha = 0.90$) and cognitive ($\alpha = 0.90$) subscales. Additionally, the internal consistency for the psychodynamic subscale was good ($\alpha = 0.80$). Descriptive statistics for each of the five subscales of the Therapy Procedures Checklist – School Form (TPC-SF) are presented in Table 5.

Aim 2, Exploratory Components.

Frequency distributions were calculated to provide descriptive information regarding clinician demographic variables, licensure status, highest level and type of education, reported use of treatment manuals, and theoretical orientation. Ranges, means, and standard deviations were reported for years of clinical experience, and clinical referrals and caseloads.

Questionnaire data indicated that the majority of respondents were licensed (83.5%) and held a degree more advanced than a Bachelor's degree (97.9%). The majority of participants indicated that their highest level of education was a Master of Arts, Master of Science, or Master of Education degree (57.7%). The next most commonly reported degree was an Education Specialist (20.6%). See Table 6 for additional licensure and degree information. Respondents ranged in the number of years working with youth in school settings from less than one year to 42 years (*M* = 16.11, *SD*

= 9.47). Caseloads also varied significantly. Clinicians reported working with a range of 0-44 students each week ($M = 11.57$, $SD = 11.05$) with a median of seven students seen weekly. Respondents reported that the number of additional support staff in the school ranged from 0-12 staff members ($M = 2.26$, $SD = 1.19$), with 16.5% of participants reporting that they were the only staff member providing services to youth for psychological concerns at the school. Professional characteristics of participants are reported in Table 7.

Many clinicians did not report a theoretical orientation. Of those who indicated theoretical orientations ($n = 70$; 72.16% of those with completed questionnaires), 41.4% reported a cognitive-behavioral orientation, 20.0% responded that they possessed more than one theoretical orientation or took an eclectic approach, 9.3% reported using a Rogerian or client-centered approach, 4.1% indicated a solution-focused orientation and 2.1% reported a positive psychology approach. See Table 6 for frequencies of reported theoretical orientation. Clinician use of intervention manuals was also examined. 24.7% indicated that they never use manuals in their work with youth, 63.9% reported that they occasionally or sometimes use manuals, and 11.3% reported often or almost always using manuals. See Table 6 for frequencies of reported manual use.

Aim 3, Hypothesis 1.

In order to examine specific strategies used in their intervention work with youth, clinicians were asked to report on the characteristics of a student for whom they have recently provided intervention services for emotional or behavioral concerns. Approximately half (52.6%) of the students identified by respondents were female and ranged in age from 5-21 years ($M = 12.43$, $SD = 3.39$). Students were identified as 80.4%

Caucasian, 13.4% Black/African American, and 6.2% other. 45.4% were identified as

Hispanic/Latino. See Table 8 for reported student demographic information. 29.9% of the

students were required to receive intervention services through an Individualized

Education Plan or 504 Plan. Primary presenting problems included behavioral concerns

in the classroom, inclusive of oppositional behavior, attention difficulties and

hyperactivity (31.0%). Additional referral reasons included adjustment difficulties related

to family stressors (14.4%), interpersonal difficulties (10.3%), and suicidal ideation or

self-harm (10.3%). Referrals were made primarily by teachers (47.4%); however,

students often self-referred (21.6%). Less common referral sources included other

counselors in the school (12.4%), parents (9.3%), administrators (7.2%), and other

sources, such as the school secretary or the student's primary care physician (2.1%).

Frequencies of referral reason and source can be found in Table 9.

Average session length varied widely from 2-75 minutes ($M = 28.94$, $SD =$

13.58), with only 21.6% of clinicians reporting session lengths of more than 30 minutes.

Similarly, frequency of sessions varied from 1-50 sessions ($M = 6.78$, $SD = 8.53$), with

57.7% of clinicians reporting that they met with the student for four sessions or less. See

Table 10 for descriptive statistics regarding average session length and frequency of

sessions. The most common treatment modality consisted of individual therapy provided

on an as-needed basis (50.5%). Other treatment modalities included regularly scheduled

individual therapy or counseling sessions (28.9%), regularly scheduled group therapy or

counseling (7.2%), and push-in intervention services provided to students in the

classroom (7.2%). Clinicians reported that treatment also included consultation with

parents/guardians (53.6%) and teachers (41.2%). See Table 11 for descriptive statistics of clinician reported treatment modalities.

Clinicians also reported on barriers to treatment and clinical supervision. The most common treatment barrier reported was "resistance from the child" (27.8%). Additional barriers included "lack of involvement from parents" (19.6%) and "difficulty scheduling meetings during the school day" (19.6%). See Table 12 for descriptive statistics on reported barriers to treatment provision. In regard to supervision received, 45.4% of clinicians reported not receiving any supervision regarding their work with the student. When supervision was received, it was commonly reported as consultation with other counselors or mental health providers in the school (23.7%) or informal consultation with teachers or parents (16.5%). Formal supervision was reported by 15.5% of participants and consultation with outside community mental health providers was reported by 9.3% of participants. Descriptive information on clinical supervision is presented in Table 13.

In regard to type of treatment strategies used, clinicians indicated most commonly using cognitive strategies in their work with youth ($M = 26.52$, $SD = 7.90$). They also frequently reported using psychodynamic treatment strategies ($M = 24.14$, $SD = 6.39$). Behavioral strategies were less frequently reported being used in respondent's provision of school-based mental health treatment ($M = 19.25$, $SD = 8.99$). See Table 5 for descriptive statistics for subscales of the TPC-SF.

Most commonly reported individual intervention or counseling strategies included "Working with the child to identify different approaches to resolving problems," "Training the child to stop and think before responding to events," "Trying to understand

the original circumstances that led to the current problems," and "Trying to understand the child's unconscious drives, feelings, or conflicts." The least commonly reported strategies by clinicians were "Using systematic desensitization, with imagined or real exposure to feared objects or situations," "Using time-out from reinforcement," "Analyzing the child's dreams, fantasies, or other products (e.g. art)," and "Using a point or token system to reward the child for good behavior." See Table 14 for frequencies of reported strategy use.

Aim 4, Hypothesis 1.

Independent sample *t*-tests were run to determine whether there are differences in youth with internalizing disorders and externalizing disorders in the type of treatment received.

Youth primary presenting concerns were grouped into internalizing ($n = 31$) and externalizing ($n = 38$) concerns. 28 of participants reported on youth that could not clearly be categorized as internalizing or externalizing concerns (e.g. "family problems," "part of educational plan") and were excluded from these analyses. Independent sample t-tests indicated that youth with externalizing concerns were more likely to receive behavioral treatment strategies ($M = 22.50$, $SD = 8.88$) than youth with internalizing concerns ($M = 17.39$, $SD = 9.04$), $t(67) = -2.36$, $p < 0.05$. No differences were found between groups in use of cognitive or psychodynamic treatment strategies. Results of these analyses are presented in Table 15.

Aim 4, Exploratory Components.

Clinician age and years of experience were examined for associations with use of different therapeutic approaches. Clinician age was positively associated with reported

use of psychodynamic treatment strategies, r (96) = 0.20, $p < 0.05$. No associations were found between clinician age and use of cognitive or behavioral treatment strategies. No relationship was found between clinician years of experience and use of behavioral, cognitive, or psychodynamic techniques. See Table 16 for all correlation coefficients between clinician characteristics and reported use of cognitive, behavioral, and psychodynamic strategies. Youth characteristics were also examined for associations with use of different therapeutic approaches. Student age was associated with use of behavioral techniques, such that these techniques were more commonly used with younger children, r (96) = -0.21, $p < 0.05$. Additionally, behavioral strategies were more frequently reported to be used with male students ($M = 22.28$, $SD = 9.94$) than female students ($M = 16.51$, $SD = 7.08$), $t(95) = 3.32$, $p < 0.01$. No additional relationships were found between strategy use and child age or gender. Details of these analyses are described in Table 17.

To determine which child factors had independent relationships with use of behavioral strategies, a hierarchical multiple regression was used including all significant predictors (e.g. internalizing/externalizing concern, youth age, youth gender). Referral reason and child gender were first dummy coded before entering these variables into the regression analyses. Referral reason (e.g. internalizing versus externalizing concern) was entered in the first step and youth gender and age were entered in the second step. As noted previously, youth referral reason was associated with increased use of behavioral strategies, $R^2 = 0.08$, $F(1, 67) = 5.57$, $p < 0.05$. Youth age and gender accounted for a significant proportion of the variance in use of behavioral strategies after controlling for the effects of referral reason, $R^2 = 0.17$, $F(3,65) = 4.40$, $p < 0.05$, $\Delta R^2 = 0.09$. The

significance of each individual predictor variable was minimized in the final regression model so that none of the individual predictors remained significant. Details of this regression analysis are described in Table 18. This minimization may be related to the influence of shared variance between predictors, as moderate correlations were found between variables. See Table 19 for correlation coefficients between predictor variables.

Various session characteristics were also examined for relationships between behavioral, cognitive, and psychodynamic treatment strategies. There was no association between length of each session and use of behavioral, cognitive, or psychodynamic treatment strategies. Positive associations were found between number of sessions and use of behavioral strategies, r (96) = 0.32, $p < 0.01$ and cognitive strategies r (96) = 0.32, $p < 0.01$, with greater use of cognitive and behavioral strategies being reported with increased number of sessions. There was no relationship found between number of sessions and use of psychodynamic treatment strategies (see Table 16 for correlations between session characteristics and various treatment strategies).

A multivariate analysis of variance (MANOVA) was conducted to evaluate the relationship between profession and use of behavioral, cognitive, and psychodynamic treatment strategies. There was not a statistically significant difference in behavioral, cognitive, or psychodynamic strategies based on provider profession.

Aim 4, Hypothesis 2.

In order to test the relationship between clinician perception of organizational support and use of cognitive and behavioral treatment strategies, items were added to the Demographic and Background Questionnaire following phase one of data collection. Preliminary analyses of the Organizational Measure (OM) variables revealed high

negative skew and positive kurtosis, indicating a non-normal distribution of data. The data was transformed using reverse score and then reciprocal transformations. The resulting data indicated tolerable skew and kurtosis.

An exploratory factor analysis of the organizational items was conducted to determine the factor structure of this measure. Preliminary analyses revealed that nine of the eleven initial items in the OM significantly correlated with many of the other items on the OM. Two of these items significantly correlated ($p < 0.05$) with less than three other items and were therefore not included in the factor analysis. These items included "my ability to provide direct services to youth is limited by competing responsibilities (e.g. paperwork, meetings)" and "my ability to provide services is limited by workload interruptions that occur throughout my day." An exploratory factor analysis was performed on the remaining 9 items. The communality was below .50 for one item ("there are structured guidelines in my school that help promote positive youth behavior and mental health") and so this item was removed before analyses were rerun. The decision to remove items was also supported by lack of theoretical relationships between variables. In the final exploratory factor analysis, the Kaiser-Meyer-Olkin measure of sampling adequacy was .89, above the recommended value of .60, and Bartlett's test of sphericity was significant ($\chi^2 (28) = 589.93, p < .01$). The communalities were all above .50, further confirming that each item shared some common variance with other items. See Table 20 for factor loadings and communalities of all variables on the OM. Given these overall indicators, factor analysis was conducted with these eight items.

Principal component analysis was used and the initial eigenvalues showed that the first factor explained 68.8% of the variance. The second factor explained 7.7% of the

variance. The one factor solution was preferred due to theoretical support, the 'leveling off' of eigenvalues on the scree plot after one factor, and the insufficient number of primary loadings and difficulty of interpreting the second factor and subsequent factors. Internal consistency for the scale was examined using Cronbach's alpha. The alpha was excellent (0.94). Composite scores were created for the measure. Descriptive statistics are presented in Table 21. The skew and kurtosis were well within a tolerable range for assuming a normal distribution and examination of the histograms suggested that the distributions looked approximately normal.

Overall, these analyses indicate that one factor underlies this sample's responses to the OM and this factor demonstrated excellent internal consistency. Following data transformation, an approximately normal distribution was evident for the composite measure in the current study, thus the data were well suited for parametric statistical analyses.

Correlation analyses were then used to examine the relationship between the OM and use of various strategies in the provision of care. No associations were found between the OM and use of behavioral, cognitive, or psychodynamic strategies. See Table 16 for correlation coefficients.

Chapter 4: Discussion

Few studies to date have been conducted that characterize school-based mental health care. Results of this investigation highlight the variability among professionals providing such services, the context in which treatment is provided, the length and nature of intervention, and the referral reason and referral source associated with school-based intervention and counseling services. Additionally, findings from this study provide valuable information regarding the content of school-based intervention services, and suggest that specific treatment strategies utilized in school settings also varies greatly. This investigation furthers the literature on treatment as usual for emotional and behavioral concerns in youth by providing detailed information about school mental health intervention characteristics.

The primary purpose of the first phase of data collection was to modify and pretest a questionnaire used to characterize treatment as usual for youth with emotional and behavioral concerns by school-based mental health providers. Data from qualitative interviews during this phase shed light onto strategies commonly employed by school-based mental health providers that have not previously been included in measures of therapy techniques used in community settings. Results demonstrate that in-session emotion regulation, interpersonal skills teaching, and in-session conflict mediation are strategies utilized by school-based mental health providers in the provision of youth care. These techniques may not be represented in current measures of psychosocial treatment strategies due to differences between techniques employed between school and community mental health (CMH) settings. Alternatively, reported use of these strategies in the current investigation may reflect increased dissemination of emotion-focused (e.g.

UP-A; Ehrenreich, Goldstein, Wright, & Barlow, 2009; Suveg, Kendall, Comer, & Robin, 2006) and interpersonal treatments (e.g. IPT-A; Mufson et al., 2004) across both school and CMH settings since the original TPC was developed.

Results from phase two of data collection highlight the variability in professional characteristics of those providing mental health services to youth in schools. Results indicate that school-based mental health providers are highly educated, with 98% of the current sample having completed a master's degree or higher. These findings suggest slightly higher degree attainment than the reported credentials found in prior school-based mental health research (Foster et al., 2005). The discrepancy between credentials reported in prior research and the current investigation may be related to a national trend toward higher level of educational achievement in the past decade (U.S. Department of Education, 2015). Alternatively, these findings may suggest higher degree attainment in school-based mental health providers within the state of Florida compared to a national sample. The majority of respondents in this study also reported that they were certified or licensed. This was consistent with findings from the prior study of school-based mental health professionals (Foster et al., 2005). Of note, results of both the current study and prior school-based mental health survey indicate higher number of professionals with advanced degrees and certification when compared to professionals working with youth through community mental health (CMH) organizations, where 60%-81% of clinicians hold a master's degree or higher (Becker, Smith, & Jensen-Doss, 2013; Schoenwald et al., 2008) and 60% are licensed (Schoenwald et al., 2008).

There was great variability in the number of students on each clinician's caseload, with providers working with a median number of seven students each week. Additionally,

the number of additional support staff at each school also varied greatly in this study, with a median report of two additional mental health support staff per setting, and many participants reporting that they were the only person responsible for mental health services at their school. This is consistent with the relatively low staffing of school-based mental health programs found in previous research (Foster et al., 2005). These numbers clearly contrast with community mental health organizations, in which the average number of clinicians per site is reported to be 25 (Schoenwald et al., 2008). Results highlight structural differences in provision of care between CMH agencies and school settings. While most CMH agencies are organized around a primary purpose of providing psychological services to youth, academic settings are structured with the primary purpose of academic instruction and psychological services are viewed as a support function to achieving overarching academic goals. Nonetheless, these results highlight the caseload challenges faced by school-based mental health providers and indicate that there is relatively low peer support in provision of mental health service in school settings.

The stated theoretical orientations of providers also varied greatly in this investigation, with cognitive-behavioral being reported as the most common theoretical orientation. This is similar to reported theoretical orientation in community mental health organizations where approximately 43.2% of clinicians identify with a cognitive-behavioral theoretical orientation and 36.5% report adopting an eclectic approach (Becker, Smith, & Jensen-Doss, 2013). However, the stated use of manuals in this population was greater than reported use of manuals by community health clinicians. 75.3% of school-based mental health providers reported ever using manuals in their work

with youth, compared with 59.3% of community mental health providers (Becker et al., 2013). These results suggest that there is some promise for dissemination efforts to school-based mental health settings given that manual use is the primary method of evidence-based practice dissemination (Waller, Stringer, & Meyer, 2012). Given that a cognitive-behavioral orientation, younger age, and increased openness to new treatments has previously been associated with manual use in community mental health providers (Becker et al., 2013), future investigations should examine these relationships in school-based mental health providers use of manuals as well.

In order to obtain a better understanding of treatment as usual within the school setting, each clinician reported on his/her work with an individual student. The most common referral reasons included behavioral concerns, such as attention difficulties, hyperactivity, impulsivity and oppositional behavior. Youth were also referred frequently for family concerns, suicidal ideation or self-harm, and interpersonal difficulties. A prior survey on school-based mental health service provision also indicated that interpersonal or family problems and disruptive behavior were among the top referral reasons to school-based mental health providers (Foster, 2005). In community mental health organizations, top referral reasons similarly include disruptive behavior problems, attention difficulties, and depressive symptoms (Garland et al., 2001; Merikangas et al., 2010; SAMSHA, 2012). The noted discrepancy in frequency of referrals for internalizing disorders between settings may indicate differences in assessment processes and case conceptualization. For example, evidence-based assessment is uncommon in school-based settings (Connors, Arora, Curtis, & Stephan, 2015) and many providers may conceptualize internalizing concerns based on concrete precipitants (e.g. family concerns,

testing scenarios, etc.) and/or observable interference (e.g. interpersonal difficulties) instead of self or parent report questionnaires of internalizing symptoms. However, further research examining differential assessment and case conceptualization in school settings is needed to further interpret such results.

Results from this investigation also suggest that teachers represent the most common referral source in schools, followed by the students themselves. This finding further highlights both the relative high accessibility of school-based mental health services for students and teachers seeking assistance and the limited parent contact that may be associated with initiation of school-based treatments. Along these lines, community treatment for youth may include parents for as many as 70% of sessions (Garland et al., 2010); while only 53.6% of participants in the current study reported consulting with parents during any part of the youth's school-based treatment. Many evidence-based treatments for youth emotional and, particularly, behavioral concerns include substantial parent involvement (see Eyberg, Nelson, & Boggs, 2008; Silverman, Pina, & Viswesvaran, 2008) and school-based settings may represent challenges in this regard. In fact, 19.6% of participants in the current study reported that lack of parental involvement was a barrier to treatment provision. However, one could also view such results as highlighting opportunities for adoption of EBTs in classroom settings or with greater teacher involvement, such as Teacher-Child Interaction Therapy (TCIT; McIntosh, Rizza, & Bliss, 2000) for youth with disruptive behavior disorders.

Even though the nature of treatment provision within the schools varies greatly, the majority of treatment sessions consist of individual meetings provided on an as-needed basis. Reported sessions were typically under 30 minutes and treatment lasted less

than four meetings. This demonstrates that youth in school-based settings are spending substantially less time in therapy than youth receiving treatment in CMH agencies, where the average treatment course may last more than 20 sessions (Garland et al. 2010; Weisz et al 2009). This is also important within the context of implementing evidence-based treatments in school settings, given that the majority of developed prevention and treatment protocols are at least 60 minutes and more than eight sessions (see Corrieri, Heider, Conrad, Blume, Konig, & Riedel-Heller, 2013).

The reported level of supervision also represents a major difference in service provision between CMH and school settings. Approximately half of the participants in this study reported not receiving any feedback or supervision on their work with youth. Additionally, when supervision was received, it was primarily through informal consultation with other counselors or mental health providers in the school. Only 15.5% of participants reported receiving formal supervision about their treatment. This differs greatly from what is typical in research trials and community mental health organizations, in which the majority of clinicians discuss their cases during weekly hour long supervision (Bearman, Weisz, Chorpita, Hoagwood, Ward, Ugueto, & Bernstein, 2013). Supervision has previously been associated with provider adherence to evidence-based practice and youth outcomes (Schoenwald, Sheidow, & Chapman, 2009) and therefore lack of supervision in school-mental health treatments may represent challenges to evidence-based practice implementation.

Results of this investigation also demonstrate that cognitive, behavioral, and psychodynamic treatment strategies are commonly utilized in school mental health clinics. Of note, behavioral strategies were less commonly used than psychodynamic and

cognitive strategies. This is consistent with investigations into usual care within CMH organizations, in that behavioral strategies are infrequently used in the treatment of youth concerns (Beidas et al., 2015; Kolko et al., 2009; Weersing & Weisz, 2002; Weisz et al 2009) and when used, are done so with low intensity (Garland et al., 2010). While research into usual care has shown a positive relationship between intensity of behavioral strategy use in the treatment of externalizing concerns and youth outcomes (e.g. Garland et al., 2005); there has not been an association found between strategy use and treatment effectiveness for treatment of adolescent depression (e.g. Weisz et al., 2009) in CMH settings. Therefore, examination of the effectiveness of these various strategies for both internalizing and externalizing concerns is warranted in school settings.

For Aim 4 of this investigation, patient, child, and organizational correlates of cognitive, behavioral, and psychodynamic treatment strategies were examined. Younger age, male gender, and presence of an externalizing disorder were all associated with greater use of behavioral strategies. Behavioral strategies have proven efficacy in the treatment of youth with anxiety and depression (David-Ferdon & Kaslow, 2008; Silverman et al., 2008) and disruptive behavior disorders (Eyberg et al., 2008). Therefore, results of this investigation suggest that youth with internalizing concerns may be less likely to receive strategies consistent with evidence-based practice. These findings are likely related to reported difficulty by school-based clinicians identifying and treating youth with internalizing distress (e.g. Miller & Jome, 2010). Overall, school-based mental health providers primarily receive referrals to address academic difficulties (Kelly & Lucek, 2011) and therefore may be less familiar with treatment of internalizing distress. Additionally, school-based mental health providers may be more familiar with

behavioral treatments for youth with externalizing concerns given the widespread adoption of evidence-based prevention strategies for the management of youth behavior difficulties in school settings (e.g. SWPBS; Horner, Sugai, & Anderson, 2010).

Results of the current investigation also suggest that cognitive and behavioral strategies are more likely to be used over longer courses of treatment. However, there was no association found between use of psychodynamic strategies and number of sessions provided. This indicates that psychodynamic strategies may be incorporated into early treatment sessions and short-term treatments in school settings; whereas, cognitive and behavioral treatments are used predominantly over a course of longer treatment. These findings contrast with the short-term nature of cognitive-behavioral interventions when compared to usual care in community settings (e.g. Weisz et al., 2009). Results may reflect a greater severity of illness in the youth that are receiving cognitive and behavioral therapy within the school setting, which may underlie both the use of additional strategies and the longer course of treatment for these youth. Nonetheless, cognitive and behavioral strategies are common components of evidence-based treatments for youth (David-Ferdon & Kaslow, 2008; Eyberg, Nelson, & Boggs, 2008; Silverman, Pina, & Viswevaran, 2008). Given that school-based treatment is generally short-term, school-based mental health treatment may be optimized by treatment development efforts that focus on incorporating cognitive-behavioral strategies early in the treatment course.

No relationship was found between participant perception of organizational support and reported use of cognitive, behavioral, or psychodynamic techniques in this investigation. This contrasts with prior research suggesting that higher levels of

organizational support is associated with clinician use of cognitive-behavioral strategies (Beidas et al., 2015) and leads to evidence-based treatment implementation (Aarons et al., 2012). These results may indicate that school-based mental health providers' use of evidence-based treatment techniques may be better explained by clinician or student level factors. In addition to student and clinician variables explored in this study, provider attitudes toward and knowledge of evidence-based practices may have been associated with cognitive and behavioral treatment strategy use. For example, knowledge of evidence-based practices has previously been related to use of evidence-based practice within school settings (Stephan et al., 2012) and may have accounted for differential use of strategies in the current study as well. However, the lack of association found between organizational variables and cognitive and behavioral strategies may also be a by-product of the small variability seen in the current sample in terms of reported organizational support. Given that various administrator approvals were needed to conduct this survey, recruitment methods may have biased the sample toward school districts with high organizational support. Future research should examine organizational support as it relates to evidence-based treatment implementation in a larger and more administratively "diverse" sample, in which required administrator support for the study may not bias the sample toward high scores on this measure.

Study Limitations

As noted previously, a limited sample size did not allow for a confirmatory factor analysis to be conducted on the newly revised TPC measure. Therefore, items that loaded onto the two new subscales of the TPC-SF may have actually better fit onto the three original subscales. By examining these newly added items separately and shortening the

existent scales, the current results may have underrepresented behavioral, cognitive, and psychodynamic strategies that are currently being used in school mental health services. An accurate representation of the factor structure of the TPC-SF is necessary to best characterize usual care provided by school-based mental health clinicians and a confirmatory factor analysis should be conducted in subsequent research.

Additionally, reliance on self-report data may produce a respondent bias and answers on the TPC-SF may not truly represent what is occurring in the therapy session. This questionnaire also does not capture the intensity or competence of therapeutic techniques, and recent research highlights the positive relationship between intensity of strategy use and improved treatment outcome (Garland et al., 2005), in particular.

Another limitation of this study can be found in the limited percentage of school districts that were responsive to survey administration. Given the various number of permissions necessary to distribute surveys to school personnel, the pool of potential participants may have been biased at the school district and school level, which may not be an accurate representation of all schools within the state of Florida. In fact, results on the measures of organizational culture would indicate that the school districts sampled are highly supportive of school-based mental health professionals. Additionally, given the sampling methods, there may be an underrepresentation from smaller school districts in the current sample and future investigators may choose to oversample from small school districts in order to account for this difficulty in recruitment. Furthermore, there is great variability in the provision of school-based mental health services at the state level in the United States (Berkeley, Bender, Peaster, & Saunders, 2009). Therefore, results of this study may not generalize to provision of services in other states or regions of the country

and future investigations should consist of large-scale national sampling of school-based mental health providers.

In addition, the use of multiple significance tests in this investigation may have increased the likelihood of Type 1 statistical error. The decision to forgo a Bonferroni correction for multiple tests of significance was supported by the exploratory nature of this investigation in an area that is greatly understudied.

Future Directions

Similar to the study of usual care in CMH agencies, there is a need to conduct observational studies of school mental health services to determine the degree to which questionnaire responses match onto objective observational data. The Therapeutic Process Observational Coding System for Child Psychotherapy – Strategies Scale (TPOCS-S; McLeod, 2001) is an observational coding system designed to assess various intervention strategies in CMH organizations. The content of this measure was adapted from the original TPC. The development of the TPOCS-S has been critical to furthering knowledge of what occurs in treatment as usual in CMH agencies (e.g. Garland, 2010; Southam-Gerow et al., 2010; Weisz et al., 2009). Similar to the way in which the content of the original TPC was used to develop the TPOCS-S, the TPC-SF measure can be used to develop an observational measurement system for school-based treatment.

Results from the second phase of data collection suggest that school-based treatment consists primarily of individual sessions provided on an as-needed basis. Treatment development efforts should aim to work within this treatment framework of school-based services. Therefore, in addition to efforts to disseminate and implement interventions with demonstrated effectiveness (e.g. Masia-Warner et al., 2007; Mufson et

al., 2004; Owens et al., 2005), brief, individualized interventions and treatment guidelines should be developed and studied for effectiveness in school settings. Given that less than half of youth who are referred from schools to specialty mental health centers access treatment (Husky et al., 2011), these limited school-based sessions may represent the only opportunity for intervention for many youth. Treatment development within this setting should focus on short-term, high-impact interventions, with greater usage of evidence-based assessment at early stages of therapist-student interaction.

Data on usual care strategies should also be used to inform treatment development in order to best examine fit between the intervention and the setting. For example Lyon and colleagues (2014) examined the feasibility of school mental health providers implementing modular, evidence-based psychotherapy through the PracticeWise Managing and Adapting Practice (MAP) System (Chorpita, Becker, Phillips, & Daleiden, 2009). Results of qualitative interviews suggest that the flexible modular format of this intervention was well received by school-based mental health providers. However, concerns were noted with the match between the techniques in the protocol and the perceived needs of the majority of youth patients. This lack of fit between the youth patient population and the intervention was due to perceived differences in cultural factors that may be influencing youth engagement in a modular approach (Lyon, Ludwig, Romano, Koltracht, Vander Stoep, McCauley, 2014). These results suggest that school-based mental health providers may be engaging youth and addressing mental health needs through alternate strategies that may be akin to more traditional supportive psychotherapy and case management activities. Therefore, more data on the content of usual care for youth emotional and behavioral concerns is needed to best optimize usual care treatment

and best match treatment development efforts to the prioritized needs of youth in school settings.

Given the limited sample size of the current survey, a larger scale investigation examining treatment as usual provided by school-based mental health providers is warranted. A national survey of school-based mental health providers would help confirm the factor structure of the TPC-SF and OM and expand findings to include providers outside the state of Florida.

Conclusion

The majority of youth who receive services for behavioral and emotional concerns are treated by school-based mental health providers. However, little is understood about usual care received in this setting. This investigation represents a critical first step in developing a measure to best understand the content of these services. Additionally, this study provides information on treatment providers, session structure and session content that will be important to evidence-based treatment development and dissemination.

Of note, results of this investigation suggest that treatment-as-usual differs greatly from many evidence-based intervention protocols developed to address youth emotional and behavioral concerns in school settings. Results of this study suggest that school-based usual care tends to be brief and is provided mostly on an "as-needed" basis. This presents challenges to evidence-based treatment implementation in school settings given that the majority of developed prevention and treatment protocols are at least 60 minutes and more than eight sessions (see Corrieri, Heider, Conrad, Blume, Konig, & Riedel-Heller, 2013). Additionally, a range of different strategies are reported as being used in

the school settings, with behavioral strategies being used infrequently. This also differs greatly from evidence-based practice, which relies heavily on the use of behavioral techniques (David-Ferdon & Kaslow, 2008; Eyberg, Nelson, & Boggs, 2008; Silverman, Pina, & Viswevaran, 2008). In order to optimize usual care received in school settings, short-term treatments should be developed and tested in the school setting. Of note, given the vast differences between school Additionally, policy efforts should focus on providing more support for school-based mental health resources. Given that schools represent the primary location of psychosocial treatment provision for youth (SAMSHA, 2012), more resources should be allocated to providing evidence-based care in this setting.

Table 1: Survey Completion Rate by School District.

School District Identifier	Number of potential participants recruited	Number of completed surveys	Rate of survey completion (percentage)
1	91	48	52.7
2	124	37	29.8
3	19	10	52.6
4	9	0	0.0
5	6	2	33.3
6	4	0	0.0

Table 2: Characteristics of Phase Two Participants.

Variable	Range	Mean	SD
Age	26-76	46.24	10.56

Variable	N		Percentage
Gender			
Male	8		8.2
Female	89		91.8
Race			
Caucasian	79		81.4
Black/African American	10		10.3
Other	8		8.2
Ethnicity			
Hispanic/Latino	39		40.2
Profession			
School Counselor	69		71.1
School Psychologist	11		11.3
School Social Worker	10		10.3
Other	7		7.2

Table 3. Participant Reported School Characteristics.

	N	%
Setting of Primary Work Location		
Elementary School	37	38.1
High School	24	24.7
Middle School	19	19.6
K-8	8	8.2
Multiple Schools	4	4.2
K-12	3	3.1
Special Needs Middle/High School	2	2.1
School Classification		
Public School	89	91.8
Charter School	6	6.2
Private School	2	2.0
Number of students at school		
Less than 500	13	13.4
500-1000	42	43.3
1000-1500	27	27.8
1500-2000	10	10.3
More than 2000	5	5.2
% of students at school eligible for free or reduced lunch		
0-25%	7	7.2
25-50%	14	14.4
50%75%	31	32.0
75%-100%	30	30.9
Unsure	15	15.5

Table 4: Factor Loadings and Communalities Based on a Principal Components Analysis with Varimax Rotation for Newly Added Items of the Therapy Procedures Checklist (N = 97).

	Interpersonal Scale	Emotion Regulation Scale	Communality
Teaching social skills by role-playing in session	.69		.53
Working with the child to identify different approaches to resolving problems	.85		.66
Mediating youth conflict through open communication in office	.79		.57
Teaching conflict resolution strategies	.74		.73
Helping the child regulate his/her emotions in session through use of distraction		.85	.67
Creating visual reminders of coping strategies that the child can refer to outside of session		.85	.70
Working with the youth to identify adaptive coping strategies		.67	.61
Working with youth to identify triggers for strong emotions	.44	.41	.55

Note. Factor loadings < .4 are suppressed.

Table 5: Descriptive Statistics for the Five Therapy Procedures Checklist factors (N = 97).

	No. of items	*M* (*SD*)	Skew	Kurtosis	Alpha
Behavior	8	19.25 (8.99)	.51	-.81	.90
Cognitive	8	26.53 (7.90)	-.23	-.62	.90
Psychodynamic	8	24.14 (6.39)	.13	-.57	.80
Interpersonal	4	13.74 (3.90)	-.36	-.73	.78
Emotion Regulation	4	13.00 (4.03)	-.45	-.26	.78

Table 6: Frequencies of Reported Educational and Professional Characteristics of Participants.

	Combined Sample (*N* = 97)		School Counselors (*n* = 69)		School Psychologists (*n* = 11)		School Social Workers (*n* = 10)		Other (*n* = 7)	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Highest Degree										
BA/BS	2	2.1	0	0	0	0	0	0	2	28.6
MA/MS	56	57.7	52	75.4	1	9.1	0	0	3	42.9
MSW	11	11.4	1	1.4	0	0	10	100	0	0
PhD	5	5.2	1	1.4	2	18.2	0	0	2	28.6
EdS	20	20.6	14	20.3	6	54.5	0	0	0	0
EdD	1	1	1	1.4	0	0	0	0	0	0
Other	2	2.1	0	0	2	18.2	0	0	0	0
Licensed/Certified	81	83.5	58	84.1	11	100	5	50	7	100
Theoretical Orientation										
Cognitive Behavioral Therapy (CBT)	29	41.4	14	29.2	8	100	3	37.5	4	66.7
Eclectic	14	20.0	11	22.9	0	0	1	12.5	2	33.3
Other	12	12.4	10	20.8	0	0	2	25	0	0
Rogerian/Client Centered	9	9.3	9	18.8	0	0	0	0	0	0
Solution focused	4	4.1	2	4.2	0	0	2	25	0	0
Positive psychology	2	2.1	2	4.2	0	0	0	0	0	0
Reported Manual Use										
Never	24	24.7	20	29	1	9.1	1	10	2	28.6
Occasionally or sometimes	62	63.9	41	59.4	9	81.8	8	80	4	57.1
Often or almost always	11	11.3	8	11.6	1	9.1	1	10	1	14.3

Table 7: Professional Characteristics of Participants.

	Combined (N = 97)		School Counselors (n = 69)		School Psychologists (n = 11)		School Social Workers (n = 10)		Other (n = 7)	
	M (SD)	Range (Median)	*M (SD)*	Range (Median)	*M (SD)*	Range (Median)	*M (SD)*	Range (Median)	*M (SD)*	Range (Median)
Number of years working in the school setting	16.11 (9.47)	0.5 – 42.0 (14.0)	17.78 (9.66)	2.0 – 42.0 (15.0)	8.86 (5.30)	0.5 – 18.0 (9.0)	14.20 (6.84)	7.0 – 27.0 (12.5)	13.75 (5.50)	2.3 – 35.0 (14.0)
Number of years working in current position	8.02 (6.95)	0.0 – 30.0 (6.0)	8.72 (7.25)	1.0 – 30.0 (7.0)	2.73 (2.04)	0.0 – 7.0 (3.0)	10.75 (7.26)	1.5 – 25.0 (9.0)	5.50 (3.86)	1.0 – 10.0 (5.0)
Average number of students on weekly caseload	11.57 (11.05)	0.0 – 44.0 (7.0)	12.11 (10.50)	0.0 – 40.0 (10.0)	3.54 (5.65)	0.0 – 20.0 (2.0)	14.13 (17.37)	1 – 44 (6.0)	16.14 (9.84)	1.0 – 26.0 (18.0)
Number of additional staff members providing mental health services at school	2.26 (1.19)	0.0 – 12.0 (2.0)	2.13 (1.79)	0.0 – 8.0 (2.0)	2.18 (1.33)	0.0 – 5.0 (2.0)	3.80 (3.46)	0 – 12 (2.5)	1.43 (0.98)	0.0 – 3.0 (1.0)

Table 8: Student Characteristics as Reported by Clinician.

Variable	Range	Mean	*SD*
Age	5-21	12.43	3.39

Variable	*n*		Percentage
Gender			
Male	46		47.4
Female	51		52.6
Race			
Caucasian	78		80.4
Black/African American	13		13.4
Other	6		6.2
Ethnicity			
Hispanic/Latino	44		45.4

Table 9: Frequencies of Youth Referral Reason and Referral Source.

	n	%
Referral Reason		
Behavioral concerns	30	31.0
Family concerns	14	14.4
Suicidal Ideation or self-harm	10	10.3
Interpersonal difficulties	10	10.3
Depression	8	8.2
Any comorbid concerns	7	7.2
Anxiety	4	4.1
Academic Concerns	4	4.1
Autism	2	2.1
Unclear	8	8.2
Referral Source		
Teacher	46	47.4
Self	21	21.6
Other counselor or staff	12	12.4
Parent	9	9.3
Administrator	7	7.2
Other	2	2.1

Table 10: Descriptive Statistics for Reported Number of Sessions and Session Length.

	M	*SD*	Range	Median
Average number of sessions	6.78	8.53	1 -50	4
Average session length (in minutes)	28.94	13.58	2-75	30

Table 11: Frequencies of Reported Treatment Modality and Engagement of Parents and Teachers.

	n	%
Treatment Modality		
Individual intervention provided on an as-needed basis	49	50.5
Regularly scheduled individual sessions	28	28.9
Regularly scheduled group meetings	7	7.2
Push-in services (i.e. intervention work with the student in the classroom)	7	7.2
Teacher and Parent Involvement		
Consultation with the youth's parents/guardians	52	53.6
Consultation with the youth's teachers	40	41.2

Table 12: Frequencies of Reported Treatment Barriers in Intervention Work with Specific Student.

	n	*%*
Resistance from the child	27	27.8
Lack of involvement from parents	19	19.6
Difficulty scheduling meetings with the child during the school day	19	19.6
Inconsistent use of classroom strategies by teachers	14	14.4
Inability to provide continuous care due to school breaks and vacations	12	12.4
Competing responsibilities	10	10.3
Limited knowledge and training in the treatment of the child's presenting concerns	5	5.2

Table 13: Frequencies of Reported Clinical Supervision Received on Intervention Work with Identified Patient.

	n	*%*
None	44	45.4
Through consultation with other counselors/mental health providers in the school	23	23.7
Other (e.g. consultation with teachers, parents)	16	16.5
Through formal meetings with a supervisor	15	15.5
Through consultation with outside community mental health providers	9	9.3

Table 14: Most Frequently Reported and Least Frequently Reported Individual Treatment Strategies on the TPC-SF.

	M	*SD*
Most Frequently Reported Strategies		
1. Working with the child to identify different approaches to resolving problems	4.13	0.84
2. Training the child to stop and think before responding to events	3.89	1.13
3. Trying to understand the original circumstances that led to the current problems	3.87	1.18
4. Trying to understand the child's unconscious drives, feelings, or conflicts	3.76	1.13
Least Commonly Reported Strategies		
1. Using systematic desensitization, with imagined or real exposure to feared objects or situations	1.68	1.04
2. Using time-out from reinforcement	1.79	1.21
3. Analyzing the child's dreams, fantasies, or other products (e.g. art)	1.81	1.17
4. Using a point or token system to reward the child for good behavior	2.11	1.48

Table 15: Differences in Treatment Received by Youth with Internalizing ($n = 31$) Versus Externalizing ($n = 38$) Concerns.

	Internalizing		Externalizing		Statistic
	M	*SD*	*M*	*SD*	*t*(67)
Behavioral	17.39	9.04	22.50	8.88	-2.36*
Cognitive	27.42	8.64	26.63	7.49	0.41
Psychodynamic	24.65	6.93	24.55	6.42	0.06

*Note. *$*p < 0.05$

Table 16: Bivariate Correlations Between Subscales of the TPC and Various Clinician, Child, Session, and Organizational Factors.

	Clinician age	Age of student	Number of sessions	Length of session	Organizational Scale
Behavioral	0.07	-0.21*	0.32**	-0.16	-0.09
Cognitive	0.18	0.06	0.32**	-0.01	-0.12
Psychodynamic	0.20*	0.00	0.12	0.15	-0.13

Note. $*p < 0.05$, $**p < 0.01$

Table 17: Differences in Use of Therapy Techniques between Male Students (*n* = 46) and Female Students (*n* =51).

	Male		Female		Statistic
	M	*SD*	*M*	*SD*	*t*(95)
Behavioral	22.28	9.94	16.51	7.08	3.32**
Cognitive	27.22	8.16	25.90	7.68	0.82
Psychodynamic	24.78	6.55	23.57	6.26	0.93

Note. ***p* < 0.01

Table 18: Hierarchical Regression Analyses Examining Child Predictors of Participant Use of Behavioral Strategies.

Variable	β	SE β	β	R^2	ΔR^2
Step 1				0.08**	
Intercept	17.39	1.61			
Internalizing vs. Externalizing	5.11	2.17	0.28*		
Step 2				0.17**	0.09*
Intercept	27.55	4.78			
Internalizing vs. Externalizing	2.94	2.26	0.16		
Age	-0.58	0.35	-0.19		
Gender	-4.20	2.25	-0.23		

Note. * $p < 0.05$, ** $p < 0.01$

Table 19. Intercorrelations of Predictor Variables of Behavioral Strategy Use.

	1.	**2.**	**3.**
1. Internalizing/ Externalizing	-	-0.19	-0.36**
2. Age	-	-	0.21
3. Gender	-	-	-

Note. **$p < 0.01$.

Table 20: Factor Loadings and Communalities Based on a Principal Components Analysis for the Organizational Measure (OM) ($N = 97$).

	Factor Loading	Communality
My administrators are supportive of my work with youth	.85	.72
The staff at my school work together as a team	.73	.53
The administrators at my school are approachable and have good rapport with staff	.86	.74
I have an established role within my school	.85	.72
My role within my school is respected	.81	.66
My administrators are responsive to my suggestions	.87	.75
My administrators allow me to work independently	.78	.62
My administrators provide me with assistance as needed	.88	.77

Table 21: Descriptive Statistics for the Organizational Measure ($N = 97$).

	M (SD)	Range	Skew	Kurtosis	Alpha
Organizational measure	33.27 (7.40)	8-40	.73*	-.14*	0.94

*Note. Skew and kurtosis values are for transformed scales.

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Appendix A

Please answer the following questions about yourself and your work experiences.

1. Do you work with children in the school setting?
   - Yes, for the major part of my work
   - Yes, for a minor part of my work
   - No

2. Have you ever provided treatment or counseling services to youth in the school setting for behavioral, emotional, or family concerns?
   - Yes
   - No

3. To thank you for taking the time to open this survey, we would like to provide you with a $5 Amazon gift card. If you would like to receive this $5, please provide your e-mail address below. You may receive the gift care regardless of whether you complete the survey, although we hope you also choose to complete it! Your e-mail address will not be shared with any outside parties and it will not be linked to your responses to the survey.

4. What is the setting of your primary work location?
   - High school
   - Middle school
   - Elementary school
   - Community mental health organization
   - Other

5. What is the type of school in which you primarily work?
   - Public school
   - Private school
   - Charter school
   - Other

6. Approximately how many students are there at your primary school-based work location?
   - Less than 500
   - 500-1000
   - 1000-1500
   - 1500-2000
   - More than 2000

7. What is the zip code of the school in which you primarily work?

8. Approximately how many students at your school are eligible for free or reduced lunch?
   - 0%-25%
   - 25%-50%
   - 50%-75%
   - 75%-100%
   - Unsure

9. Please indicate the extent to which you agree or disagree with the following statements:

1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree			5 Strongly Agree	
My administrators are supportive of my work with youth			1	2	3	4	5
The staff at my school work together as a team			1	2	3	4	5
My ability to provide direct services to youth is limited by competing responsibilities (e.g. paperwork, meetings)			1	2	3	4	5
There are structured guidelines in my school that help promote positive youth behavior and mental health (e.g. Multi-Tiered System of Supports)			1	2	3	4	5
The administrators at my school are approachable and have good rapport with staff			1	2	3	4	5
I have an established role within my school			1	2	3	4	5
My role within my school is respected			1	2	3	4	5
My ability to provide services is limited by workload interruptions that occur throughout my day			1	2	3	4	5
My administrators are responsive to my suggestions			1	2	3	4	5
My administrators allow me to work independently			1	2	3	4	5
My administrators provide me with assistance as needed			1	2	3	4	5

10. On average, how many different students do you meet with each week for behavioral, emotional, or substance related concerns?

11. *How often do you work with students for each of the following concerns?*

1 Never	2 Rarely	3 Sometimes	4 Often			5 Frequently	
Behavioral concerns			1	2	3	4	5
Anxiety/nervousness/worry			1	2	3	4	5
Depression			1	2	3	4	5
Substance use/abuse			1	2	3	4	5
Attention difficulties and/or hyperactivity			1	2	3	4	5
Interpersonal difficulties/being bullied			1	2	3	4	5
Family difficulties			1	2	3	4	5
Academic concerns			1	2	3	4	5

12. How often do you work with children to provide therapy/counseling in an individual (one-on-one) format?
- Never
- Rarely (a few times each year)
- Sometimes (a few times each month)
- Often (a few times each week)
- Frequently (daily or more)

13. How often do you work with children to provide therapy/counseling in a group format?
- Never
- Rarely (a few times each year)
- Sometimes (a few times each month)
- Often (a few times each week)
- Frequently (daily or more)

14. What is your profession?
- School counselor
- School psychologist
- School social worker
- Community mental health counselor
- Family counselor
- Behavior resource teacher
- Other

15. Please check all degrees and credentials earned
- BA/BS
- MA/MS
- MSW
- PhD
- EdS
- EdD
- LCSW
- Other

16. Are you currently certified/licensed?
- Yes
- No

17. For how many years have you been working professionally with youth in the school setting?

18. For how many years have you been working in your current position?

19. What is your primary theoretical orientation?

20. How often do you use manuals in your intervention work with students?
- Never
- Occasionally or sometimes
- Often or almost always

21. In addition to yourself, how many staff members are responsible for providing mental health services at this school?

22. What is your gender?
- Male
- Female

23. In what year were you born?

24a. What is your race?
- White
- Black or African American
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander
- Other

24b. What is your ethnicity?
- Hispanic or Latino
- Not Hispanic or Latino

The remaining survey questions address the strategies you use in your intervention work with children in schools. These strategies often vary depending on the child's needs and we are interested in this variability. Therefore, please respond to these questions about your specific work with a recent student you met with to provide mental health counseling or intervention services.

25. What was the student's gender?
- Male
- Female

26. How old was the student?

27a. What was the student's race?
- White
- Black or African American
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander
- Other

27b. What was the student's ethnicity?
- Hispanic or Latino
- Not Hispanic or Latino

28. Who referred this student to you? (e.g. student's teacher, parent, school nurse, student self-referred)

29. What was the primary reason that the student was referred to you? (please be as specific as possible)

30. Which of the following best describes the nature of services that you provided to this student?
   - Regularly scheduled individual counseling sessions
   - Regularly scheduled group meetings
   - Individual intervention provided on an as-needed basis
   - Consultation with the youth's teachers
   - Consultation with the youth's parents/guardians
   - Other

31. Is this child required to receive services through an Individualized Education Plan (IEP) or 504 plan?
   - Yes
   - No
   - Other

32. How many times did you meet with this student regarding this concern?

33. What was the average session length (in minutes)?

34. Do you continue to meet with this student?
   - Yes, for regularly scheduled individual sessions
   - Yes, for regularly scheduled group meetings
   - Yes, for individual sessions provided on an as-needed basis
   - No
   - Other

35. For each of the following items, please indicate whether the process described was part of your approach to intervention services with the recent student client you have selected. Please respond based only on your work with this specific child, even if it is a strategy you use frequently with other children. Please use the following scale:

1	2	3	4	5
Never/ Rarely	*Seldom*	*Sometimes*	*Often*	*Most of the time*

1. Using a point or token system to reward the child for good behavior.	1	2	3	4	5
2. Interpreting the child's behavior in the session, including his/her relationship with yourself.	1	2	3	4	5
3. Teaching the child relaxation as a coping method.	1	2	3	4	5
4. Trying to understand the child's unconscious drives, feelings, or conflicts.	1	2	3	4	5
5. Teaching social skills by role-playing in session.	1	2	3	4	5
6. Identifying problem situations and role-playing alternate coping strategies.	1	2	3	4	5
7. Assisting the child in navigating developmental transitions (e.g., adolescent issues of individuation).	1	2	3	4	5
8. Assisting the child in navigating developmental transitions (e.g., adolescent issues of individuation).	1	2	3	4	5
9. Helping the child learn assertive communication skills to replace aggressive or passive behavior.	1	2	3	4	5
10. Trying to understand the effects of early life experiences.	1	2	3	4	5
11. Training the child to stop and think before responding to events.	1	2	3	4	5
12. Training the child to recognize maladaptive thoughts.	1	2	3	4	5
13. Analyzing the child's dreams, fantasies, or other products (e.g., art).	1	2	3	4	5
14. Working with the child to identify different approaches to resolving problems.	1	2	3	4	5
15. Using systematic desensitization, with imagined or real exposure to feared objects or situations.	1	2	3	4	5
16. Using the experience of the therapeutic relationship to understand interpersonal styles.	1	2	3	4	5
17. Using time-out from reinforcement.	1	2	3	4	5
18. Mediating youth conflict through open communication in office.	1	2	3	4	5
19. Encouraging the use of appropriate self-talk to guide thoughts and behavior.	1	2	3	4	5

1	2	3	4	5
Never/ Rarely	*Seldom*	*Sometimes*	*Often*	*Most of the time*

20. Helping the child regulate his/her emotions in session through use of distraction.	1	2	3	4	5
21. Identifying and challenging irrational beliefs, attributions, or schemas.	1	2	3	4	5
22. Instructing the child how to modify his or her maladaptive thoughts.	1	2	3	4	5
23. Helping the child to correct misappraisals of perceived threat.	1	2	3	4	5
24. Trying to understand the original circumstances that led to the current problems.	1	2	3	4	5
25. Teaching the child that thoughts affect mood/behavior and can cause emotional/behavioral problems.	1	2	3	4	5
26. Creating visual reminders of coping strategies that the child can refer to outside of session.	1	2	3	4	5
27. Charting behavioral gains and making the chart available.	1	2	3	4	5
28. Altering the child's use of defense mechanisms.	1	2	3	4	5
29. Teaching the child to monitor self-talk.	1	2	3	4	5
30. Trying to extinguish undesirable behavior by discontinuing rewards for that behavior.	1	2	3	4	5
31. Shaping by teaching the desired behavior in a series of steps.	1	2	3	4	5
32. Working with youth to identify adaptive coping strategies.	1	2	3	4	5
33. Teaching conflict resolution strategies.	1	2	3	4	5
34. Helping the child generate alternative interpretations of events.	1	2	3	4	5
35. Directing adults to ignore the child's inappropriate behavior and/or doing so in session.	1	2	3	4	5
36. Working with youth to identify trigger points for strong emotions.	1	2	3	4	5
37. Administering rewards to increase positive behavior.	1	2	3	4	5
38. Arranging modeling opportunities to foster observational learning.	1	2	3	4	5

36. Did you receive any support or feedback on your work with this child?
- Yes, through formal meetings with my supervisor
- Yes, through consultation with other counselors/mental health providers in the school

- Yes, through consultation with outside community mental health providers
- No
- Other

37. Which of the following interfered with your ability to provide services to this child?
    - Lack of involvement from parents
    - Inconsistent use of classroom strategies by teachers
    - Resistance from the child
    - Limited knowledge and training in the treatment of the child's presenting concern
    - Difficulty scheduling meetings with the child during the school day
    - Inability to provide continuous care due to school breaks and vacations
    - There was nothing that interfered with my ability to provide services to this youth
    - Other

Appendix B

Behavior Scale
1. Using a point or token system to reward the child for good behavior.
2. Trying to extinguish undesirable behavior by discontinuing rewards for that behavior.
3. Administering rewards to increase positive behavior.
4. Charting behavioral gains and making the chart available.
5. Using time-out from reinforcement.
6. Arranging modeling opportunities to foster observational learning.
7. Shaping by teaching the desired behavior in a series of steps.
8. Directing adults to ignore the child's inappropriate behavior and/or doing so in session.

Cognitive Scale
1. Instructing the child how to modify his or her maladaptive thoughts.
2. Identifying and challenging irrational beliefs, attributions, or schemas.
3. Training the child to recognize maladaptive thoughts.
4. Teaching the child that thoughts affect mood/behavior and can cause emotional/behavioral problems.
5. Teaching the child to monitor self-talk.
6. Helping the child generate alternative interpretations of events.
7. Helping the child to correct misappraisals of perceived threat.
8. Encouraging the use of appropriate self-talk to guide thoughts and behavior.

Psychodynamic Scale
1. Trying to understand the effects of early life experiences.
2. Altering the child's use of defense mechanisms.
3. Trying to understand the child's unconscious drives, feelings, or conflicts.
4. Assisting the child in navigating developmental transitions (e.g., adolescent issues of individuation).
5. Using the experience of the therapeutic relationship to understand interpersonal styles.
6. Trying to understand the original circumstances that led to the current problems.
7. Interpreting the child's behavior in the session, including his/her relationship with yourself.
8. Analyzing the child's dreams, fantasies, or other products (e.g., art).

Other
1. Teaching the child relaxation as a coping method.
2. Identifying problem situations and role-playing alternate coping strategies.
3. Helping the child learn assertive communication skills to replace aggressive or passive behavior.
4. Training the child to stop and think before responding to events.
5. Using systematic desensitization, with imagined or real exposure to feared objects or situations.

New Items

1. Teaching social skills by role-playing in session.
2. Working with the child to identify different approaches to resolving problems.
3. Mediating youth conflict through open communication in office.
4. Helping the child regulate his/her emotions in session through use of distraction.
5. Creating visual reminders of coping strategies that the child can refer to outside of session.
6. Working with youth to identify adaptive coping strategies.
7. Teaching conflict resolution strategies.
8. Working with youth to identify trigger points for strong emotions.