

Running head: GRADUATE TRAINING IN EBIs

SCHOOL PSYCHOLOGY GRADUATE TRAINING IN EVIDENCED BASED  
INTERVENTIONS FOR MENTAL HEALTH

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### **Abstract**

A critical role of school psychologists includes providing and supporting the delivery of evidence-based mental health services to meet the rising emotional and behavioral needs of youth. However, studies document that school psychologists often feel unprepared from their graduate training to implement evidenced based interventions (EBIs). This study examined training across school psychology graduate programs in various EBIs through a survey research design. The study was designed to examine training directors' level of familiarity with EBIs, student level of exposure and experience with EBIs, and differences in training between doctoral and master's level students. Survey data were collected from 40 school psychology training directors (23% response rate) from NASP approved and/or APA accredited school psychology master's and doctoral programs in the US. The survey included seventeen EBIs from a variety of mental health problems related to youth depression, anxiety, trauma, and disruptive behaviors, with open ended responses to include those EBIs not included in the survey, but included as part of a training program. Results indicated that 43% of participating training directors were familiar with the EBIs included on the survey, 57% of training directors reported students had exposure (didactic instruction, observational learning, or a combination) to the EBIs included on the survey, and 32% of training directors endorsed that students have supervised experience implementing the EBIs included on the survey. The highest level of student exposure and experience was endorsed for EBIs targeting anxiety and disruptive behavior disorders. Results also indicated that there was a statistically significant difference between the number of EBIs doctoral students were rated to have exposure to in comparison to that of master's level students. There were no significant differences in the number of EBI's doctoral and master's level students had experience implementing according to training directors' report. For open

ended responses, training directors indicated a variety of EBIs, intermixed with evidenced based practices/general empirical approaches. The majority of interventions added by training directors were targeted for disruptive behavior disorders and varied in the strength of empirical support. Implications for school psychology training may include movement towards common elements and/or modular approaches, focusing on EBIs most relevant to the practice of school psychology and increasing the effectiveness of students' supervised experience within graduate training.

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## **Introduction**

### **Mental Health Needs of Children and Adolescents**

The prevalence of mental health issues among children and adolescents is high. The estimated percentage of youth experiencing mental health issues approximates 20% of all youth (Merikangas et al, 2010). More specifically, lifetime prevalence for adolescent mood disorders was estimated to be approximately 14%, including major depression, dysthymia, bipolar I and II, 32% for anxiety disorders, including agoraphobia, generalized anxiety, social phobia, specific phobia, panic disorder, post-traumatic stress disorder, and separation anxiety disorder, and 20% for behavior disorders, including Attention Deficit-Hyperactive Disorders, Oppositional Defiant Disorder, and Conduct Disorder. About one half of all lifetime psychological disorders begin during adolescence and the onset of mental health issues can start as early as 7-11 years old (Massi and Cooper, 2006). Furthermore, approximately one half of youth with a DSM-IV disorder report having significant impairment (Merikangas et al., 2010; Roberts, Roberts & Xing, 2007). As much as 80% of youth with emotional difficulties do not receive mental health services (Kataoka, Zhang & Wells, 2002).

Rates of mental health problems among vulnerable groups such as low-income youth, ethnic minorities, and children involved in the child welfare and juvenile justice system are higher than non-vulnerable groups (Masi & Cooper, 2006). Prevalence of mental health issues is further influenced by community neighborhood, as children from more disadvantaged communities are at higher risk than youth from non-disadvantaged neighborhoods for behavioral and emotional problems (Singh & Ghandour, 2012; Xue, Leventhal, Brooks-Gunn, & Earls, 2005). Youth living in low SES, urban neighborhoods are 59% more likely to have emotional and behavioral disorders than youth in higher SES neighborhoods (Rudolph, Stuart, Glass &

Merikangas, 2014). Almost one half of youth involved in child welfare systems have emotional and behavioral problems, and of those, a large majority (84% of the clinically significant group) received no mental health services (Burns, 2004). With higher rates of mental health needs, these vulnerable groups are at a greater risk for developing longstanding problems.

In addition to the emotional and social distress associated with mental health problems, studies document that such problems are also associated with negative academic outcomes. Youth with emotional and behavioral difficulties are more likely to receive poor grades (up to 14% obtaining Ds and Fs), be absent from school (up to 22 days), and have higher instances of school disciplinary action (three times higher rate of expulsion and suspension than typical peers) (cited in Perfect & Morris, 2006; cited in Massi & Cooper, 2006). Youth with untreated mental health issues are also less likely to graduate from high school. Approximately 44% of adolescents that drop out of high school have mental health issues, with 10% of those dropouts directly attributable to impairment from their mental health issues (Masi & Cooper, 2006). As such, it is important for these youth to have access to effective psychological interventions to promote positive outcomes.

### **Delivery of Mental Health Services in Schools**

Given the overwhelming needs of youth with emotional and behavioral disorders, schools are heavily relied upon to provide of mental health treatment. In fact, the rates of youth receiving mental health services within school settings are substantially above that of specialty clinics, child welfare agencies, and general medicine, making the school context the most common setting for mental health service delivery for youth in need (Farmer, Burns, Phillips, Angold & Costello, 2003). Additionally, schools may be the only source of mental health treatment for some, as research indicates that youth who receive school-based mental health

services are less likely to receive subsequent mental health services from other service providers, regardless of their severity of presenting problem (Farmer et al., 2003). Because youth function within various overlapping systems (schools being one), it is optimal that mental health interventions be provided in youths' natural setting and fit within their context to improve outcomes (Kazak et al., 2010). Therefore, when considering the prevalence of mental health issues among youth, high use of schools as sources for mental health treatment, and the delivery of interventions in a natural setting for better outcomes, the need for school-based mental health treatment can be justified.

There have been several service delivery models suggested for the provision of mental health service delivery in schools, such as expanded school-based mental health centers, school-based health centers, school-community linkages for mental health services, and the use of indigenous personnel resources (Perfect & Morris, 2011; Weist, Goldstein, Morris & Bryant, 2003). Due to the high prevalence of emotional and behavioral issues among youth and reliance on schools to accommodate the demand of providing mental health services, there has been an increase in school-based mental health centers over the years (Perfect & Morris, 2011). However, many school districts cannot fund these specialized centers. As such, it is necessary that indigenous school personnel, such as school psychologists, have training and competency in implementing mental health interventions.

### **Evidence-Based Practice Movement in Psychology**

According to the American Psychological Association (APA, 2006), the evidence-based practice movement in psychology followed that of behavioral medicine, which urged clinical practice to be informed by and consider relevant research to improve patient outcomes. Furthermore, the purpose of evidence-based practices (hereafter referred to as EBPs) is to

promote effective clinical practice in psychology, which leads to improved public health. APA defines EBP as integrating the most relevant and reliable research with clinical practice of diverse patients with regard to personal characteristics, background, and preferences (APA, 2006). EBP reflects a broad clinical decision making process that incorporates relevant research in determining a course of assessment and treatment for a given individual that will promote optimal outcomes. The term, evidence-based interventions (hereafter referred to as EBIs), refers to a specific treatment that has been shown to be effective, via rigorous research design and methodology, in treating a particular disorder (APA, 2006). This study is focused on the current trends in EBI training within school psychology graduate programs.

Since the 1970s, there was a perception that pharmacological treatment was superior to psychosocial intervention. As a result, the field of psychology began to critically review research by conducting meta-analyses of various treatments to determine empirical support. In 1995, Division 12 of APA created a Task Force on the Promotion and Dissemination of Psychological Procedures (hereafter referred to as the Task Force) with the purpose of promoting EBIs in treatment delivery. This was accomplished through the development of criteria to determine which interventions were evidence-based and to identify those interventions that met specific criteria (see Chambless et al., 1998; Task Force, 1995). The goal of the Task Force was to identify empirically supported interventions that were comparable to the efficacy of medication. In doing so, this also generated a platform to advocate the use of psychosocial interventions in the treatment of mental health issues. This process continued to be refined over the next few years (see Chambless et al., 1998) and Division 53 of APA began a similar task of examining the most empirically supported treatments for children and adolescents, beginning with a special issue in 1998, and a second special issue in 2008 (Silverman & Hinshaw, 2008).

The dissemination of EBIs has now progressed to websites, such as What Works Clearinghouse and California Evidence-Based Clearinghouse for Child Welfare (CEBC). Although the field continues to promote the use of EBIs through various mediums, there remains a gap between research and actual practice, specifically related to two factors: 1) Barriers in effectively integrating EBIs into non-research settings, and 2) School psychologists' training and subsequent low implementation rates of EBIs in schools.

### **EBI Implementation Barriers in Practice Settings**

Weisz, Ng, and Bearman (2014), propose four challenges to implementing EBIs in practice settings, such as schools. The theme amongst these four barriers is the pragmatic application of EBIs to the “real world,” where their external validity is tested. The first challenge is identified as an “implementation cliff” which refers to the fidelity of the implementation after it leaves the research setting. Once the intervention is implemented in a clinical setting with supervision provided by someone other than the program's developer, the parameters for implementation may be different, resulting in lower fidelity. The second challenge is the relevance of the EBI's application to a clinical setting where stringent research protocols for participant selection and implementation no longer apply. Therefore, the outcomes of EBIs can be affected by the delivery (i.e. fidelity) or by the limitations of the intervention itself when it is used with recipients that represent diverse backgrounds in regards to presenting problem. A third challenge is a mismatch in the timeline of clinical practice and science. Specifically, research and empirical support of EBIs are ever-evolving, but clinical decision-making for EBI implementation may require faster movement. The result is that interventions may be selected without adequate empirical support. The fourth challenge is labeled as “implementation limbo” which refers to constrained resources for professional training in EBIs.

Because of financial, time, or logistical barriers of the system, adequate training and supervision may not be available which negatively affects the fidelity of implementation and ultimately leads to a decline in effectiveness. Another point by Rogers (2003) is that individuals often rely on subjective evaluation of interventions based on their own opinions or those of professional peers rather than considering scientific data, which presents as another challenge in the dissemination and implementation of EBIs. Overall, these barriers are broad, global issues that affect EBI implementation within the practice of psychology.

Other significant barriers, specific to EBI implementation in schools, include lack of time, lack of resources, financial constraints, lack of assistance in implementation, and lack of graduate training (Hicks, Shahidullah, Carlson & Palejwala, 2014; Forman, Fagley, Steiner, & Schneider, 2009; Forman, Olin, Hoagwood, Crowe & Saka, 2009). Other factors negatively affecting implementation in schools include school organizational structure, program/intervention characteristics, fit of intervention with school goals/policies/programs, training and technical assistance, and administrator support (Forman et al., 2009a; Forman et al., 2009b). Success of EBI implementation includes factors related to characteristics of the system, implementer, and program itself (Forman et al., 2009a; Forman et al., 2009b). Forman and Barakat (2011) noted that successful implementation may be dependent on implementer's beliefs, attitudes and knowledge about a given intervention. As such, graduate training programs play a critical role in developing professionals, such as school psychologists, with knowledge and skills for effective service delivery. School psychology training programs are at the forefront of fostering students' positive attitudes and beliefs about the importance, relevance, and effectiveness of EBIs.

### **EBI Training and Use in School Psychology**

Many school psychologists feel underprepared to address the rising mental health needs amongst students (Hicks et al., 2014; Splett, Fowler, Weist, McDaniel & Dvorsky, 2013). As such, there is a substantial need to employ effective training of practitioners in evidenced based interventions to reduce the gap between research and real-world practice (Becker & Stirman, 2011). The first place that this need can be addressed is in the graduate training programs of school psychologists. National Association of School Psychologists (NASP) Standards for Graduate Preparation (2010) stipulates that school psychologists receive training in school-wide, evidenced based practices that serve the needs of youth outcomes related to academic achievement, social development, and overall mental health. In order to achieve this competency, the quality of training in EBIs should be an essential component of graduate training so that school psychologists enter the field prepared to adequately support delivery of and/or directly deliver EBIs.

Despite the need for adequate training in EBIs, current literature suggests that graduate curriculum is insufficient. According to Karekla, Lundgren and Forsyth (2004), approximately 50% of psychology graduate students have no courses covering EBIs and 30% of these students have no experience implementing EBIs within clinical settings. Specifically regarding school psychology graduate students, although they are more likely to only have exposure to EBIs through coursework or observation only than having hands-on experience in implementation, 41% of school psychology training directors report that their students have no exposure at all (Shernoff, Kratochwill & Stoiber, 2003). As much as 71% of master's and doctoral level, nationally certified school psychologists (NCSPs) consider their graduate training in EBIs as inadequate, and subsequently do not implement EBIs (Hicks et al., 2014). Along these lines, research highlights that school psychologists are less likely to implement an EBI if they believe

they do not have adequate skills and knowledge to do so (Forman, Fagley, Steiner & Schneider, 2009). Therefore, school psychology graduate training is the foundation for the development of EBI competency, which predicts their use in practice.

Among practicing school psychologists, many are not using EBIs (Hicks et al., 2014), and those that do report equal use of EBIs and non-evidenced based interventions (Forman et al., 2009b). Masters-level school psychologists appear to have less familiarity with EBIs than doctoral level practitioners (Hicks et al., 2014). Although the research suggests that the majority of school psychologists are not implementing EBIs, the most predominant professional development topic requested by school psychologists is in the area of direct service delivery (Fowler & Harrison, 2001). The demand for continued training in service delivery among practitioners points to the outstanding need for adequate EBI training across the field of school psychology.

### **Methods and Models for Training in EBIs**

An aspirational model of training for psychologists (Roberts et al., 1998) incorporates supervised experience into the general curriculum. Roberts et al.'s (1998) model focuses on three levels of training related to EBIs, which will be described. The first level is *exposure*, which primarily consists of didactic presentation of related material. Examples of exposure include a course, seminar, or lectures that include direct instruction of EBIs. The second level is *experience*, which refers to supervised, real time practice of EBI with actual clients. This may take place in a university's training clinic, practicum site, and/or research setting where a student is directly supervised by a licensed psychologist in their delivery of an EBI. The third level is *expertise*, which refers to the highest level of competence in service delivery involving the combination of knowledge gained through didactic instruction and the knowledge gained



through intensive, hands-on experience. This model stresses the importance for students to receive all three elements in order to obtain adequate skills for implementation and practice.

Research highlights that EBI training without supervised field experiences is insufficient (Frazier, Bearman, Garland, Atkins, 2014; Perfect & Morris, 2011; Splett et al., 2013), and that training programs should not rely on coursework alone in preparing students to implement EBIs (Fixsen, Naoom, Blase, Friedman & Wallace, 2005; Perfect & Morris, 2011). In fact, when EBIs are implemented by practitioners receiving didactic training only, recipients have less positive treatment outcomes (Fixsen et al., 2005). Graduate training programs need to support the development of competent professionals by including a combination of coursework and supervised experience of EBIs.

Although research highlights a general deficit in EBI graduate curriculum, not much is known about the extent of school psychology students' level of exposure and experience with EBIs. Specifically, there is insufficient data on how students are being exposed to EBIs and the way in which they gain experience in EBI implementation. Research suggests that training is optimal when combining both didactic instruction and hands-on experience (Fixsen et al., 2005; Fraizer et al., 2014; Perfect & Morris, 2011; Splett et al., 2013). Thus, it is important to understand not only what EBIs are taught in school psychology programs, but *how* students receive training for them.

### **Study Aims**

A critical role of school psychologists includes providing and supporting the delivery of evidence-based mental health services to meet the rising emotional and behavioral needs of youth. However, studies document that school psychologists often feel unprepared to implement evidenced based interventions (Forman et al., 2009b; Hicks et al., 2014; Karekla et al., 2004).

The purpose of this study is to survey all NASP accredited and/or APA approved school psychology training programs in the US to expand knowledge of the level of students' exposure and experience with EBIs during their graduate training. Survey data is designed to answer the following research questions:

1. What percentage of program directors report familiarity with the EBIs included in the survey?
2. What percentage of training directors report that students have exposure to and experience with implementing the EBIs included in this survey?
3. Are there differences between the number of EBIs that graduate students have exposure and experience to during graduate training based on degree (Masters/Specialist and Doctoral Degree)?

## **Method**

### **Participants**

School psychology training directors ( $N = 177$ ) were recruited to participate if their program was active and met the following inclusion criteria: 1) NASP approval for master's and specialist programs 2) APA accreditation and/or full NASP approval for doctoral programs. Institutions offering multiple degrees (i.e. both master's and doctoral level programs) that met the above criteria were also included.

School psychology training programs were identified through the NASP online directory (<http://apps.nasponline.org/standards-and-certification/graduate-education/index.aspx>) and the APA online directory (<http://apps.apa.org/accredsearch/>), both of which are available to the general public. Because the purpose of this study was to examine trends across the field of school psychology training, it was important to include both master's level and doctoral level

programs, as both lead to school psychologist certification, and graduates with either degree can fill the role of a school psychologist within the context of a school. Regarding accreditation status, the decision to include only programs with NASP accreditation or APA approval was to ensure consistency in the sample pool regarding program and training experiences.

A total of 40 training directors responded to the online survey, with a response rate of 23%. Appendix C, Table 1 outlines the demographic characteristics of participants. These data indicate that the sample is almost equally distributed between training directors of master's (53%) and doctoral programs (47%). The most common theoretical orientation was cognitive-behavioral (63%), and the most common training philosophy was scientist-practitioner (78%). Approximately 75% of the training directors surveyed had a direct role in their students' training in EBIs.

## **Procedures**

Approval to conduct this research was obtained from the Institutional Review Board at Rutgers, The State University of New Jersey prior to data collection. The survey was administered using an online, web-based survey program, Qualtrics (Smith, Smith, Smith, & Orgill, 2002), with anonymous recording of responses. Email addresses were obtained for all training directors via the NASP website listed above. Program directors' emails which were not listed in the NASP directory, were identified through their institution's website. All training directors were sent a cover letter briefly explaining the purpose of this survey, inclusion criteria, and a link to the online survey (attached in Appendix A), with 4 follow up emails sent weekly to maximize response rate (attached in Appendix B). A detailed explanation of the study rationale, purpose of the current survey and how results will be utilized, review of informed consent and confidentiality, inclusion criteria, and instructions for completing the survey were included at the

beginning of the survey (attached in Appendix C), all of which has been described in detail within the introduction and procedure sections of this study.

Training directors of the 41 schools offering both master's/specialist degrees and doctoral degrees with only one degree meeting inclusion criteria were instructed to complete the survey for only the program meeting inclusion criteria. Training directors of the 29 schools who had master's/specialist and doctoral programs which both met inclusion criteria were instructed to complete the survey for their doctoral program only. It is unknown whether institutions including both degree programs had similar curricula and training experiences across both degree programs; therefore, having training directors complete the survey for only one degree program ensured that each response accurately reflected a standardized level of exposure and experience across students of one institution.

### **Instrument**

Interventions included in the survey were identified from APA Division 53 criteria published in the Second Special Issue on Evidence Based Psychosocial Interventions for Children and Adolescents (David-Ferdon, & Kaslow, 2008; Eyberg, Nelson, & Boggs, 2008; Silverman & Hinshaw, 2008; Silverman, Pina & Viswesvaran, 2008; Silverman et al., 2008) and the California Evidence Based Clearinghouse for Child Welfare (CEBC; <http://www.cebc4cw.org/search/>). These two established sources were used to identify interventions addressing a broad range of mental health issues because both use comparable scientific ratings based on peer-reviewed research to determine the level of empirical support.

The interventions focused on a variety of mental health problems related to youth depression, anxiety, trauma, and disruptive behaviors. These areas were chosen because they represent a broad range of mental health issues, and were mental health categories included by

both the Special Issue of APA Division 53 and CEBC. To be included on the survey, an intervention must have been reviewed by both sources (APA Division 53 Special Issue and CEBC website), with at least one source designating the EBI as *Well-Established* or *Probably Efficacious* (APA Division 53 criteria) or *Well Supported by Research* or *Supported by Research* (CEBC criteria).

**Well Established (APA).** The highest rating of empirical support, *Well Established* by APA Division 53, is given to interventions that meet the following criteria. First, at least two, rigorous, randomized-controlled trials that demonstrate an intervention has superior effects to a comparison (psychological placebo or to another treatment), with at least one that demonstrates sustained treatment outcomes for at least one year after the end of the intervention. Second, the intervention must have a treatment manual that outlines a protocol for implementation. Third, characteristics of participants must be clearly outlined. Fourth, treatment outcomes must be examined by at least two different investigators or team of investigators (Task Force on Promotion and Dissemination of Psychological Procedures, 1995).

**Well Supported (CEBC).** The highest empirical rating by the CEBC has the same criteria as well established with the following three additions. First, assessments used to measure treatment outcomes must have adequate reliability and validity, and must be administered to all subjects with accuracy and consistency. Second, if multiple studies examining efficacy have been published, the overall empirical data supports intervention use. Third, there are no data indicating risk of harm as a direct result of treatment.

**Probably efficacious (APA) and Supported (CEBC).** *Probably Efficacious* (APA Division 53) and *Supported* (CEBC) meet the same criteria as *Well-Established* (APA) and *Well*

*Supported* (CEBC), but lack at least two randomized controlled trials, only demonstrated superiority to a control group, and/or lacked at least two teams of independent investigators.

Seventeen EBIs met the aforementioned criteria (see Table 2 in Appendix C): Three programs addressed depression, two programs addressed anxiety, four programs addressed trauma, and eight programs addressed disruptive behaviors. Interventions were listed in a random order on the survey, without any specification of their level of support or problem targeted (i.e., depression, anxiety, trauma, and disruptive behaviors). This format was used to reduce expectancy effects that could occur if respondents had information regarding the level of empirical support for an intervention. A brief explanation of the intervention and a citation of the major outcome studies associated with it were also provided.

For each intervention on the survey, program directors provided ratings regarding: 1) their familiarity with the intervention, 2) Students' level of exposure to the intervention, and 3) Students' level of experience implementing the intervention. Familiarity ratings ranged from 1 (Not familiar) to 4 (Very familiar). The categories of types of exposure and experience were developed based on the training model proposed by Roberts et al. (1998). This model emphasizes the important role of both exposure and experience as part of graduate training in EBIs. As such, the breakdown of each is as follows. Students' exposure is based on a categorical scale including the following: *None* if students are not exposed to the intervention; *Didactic instruction* if students receive direct instruction via coursework or seminars; *Observation of intervention in an applied setting* if students observe senior professionals implementing intervention to clients; and *Didactic and Observational* if both methods of exposure are applicable. Students' level of experience was also based on a categorical scale including the following: *None* if students did not have experience implementing the

intervention; *Case Requirement* if students were required to have one or more supervised therapy cases; *Applied Setting/Practica* if students received ongoing supervised experience implementing interventions in an applied setting such as a clinic, school, community mental health center; *Research* if students were implementing interventions as part of a research protocol; *Combination* if students have a combination of case requirement and/or applied practicum and/or research.

To capture the depth and breadth of EBI training across programs, the survey also included open ended questions in which training directors indicated other EBIs covered in their program's training sequence that were not included in the survey. Respondents were asked to rate their familiarity with the intervention, students' level of exposure to the intervention, and students' level of experience implementing the intervention (see description above). Lastly, the survey contained five additional questions regarding training model (i.e. practitioner, scientist-practitioner, scholar-practitioner, other), theoretical orientation (i.e., behavioral, cognitive-behavioral, integrative, systemic, humanistic, psychodynamic, other), degree program on which the survey is being completed (i.e., master's and doctoral), degree program's accreditation (i.e., NASP approved, APA accredited, both), and training directors' role in EBI curriculum (i.e., teaching a course in EBIs, supervising students in EBIs, teaching and supervising students in EBIs, no involvement in EBI training). The full survey is included in Appendix D.

## **Analyses**

The first two research questions were answered using descriptive statistics. For the first research question, percentage of training directors' familiarity (i.e., *not familiar*, *somewhat familiar*, *familiar*, *very familiar*) with the survey EBIs were calculated. The second research question was answered by calculating the percentage of institutions (represented by training

directors' responses) whose students have experience with and exposure to the EBIs included on the survey. Percentages of training directors were calculated for each level of exposure (i.e., *one, didactic coursework, observation of intervention in an applied setting, and didactic and observational*) and each level of experience (i.e., *none, case requirement, applied setting/practica, research, and combination*) across all EBIs included in this survey.

The third research question was answered using an independent samples *t- test* to determine if significant mean differences existed between degree programs and exposure to/experiencing with EBIs included on this survey. For the first independent samples *t-test*, program degree (i.e., master's/specialist and doctoral degrees) was the independent variable, and mean number of EBIs that training directors endorsed exposure to as part of the training curriculum was the dependent variable. The total number of EBIs to which there was any exposure was counted in sum for each program and compared to one another via independent samples *t-test*. Each training director's response for each of the EBIs on the survey was dichotomized into "no exposure" and "exposure." EBIs rated with any level of exposure by a training director (i.e., *Didactic instruction, Observation of intervention in an applied setting, or Didactic and Observational*) were counted as "exposure." For each training director's survey responses on the 17 included EBIs, the number of EBIs for which there was any type of exposure were summed up to create a total number of EBIs for which students had exposure according to the university training director. For the second independent samples *t- test*, program degree (i.e., master's/specialist and doctoral degrees) was identified as the independent variable, and number of EBIs with endorsed experience by training directors' as part of the training curriculum was the dependent variable. Similar to the student exposure variables, data were dichotomized for each training directors' survey response regarding experience for each EBI on the survey. To do this,



each training director's response for each of the EBIs on the survey were dichotomized into "no experience" and "experience." EBIs rated with any level of experience by a training director (i.e., *Case Requirement, Applied Setting/Practica, Research and Combination*) were counted as "experience." For each training director's survey responses on the 17 included EBIs, the number of EBIs for which there was any type of experience were summed up to create a total number of EBIs with which students had experience. According to Cohen (1992), to achieve 80% power, approximately 26 participants were needed to detect large effects if they existed, and 64 participants to detect medium effects if they existed. This study's sample size achieved adequate power to detect large effects when running these two statistical tests.

## Results

### Training Director Familiarity

Table 3 (Appendix E) provides the level of training directors' familiarity by percentage. Regarding EBI's with the most familiarity among training directors, 53% reported being very familiar with Coping Cat (Kendell, 1994; Kendell et al., 1997), followed by 49% being very familiar with Problem Solving Skills Training (Kazdin et al., 1987; Kazden et al., 1992), and then 35% being very familiar with Helping the Non-Compliant Child (Peed et al., 1977; Wells & Egan, 1988). Regarding the most unfamiliar EBI's, 73% of training directors had no familiarity with Treatment Foster Care Oregon – Adolescents (Chamberlain & Reid, 1998; Leve et al., 2005), followed by 64% who reported no familiarity with Child Parent Psychotherapy (Lieberman et al., 2003) and 53% reported no familiarity with Social Effectiveness Training (Beidel et al., 2000).

By category, training directors reported the most familiarity with EBIs for anxiety and disruptive behaviors, while EBIs for trauma and depression were rated as least familiar by

training directors. Training directors indicated they were not familiar with 37% of EBIs for depression, 30% of EBIs for anxiety, 33% of EBIs for trauma and 27% of EBIs for disruptive behavior disorders. Training directors indicated they were somewhat familiar with 36% of EBIs for depression, 19% of EBIs for anxiety, 37% of EBIs for trauma, and 21% of EBIs for disruptive behavior disorders. Training directors reported being familiar with 16% of EBIs for depression, 25% of EBIs for anxiety, 18% of EBIs for trauma, and 26% of EBIs for disruptive behaviors. Lastly, training directors reported being very familiar with 12% of EBIs for depression, 26% of EBIs for anxiety, 12% of EBIs for trauma, and 27% of EBIs for disruptive behaviors. When averaging across all interventions, 30% of training directors reported no familiarity, 27% reported being somewhat familiar, 22% reported being familiar, and 21% reported being very familiar with all the EBIs listed on the survey.

### **Level of Student Exposure and Experience**

**Student Exposure.** Table 4 (Appendix E) provides the percentage of training directors' endorsing their students' exposure to EBIs included on the survey. EBIs that training directors rated students to have the most exposure via didactic instruction (58%, 56, and 55% respectively) was Cognitive Behavioral Intervention for Trauma in Schools (Stein et al., 2003), followed by Multisystemic Therapy (Henggler et al., 1992, Bourdain et al., 1995), and Parent Management Training – Oregon Model (Bernal et al., 1980; Patterson et al., 1982). Training directors rated their students to have very low exposure to EBIs via observational learning, with ratings ranging from 0-10%. The highest rating of observational learning reported among training directors was 10% for Problem Solving Skills Training (Kazdin et al., 1987; Kazden et al., 1992). Regarding EBIs with the most exposure via both didactic and observational instruction, the greatest percentage of training directors (49%, 48%, and 30%

respectively) rated students to have exposure to Problem Solving Skills Training (Kazdin et al., 1987; Kazden et al., 1992), Coping Cat (Kendell, 1994; Kendell et al., 1997), and Parent-Child Interaction Therapy (Nixson et al., 2003; Schuhmann et al., 1998). EBIs that had the highest percentage of training directors (73%, 78%, and 71% respectively) indicating no student exposure were EMDR (Chemtob et al., 2002; Kemp et al., 2010), Treatment Foster Care Oregon – Adolescents (Chamberlain & Reid, 1998; Leve et al., 2005), followed by Child Parent Psychotherapy (Lieberman et al., 2003).

Out of the four mental health categories, training directors reported students to have the most exposure in EBIs for anxiety and disruptive behaviors. Sixty four percent of training directors endorsed that students had some type of exposure to EBIs for anxiety, while 61% reported students to have some type of exposure to EBIs for disruptive behavior disorders. Approximately 50% of training directors indicated student exposure to both depression and trauma EBIs. Exposure via observational learning was low, as most training directors endorsed the most exposure to EBIs through didactic instruction only for all four areas of EBIs. When averaging across all interventions, 57% of training directors reported their students to have exposure to the EBIs listed on the survey via didactic coursework, observational learning, or a combination of both modalities.

**Student Experience.** Table 5 (Appendix E) provides the percentage of training directors' endorsing their students' supervised experience with implementing EBIs included on the survey. The interventions with the highest rating of student experience via applied setting/practicum by training directors was the Coping Cat (Kendell, 1994, Kendell et al., 1997), Parent-Child Interaction Therapy (Nixson et al., 2003; Schuhmann et al., 1998) and Problem Solving Skills Training (Kazdin et al., 1987; Kazden et al., 1992). (46%, 25% and

31%, respectively). The Coping and Cat and Problem Solving Skills training were two of the three EBIs with the greatest percentage of training directors endorsing experience through a combination of contexts (18% and 33%, respectively), with the Incredible Years (Webster-Stratton & Hammond, 1997; Webster Stratton et al., 2004) being the third EBI with the highest percentage of training director endorsement (18%). Very few training directors reported student experience implementing EBIs by participation on a research study (5% or less) or by a case requirement for a course (10% or less).

EBIs that had the highest percentage of training directors indicating no student experience were EMDR (Chemtob et al., 2002; Kemp et al., 2010), Treatment Foster Care Oregon – Adolescents (Chamberlain & Reid, 1998; Leve et al., 2005), followed by Child Parent Psychotherapy (Lieberman et al., 2003), with percentages being 93%, 93% and 90%, respectively. Aside from the three EBIs mentioned above, an additional seven interventions had percentages ranging from 70% to 82%, indicating no student experience by training directors. When taken together, ten out of the seventeen EBIs included on the survey had 70% of training directors or higher indicating no student experience in implementation of that EBI.

Training directors reported relatively low levels of student experience, as less than 50% rated students to have direct, clinical experience across all four categories of EBIs. Fifty percent of training directors endorsed that students had experience with EBIs for anxiety, 33% reported students to have experience with EBIs for disruptive behavior disorders. EBIs for depression and trauma had 27% and 25%, respectively, of training directors' indicating student experience. Experience via case requirement (approximately 10% or less), research (approximately 5% or less) and combination (approximately 30% or less) was low, as most training directors endorsed the most student experience with EBIs to be through applied

setting/practicum. When averaging across all interventions, 32% of training directors reported student experience with the EBIs listed on the survey.

**Additional EBIs not included in survey.** Training directors had an opportunity to add interventions not included on the survey that their students had exposure to and/or experience with implementing them. All additional interventions are listed in Table 6 (Appendix E). Training directors indicated a multitude of EBIs, some being manualized treatments, and others being general modalities. EBIs indicated by training directors included social emotional learning curriculum ( $n = 3$ ), *Defiant children: A clinician's manual for parent training* (Barkley, 1987) ( $n = 3$ ), mindfulness ( $n = 2$ ), SkillsStreaming (Jennings & Davis, 1977) ( $n = 3$ ), motivational interviewing ( $n = 2$ ), NASP Prepare Model (Brock et al., 2016) ( $n = 2$ ), and Promoting Alternative Thinking Strategies (Greenberg, Kusche, Cook & Quamma, 1995) ( $n = 2$ ).

### **Differences Between Doctoral and Master's Level Students**

The sample yielded similar groups of training directors of masters programs and doctoral programs, contributing to an accurate comparison between them. Results of these comparisons are exhibited in Table 7 (Appendix E). There was a statistically significant difference between the number of EBIs training directors reported students to have some level of exposure ( $t = 2.25$ ,  $df = 38$ ,  $p = .03$ ) which was considered a large effect ( $d = .718$ ). The training directors of doctoral programs reported student exposure to an average of three more interventions than students of master's program directors. Regarding training director report of student experience with implementing EBIs included on this survey, results indicated no statistical difference between master's and doctoral programs ( $t = 0.98$ ,  $df = 38$ ,  $p = .33$ ).

### **Discussion**

The purpose of this study was to examine the current trends in EBI graduate training for school psychology students. Data provide a snapshot into how graduate students are trained in EBIs, according to program director's report. Although there is a small body of research investigating the extent of EBI training (Hicks et al., 2014; Karekla et al., 2004; Shernoff et al., 2003), this study is a replication of Shernoff et al. (2003), providing an update to determine if training has changed over time. Additionally, this study makes a unique contribution to the related research by more closely examining various levels of student exposure to and experience with EBIs, as well as comparing the training of master's and doctoral students. This snapshot of current training practices provide areas the field may want to further explore for the improvement of school psychology graduate education.

#### **Familiarity with EBIs Across Training Directors**

In the absence of a task force through the APA Division 16 or NASP to identify interventions with strong empirical support *and* relevant to the field of school psychology, the EBIs included on the survey were selected from clinical psychology sources. As such, the results regarding program directors' familiarity indicate the degree to which the selected EBIs are "on the radar" of school psychology faculty, and therefore have relevance in school psychology training curriculum. More than one half of participating training directors reported little to no familiarity with the EBIs included on this study's survey. The three EBIs with the highest rating of familiarity by training directors included The Coping Cat (Kendell, 1994; Kendell et al., 1997), a cognitive-behavioral, individual treatment for a wide range of anxiety problems involving exposure work and cognitive restructuring, Problem Solving Skills Training (Kazdin et al., 1987; Kazden et al., 1992), a cognitive behavioral, individual treatment

for disruptive behaviors involving building social skills and reducing negative thoughts/feelings during interpersonal conflict, and Helping the Non-Compliant Child (Peed et al., 1977; Wells & Egan, 1988), a behavioral, parent training intervention to reduce non-compliance. All three EBIs take a cognitive and/or behavioral approach towards reducing problematic behavior. EBIs with the least level of familiarity among training directors consisted of systemic approaches or trauma-focused interventions. For example, Child Parent Psychotherapy (Lieberman et al., 2003), a trauma-focused intervention requires treatment to consist of parent-child dyads and Treatment Foster Care Oregon – Adolescents (Chamberlain & Reid, 1998; Leve et al., 2005), is a systems-based approach incorporating therapeutic interventions within multiple settings to reduce severe disruptive behaviors. Training directors rated higher levels of familiarity for interventions targeting disruptive behaviors and for generalized anxiety.

Original research by Shernoff et al. focused solely on disruptive behavior disorders. Therefore, when comparing the level of familiarity across all EBIs included on that study's survey (41%) to the level of the familiarity of only the corresponding subset of EBIs on the current study, the data from the current study was higher, with over half of training directors reporting familiarity. As a whole, 43% of training directors on the current study were familiar or very familiar with all EBIs listed on the current study's survey, which included EBIs for internalizing behaviors, which is similar to that of Shernoff et al. (2003).

### **Student Training in EBIs**

**Exposure and Experience.** Training directors indicated moderate student exposure, with reports of mainly didactic instruction in slightly more than half of the interventions included on the survey. EBIs with higher levels of familiarity among training directors were

also those that students were reported to have some sort of exposure to via didactic instruction, observational learning, or both. Specifically, two of the three interventions with the highest ratings of familiarity were also among the EBIs for which the highest percentage of training directors rated students to have exposure. 90% or more of training directors rated students to have some type of exposure to both the Coping Cat (Kendell, 1994; Kendell et al., 1997) and Problem Solving Skills Training (Kazdin et al., 1987; Kazden et al., 1992). Training directors rated students to have more exposure to anxiety and disruptive behavior interventions than EBIs for depression or trauma. Results suggested that observation of EBI implementation is not a significant source of exposure, as 10% or less of training directors reported student exposure through this modality for any intervention on the survey. Even comparing percentage of training directors endorsing didactic instruction alone compared to a combination of didactic and observational instruction suggested that didactic instruction alone is the modality of choice for students within graduate training programs, as it relates to the EBIs included on the survey.

Training directors reported relatively low levels of student experience, as roughly one third of training directors indicated student experience in implementing the EBIs included on this survey. Additionally, the EBIs rated by the highest percentage of training directors with the most student experience was in line with those EBIs rated with high training director familiarity and student exposure. Approximately 77% or more of training directors rated students to have some type of experience, through a case requirement, applied setting/practicum experience, research experience, or a combination, to both the Coping Cat (Kendell, 1994; Kendell et al., 1997) and Problem Solving Skills Training (Kazdin et al., 1987; Kazden et al., 1992). Similar to findings regarding student exposure, training directors rated students to have relatively more experience with anxiety and disruptive behavior interventions



than EBIs for depression or trauma. Additionally, training directors rated students to have significantly more experience implementing EBIs within applied settings/practica than in research settings or through a case requirement. 10% or less of training directors endorsed case requirement or research settings as a modality of student experience implementing EBIs. Along these lines, training directors reported more student experience via applied settings/practica than a combination of modalities consistently across all EBIs included in the survey. As such, the data suggest that students primary source of experience is through an applied setting.

The above data are consistent with that of similar research, suggesting that students have more exposure to interventions than direct experience with implementation (Karekla et al., 2004; Shernoff et al., 2003). Given that prior research also indicates that didactic instruction alone is neither desirable nor sufficient in building competency in EBI implementation (Fixsen et al., 2005; Frazier et al., 2014; Perfect & Morris, 2011; Splett et al., 2013), the results suggest that EBI graduate education is not optimal in preparing doctoral level and masters level practitioners. Even those EBIs that were consistently rated by training directors to have the highest levels of student exposure and experience in comparison to other EBIs on the survey, the level of exposure was higher than that of student experience. This suggests that students' training consists of more exposure to EBIs than direct, clinical experience in implementation. Therefore, the results of this study appear to be consistent with that of what is known about current trends in school psychology training.

**Additional EBIs indicated by training directors.** Training directors indicated a variety of EBIs, intermixed with evidenced based practices/general empirical approaches. The majority of interventions added by training directors were targeted for disruptive behavior

disorders. Additionally, many of the interventions listed were only endorsed by one training director. Less than half of the interventions listed had high levels of empirical support. The most popular EBIs listed by training directors were inconsistent in their level of empirical support. For example, three training directors listed SkillsStreaming (Jennings & Davis, 1977) and three training directors listed *Defiant children: A clinician's manual for parent training* (Barkley, 1987), both of which are less empirically supported in comparison to Promoting Alternative Thinking Strategies (PATHS) (Greenberg, Kusche, Cook & Quamma, 1995), which was endorsed by two training directors. The PATHS program appears on the CEBC website with a high level of empirical support, while *Defiant Children* appears on the CEBC website with a medium (promising) level of empirical support, and SkillsStreaming is not ranked by CEBC. The interventions listed above were also endorsed as additional EBIs not included in the survey by training directors in the research by Shernoff et al. (2003).

Aside from various EBIs listed from training directors, many listed general, non-specific, interventions with various levels of empirical support, such as cognitive behavioral therapy, mindfulness, motivational interviewing and social emotional learning. Some interventions, such as cognitive behavior therapy, is a broad, evidenced based practice, consisting of various types of specific interventions and manualized programs, while motivational interviewing is an evidenced based practice to build commitment and motivation for change, with no manualized component. It is important to note, one training director endorsed a modular approach, *Modular Approach to Children with Anxiety, Depression, Trauma, or Conduct Problems* (Chorpita & Weisz, 2009), and others endorsed common elements of cognitive and behavioral therapies such as cognitive restructuring, exposures, and progressive muscle relaxation. These data suggest that graduate

programs may also rely on efficient interventions, including modular approaches and common elements, both of which can be adapted for a wide variety of presenting problems.

Overall, this survey yielded a sampling of additional interventions taught in school psychology graduate coursework in addition to the ones selected by the author for this survey. It is important to note that training directors endorsed evidenced based practices in addition to more specific and manualized interventions. Therefore, it suggests that programs may also focus on teaching general modalities or common elements as part of training.

### **Differences in Training by Degree**

Training directors of doctoral programs rated higher levels of student exposure than master's level training directors. However, there were no differences in degree regarding student experience with implementation of EBIs according to training director report. Although doctoral programs require additional coursework and experience, there appears to be a difference only within the number of EBIs for which students have formal coursework. Doctoral training directors rated their students to have exposure to an average of three more interventions than students reported by master's level training directors. Despite the differences in amount of hours of direct clinical experience in doctoral versus master's level programs, students' clinical, supervised experiences across both degree programs were similar, according to training directors. This data provides a unique contribution to the research base, as there are no published studies comparing the number of EBIs with which doctoral and master's level students have exposure and experience during graduate training. However, the data aligns with that of Hicks et al. (2014) which suggests that doctoral level school psychologists are familiar with more EBIs than master's level students.

### **Implications for Practice**

Given that the data align with past research suggesting that students in school psychology training programs receive less clinical, direct experience in comparison to coursework in EBIs, there are several implications for the field in regards to graduate training. First, training programs may elect to move towards unified treatment protocols or modular approaches, such as the *Modular Approach to Children with Anxiety, Depression, Trauma, or Conduct Problems* (Chorpita & Weisz, 2009) or the *Unified Protocol for Transdiagnostic Treatment of Emotional Disorders* (Barlow et al., 2010). Training in interventions such as these is potentially more efficient, as it allows students to receive training on one EBI that can be implemented for various presenting problems. Treatments such as these can be taught in a time efficient manner, as students would learn a set of practices and strategies that apply to a range of disorders versus several interventions targeting one, narrow presenting problem. As summarized in Laska, Gurman and Wampold (2014), EBIs are designed and research is conducted for disorder-specific populations, while those clients in naturalistic settings typically present with a wide range of presenting problems and co-morbid disorders. Practitioners would have to receive adequate training (i.e., didactic instruction, clinical experience and supervision) across multiple distinct EBIs in order to be prepared to deliver high quality interventions to their clients. As such, this type of training may not be feasible or efficient within graduate training programs and the field may move towards training students to deliver evidenced-based, modular or common elements approaches.

Second, these data suggest that of the students receiving clinical experience implementing EBIs, they do so in an applied setting/practica. Considering the barriers to implementing EBIs within the field and the gap in research to practice (see Weisz, Ng, and

Bearman. 2014), universities may choose to have more overlap between students' EBI coursework and experience implementing those EBIs. This would ensure students have training consistent with best practices such that exposure and experience are equally balanced.

Third, results suggest that EBIs for anxiety and disruptive behaviors tend to be more prominent among school psychology curricula at the current time. These findings suggest a preliminary hypothesis that training trends are focusing more on treating conduct-related disorders and anxiety disorders. This hypothesis makes sense, as these findings are consistent with research indicating that prevalence rates of disruptive behavior disorders and anxiety disorders are higher than that of depression and trauma alone (Merikangas et al. 2010). The associated problems for each are likely to impact a child/teen within the school setting to an extent that warrants intervention. For example, externalizing behaviors are likely to impact the individual's academic functioning, as well as negatively impacting others within the same setting, all of which can be easily identified by teachers, other school personnel, and parents. Although anxiety disorders are an internalizing problem, and thus, by nature symptoms may be less observable in a school setting, the constellation of symptoms may be more evident to a school psychologist. This includes overt behaviors such as school refusal and other avoidance-related behaviors, which, similar to disruptive behavior disorders, can be easily identified by school personnel and parents. These preliminary data provide some direction for practice, while also suggesting hypotheses for future research to further investigate.

### **Limitations**

This study is limited by its small sample size and somewhat low response rate ( $n = 40$ , response rate of 23%). Therefore, the study's results likely do not represent the full range of school psychology training programs across the US. Along these lines, the training directors

that responded may have different characteristics than those that did not respond, and therefore limits the generalizability of the results. The sample is comprised of only training directors, not all of which were directly involved in the teaching and/or supervision of school psychology students. Surveying only training directors, with some not having involvement in teaching or supervision of school psychology students in EBIs, may have affected the levels of familiarity with EBIs. Similarly, another limitation is that training directors were asked to report on their students as a whole, rather than having data directly from the report of students which may have impacted the accuracy of levels of exposure and experience with EBIs.

The survey itself lends itself to inherent limitations. The survey did not contain all possible EBIs, and the EBIs that were chosen were those that were reviewed and deemed “evidenced-based” by clinical psychology sources. In the absence of a school psychology task force or source to evaluate and list EBIs relevant to the field of school psychology, it is difficult to know whether the interventions included on the survey represent the most commonly used interventions in school settings. As such, this limitation could have contributed to lower levels of student exposure and experience across interventions and may leave out other areas in which students receive exposure and experience. Additionally, the EBIs included on the survey attempted to cover several areas of mental health including both internalizing and externalizing disorders. While the survey was created by selecting EBIs using stringent and methodologically sound procedures, the resulting list of EBIs was not equal in number across categories, as the EBIs for disruptive behavior disorders outnumbered all other categories. As such, EBIs for depression, trauma, and anxiety are underrepresented within the survey.

## **Conclusions and Future Directions**

Further research may expand upon this current study in several ways. Further research within the field may seek to identify interventions that treat the most relevant and persistent presenting problems within the scope of school psychology practice. Based on the current data, EBIs for disruptive behaviors and anxiety disorders may be the most relevant interventions to be included as part of school psychology training and further research may focus solely on the subset of EBIs for those presenting problems. When considering the additional interventions training directors endorsed on the survey, a combination of manualized EBIs and a common elements/modular approach for teaching EBIs may be further examined. Based on the data from the current study, there appears to be a combination of EBIs and more general, non-manualized evidenced based practices that are taught as part of school psychology training curriculums. Furthermore, the ways in which training programs evaluate and select EBIs will be important to explore, as there was variability in the level of empirical support of the additional interventions training directors noted on this survey.

Another avenue for future direction might be to identify members of faculty that only have direct involvement in teaching and/or supervising and obtain their methods for selecting EBIs to include within the graduate curriculum, as well as further information regarding the clinical experiences of students implementing EBIs. Along these lines, further information about students' standardized coursework and clinical experiences may be further explored. For example, future research might examine how many courses in EBIs students are required to take and if/how many elective courses are available for students to take. Also, clinical experiences such as practicum and fieldwork may be a requirement of graduate programs; however, there may be differences among various sites that are linked to one particular school.

Future research may further examine how schools choose practicum sites, how practicum sites specifically provide training in EBIs, and how universities ensure adequate supervision and training of students contracted to intern at these sites.



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\*Denotes a reference for an EBI included on the survey

\*\*Denotes a reference for an additional EBI noted by training directors on the survey

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**Appendix A: Initial Electronic Cover Letter**

Dear School Psychology Training Director:

My name is Angela Gonnella, and I am a third year School Psychology graduate student at the Graduate School of Applied and Professional Psychology at Rutgers, The State University of New Jersey. I am currently conducting a study for my dissertation that examines school psychology graduate training in evidenced based interventions (EBIs) for mental health, and to better understand students' level of exposure and experience with these EBIs.

I am contacting school psychology training directors of master's/specialist and doctoral programs that meet the following criteria:

- 1) Have full NASP approval
- 2) Have APA accreditation
- 3) Have full NASP approval and full APA accreditation

Participation involves completing an online survey that takes approximately 10 minutes. The survey includes a list of mental health evidence-based interventions, for which you will be asked to rate your familiarity and your students' level of exposure and experience.

If you choose to participate, you can access the anonymous survey here: [survey url]. If you have any questions, please feel free to contact me at [angegonn@scarletmail.rutgers.edu](mailto:angegonn@scarletmail.rutgers.edu).

Thank you in advance for your consideration!

Angela Gonnella, Ed.M.  
School Psychology Doctoral Candidate  
Graduate School of Applied and Professional Psychology  
Rutgers, The State University of New Jersey

**Appendix B: Follow-up Electronic Cover Letter**

Dear School Psychology Training Director:

This is a follow-up to an email you have already received regarding a survey on school psychology graduate training in evidence-based interventions. Those that have already completed this survey can disregard this email, and I thank you for your time.

My name is Angela Gonnella, and I am a third year School Psychology graduate student at the Graduate School of Applied and Professional Psychology at Rutgers, The State University of New Jersey. I am currently conducting a study for my dissertation that examines school psychology graduate training in evidenced based interventions (EBIs) for mental health, and to better understand students' level of exposure and experience with these EBIs.

I am contacting school psychology training directors of master's/specialist and doctoral programs that meet the following criteria:

- 1) Have full NASP approval
- 2) Have APA accreditation
- 3) Have full NASP approval and full APA accreditation

Participation involves completing an online survey that takes approximately 10 minutes. The survey includes a list of mental health evidence-based interventions, for which you will be asked to rate your familiarity and your students' level of exposure and experience.

If you choose to participate, you can access the anonymous survey here: [survey url]. If you have any questions, please feel free to contact me at [angegonn@scarletmail.rutgers.edu](mailto:angegonn@scarletmail.rutgers.edu).

Thank you in advance for your consideration!

Angela Gonnella, Ed.M.  
School Psychology Doctoral Candidate  
Graduate School of Applied and Professional Psychology  
Rutgers, The State University of New Jersey

### **Appendix C: Informed Consent**

You are invited to participate in a research study being conducted by Angela Gonnella, Ed.M, who is a student in the Graduate School of Applied and Professional Psychology Department at Rutgers under the supervision of Elisa Shernoff, Ph.D.

The purpose of this research is to examine the level of school psychology graduate training in various evidence-based interventions for depression, anxiety, trauma, and disruptive behaviors. We anticipate recruiting approximately 64 training directors to participate in the study.

The study procedures includes completing a survey that includes a list of evidence-based interventions for mental health identified by APA's Division 53 (Clinical Child Psychology) as "well-established" and "probably efficacious" as well as interventions identified by the California Evidenced Based Clearinghouse for Child Welfare as "well-supported by research" and "supported by research." For each intervention, you will rate your familiarity with the intervention, students' level of exposure to the intervention in your training program and students' level of experience implementing the intervention in your training program. The survey will take approximately 10 minutes to complete.

This research is anonymous. Anonymous means that I will record no information about you that could identify you. There will be no linkage between your identity and your response in the research. This means that I will not record any identifying information, including your name, your institution's name, work phone number, or IP address associated with your responses.

There are no direct benefits or compensation for completing the survey, but it may give you an opportunity to reflect on the training curriculum of your school psychology program. You will also contribute to the scientific research on school psychology graduate training. There are no foreseeable risks to participation in this study.

The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this study is published, or the results are presented at a professional conference, only group results will be stated. If you would like to know the results of this survey, please contact Angela Gonnella, and you will be informed of when results are available.

Participation in this study is voluntary. You may choose not to participate, and you may withdraw at any time during the study procedures without any penalty to you. In addition, you may choose not to answer any questions with which you are not comfortable.

If you have any questions about the study procedures, you may contact Angela Gonnella at 201-919-8078 or [angegonn@scarletmail.rutgers.edu](mailto:angegonn@scarletmail.rutgers.edu). Alternatively, you may contact the faculty member supervising this study, Dr. Elisa Shernoff, at [ess91@rci.rutgers.edu](mailto:ess91@rci.rutgers.edu) or 848-445-3902.

If you have any questions about your rights as a research subject, please contact an IRB Administrator at the Rutgers University, Arts and Sciences IRB:



Institutional Review Board  
Rutgers University, the State University of New Jersey  
Liberty Plaza / Suite 3200  
335 George Street, 3<sup>rd</sup> Floor  
New Brunswick, NJ 08901  
Phone: 732-235-9806  
Email: [humansubjects@orsp.rutgers.edu](mailto:humansubjects@orsp.rutgers.edu)

Please retain a copy of this form for your records. By participating in the above stated procedures, then you agree to participation in this study.

**If you disagree, or do not want to participate, then please exit this survey now.**

**By clicking “I agree” and continuing onto the survey, you are stating that you agree to and understand the nature of your involvement in this study.**

- ☐ I agree
- ☐ I do not agree

## Appendix D: Survey

School psychology training directors of the following programs should complete this survey:

- 1) NASP approved, master's/specialist programs
- 2) APA accredited and/or NASP approved doctoral programs

If your institution offers **both** a master's/specialist and a doctoral degree in school psychology, with only one program that meets this study's inclusion criteria, please complete this survey for only the program that meets the inclusion criteria.

If your institution offers **both** a master's/specialist and a doctoral degree in school psychology, both of which meet this study's inclusion criteria, please complete this survey for your doctoral program only.

For each intervention, please indicate (1) your familiarity with the intervention, (2) students' level of exposure to the intervention in your training program and (3) student's level of experience implementing the intervention in your training program.

For the familiarity ratings, mark:

- **Not familiar** if you have never heard of the intervention
- **Somewhat familiar** if you are familiar with the general techniques or principles of the intervention
- **Familiar** if you are familiar with the specific intervention protocol
- **Very Familiar** if you have had experience implementing or supervising others implementing the specific intervention

For the exposure ratings, mark:

- **None** if your students are not exposed to the intervention
- **Didactic instruction** if your students receive direct instruction via coursework or seminars
- **Observation of intervention in an applied setting** if your students observe senior professionals implementing intervention with youth
- **Didactic and Observational** if both methods of exposure are applicable

For the experience ratings, mark:

- **None** if your students do not have experience implementing the intervention
- **Case Requirement** if your students are required to have one or more supervised therapy cases at the university's training clinic
- **Applied Setting/Practica** if your students receive ongoing supervised experience implementing interventions in an applied setting such as a clinic, school, community mental health center, etc.
- **Research** if your students are implementing interventions as part of a research protocol
- **Combination** if your students have a combination of case requirement and/or applied practicum and/or research

**Interpersonal Psychotherapy – Adolescent Skills Training** (Young, Mufson & Davies, 2006):

A prevention program for depression that provides psycho-education and interpersonal skills which can be applied to three areas: interpersonal role disputes, role transitions, and interpersonal deficits.

Your Familiarity	Student Exposure	Student Experience
<input type="checkbox"/> Not familiar	<input type="checkbox"/> None	<input type="checkbox"/> None
<input type="checkbox"/> Somewhat familiar	<input type="checkbox"/> Didactic instruction	<input type="checkbox"/> Case Requirement
<input type="checkbox"/> Familiar	<input type="checkbox"/> Observation of intervention in an applied setting	<input type="checkbox"/> Applied Setting/Practica
<input type="checkbox"/> Very Familiar	<input type="checkbox"/> Didactic and Observational	<input type="checkbox"/> Research
		<input type="checkbox"/> Combination

**Eye Movement Desensitization and Reprocessing** (Chemtob, Nakashima & Carson, 2002;

Kemp, Drummond & McDermott, 2010): A trauma-focused therapy that utilizes bi-lateral eye movements and other external stimuli as part of treatment. The client attends to emotional material related to a traumatic event in brief sequential phases, which include identification of the client's beliefs, emotions, and physiological sensations associated with the traumatic event, while simultaneously focusing on an external stimulus to assist in decreasing emotional distress.

Your Familiarity	Student Exposure	Student Experience
<input type="checkbox"/> Not familiar	<input type="checkbox"/> None	<input type="checkbox"/> None
<input type="checkbox"/> Somewhat familiar	<input type="checkbox"/> Didactic instruction	<input type="checkbox"/> Case Requirement
<input type="checkbox"/> Familiar	<input type="checkbox"/> Observation of intervention in an applied setting	<input type="checkbox"/> Applied Setting/Practica
<input type="checkbox"/> Very Familiar	<input type="checkbox"/> Didactic and Observational	<input type="checkbox"/> Research
		<input type="checkbox"/> Combination

**Problem Solving Skills Training** (Kazdin, Esveltdt-Dawson, French & Unis, 1987; Kazdin, Siegel & Bass, 1992): A cognitive-behavioral program to address youth disruptive behaviors. The program aims to improve positive responses to conflict by building youth's ability to manage negative thoughts and feelings in problematic situations and teaching social problem-solving skills.

Your Familiarity	Student Exposure	Student Experience
<input type="checkbox"/> Not familiar	<input type="checkbox"/> None	<input type="checkbox"/> None
<input type="checkbox"/> Somewhat familiar	<input type="checkbox"/> Didactic instruction	<input type="checkbox"/> Case Requirement
<input type="checkbox"/> Familiar	<input type="checkbox"/> Observation of intervention in an applied setting	<input type="checkbox"/> Applied Setting/Practica
<input type="checkbox"/> Very Familiar	<input type="checkbox"/> Didactic and Observational	<input type="checkbox"/> Research
		<input type="checkbox"/> Combination

**Cognitive Behavioral Intervention for Trauma in Schools** (Stein, Jaycox, Kataoka, Wong, Tu, Elliott, 2003): A trauma-informed, cognitive behavioral therapy program designed for youth who have experienced a traumatic event and have subsequent emotional distress related to the event. The program aims to reduce symptoms of posttraumatic stress disorder, depression, and behavioral problems, improve peer and parent support, and develop adaptive coping skills.

<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
<b>Primary and Secondary Control Enhancement Training</b> (Weisz, Thurber, Sweeny, Proffitt & LeGagnoux, 1997): A cognitive-behavioral intervention for youth with depression. The program aims to improve youth's mood by teaching coping strategies such as problem solving skills, relaxation, and cognitive restructuring for negative thought patterns.		
<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
<b>Coping Cat</b> (Kendell, 1994; Kendell et al., 1997): A cognitive-behavioral intervention for youth with anxiety. The program includes skill building modules for increasing awareness of emotional and physical reactions to anxiety, identifying thoughts and feelings in anxious situations, developing plans for effective coping and evaluating performance and giving self-reinforcement.		
<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
<b>Multisystemic Therapy</b> (Henggler, Melton & Smith, 1992; Bourdain et al., 1992): An intensive family and community-based treatment for antisocial behavior that addresses cognitive and systemic factors (family, peer, and school) to promote behavior change.		
<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination

**Helping the Non-Compliant Child** (Peed, Roberts & Forehand, 1977, Wells & Egan, 1988):

A behavioral training program that is based on the theoretical assumption that child noncompliance predicts future conduct problems and that maladaptive parent-child interactions are significant in the development and maintenance of behavior problems. Caregivers learn behavioral strategies to improve child compliance. Strategies include how to provide positive feedback to their child for appropriate behavior, planned ignoring of inappropriate child behavior, handling compliance and non-compliance with behavioral techniques, and setting limits.

**Your Familiarity**

- ☐ Not familiar  
☐ Somewhat familiar  
☐ Familiar  
☐ Very Familiar

**Student Exposure**

- ☐ None  
☐ Didactic instruction  
☐ Observation of intervention in an applied setting  
☐ Didactic and Observational

**Student Experience**

- ☐ None  
☐ Case Requirement  
☐ Applied Setting/Practica  
☐ Research  
☐ Combination

**Social Effectiveness Therapy for Children** (Beidel, Turner, & Morris, 2000): A comprehensive behavioral therapy program for social phobia that combines group social skills training, practicing social skills in-vivo with peers, and individual exposure therapy sessions. The goal of the program is to enhance youth's social interactions, reduce anxiety, and enhance/increase friendships.

**Your Familiarity**

- ☐ Not familiar  
☐ Somewhat familiar  
☐ Familiar  
☐ Very Familiar

**Student Exposure**

- ☐ None  
☐ Didactic instruction  
☐ Observation of intervention in an applied setting  
☐ Didactic and Observational

**Student Experience**

- ☐ None  
☐ Case Requirement  
☐ Applied Setting/Practica  
☐ Research  
☐ Combination

**Triple P – Positive Parenting Program Level 4 / Standard** (Sanders, Markie-Dadds, Tully & Bor, 2000): A parent training program for caregivers of youth with conduct problems that teaches strategies to decrease youth's disruptive behaviors and increase self-regulatory skills. The program aims to increase caregivers' positive behavioral strategies in managing youths' disruptive behaviors

**Your Familiarity**

- ☐ Not familiar  
☐ Somewhat familiar  
☐ Familiar  
☐ Very Familiar

**Student Exposure**

- ☐ None  
☐ Didactic instruction  
☐ Observation of intervention in an applied setting  
☐ Didactic and Observational

**Student Experience**

- ☐ None  
☐ Case Requirement  
☐ Applied Setting/Practica  
☐ Research  
☐ Combination

**Child Parent Psychotherapy** (Lieberman, Compton, Van Horn & Ghosh Ippen, 2003): A trauma-informed intervention where the young child and their primary caregiver are seen as a dyad, and the focus is on how the trauma and the caregivers' relational history affect the relationship between the child and caregiver. Intervention involves the identification of caregivers' and children's maladaptive representations of themselves, each other, and caregiver interactions and/or behaviors that interfere with the child's emotional regulation.

<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
<b>The Incredible Years</b> (Webster-Stratton & Hammond, 1997; Webster-Stratton, Reid & Hammond, 2004): A multi-series intervention to address emotional and behavior problems in young children. The program aims to promote social and emotional effectiveness and reduce problem behaviors in young children. Program components include emotion management, problem solving, social skills and academic readiness.		
<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
<b>Interpersonal Psychotherapy for Depressed Adolescents</b> (Mufson, Weissman, Moreau & Garfinkel, 1999; Mufson et al., 2004): An intervention that addresses the role of interpersonal issues in the development and maintenance of depression. The program includes psychoeducation on how interpersonal issues are related to depressive symptoms and the effects of interpersonal interactions on their mood, as well as skills-building techniques to improve communication and social problem solving skills.		
<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
<b>Parent-Child Interaction Therapy</b> (Nixon, Sweeny, Erickson & Touyz, 2003; Schuhmann, Foote, Eyberg, Boggs & Algina, 1998): A dyadic behavioral intervention for young children and their caregivers which aims to decrease child behavior problems and improve the parent-child attachment. This intervention teaches parents to use play therapy for reinforcing positive child behavior and traditional behavioral interventions to decrease child oppositional behavior.		

<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
<b>Trauma Focused – Cognitive Behavioral Therapy</b> (Cohen, Deblinger, Mannarino & Steer, 2004; Cohen, Mannarino & Knudsen, 2005): A cognitive-behavioral intervention for children who have experienced significant emotional and behavioral difficulties related to traumatic events. This program aims to reduce emotional distress and behavior problems that are directly related to the traumatic event, as well as improving parental support of the child, reducing parental distress, improving parent-child communication, and increasing the child's sense of safety.		
<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
<b>Parent Management Training, Oregon Model</b> (Bernal, Klinnert & Schultz, 1980; Patterson, Chamberlain & Reid, 1982): A behavioral training program for primary caregivers of youth with conduct problems. This program teaches skills for developing and implementing effective behavior plans that will decrease their child's disruptive behavior.		
<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
<b>Treatment Foster Care Oregon – Adolescents</b> (Chamberlain & Reid, 1998; Leve, Chamberlain & Reid, 2005): A systemic therapy approach for youth with antisocial behavior. The program aims to develop a consistent and reinforcing home environment through parent behavioral training, and develop youths' ability to establish pro-social relationships and positive living skills.		

<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
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**Are there other EBIs for mental health taught in your program that are not included in this list? If so, please indicate the intervention and describe the level of exposure and experience students have with each one.**

**Program Name:**  
**Brief Program Description:**

<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
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**Program Name:**  
**Brief Program Description:**

<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practica <input type="checkbox"/> Research <input type="checkbox"/> Combination
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**Program Name:**  
**Brief Program Description:**



<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practice <input type="checkbox"/> Research <input type="checkbox"/> Combination
<b>Program Name:</b> <b>Brief Program Description:</b>		
<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practice <input type="checkbox"/> Research <input type="checkbox"/> Combination
<b>Program Name:</b> <b>Brief Program Description:</b>		
<b>Your Familiarity</b> <input type="checkbox"/> Not familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Familiar <input type="checkbox"/> Very Familiar	<b>Student Exposure</b> <input type="checkbox"/> None <input type="checkbox"/> Didactic instruction <input type="checkbox"/> Observation of intervention in an applied setting <input type="checkbox"/> Didactic and Observational	<b>Student Experience</b> <input type="checkbox"/> None <input type="checkbox"/> Case Requirement <input type="checkbox"/> Applied Setting/Practice <input type="checkbox"/> Research <input type="checkbox"/> Combination

**I am completing this survey for the following degree program: (check one)**

- ☐ Doctorate  
☐ Master's or Specialist

**What type of accreditation does your program have? (check one)**

- ☐ APA  
☐ NASP  
☐ Both APA and NASP

**Which training philosophy best describes your program? (check one)**

- ☐ Practitioner  
☐ Scholar-Practitioner

<input type="checkbox"/> Scientist-Practitioner
<input type="checkbox"/> Other (please specify):_____

<b>What theoretical approach best describes your program? (check one)</b>
<input type="checkbox"/> Behavioral
<input type="checkbox"/> Cognitive Behavioral
<input type="checkbox"/> Integrative
<input type="checkbox"/> Systemic
<input type="checkbox"/> Humanistic
<input type="checkbox"/> Psychodynamic
<input type="checkbox"/> Other (please specify):_____

<b>What role do you have in the training of school psychology students in EBIs? (check one)</b>
<input type="checkbox"/> I teach a course in EBIs
<input type="checkbox"/> I supervise students implementing EBIs
<input type="checkbox"/> I teach a course in EBIs and supervise students implementing EBIs
<input type="checkbox"/> I am not involved in students' EBI training

If you have any questions about this survey or would like to receive results of the final study, please contact Angela Gonnella via phone (201-919-8078) or email (angedonn@scarletmail.rutgers.edu).

Thank you for your participation in this survey!

**Appendix E: Tables**

Table 1

*Demographic Characteristics of Sample*

<b>Characteristic</b>	<b>Frequency (Percentage)</b>
<u>Total N</u>	40
<u>Degree Program</u>	
Master's/Specialist degree	21 (53%)
Doctoral degree	19 (47%)
<u>Accreditation</u>	
APA	3 (7%)
NASP	22 (55%)
Both APA and NASP	15 (38%)
<u>Training Philosophy</u>	
Scientist-Practitioner	31 (78%)
Scholar - Practitioner	3 (7%)
Practitioner	4 (10%)
Other	2 (5%)
<u>Theoretical Orientation</u>	
Behavioral	8 (20%)
Cognitive Behavioral	25 (63%)
Systems	1 (3%)
Psychodynamic	0 (0%)
Humanistic	0 (0%)

Integrative	3 (8%)
Other	3 (8%)
<u>Role in EBI training*</u>	
Teach a course	9 (23%)
Supervise students	5 (13%)
Teach and supervise	15 (39%)
No involvement	10 (26%)

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*\*One respondent did not complete this question*

Table 2

*Selected EBIs for Mental Health*

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Interpersonal Therapy – Adolescent Skills Training  
(Young, Mufson & Davies, 2006)

Eye Movement Desensitization and Reprocessing  
(Chemtob, Nakashima & Carson, 2002; Kemp, Drummond & McDermott, 2010)

Problem Solving Skills Training  
(Kazdin, Esveltdt-Dawson, French & Unis, 1987; Kazdin, Siegel & Bass, 1992)

Cognitive Behavioral Intervention for Trauma in Schools  
(Stein, Jaycox, Kataoka, Wong, Tu, Elliott, 2003)

Primary and Secondary Control Enhancement Training  
(Weisz, Thurber, Sweeney, Proffitt, & LeGagnoux, 1997; Weisz et al., 2009)

Coping Cat  
(Kendell, 1994; Kendell et al., 1997)

Multisystemic Therapy  
(Henggler, Melton & Smith, 1992; Bourdain et al., 1995)

Helping the Non-Compliant Child  
(Peed, Roberts & Forehand, 1977; Wells & Egan, 1988)

Social Effectiveness Training  
(Beidel, Turner, & Morris, 2000)

Triple P – Positive Parenting Program Level 4/Standard  
(Sanders, Markie-Dadds, Tully, & Bor 2000)

Child Parent Psychotherapy  
(Lieberman, Compton, Van Horn & Ghosh Ippen, 2003)

The Incredible Years  
(Webster-Stratton & Hammond, 1997; Webster-Stratton, Reid & Hammond, 2004)

Interpersonal Psychotherapy for Depressed Adolescents  
(Mufson, Weissman, Moreau & Garfinkel, 1999; Mufson et al., 2004)

Parent-Child Interaction Therapy

(Nixson, Sweeny, Erickson & Touyz, 2003; Schuhmann, Foote, Eyberg, Boggs & Algina, 1998)

Trauma Focused – Cognitive Behavioral Therapy

(Cohen, Deblinger, Mannarino & Steer, 2004; Cohen, Mannarino & Knudsen, 2005)

Parent Management Training, Oregon Model

(Bernal, Klennert, & Schultz, 1980; Patterson, Chamberlain & Reid, 1982)

Treatment Foster Care Oregon – Adolescents

(Chamberlain & Reid, 1998; Leve, Chamberlain & Reid, 2005)

Table 3

*Frequency (Percentage) of Training Directors' Familiarity to EBIs (N = 40)*

<b>EBI</b>	<b>Not Familiar</b>	<b>Somewhat Familiar</b>	<b>Familiar</b>	<b>Very Familiar</b>
<b>Depression:</b>				
Interpersonal Therapy – Adolescent Skills Training (Young, Mufson & Davies, 2006)	36%	40%	18%	10%
Primary and Secondary Control Enhancement Training (Weisz et al., 1997; Weisz et al., 2009)	50%	25%	13%	13%
Interpersonal Psychotherapy for Depressed Adolescents (Mufson et al., 1999; Mufson et al., 2004)	26%	43%	18%	13%
<b>Anxiety:</b>				
Coping Cat (Kendell, 1994; Kendell et al., 1997)	8%	10%	30%	53%
Social Effectiveness Training (Beidel et al., 2000)	53%	28%	20%	0%
<b>Trauma:</b>				
Eye Movement Desensitization and Reprocessing (Chemtob et al., 2002; Kemp et al., 2010)	30%	45%	20%	5%
Cognitive Behavioral Intervention for Trauma in Schools (Stein et al., 2003)	13%	38%	25%	25%
Child Parent Psychotherapy (Lieberman et al., 2003)	64%	28%	3%	5%
Trauma Focused – Cognitive Behavioral Therapy (Cohen et al., 2004; Cohen et al., 2005)	26%	36%	26%	13%

**Disruptive Behavior Disorder:**

Multisystemic Therapy (Henggler et al., 1992; Bourdain et al., 1995)	21%	33%	31%	15%
Helping the Non-Compliant Child (Peed et al., 1977; Wells & Egan, 1988)	25%	25%	15%	35%
Triple P – Positive Parenting Program Level 4/Standard (Sanders et al., 2000)	41%	18%	18%	23%
The Incredible Years (Webster-Stratton & Hammond, 1997; Webster-Stratton et al., 2004)	15%	20%	33%	33%
Parent-Child Interaction Therapy (Nixson et al., 2003; Schuhmann et al., 1998)	18%	25%	30%	28%
Problem Solving Skills Training (Kazdin et al., 1987; Kazdin et al., 1992)	0%	15%	37%	49%
Parent Management Training, Oregon Model (Bernal et al., 1980; Patterson et al., 1982)	23%	23%	30%	25%
Treatment Foster Care Oregon – Adolescents (Chamberlain & Reid, 1998; Leve et al., 2005)	73%	10%	13%	5%

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Table 4

*Frequency (Percentage) of Students' Level of Exposure to EBIs (N = 40)*

<b>EBI</b>	<b>None</b>	<b>Didactic Instruction</b>	<b>Observational</b>	<b>Didactic and Observational</b>
<b>Depression:</b>				
Interpersonal Therapy – Adolescent Skills Training (Young, Mufson & Davies, 2006)	53%	33%	5%	10%
Interpersonal Psychotherapy for Depressed Adolescents (Mufson et al., 1999; Mufson et al., 2004)	40%	48%	5%	8%
Primary and Secondary Control Enhancement Training (Weisz et al., 1997; Weisz et al., 2009)	58%	25%	0%	18%
<b>Anxiety:</b>				
Coping Cat (Kendell, 1994; Kendell et al., 1997)	10%	38%	5%	48%
Social Effectiveness Training (Beidel et al., 2000)	63%	30%	3%	5%
<b>Trauma:</b>				
Eye Movement Desensitization and Reprocessing (Chemtob et al., 2002; Kemp et al., 2010)	73%	28%	0%	0%
Trauma Focused – Cognitive Behavioral Therapy (Cohen et al., 2004; Cohen et al., 2005)	33%	36%	3%	28%
Child Parent Psychotherapy (Lieberman et al., 2003)	71%	24%	3%	3%

Cognitive Behavioral Intervention for Trauma in Schools (Stein et al., 2003)	23%	58%	3%	18%
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**Disruptive Behavior Disorders:**

Multisystemic Therapy (Henggler et al., 1992; Bourdain et al., 1995)	36%	56%	3%	5%
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Helping the Non-Compliant Child (Peed et al., 1977; Wells & Egan, 1988)	36%	39%	0%	26%
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Triple P – Positive Parenting Program Level 4/Standard (Sanders et al., 2000)	53%	40%	3%	5%
---	-----	-----	----	----

Problem Solving Skills Training (Kazdin et al., 1987; Kazdin et al., 1992)	8%	33%	10%	49%
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The Incredible Years (Webster-Stratton & Hammond, 1997; Webster-Stratton et al., 2004)	33%	33%	5%	28%
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Parent-Child Interaction Therapy (Nixson et al., 2003; Schuhmann et al., 1998)	35%	28%	8%	30%
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Parent Management Training, Oregon Model (Bernal et al., 1980; Patterson et al., 1982)	35%	55%	0%	10%
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Treatment Foster Care Oregon – Adolescents (Chamberlain & Reid, 1998; Leve et al., 2005)	78%	23%	0%	0%
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Table 5

*Frequency (Percentage) of Students' Level of Experience with EBIs (N = 40)*

EBI	None	Case Requirement	Applied Setting/ Practica	Research	Combination
<b>Depression:</b>					
Interpersonal Therapy - Adolescent Skills Training (Young, Mufson & Davies, 2006)	80%	3%	13%	0%	5%
Interpersonal Psychotherapy for Depressed Adolescents (Mufson et al., 1999; Mufson et al., 2004)	70%	5%	10%	5%	10%
Primary and Secondary Control Enhancement Training (Weisz et al., 1997; Weisz et al., 2009)	70%	0%	15%	0%	15%
<b>Anxiety:</b>					
Coping Cat (Kendell, 1994; Kendell et al., 1997)	23%	10%	46%	3%	18%
Social Effectiveness Training (Beidel et al., 2000)	78%	0%	18%	5%	0%
<b>Trauma:</b>					
Eye Movement Desensitization and Reprocessing (Chemtob et al., 2002; Kemp et al., 2010)	93%	0%	5%	3%	0%

Cognitive Behavioral Intervention for Trauma in Schools (Stein et al., 2003)	58%	3%	23%	0%	18%
Child Parent Psychotherapy (Lieberman et al., 2003)	90%	3%	0%	3%	5%
Trauma Focused – Cognitive Behavioral Therapy (Cohen et al., 2004; Cohen et al., 2005)	62%	5%	15%	3%	15%
<b>Disruptive Behavior Disorders:</b>					
Helping the Non-Compliant Child (Peed et al., 1977; Wells & Egan, 1988)	63%	10%	13%	0%	15%
Problem Solving Skills Training (Kazdin et al., 1987; Kazdin et al., 1992)	31%	5%	31%	0%	33%
Multisystemic Therapy (Henggler et al., 1992; Bourdain et al., 1995)	82%	8%	8%	3%	0%
Triple P – Positive Parenting Program Level 4/Standard (Sanders et al., 2000)	80%	8%	5%	3%	5%
The Incredible Years (Webster-Stratton & Hammond, 1997; Webster-Stratton et	56%	3%	18%	5%	18%

al., 2004)

Parent-Child Interaction Therapy (Nixson et al., 2003; Schuhmann et al.,1998)	55%	3%	25%	3%	15%
Parent Management Training, Oregon Model (Bernal et al.,1980; Patterson et al., 1982)	75%	3%	10%	5%	8%
Treatment Foster Care Oregon – Adolescents (Chamberlain & Reid, 1998; Leve et al., 2005)	93%	0%	3%	5%	0%

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Table 6

*Additional EBI's for Mental Health Indicated by Training Directors with frequency*

<b>Intervention</b>	<b><i>n</i></b>
Solution-Focused Brief Therapy (Iverson, 2002)	1
Strong Start (Merrell, Parisi & Whitcomb, 2007)	1
CHAMPS (Sprick, Garrison, Howard, 1998)	1
Dialectical Behavior Therapy (Linehan, 1993)	1
Stop and Think (Kendall, Reber, McLeer, Epps & Ronan, 1990)	1
Stress Inoculation Training (Meichenbaum & Deffenbacher, 1988)	1
Modular Approach to Children with Anxiety, Depression, Trauma, or Conduct Problems (Chorpita & Weisz, 2009)	1
Second Step (Frey, Hirschstein, Guzzo, 2000)	1
Adolescents Coping with Depression (Lewinsohn, Clarke, Hops & Andrews, 1990)	1
I Can Problem Solve (Shure, 1993)	1
Family Check-UP (Dishion, Nelson & Kavanagh, 2003)	1
Good Behavior Game (Barrish, Saunders, & Wolf, 1969)	1

Coping Power (Lochman & Wells, 2002)	1
Cognitive-Behavioral Therapy: Cognitive Restructuring (Beck, 1970)	1
Progressive Muscle Relaxation (McCallie, Blum, Hood, 2006)	1
Positive Youth Development (Edwards, Mumford, Serra-Roldan, 2007)	1
Comprehensive Behavioral Interventions for Tourette's Syndrome (Piacentini et al., 2010)	1
Exposure Therapy (for trauma) (Foa, Molnar, & Cashman, 1995)	1
Zones of Regulation (Kuypers & Winner, 2011)	1
Parent Management Training (Kazdin, 1997)	1
First Step (Walker, 1998)	1
Keeping Your Cool (Nelson & Finch, 2008)	1
Functional Family Therapy (Barton & Alexander, 1981)	1
Multicultural Family Therapy (McGoldrick, Giordano & Garcia-Preto, 2005)	1
Promoting Alternative Thinking Strategies (Greenberg, Kusche, Cook, & Quamma, 1995)	2
social emotional learning <i>(no specific protocol listed)</i>	2
Motivational Interviewing (Miller, 1996)	2
Mindfulness	2

NASP Prepare Model (Brock, Nickerson, Reeves & Jimerson, 2008)	2
SkillsStreaming (Jennings & Davis, 1977)	3
Defiant Children (Barkley, 1987)	3



Table 7

*Differences in Student Exposure and Experience*

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>	<i>d</i>
Exposure	19 (D) 21 (M)	11.05 (D) 8.10 (M)	3.24 (D) 4.82 (M)	2.25	0.03*	.718
Experience	19 (D) 21 (M)	6.11 (D) 4.71 (M)	4.05 (D) 4.85 (M)	0.98	0.33	n/a

Note: D = Doctorate Programs. M = Masters Programs. \* =  $p < .05$ .  $df = 38$ .