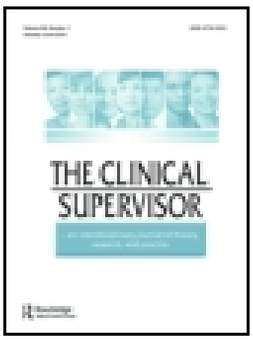

The Clinical Supervisor

ISSN: 0732-5223 (Print) 1545-231X (Online) Journal homepage: https://www.tandfonline.com/loi/wcsu20

Graduate school training in CBT supervision to develop knowledge and competencies

Sarah Kate Bearman, Abby Bailin & Rafaella Sale

To cite this article: Sarah Kate Bearman, Abby Bailin & Rafaella Sale (2019): Graduate school training in CBT supervision to develop knowledge and competencies, The Clinical Supervisor, DOI: 10.1080/07325223.2019.1663459

To link to this article: https://doi.org/10.1080/07325223.2019.1663459

THE CLINICAL SUPERVISOR
https://doi.org/10.1080/07325223.2019.1663459

Routledge
Taylor & Francis Group

Graduate school training in CBT supervision to develop knowledge and competencies

Sarah Kate Bearman, Abby Bailin, and Rafaella Sale

Department of Educational Psychology, The University of Texas at Austin, Austin, Texas, USA

ABSTRACT

Cognitive behavioral therapy (CBT) is the dominant training model adopted by clinical psychology training programs and is commonly reported as the primary theoretical orientation among community therapists. However, few American psychologists receive formal training in supervision to support CBT, despite APA recommendations related to supervision competencies. Graduate training is an optimal time and place for supervision training, and we describe a CBT supervision workshop within a clinical doctoral program. Twenty-three trainees (69.6% Caucasian/White, 73.9% women) reported declarative knowledge of supervision and perceived supervision competencies before and after the workshop. Trainees increased declarative knowledge and perceived supervision competencies. Graduate training in CBT supervision may help develop a well-trained supervisor workforce that can better support the use of evidence-based therapies, such as CBT.

KEYWORDS

Professional psychology graduate training; supervision; competency

Cognitive behavioral therapy (CBT) has been well-supported by research studies for the treatment of numerous mental health problems and diagnoses for individuals across the life-span (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012) and is reported as a primary theoretical orientation by most providers in typical mental health service settings (see Chorpita et al., 2017; Wolitzky-Taylor et al., 2018). Whereas most doctoral training programs for clinical psychology in the US include content focused on developing student competencies in *delivering* CBT (Heatherington et al., 2012), fewer than 20% of psychology supervisors reported having received any formal coursework in supervision (Peake, Nussbaum, & Tindell, 2002), and the majority of training directors in US psychology graduate programs do not rank such training as highly important (Kaslow, Pate, & Thorn, 2005). A survey of 233 US predoctoral interns found that only 39% reported completing a graduate course in supervision (Crook-Lyon, Heppler, Leavitt, & Fisher, 2008). Supervision has been critical to the implementation of CBT in large-scale, state-wide dissemination efforts (see Hoagwood et al., 2014), but inconsistencies in

CONTACT Sarah Kate Bearman skbearman@austin.utexas.edu Department of Educational Psychology, The University of Texas at Austin, 1912 Speedway, Stop D5000, Austin, Texas 78712

training in CBT supervision restrict the capacity of the local workforce to sustain such effective interventions (Milne, 2016). We contend that graduate training in clinical psychology presents the optimal time and place for training in supervision generally and in CBT supervision specifically.

Supervision is a key competency for psychologists

Clinical supervision is one of the key educational and training methods among professional psychologists and a cornerstone for the preparation of health service psychologists (Falender et al., 2004). Supervision has gained recognition as a distinct professional competency that requires formal training (Falender et al., 2004), yet few guidelines have governed the training of psychology supervisors in the United States (Falender & Shafranske, 2014; Milne, 2016). Changes in training recommendations for American Psychological Association (APA, 2014) accredited graduate programs more explicitly include supervision curriculum, but recent studies of students and administrators of psychology training programs call into question the extent to which APA guidelines regarding supervision are followed (Rodriguez-Menendez, Dempsey, Albizu, Power, & Campbell Wilkerson, 2017). Practicing supervision requires training in supervision and assessment of supervision competencies (Bernard & Goodyear, 2014), and thus necessitates the development of appropriate training curriculum to precede this practice.

Competency in CBT supervision supports effective practice

Clinical supervision has been proposed as a potential mechanism for ensuring the adequate implementation of evidence-based practices such as CBT following the completion of training (Martino et al., 2016; Schoenwald, Mehta, Frazier, & Shernoff, 2013). Numerous large-scale CBT implementation efforts are afoot within the US as well as abroad (see McHugh & Barlow, 2010, for a review of some of these efforts) and supervision appears to support such efforts at scaling CBT (Rakovshik, McManus, Vazquez-Montes, Muse, & Ougrin, 2016). Unfortunately, typical supervision in US mental health settings does not reflect the "model specific" CBT supervision that supports effective CBT practice, potentially limiting the quality of its implementation (Bailin, Bearman, & Sale, 2018; Dorsey et al., 2018; Lucid et al., 2018).

Based on reviews of the type of supervision used to support therapists in efficacy trials of CBT (Roth, Pilling, & Turner, 2010) and studies of CBT training methods (Rakovshik & McManus, 2010), CBT supervision typically includes theoretical instruction in CBT, experiential and active learning activities including modeling and role-play, and feedback on actual clinical performance or adherence monitoring. These aspects of CBT supervision

align with theoretical models of CBT supervision (Milne, 2009) and with both naturalistic and experimental studies testing what aspects of supervision predict therapist CBT implementation and competency (Bearman, Schneiderman, & Zoloth, 2017; Bearman et al., 2013). Others have noted that the "microskills" (James, Milne, & Morse, 2008) or moment-to-moment activities of CBT supervision should be closely matched to CBT intervention, such that it includes similar components (e.g., agenda-setting, homework review, checking theoretical knowledge, using experiential learning). In addition to these CBT-specific components of supervision, CBT supervisors (like CBT therapists) must also incorporate generic aspects of professional competency that are not specific to CBT, such as cultural sensitivity, professional ethics, and maintaining appropriate boundaries (Newman, 2010).

Within the United Kingdom, the national Improving Access to Psychological Therapies (IAPT) initiative provides a clear example of CBT supervision training, as it required the development of a large supervisor workforce to support therapists treating adults with CBT for depression and anxiety (Turpin & Wheeler, 2011). All IAPT therapists who supervise others were required to complete focused training in CBT supervision, based on Roth and Pilling's (2007) definition of generic, specific, applied, and meta-supervision competencies for psychological therapists. Researchers found significant improvements in ratings of each type of competency, as well as overall competency, providing preliminary evidence that didactic workshops may impact the development of CBT supervisory competencies among these practicing therapists (Taylor, Gordon, Grist, & Olding, 2012).

Graduate training in CBT supervision

Training experienced therapists in CBT supervision is an important aspect of developing a skilled supervisory workforce; another, complementary approach is to provide training in CBT supervision during graduate school, prior to entry into the workforce. The advantages to including structured training in CBT supervision within US professional psychology graduate programs are many. First, graduate training is among the most influential predictors of later practice (Cook, Schnurr, Biyanova, & Coyne, 2009), suggesting that it is an ideal time to introduce CBT supervision practices – especially in the context of training programs that already focus on CBT. Secondly, it is more cost efficient to train providers in effective practices during graduate school rather than "re-training" an existing workforce once habits have already been established (Hoagwood, Atkins, & Ialongo, 2013). Providing CBT supervision training alongside other foundational CBT content may also increase conceptual understanding, given that theories of supervision are closely linked to theories of learning, development, and behavior change as well as models of psychotherapy (Holt et al., 2015;

James et al., 2008; Stoltenberg, 2005). Lastly, graduate programs are tasked with the evaluation of trainee competencies, making them ideal "gatekeepers" for ensuring that developing therapists are exposed to the requisite curriculum regarding supervision and can adequately put this knowledge into practice.

We sought to extend the findings of prior research demonstrating that experienced psychologists develop competency in CBT supervision following training that prepares them to supervise therapists using CBT (Milne, Reiser, & Cliffe, 2013; Taylor et al., 2012), and build upon the work of others who have described graduate student training in clinical supervision (Foxwell et al., 2017; Newman, 2013). The present study focused on pre-doctoral trainees who participated in a one-day required workshop on clinical supervision for CBT. We assessed their experiences receiving and providing supervision in order to place the results of the study in the context of their training. In order to compare our sample with the study by Taylor et al. (2012), we measured participant self-assessment of supervision competency. We also measured whether supervision knowledge increased, since didactic training is theorized to be an effective means of generating declarative knowledge (Bennett-Levy, McManus, Westling, & Fennell, 2009).

Method

Participants

Twenty-three doctoral students in an American clinical science psychology training program with no prior formal supervision training completed the one-day training. All participants reported CBT as their theoretical orientation. There were 17 females (73.9%) and 6 males (26.1%) aged 23–31 (M = 26.77, SD = 2.39), spanning 1– 5 years of graduate training. Sixteen (69.6%) were White/Caucasian, 3 (13.0%) were Asian/Pacific Islander, 1 (4.3%) was Black/African American, 1 (4.3%) was Hispanic, and 2 (8.7%) did not report ethnicity. The majority (78.2%) reported that they worked primarily with adults, and they reported a range of clinical experience (< 1 year = 17.4%; 1–2 years = 34.8%; 2–3 years = 26.1%; 3 + years = 17.4%).

Procedures

Participants attended the 8-hour training workshop as a required part of their doctoral curriculum. Prior to the workshop, they were invited to participate in a voluntary research study assessing supervision experiences and supervision competency. All participants provided written consent and completed pre- and post-workshop questionnaires before and after the

training. This study was approved by the University of Texas at Austin Institutional Review Board.

Training

The training content was developed and presented by the first author (not a faculty member in the training program to which the study participants belonged). The goals of the training were twofold: (1) To provide model-specific training in CBT supervision guided by research on the supervision in influential CBT research trials (Roth et al., 2010) and using resources described by the IAPT supervision initiative to support high-quality implementation of CBT (cf. Taylor et al., 2012; Turpin & Wheeler, 2011) and (2) to present an overview of the supervisory competencies recommended by APA (2014), including those expected in CBT supervision but that also extend across theoretical orientations (e.g., multiculturalism and diversity, legal and ethical parameters). The training format included didactics, group discussions, small-group exercises, and the use of audio and video recordings of supervision and therapy sessions with both confederates and real clients who had consented to share their sessions for educational purposes. Experiential strategies for learning, such as modeling by the trainer and role-play among participants, as well as observation-based feedback were prioritized to support learning and introduce the micro skills of CBT supervisory practice that have been recommended and evaluated (Bearman et al., 2017, 2013; James et al., 2008; Roth & Pilling, 2007).

The workshop began with a discussion of the purpose of clinical supervision in professional psychology. This was followed with trainees in small groups proposing their definitions of supervision and then comparing these to formal definitions. To provide specific context for the promise of CBT supervision to support CBT implementation in practice, research was presented comparing the relative benefit of CBT in efficacy trials versus studies conducted under more "real-world" conditions. The presenter underscored that high-quality CBT implementation necessitated high-quality CBT supervision. This section was followed by a presentation of supervision research, including summaries of systematic reviews and meta-analyses, the use of supervision in randomized clinical trials of CBT, and observational studies of supervision in "usual care." CBT supervision was defined as "model-specific" (Roth et al., 2010) to support the development of competent CBT practice and was described as serving normative, formative, and restorative functions (Milne, 2007).

Next, the presenter illustrated the parallel structure of CBT supervision and CBT therapy, including establishing goals and contracting, agenda-setting, assessing competencies, skill-building, problem-solving barriers, summarizing, and check-out. Shared features of CBT and CBT supervision were

also described, including an active and skill-building approach, emphasis on collaborative expertise, and a commitment to the use of empirically-supported strategies and data to guide clinical decision making. In an activity, trainees role-played establishing goals and developing a supervisory contract for CBT supervision with a supervisee. Trainees were asked to inquire about their partner's prior experiences and expectations for supervision, clarify the process and structure for supervision, set expectations for progress monitoring and evaluation, identify supervisee goals, and summarize and seek feedback.

Topics on the normative function of supervision included the use of progress monitoring and technology (e.g., measurement feedback systems) and live supervision or recordings to ensure client safety, as well as a discussion of ethical obligations and dilemmas that often arise in supervision. Specific to CBT supervision, the oversight of treatment quality as an aspect of ethical supervision included a discussion of CBT treatment fidelity, defined as adherence (inclusion of prescribed components) and competence (skillfulness). Trainees used measurement feedback data from four hypothetical cases to rank order how they would prioritize discussion, using information about client symptoms and functioning, client attendance, and therapist reported CBT strategies. Next, the presenter introduced the topic of supervisee failure to implement supervisor directives related to client welfare (Vespia, Heckman-Stone, & Delworth, 2002). The presenter reviewed CBT practices (Socratic questioning, motivational interviewing, sequential problem-solving) as approaches to supporting supervisee behavior change. Following discussion, the trainees role-played addressing implementation failure in supervision.

With regard to the formative function, specific micro skills of supervision thought to promote the development of CBT integrity and consistent with CBT models rooted in learning theory were examined (e.g. modeling, role-play, and corrective feedback) and rehearsed. Trainees observed a segment of a therapy session and planned feedback related a particular CBT skill, cognitive restructuring, as well as nonspecific skills (e.g. warmth, congruence). The restorative aspect of supervision included a summary of research on supervisory working alliance.

The final section of the workshop focused on culturally sensitive supervision practices, including theoretical models and practices that promote culturally competent therapy and supervision. Although this competency is applicable to all orientations, the use of CBT was specifically related to Sue, Zane, Nagayama Hall, and Berger (2009) notion of credibility and giving as key aspects of psychotherapy with culturally diverse populations. Trainees brainstormed ways in which CBT, and CBT supervision, can enhance client perception of therapists as effective and trustworthy, and their perception that they received something useful from therapy. Trainees also role-played

introducing the topic of supervisee and supervisor cultural membership in a supervision meeting with a culturally diverse trainee. Table 1 outlines the content and learning outcomes for the workshop.

Measures

Participant characteristics

Participants reported demographic characteristics, number of years in the training program, clinical experience, and prior experience with supervision.

Prior experiences with supervision

Participants were administered the Supervision Process Questionnaire (SPQ; Accurso, Taylor, & Garland, 2011) at baseline. The SPQ is an 18-item questionnaire that gathers information concerning meeting time, basic client demographics, and time given to various supervisory functions (i.e., administrative tasks, case management, case conceptualization) used within the participant's most recent supervision meeting, as well as the supervisees' satisfaction with time spent on each area (*too little, about right, too much*).

Declarative knowledge

The Supervision Knowledge Questionnaire (SKQ) was developed for the current study to measure declarative knowledge pertaining to the evidence base on competent CBT supervision practice with 15 multiple choice items. Items reflected the content covered in the training, including the theoretical purpose of supervision, the existing literature on CBT supervision, the structure of CBT supervision, recommended CBT supervisory micro skills, and content related to ethical and multiculturally sensitive supervision. Sample items included the following: "According to Milne's (2009) three purposes of supervision, which of the following best describes the *normative* function?" "Supervision from a CBT framework often parallels CBT treatment in what ways?" and "Which supervision strategy(ies) is the best predictor(s) of whether the therapists' planned skill *actually* happens in the very next session with a client?" The SKQ demonstrated adequate test-retest reliability, $r = .72$.

Supervisory competence

The Supervisory Competence Questionnaire (SCQ; Taylor et al., 2012) is comprised of four subscales that measure 18 supervisory competencies as defined by Roth and Pilling (2007) using 19 items: *generic* competencies underpin supervision of all therapy modalities and includes the ability to employ educational principles to enhance learning and enable ethical practice and are assessed with 11 items, *specific* competencies are assessed with 4 items and include the ability to help the supervisee practice specific clinical

Table 1. Summary of CBT clinical supervision training.

Content	Learning outcomes	Experiential learning exercises
Theory & key principles		
Definitions and purpose of supervision[a,b] Governance of supervision in professional psychology Role of supervision in fidelity of evidence-based practices[c]	(1) To be familiar with the three theoretical functions of supervision (2) To be familiar with their position within the developmental model of supervision (3) To understand the potential for supervision to bridge the research-practice gap in treatment	Individually, identify beliefs related to supervision as supervisors (if applicable) and supervisees In small groups, define the purpose of supervision in professional psychology and discuss past experiences
Supervision research		
Results of systematic reviews of supervision and role in RCTs[d,e,f] Supervision in community mental health practice[g,h] Suboptimal supervision[i] Empirically supported supervision practices[j,k]	(1) To be familiar with the evidence base of supervision (2) To become aware of the differences between supervision as usual and supervision in RCTs (3) To learn how to detect ineffective supervision practices (4) To become familiar with research supported supervisory processes that impact therapist adherence and competency	As a group, list the qualities/behaviors of most and least effective supervisors As a group, discuss and reflect upon supervision research findings
Structure of supervision		
Contracting with supervisee and goal-setting Within-and-across session structure Problem-solving barriers	(1) To learn how to establish roles, expectations, and responsibilities with supervisee (2) To develop generic supervision skills: • Structuring meetings • Shifting to treatment planning • Maintaining the agenda • Assigning homework • Skill building to enhance therapist competence (3) To understand how to predict and skillfully address potential barriers in therapy	Model initial supervision meeting, and then students role-play the following, (a) discussion of past supervisory experiences (b) process and structure of meetings (c) supervisee goals (d) summarization of collected information As a group, use active listening of a recorded supervision session to identify structural aspects and how problem-solving was used to address a barrier that arose With a partner, discuss additional examples and problem-solve potential barriers
Normative function		
Ethical dilemmas[b] Quality assurance through outcome monitoring[l] Role of live supervision/use of recordings[m]	(1) Understand supervision's role in oversight of quality control and client safety (2) Be familiar with routine progress monitoring and incorporating client data into supervision to prioritize cases	As a group, identify ethical dilemmas new clinicians face in practice Individually, rank cases for discussion in supervision using graphed client data from a measurement feedback platform, then discuss as a group
Formative function		

(*Continued*)

Table 1. (Continued).

Content	Learning outcomes	Experiential learning exercises
Models of learning in supervision[b] Evidence for effective skill building in supervision[n,o] Components of corrective feedback in supervision	(1) Be familiar with adult learning models and the development of various types of knowledge • Declarative • Procedural • Reflective (2) To be able to deliver effective corrective feedback to build clinical skills and foster treatment fidelity	Individually, reflect and record content learned in the seminar and how it will be useful to clinical practice As a group, listen to a supervision session where the supervisor models and role-plays with a therapist to develop competency As a group, watch a simulated supervision session to detect "non-specific" and "specific" skills, then provide corrective feedback
Restorative function		
Managing conflict in supervisory relationship[p] Building a supervisory working alliance[q] Professional burnout and consequences for clients[r,s]	(1) To become aware of potential reasons for therapist resistance to learning new skills and how to prevent conflict through collaboration (2) To become aware of potential benefits of a strong supervisory working alliance	Model how to explore supervisee's ambivalence for using exposure with client Role-play with a partner: supervisor presents a recommendation and explores the supervisee's reluctance, invites collaboration
Culturally sensitive supervision		
Cultural competency[t] Cultural adaptation of evidence-based treatment[u] Multicultural competent implementation through program and self-assessment[v]	(1) Learn how to introduce the topic of diversity and cultural competency (2) To differentiate cultural knowledge from cultural stereotyping (3) To differentiate cultural sensitivity from cultural blindness, in order acknowledge cultural differences (4) To build competence through measurement of multicultural competence within a system and via self-assessment	Model the introduction of diversity in supervision Role-play with a partner how to assess supervisee's experiences and knowledge related to multicultural sensitivity As a group, decide and discuss whether statements reflect knowledge based on evidence or stereotyping

[a] Falender and Shafranske (2004). [b] Milne (2007). [c] Schoenwald et al. (2013). [d] Freitas (2002). [e] Roth et al. (2010). [f] Wheeler and Richards (2007).
[g] Accurso et al. (2011). [h] Garland, Plemmons, and Koontz (2006). [i] Cummings and Ballantyne (2014). [j] Milne (2009). [k] Rakovshik and McManus (2010). [l] American Psychological Association (2006). [m] Worthen and Lambert (2007). [n] Bearman et al. (2013). ° Bearman et al. (2017). [p] Friedlander (2015). [q] Johnston and Milne (2012). [r] Green, Albanese, Shapiro, and Aarons (2014). [s] Maslach and Jackson (1981). [t] Sue et al. (2009). [u] Bernal, Jiménez-Chafey, and Domenech Rodríguez (2009). [v] Ponterotto, Alexander, and Grieger (1995).

skills, *applied* competencies (3 items) include the ability to supervise a full clinical caseload with varying interventions and client populations, and *meta-supervision* competencies (1 item) are the ability to make adaptations in order to maximize the supervisee's ability to learn. These subscales are also totaled for an overall composite of supervisory competency. Participants rated themselves on a 3-point Likert scale (1 = *not/barely achieved*, 2 = *partially achieved*, and 3 = *well/fully achieved*). In the current study, internal consistency ranged from acceptable to excellent for all subscales and total

scores at pre-training (α = .79 – .96. For post-training, internal consistency for all subscales were in the excellent range (α = .91 – .94) with the exception applied competencies (α = .63), which was in the questionable range.

Results

Descriptives

We examined participants' characteristics regarding receiving and providing supervision. Most participants (69.6%, n = 16) had never provided supervision. In reference to their current or most recent clinical placement, about half (47.8%) reported they received supervision once a week or every other week, with the remainder reporting more frequent supervision. The majority of participants received supervision in person (69.6%, n = 16). Most (65.2%, n = 15) meetings included the use of therapy progress notes, 30.4% (n = 7) included discussion of video recordings from a session, 13.0% (n = 3) included the use of audiotape from therapy, and 4.3% (n = 1) used therapy checklists. Participants reported that the majority of session time in their most recent supervision meeting (45.4%, SD = 34.60) was devoted to discussion of specific therapy interventions and approaches and/or case conceptualization (33.3%, SD = 22.43). Participants also reported that they were largely satisfied with the amount of time spent on these supervisory content areas. About a quarter of participants (26.1%) reported that "too little" time was spent discussing the supervisory relationship and/or process, and 13.0% reported "too little" time was devoted to discussing supervisee professional and academic roles.

The effect of the workshop on knowledge and self-reported competency

Paired sample t-tests compared declarative knowledge of supervision on the SKQ from pre- and post-training. Mean declarative knowledge differed significantly between pre- (M = 5.18, SD = 2.11) and post-training (M = 9.55, SD = 2.26; $t(21) = -6.40$, p = .000, d = 1.36).

Paired sample t-tests compared self-reported supervisory competence from pre- to post-training (Table 2). In order to reduce the likelihood of Type I error, alpha was set at $p < .01$ for all paired sample t-tests. Mean generic competency differed significantly between pre- (M = 20.86, SD = 6.38) and post-training (M = 25.45, SD = 6.82; $t(21) = -3.10$, p = .005, d = .66). Mean specific competency did not reach significance at the adjusted .01 level from pre- (M = 7.22, SD = 2.56) to post-training (M = 8.64, SD = .2.74; $t(21) = -2.48$, p = .022, d = .53). Mean applied competency differed significantly between pre- (M = 5.00, SD = 2.18) and post-training (M = 6.36, SD = 2.04; $t(21) = -3.69$, p = .001, d = .79). Mean

Table 2. Paired T-tests of pre-and post-training supervisory competence.

	Pre-Training		Post-Training			
SCQ Subscale	*M*	*SD*	*M*	*SD*	*t*-test	*p*-value
General	20.86	2.04	25.45	6.82	−3.10	.005*
Specific	7.23	2.56	8.64	2.73	−2.48	.022
Applied	5.00	2.18	6.36	2.04	−3.69	.001*
Meta	1.5	.74	1.86	.77	−2.94	.008*
Total	34.59	11.10	42.32	11.47	−3.26	.004*

*$p < .01$. SCQ = Supervisory Competence Questionnaire (Taylor et al., 2012).

meta-competency differed significantly between pre- ($M = 1.5$, $SD = .74$) and post-training ($M = 1.86$, $SD = .77$; $t(21) = -2.94$, $p = .008$, $d = .62$). Mean total competency differed significantly between pre- ($M = 34.59$, $SD = 11.10$) and post-training ($M = 42.32$, $SD = 11.47$; $t(21) = -3.26$, $p = .004$, $d = .70$).

Discussion

Graduate training in psychology may be the optimal place and time to combine the emerging science and application of CBT supervision (Hershenberg, Drabick, & Vivian, 2012) to set the stage early and efficiently for a workforce that can support CBT in practice. Clinical psychology doctoral trainees in the current study improved from pre- to post-workshop on a measure of declarative knowledge of CBT supervision. Although the majority of the trainees in the study had received clinical supervision, their pre-workshop responses on the knowledge questionnaire indicated that they were not familiar with the theoretical functions of supervision, research-supported supervisory strategies for CBT, or the role of supervisory working alliance, to name a few commonly missed items. These results suggest that merely being supervised – even adequately, as reported by most study participants – may not sufficiently prepare psychologists to conduct supervision. The Declarative-Procedural-Reflective model of therapist skill development (Bennett-Levy, 2006; Bennett-Levy et al., 2009) describes declarative knowledge as an "intellectual understanding" of a content area that precedes the other aspects of knowledge (procedural and reflective) that is primarily developed through lectures and readings, much like the current training. Declarative knowledge about CBT has been suggested as a precondition for therapist behavior change (Jensen-Doss, Cusack, & de Arellano, 2008); it follows that CBT supervisory behavior would likewise require a conceptual understanding of CBT supervision.

In theory, competent CBT supervision supports the successful delivery of therapy; in the current study we measured supervision competency using the framework developed by Roth and Pilling (2007). This framework consists of competencies that are both broad and pan-theoretical (generic), competencies that support the practice of specific clinical skills (specific), competencies in applying supervision to specific treatment modalities (CBT) and specific client populations

(applied), and competencies in making adaptations to best meet the needs of the individual being supervised (meta-competencies). The training curriculum was designed to support the development of these competencies. For example, for generic competencies, trainees learned and practiced ways to engage in multiculturally competent supervision and to address ethical dilemmas. Related to specific competencies, trainees practiced using session recordings to incorporate direct observation and provide corrective feedback in supervision. Teaching trainees how to structure CBT supervision sessions and to use empirically supported strategies and data to guide clinical decision making were selected to support applied competency specific to CBT. Lastly, content related to the developmental model of supervision supported the development of trainee meta-competencies that help them to maximize supervisee learning. As in the study by Taylor et al. (2012), trainees in our study reported improvements in all areas, although change in specific competency was only a trend. In Taylor et al. (2012), experienced therapists' self-report of competency improved over the course of a five-day training; in the current study, clinical psychology trainees achieved similar scores after a one-day workshop. Although self-report of supervision competency does not equate with the ability to competently apply supervision, the well-established link between self-efficacy and task performance (Stajkovic & Luthans, 1998) suggests that changes in perceived self-competence after participation in the training hold promise for engagement in strategies to enhance procedural knowledge (storehouse of skills) and reflective knowledge ("engine" of ongoing therapist development) (Bennett-Levy et al., 2009).

Implications for supervision training

Despite recommendations for training in supervision for professional psychology programs (APA, 2014), supervision training experiences remain uneven across training programs (Rodriguez-Menendez et al., 2017) and may lack focus on effective, research-supported aspects of supervision (Townend, Iannetta, & Freeston, 2002; Weck, Kaufmann, & Witthöft, 2017). The current study provides evidence that embedding training in CBT supervision in graduate school curricula has the potential to enhance trainee knowledge and competence. Development of these skills during an early career stage may enhance preparation from trainee to licensed practitioner and clinical supervisor and may also help trainees benefit more from their own experiences as a supervisee (Newman, 2013). Moreover, effective clinical supervision has been suggested as a means for advancing research-supported mental health treatments, such as CBT, in typical mental health settings (Schoenwald, Hoagwood, Atkins, Evans, & Ringeisen, 2010) – potentially increasing the employment opportunities of psychologists trained in CBT supervision.

Although the current study used a one-day workshop format, the same content could be easily integrated into a more traditional course format, and

paired with activities like role-plays and self-reflection practices to develop procedural knowledge and engage the reflective system. CBT supervision coursework could be complemented by clinical practicum experience wherein students can supervise others in CBT while being supervised ("meta-supervision") (Newman, 2013). Regardless of the format, we maintain that a formal didactic training experience in CBT supervision can benefit psychology trainees.

Shifting the responsibility of training in clinical supervision to psychology training programs might increase the development of a skilled supervision workforce in the United States. Training in evidence-based CBT practice requires corresponding supervision in those practices (Beck et al., 2014) that includes live observation or video review, data monitoring, and therapist competency ratings, components recommended for effective supervision (Lewis, Scott, & Hendricks, 2014). Given that a one-day workshop without any preparatory course readings or evaluation of mastery was associated with increases in knowledge and competence, expanding this curriculum into a formal course has additional potential.

Limitations

Although the current study contributes to the understudied area of training in supervision, there are several limitations. Without a control group, we cannot rule-out the possibility that changes in outcomes are due to factors other than participation in the one-day workshop. Secondly, although declarative knowledge of supervision and self-reported competency in supervision may be preconditions for actual supervision behaviors, in this study, we had no measure of behavior change, nor any objective measure of competency. Likewise, we assessed only immediate change, and have no way to know whether increases in knowledge and competency persisted beyond the immediate post-training boost. Future research should assess knowledge and competency over time, to examine whether changes can be sustained. Because of our small sample, we also did not assess whether participant characteristics such as years of training or experience, moderated the impact of the training. The small sample size also resulted in limited power, so results should be replicated in a larger sample. Lastly, perhaps due to the limited number of items, the applied competencies subscale of the competency measure had a questionable level of internal consistency in the post-test administration with the current sample.

Conclusion and future directions

Taylor et al. (2012) noted that "the practice of supervision remains highly valued but poorly evaluated" within clinical work (p. 83). This is also true within clinical psychology training. Without the support of well-trained

supervisors whose knowledge and competency in the specific activities of CBT supervision complements their training in CBT interventions, efforts to increase therapist training and improve client outcomes may flounder (Pilling & Roth, 2014). Graduate training is an optimal time to introduce psychologists to the science and practice of CBT supervision, and to assess their skill in implementing what they have learned (Cook et al., 2009). Psychologists trained to support evidence-based treatments like CBT via supervision may have particular value given increasing implementation efforts in mental health settings (McHugh & Barlow, 2010). The current study demonstrated that trainees who participated in a one-day workshop showed increased knowledge and self-assessment of competency similar to more experienced therapists who participated in a longer workshop (Taylor et al., 2012). We see this as an encouraging first step that would be augmented by additional research with larger samples that include a control condition and the use of objective assessment of competency.

Expanding the research on effective training in clinical supervision broadly has the potential to improve the workforce competency of mental health professionals. Such research may shift the long-standing tradition of supervisory training for clinical psychologists in the United States from one based on learning via personal experience receiving supervision alone (Crook-Lyon, Presnell, Silva, Suyama, & Stickney, 2011) to a more formal and comprehensive training model that assesses supervisory competency, similar to training in therapeutic skills. Graduate school is a natural time to enforce such training and competency checks. With increasing awareness and consensus that supervision is a distinct professional practice within the field of psychology practice (Falender & Shafranske, 2007), continued efforts to examine effective training methods to enhance competent supervisory practice should inform training and policy initiatives that govern mental health professionals.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This research received no specific grant from any funding agency, commercial or not-for-profit sectors.

Ethical standards

The authors have abided by the Ethical Principles of Psychologists and Code of Conduct as set out by the American Psychological Association. This study was approved by the Institutional Review Board of the University of Texas at Austin (2015-04-0014).

References

Accurso, E. C., Taylor, R. M., & Garland, A. F. (2011). Evidence-based practices addressed in community-based children's mental health clinical supervision. *Training and Education in Professional Psychology*, *5*(2), 88–96. doi:10.1037/a0023537

American Psychological Association. (2006). Evidence-based practice in psychology. *American Psychologist*, *61*, 271–285. doi:10.1037/0003-066X.61.4.271

American Psychological Association. (2014). *Guidelines for clinical supervision in health service psychology*. Retrieved from http://www.apa.org/about/policy/guidelines-supervision.pdf

Bailin, A., Bearman, S. K., & Sale, R. (2018). Clinical supervision of mental health professionals serving youth: Format and microskills. *Administration and Policy in Mental Health and Mental Health Services Research*, *45*, 800–812. doi:10.1007/s10488-018-0865-y

Bearman, S. K., Schneiderman, R. L., & Zoloth, E. (2017). Building an evidence base for effective supervision practices: An analogue experiment of supervision to increase EBT fidelity. *Administration and Policy in Mental Health and Mental Health Services Research*, *44*, 293–307. doi:10.1007/s10488-016-0723-8

Bearman, S. K., Weisz, J. R., Chorpita, B. F., Hoagwood, K., Ward, A., Ugueto, A. M., & Bernstein, A. (2013). More practice, less preach? The role of supervision processes and therapist characteristics in EBP implementation. *Administration and Policy in Mental Health and Mental Health Services Research*, *40*, 518–529. doi:10.1007/s10488-013-0485-5

Beck, J. G., Castonguay, L. G., Chronis-Tuscano, A., Klonsky, E. D., McGinn, L. K., & Youngstrom, E. A. (2014). Principles for training in evidence-based psychology: Recommendations for the graduate curricula in clinical psychology. *Clinical Psychology: Science and Practice*, *21*, 410–424.

Bennett-Levy, J. (2006). Therapist skills: A cognitive model of their acquisition and refinement. *Behavioural and Cognitive Psychotherapy*, *34*, 57–78. doi:10.1017/S1352465805002420

Bennett-Levy, J., McManus, F., Westling, B. E., & Fennell, M. (2009). Acquiring and refining CBT skills and competencies: Which training methods are perceived to be most effective? *Behavioural and Cognitive Psychotherapy*, *37*, 571–583. doi:10.1017/S1352465809990270

Bernal, G., Jiménez-Chafey, M. I., & Domenech Rodríguez, M. M. (2009). Cultural adaptation of treatments: A resource for considering culture in evidence-based practice. *Professional Psychology: Research and Practice*, *40*, 361–368. doi:10.1037/a001

Bernard, J. M., & Goodyear, R. K. (2014). *Fundamentals of clinical supervision* (5th ed.). Upper Saddle River, NJ: Pearson.

Chorpita, B. F., Daleiden, E. L., Park, A. L., Ward, A. M., Levy, M. C., Cromley, T., … Krull, J. L. (2017). Child STEPs in California: A cluster randomized effectiveness trial comparing modular treatment with community implemented treatment for youth with anxiety, depression, conduct problems, or traumatic stress. *Journal of Consulting and Clinical Psychology*, *85*, 3–25. doi:10.1037/ccp0000133

Cook, J. M., Schnurr, P. P., Biyanova, T., & Coyne, J. C. (2009). Apples don't fall far from the tree: Influences on psychotherapists' adoption and sustained use of new therapies. *Psychiatric Services*, *60*, 671–676. doi:10.1176/ps.2009.60.5.671

Crook-Lyon, R. C., Heppler, A., Leavitt, L., & Fisher, L. (2008). Supervisory training experiences and overall supervisory development in predoctoral interns. *The Clinical Supervisor*, *27*, 268–284. doi:10.1080/07325220802490877

Crook-Lyon, R. E., Presnell, J., Silva, L., Suyama, M., & Stickney, J. (2011). Emergent supervisors: Comparing counseling center and non-counseling-center interns' supervisory training experiences. *Journal of College Counseling*, *14*, 34–49. doi:10.1002/(ISSN)2161-1882

Cummings, J. A., & Ballantyne, E. C. (2014). What does bad supervision look like? *The Behavior Therapist*, *37*, 230–235.

Dorsey, S., Kerns, S. E. U., Lucid, L., Pullmann, M. D., Harrison, J. D., Berliner, L., … Deblinger, E. (2018). Objective coding of content and techniques in workplace-based supervision of an EBT in public mental health. *Implementation Science*, *13*, 1–12. doi:10.1186/s13012-017-0708-3

Falender, C. A., Cornish, J. A. E., Goodyear, R., Hatcher, R., Kaslow, N., Leventhal, G., … Grus, C. (2004). Defining competencies in psychology supervision: A consensus statement. *Journal of Clinical Psychology*, *60*, 771–785. doi:10.1002/jclp.20013

Falender, C. A., & Shafranske, E. P. (2004). *Clinical supervision: A competency-based approach*. Washington, DC: American Psychological Association.

Falender, C. A., & Shafranske, E. P. (2007). Competence in competency-based supervision practice: Construct and application. *Professional Psychology: Research and Practice*, *38*, 232–240. doi:10.1037/0735-7028.38.3.232

Falender, C. A., & Shafranske, E. P. (2014). Clinical supervision: The state of the art. *Journal of Clinical Psychology*, *70*, 1030–1041. doi:10.1002/jclp.2014.70.issue-11

Foxwell, A. A., Kennard, B. D., Rodgers, C., Wolfe, K. L., Cassedy, H. F., & Thomas, A. (2017). Developing a peer mentorship program to increase competence in clinical supervision in clinical psychology doctoral training programs. *Academic Psychiatry*, *41*, 828–832. doi:10.1007/s40596-017-0714-4

Freitas, G. J. (2002). The impact of psychotherapy supervision on client outcome: A critical examination of 2 decades of research. *Psychotherapy: Theory, Research, Practice, Training*, *39*, 354–367. doi:10.1037/0033-3204.39.4.354

Friedlander, M. L. (2015). Use of relational strategies to repair alliance ruptures: How responsive supervisors train responsive psychotherapists. *Psychotherapy*, *52*, 174–179. doi:10.1037/a0037044

Garland, A. F., Plemmons, D., & Koontz, L. (2006). Research-practice partnerships in mental health: Lessons from participants. *Administration and Policy in Mental Health and Mental Health Services Research*, *33*, 517–528. doi:10.1007/s10488-006-0062-2

Green, A. E., Albanese, B. J., Shapiro, N. M., & Aarons, G. A. (2014). The roles of individual and organizational factors in burnout among community-based mental health service providers. *Psychological Services*, *11*, 41–49. doi:10.1037/a0035299

Heatherington, L., Messer, S. B., Angus, L., Strauman, T. J., Friedlander, M. L., & Kolden, G. G. (2012). The narrowing of theoretical orientations in clinical psychology doctoral training. *Clinical Psychology: Science and Practice*, *19*, 364–374. doi:10.1111/cpsp.12012

Hershenberg, R., Drabick, D. G., & Vivian, D. (2012). An opportunity to bridge the gap between clinical research and clinical practice: Implications for clinical training. *Psychotherapy*, *49*, 123–134. doi:10.1037/a0027648

Hoagwood, K. E., Atkins, M., & Ialongo, N. (2013). Unpacking the black box of implementation: The next generation for policy, research and practice. *Administration and Policy in Mental Health and Mental Health Services Research*, *40*, 451–455. doi:10.1007/s10488-013-0512-6

Hoagwood, K. E., Olin, S. S., Horwitz, S., McKay, M., Cleek, A., Gleacher, A., … Hogan, M. (2014). Scaling up evidence-based practices for children and families in New York State: Toward evidence-based policies on implementation for state mental health systems. *Journal of Clinical Child & Adolescent Psychology*, *43*, 145–157. doi:10.1080/15374416.2013.869749

Hofmann, S. G., Asnaani, A., Vonk, I. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. *Cognitive Therapy and Research*, *36*, 427–440. doi:10.1007/s10608-012-9476-1

Holt, H., Beutler, L. E., Kimpara, S., Macias, S., Haug, N. A., Shiloff, N., … Stein, M. (2015). Evidence-based supervision: Tracking outcome and teaching principles of change in clinical supervision to bring science to integrative practice. *Psychotherapy*, *52*, 185–189. doi:10.1037/a0038732

James, I. A., Milne, D., & Morse, R. (2008). Microskills of clinical supervision: Scaffolding skills. *Journal of Cognitive Psychotherapy*, *22*, 29–36. doi:10.1891/0889.8391.22.1.29

Jensen-Doss, A., Cusack, K. J., & de Arellano, M. A. (2008). Workshop-based training in trauma-focused CBT: An in-depth analysis of impact on provider practices. *Community Mental Health Journal*, *44*, 227–244. doi:10.1007/s10597-007-9121-8

Johnston, L. H., & Milne, D. L. (2012). How do supervisee's learn during supervision? A Grounded Theory study of the perceived developmental process. *The Cognitive Behaviour Therapist*, *5*, 1–23. doi:10.1017/S1754470X12000013

Kaslow, N. J., Pate, W. E., II, & Thorn, B. (2005). Academic and internship directors' perspectives on practicum experiences: Implications. *Professional Psychology: Research and Practice*, *36*, 307–317. doi:10.1037/0735-7028.36.3.307

Lewis, C. C., Scott, K. E., & Hendricks, K. E. (2014). A model and guide for evaluating supervision outcomes in cognitive–Behavioral therapy-focused training programs. *Training and Education in Professional Psychology*, *8*(3), 165–173. doi:10.1037/tep0000029

Lucid, L., Meza, R., Pullmann, M. D., Jungbluth, N., Deblinger, E., & Dorsey, S. (2018). Supervision in community mental health: Understanding intensity of EBT focus. *Behavior Therapy*, *49*, 481–493. doi:10.1016/j.beth.2017.12.007

Martino, S., Paris, M. J., Añez, L., Nich, C., Canning-Ball, M., Hunkele, K., … Carroll, K. M. (2016). The effectiveness and cost of clinical supervision for motivational interviewing: A randomized controlled trial. *Journal of Substance Abuse Treatment*, *68*, 11–23. doi:10.1016/j.jsat.2016.04.005

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, *2*, 99–113. doi:10.1002/job.4030020205

McHugh, R. K., & Barlow, D. H. (2010). The dissemination and implementation of evidence-based psychological treatments: A review of current efforts. *American Psychologist*, *65*, 73–84. doi:10.1037/a0018121

Milne, D. L. (2007). An empirical definition of clinical supervision: Principles and practice. *British Journal of Psychology*, *46*, 437–447.

Milne, D. L. (2009). *Evidence-based clinical supervision: Principles and practice*. Chichester, UK: BPS Blackwell.

Milne, D. L. (2016). Guiding CBT supervision: How well do manuals and guidelines fulfil their promise? *The Cognitive Behaviour Therapist*, *9*, 1–17. doi:10.1017/S1754470X15000720

Milne, D. L., Reiser, R. P., & Cliffe, T. (2013). An $N = 1$ evaluation of enhanced CBT supervision. *Behavioural and Cognitive Psychotherapy*, *41*, 210–220. doi:10.1017/S1352465812000434

Newman, C. F. (2010). Competency in conducting cognitive–Behavioral therapy: Foundational, functional, and supervisory aspects. *Psychotherapy: Theory, Research, Practice, Training*, *47*, 12–19. doi:10.1037/a0018849

Newman, C. F. (2013). Training cognitive behavioral therapy supervisors: Didactics, simulated practice, and 'meta-supervision'. *Journal of Cognitive Neuroscience*, *25*(2), 5–18.

Peake, T. H., Nussbaum, B. D., & Tindell, S. D. (2002). Clinical and counseling supervision references: Trends and needs. *Psychotherapy: Theory, Research, Practice, Training*, *39*, 114–125. doi:10.1037/0033-3204.39.1.114

Pilling, S., & Roth, A. D. (2014). The competent clinical supervisor. In C. J. Watkins Jr. & D. L. Milne (Eds.), *The Wiley international handbook of clinical supervision* (pp. 20–37). West Sussex, United Kingdom: Wiley Blackwell.

Ponterotto, J. G., Alexander, C. M., & Grieger, I. (1995). A multicultural competency checklist for counseling training programs. *Journal of Multicultural Counseling and Development*, *23*, 11–20. doi:10.1002/jmcd.1995.23.issue-1

Rakovshik, S. G., & McManus, F. (2010). Establishing evidence-based training in cognitive behavioral therapy: A review of current empirical findings and theoretical guidance. *Clinical Psychology Review*, *30*, 496–516. doi:10.1016/j.cpr.2010.03.004

Rakovshik, S. G., McManus, F., Vazquez-Montes, M., Muse, K., & Ougrin, D. (2016). Is supervision necessary? Examining the effects of internet-based CBT training with and without supervision. *Journal of Consulting and Clinical Psychology*, *84*, 191–199. doi:10.1037/ccp0000079

Rodriguez-Menendez, G., Dempsey, J. P., Albizu, T., Power, S., & Campbell Wilkerson, M. (2017). Faculty and student perceptions of clinical training experiences in professional psychology. *Training and Education in Professional Psychology*, *11*, 1–9. doi:10.1037/tep0000137

Roth, A. D., & Pilling, S. (2007). *A competence framework for the supervision of psychological therapies*. Retrieved from http://www.ucl.ac.uk/CORE/

Roth, A. D., Pilling, S., & Turner, J. (2010). Therapist training and supervision in clinical trials: Implications for clinical practice. *Behavioural and Cognitive Psychotherapy*, *38*, 291–302. doi:10.1017/S1352465810000068

Schoenwald, S. K., Hoagwood, K. E., Atkins, M. S., Evans, M. E., & Ringeisen, H. (2010). Workforce development and the organizationof work: The science we need. *Administration and Policy in Mental Health and Mental Health Services Research*, *37*(1–2), 71–80.

Schoenwald, S. K., Mehta, T. G., Frazier, S. L., & Shernoff, E. S. (2013). Clinical supervision in effectiveness and implementation research. *Clinical Psychology: Science and Practice*, *20*, 44–59.

Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, *124*, 240–261. doi:10.1037/0033-2909.124.2.240

Stoltenberg, C. D. (2005). Enhancing professional competence through developmental approaches to supervision. *American Psychologist*, *60*, 857–864. doi:10.1037/0003-066X.60.8.85

Sue, S., Zane, N., Nagayama Hall, G. C., & Berger, L. K. (2009). The case for cultural competency in psychotherapeutic interventions. *Annual Review of Psychology*, *60*, 525–548. doi:10.1146/annurev.psych.60.110707.163651

Taylor, K. N., Gordon, K., Grist, S., & Olding, C. (2012). Developing supervisory competence: Preliminary data on the impact of CBT supervision training. *The Cognitive Behaviour Therapist*, *5*(4), 83–92. doi:10.1017/S1754470X13000056

Townend, M., Iannetta, L., & Freeston, M. H. (2002). Clinical supervision in practice: A survey of UK cognitive behavioural psychotherapists accredited by the BABCP. *Behavioural and Cognitive Psychotherapy*, *30*, 485–500. doi:10.1017/S1352465802004095

Turpin, G., & Wheeler, S. (2011). *IAPT supervision guidance*. Retrieved from http://www.iapt.nhs.uk/silo/files/iapt-supervision-guidance-revised-march-2011.pdf

Vespia, K. M., Heckman-Stone, C., & Delworth, U. (2002). Describing and facilitating effective supervision behavior in counseling trainees. *Psychotherapy: Theory, Research, Practice, Training*, *39*, 56–65. doi:10.1037/0033-3204.39.1.56

Weck, F., Kaufmann, Y. M., & Witthöft, M. (2017). Topics and techniques in clinical supervision in psychotherapy training. *The Cognitive Behaviour Therapist*, *10*, 1–17. doi:10.1017/S1754470X17000046

Wheeler, S., & Richards, K. (2007). The impact of clinical supervision on counsellors and therapists, their practice and their clients. A systematic review of the literature. *Counselling & Psychotherapy Research*, *7*(1), 54–65. doi:10.1080/14733140601185274

Wolitzky-Taylor, K., Chung, B., Bearman, S. K., Arch, J., Grossman, J., Fenwick, K., … Miranda, J. (2018). Stakeholder perceptions of the barriers to receiving and delivering exposure-based cognitive behavioral therapy for anxiety disorders in adult community mental health settings. *Community Mental Health Journal*, *55*, 83–99. doi:10.1007/s10597-018-0250-z

Worthen, V. E., & Lambert, M. J. (2007). Outcome oriented supervision: Advantages of adding systematic client tracking to supportive consultations. *Counselling and Psychotherapy Research*, *7*(1), 48–53. doi:10.1080/14733140601140873

Notes on contributors

Sarah Kate Bearman, Ph.D., is an Assistant Professor in the School Psychology program of the Department of Educational Psychology in the College of Education at The University of Texas at Austin. A clinical child psychologist, her interests focus on advancing effective and scientifically supported treatments for youth and families in low-resource settings. In particular, she is interested in the supportive infrastructures, such as clinical supervision, that can promote successful adoption and implementation of evidence-based therapies.

Abby Bailin, M.A., is a doctoral student in the School Psychology program of the Department of Educational Psychology in the College of Education at The University of Texas at Austin. Abby is focused on improving the reach and effectiveness of mental health treatments for underserved and vulnerable youths and families. In particular, she is interested in using novel means of service delivery (i.e., technology) in non-traditional service settings to reach segments of the population unlikely to access traditional mental health services. She is also interested in investigating ways to enhance training for providers from a range of disciplines serving children and families in community-based settings.

Rafaella Sale, M.A., is a doctoral student in the School Psychology program of the Department of Educational Psychology in the College of Education at The University of Texas at Austin. She specializes in pediatric neuropsychology and focuses her research on the dissemination and implementation of empirically-supported practices for mental health treatment, particularly through supervision for master's-level clinicians.