An Examination of Behavioral Rehearsal During Consultation as a Predictor of Training Outcomes

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Abstract

The training literature suggests that ongoing support following initial therapist training enhances training outcomes, yet little is known about what occurs during ongoing support and what accounts for its effectiveness. The present study examined consultation sessions provided to 99 clinicians following training in cognitive-behavioral therapy for youth anxiety. The 104 recorded consultation sessions were coded for content and consultative methods. It was hypothesized that behavioral rehearsal (an active learning technique) would predict therapist adherence, skill, self-efficacy, and satisfaction at post-consultation. Regression analyses found no significant relation, however, clinician involvement during consultation sessions positively moderated the relationship between behavioral rehearsals and skill. Implications, limitations, and future directions are discussed.

Keywords

evidence-based practices; training; ongoing support; consultation; active learning

Despite the development of evidence-based practices (EBPs), defined as "the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences" (American Psychological Association, 2005, p. 1), a gap exists between optimal care and the care typically received by individuals with mental health problems (President's New Freedom Commission on Mental Health, 2003). In an effort to transport EBPs into community settings, implementation science has emerged (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005) as a field of inquiry to examine how best to disseminate (i.e., purposefully relay important information to treatment providers), implement (i.e., adopt specific practices based on disseminated information), and sustain

(i.e., continue implementation over time) EBPs in community settings (Lomas, 1993; Stirman et al., 2012). Given that one common reason cited for the research-practice gap is the lack of community clinicians trained in EBPs (e.g., McHugh & Barlow, 2010), the call has been made for dissemination and implementation researchers to examine effective training practices (e.g., Beidas & Kendall, 2010).

A review of the training literature provides preliminary answers regarding optimal training practices, specifically suggesting that ongoing support following initial training contributes to therapist and client outcomes (Herschell, Kolko, Baumann, & Davis, 2010). Although the importance of ongoing support is evident, specifics regarding the optimal length, content, and structure of ongoing support efforts remain to be elucidated (Weisz, Ugueto, Herren, Afienko, & Rutt, 2011). The lack of detailed descriptions of training and support procedures in the training literature (Rakovshik & McManus, 2010) and the dearth of empirical investigations on ongoing support contribute to the limited knowledge regarding optimal approaches and the long-term effects of these training practices on therapist and client outcomes. The specific type of ongoing support focused on in the present study is *consultation,* defined as "a process of interaction between two professionals–the consultant, who is a specialist, and the consultee, who invokes the consultant's help in a current work problem that he believes is within the consultant's area of specialized competence" (Caplan & Caplan, 1993, p. 11).

One theory that could provide an explanatory framework for the mechanism through which ongoing support acts is Kolb's (1984) theory of experiential learning, which emphasizes the critical role of active learning techniques for knowledge and skill acquisition. According to this theory, learning is a cyclical process that involves the transformation of experience and occurs in four stages: experiencing (concrete experience within an activity), reflecting on the experience, conceptualizing (creating a theory or model based on this experience), and experimenting (testing out the theory through active experimentation). This theory asserts that optimal learning is active (i.e., enactive; behavior-based) and achieved when the learner proceeds through all four stages. Optimal learning requires active engagement on the part of the learner. Accordingly, a passive bystander who engages in reflection and conceptualization is likely to learn less effectively than another learner who also actively participates in concrete activities and experimentation. Behavioral rehearsal, defined as a "simulated interaction between an interventionist and a trained actor where the interventionist takes on the role that they are expected to take on in the future" (Beidas, Cross, & Dorsey, p. 3, 2012), is an example of an active learning technique. Consultation provides ongoing opportunities for participants to engage in the stages of experiential learning through the use of behavioral rehearsals, reflection following behavioral rehearsals and during case discussion, conceptualizations derived from these reflections, and opportunities to participate in additional behavioral rehearsals and carry out treatment with clients in between consultation sessions.

A review of the training and ongoing support literature provides preliminary support for the effectiveness of active learning techniques, including behavioral rehearsals. For example, incorporating behavioral rehearsals into suicide prevention gatekeeper training resulted in higher levels of skill than standard training (Cross et al., 2011). Active learning methods were found to be important in continuing medical education workshops (Davis et al., 1999). Milne and James (2000) summarized effective techniques found in the most methodologically sound supervision studies conducted to date. Although the review did not conclude which techniques were most effective, active (i.e., behavior-based) techniques (e.g., behavioral rehearsals, feedback, meetings) were more commonly used than either symbolic (i.e., word-based) or iconic (i.e., image-based) techniques. Subsequently, Milne et al. (2008) posited that within the context of contextual factors, supervisory techniques

positively affect clinician skill and client outcomes primarily through assisting the clinician in moving through Kolb's (1984) learning cycle. These findings suggest that behavioral rehearsals and other active learning techniques contribute to positive training and ongoing support outcomes. Although supervision differs from consultation in that it involves a hierarchical relationship and is inherently evaluative (Milne, 2007), supervision and consultation are similar in their goal of assisting the recipient in achieving competence and working effectively with their clients (Caplan & Caplan, 1993). Given these similarities, it can be hypothesized that active learning techniques, such as behavioral rehearsal, also contribute to positive outcomes in consultation.

A recent randomized controlled training trial demonstrated the beneficial effects of consultation (Beidas, Edmunds, Marcus, & Kendall, 2012). In this study, 115 clinicians seeking training in cognitive-behavioral therapy (CBT) for youth anxiety, specifically the *Coping Cat* program (Kendall & Hedtke, 2006), were randomly assigned to either one of three training modalities (e.g., computer-training, routine training, and augmented training). Following initial training, participants completed three months of weekly group consultation via telephone or internet. Clinicians were evaluated by their skill (i.e., competence in delivering treatment according to the CBT model), and adherence (i.e., the presence of core CBT components) during independently-rated, digitally recorded behavioral rehearsals. Clinicians in all conditions demonstrated moderate improvements in skill and adherence from pre- to post-training and further improvements in skill and adherence from post-training to post-consultation. The most robust finding was that clinicians who attended more consultation sessions evidenced greater improvements in skill and adherence compared to clinicians who attended fewer sessions.

The present study describes the content and methods included in consultation sessions following training in CBT for youth anxiety disorders as part of the Beidas et al. (2012) training study. We examined whether behavioral rehearsal was responsible for the improved therapist outcomes that were observed. We hypothesized that clinicians who attended consultation sessions that included a higher proportion of time dedicated to behavioral rehearsals would demonstrate greater skill and adherence, higher ratings of self-efficacy, and higher ratings of perceived quality of the consultation calls following consultation than clinicians who attended consultation with lower or no proportion of time dedicated to behavioral rehearsals. Given the group nature of the consultation sessions and potential variability in the individual engagement of participants in the learning process, we examined clinician involvement during calls (i.e., how much they participated in discussion and/or behavioral rehearsals) as a potential moderator of the relationship between behavioral rehearsals and outcomes, hypothesizing that higher levels of involvement during consultations sessions would predict a greater impact of behavioral rehearsals on skill, adherence, self-efficacy, and satisfaction.

Method

Participants

Of the 115 participants in Beidas et al. (2012), the 99 participants who completed at least one consultation call and all post-consultation measures served as participants for the current study. All participants were from urban and suburban areas in the northeastern United States. Ages ranged from 23 to 75 years ($M = 35.92$, $SD = 11.36$) and 91.9% were female ($N = 91$). Clinicians self-identified[1] as Caucasian (69.7%), African-American (13.1%), Hispanic/Latino (2%), Asian (5.1%), Native American/Alaskan (1.0%), and Other (4.0%).

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[1]Ethnicity data were missing for 5.1% of participants.

With regard to educational degree, 59.6% had a master's degree, 18.2% were enrolled in a graduate program, 5.1% had a medical degree, 4.0% had a doctorate in philosophy, 5.1% had a doctorate in psychology, 2.0% had a doctorate in education, and 6.1% had an "other" degree. With regard to state licensure, 28.3% were licensed.

At baseline, therapists reported previous clinical experience ranging from 0 to 396 months ($M = 65.12$, $SD = 86.18$). Approximately half (49.5%) reported having previously treated anxious youth. None reported previously receiving supervision on the use of the *Coping Cat* (Kendall & Hedtke, 2006) and few reported having previously used the *Coping Cat* to treat anxious youth, with the number of cases ranging from 0 to 2 ($M = .12$, $SD = .46$). Clinicians reported high identification with CBT ($M = 4.96$, $SD = 1.69$; range = 1–7). With regard to caseload, clinicians reported carrying an active caseload of 0 to 150 clients ($M = 18.44$, $SD = 23.37$). Clinicians reported receiving 0 to 25 hours of supervision per week ($M = 1.65$, $SD = 2.81$) and attending 0 to 600 hours of workshops in the past 2 years ($M = 29.43$, $SD = 81.38$).

Following participation in consultation, 54.5% of the clinicians reported having treated an anxious youth in the previous 3 months (i.e., the consultation period). The number of anxious youth treated during that time period ranged from 0 to 65 ($M = 2.63$, $SD = 7.28$). Clinicians reported treating 79% of these youth with CBT.

Measures

Clinician Demographics and Attitudes Questionnaire (Beidas, Barmish, & Kendall, 2009)—

This 15-item questionnaire assesses demographics, prior experience with, and opinions towards CBT for youth anxiety. Psychometric data on questions that target opinions towards CBT for youth anxiety indicate acceptable reliability with an intraclass coefficient (ICC) of .91 and Spearman Brown split-half reliability of .85 (Beidas et al., 2009).

Therapist Background Questionnaire (Weisz, 2004)—

This 11-item questionnaire gathers demographic information, including (1) numbers of hours spent in workshops over the past two years, (2) number of active cases, (3) weekly supervision hours, (4) professional burnout, and (5) theoretical orientation.

Consultation Feedback Form (Stirman, Buchhofer, McLaulin, Evans, & Beck, 2009)—

This 9-item questionnaire is similar to the Beck Initiative Practicum Feedback Form (Stirman et al., 2009) with slight wording changes and the addition of two questions pertaining to the use of technology during consultation. It uses a combination of 7-point Likert scales and forced choice questions to assess the perceived quality of consultation, comfort in applying CBT with anxious youth following consultation, satisfaction with consultation session structure, and experience with using technology during consultation calls. Internal consistency analyses on all continuous items yielded a Cronbach's α of .60. For the current study, the ratings of perceived overall quality of calls and call structure were summed to create an index of satisfaction. Cronbach's α for these two items was .74.

Provider Efficacy Questionnaire (Ozer et al., 2004)—

Adapted from Ozer et al. (2004), this 9-item questionnaire measures clinicians' confidence in their ability to deliver core clinical competencies of CBT for youth anxiety on 11-point Likert scales ranging from 0 (*not at all confident*) to 10 (*extremely confident*). For the present study, scores were summed across all items to create a total score. Analyses of internal consistency yielded a Cronbach's α of .93.

Adherence and Skill Checklist (ASCL; Beidas et al., 2009)—This coding instrument measures both adherence to the content of CBT for child anxiety and skill in treatment delivery. Adherence, referring to the use of the procedures of a treatment protocol with a client (Perepletchikova & Kazdin, 2005), was assessed by coding the presence or absence of six core CBT competencies in treating child anxiety: (1) identification of somatic symptoms, (2) identification of anxious cognitions, (3) relaxation, (4) coping thoughts, (5) problem-solving, and (6) positive reinforcement. A total score, ranging from 0–6, was yielded from summing these items. Skill, referring to the level of competence demonstrated by the clinician when delivering CBT for child anxiety (Perepletchikova & Kazdin, 2005), was assessed via a 7-point Likert scale ranging from 1 (*not well*) to 7 (*very well*).

The ASCL was used to measured adherence and skill demonstrated in an eight-minute performance-based behavioral rehearsal, which involved clinicians preparing an anxious child (played by a trained undergraduate) for an exposure task. Coders (one doctoral level psychology graduate student, two post-undergraduate research assistants, and one honors undergraduate research assistant) were blind to condition and time-point of the assessment. Inter-rater reliability for the total adherence score was strong with an ICC of .98. Each individual item had a kappa coefficient of .75 or higher.

Consultation Coding and Rating System (CCRS)—The CCRS is based on a similar measure by Pimentel, Regan, Comer, Hoagwood, and Albano (2013) and includes both minute-to-minute frequency counts and 7-point Likert ratings ranging from 0 (*no discussion/use*) to 6 (*extensive discussion/use*) of content covered and consultative method employed during consultation sessions. Content areas measured include components of CBT for anxiety, case review, and technical issues regarding the virtual delivery of consultation. The methods measured include passive (e.g., didactics) and active methods (e.g., behavioral rehearsals). The CCRS also assesses level of clinician involvement during the consultation session using a 7-point Likert scale from 0 (*uninvolved*) to 6 (*extensively involved*) based on how much clinicians spoke and whether or not they participated in behavioral rehearsals (see Table 1 for scoring criteria). As such, individuals who engaged in discussion and participated in behavioral rehearsals were rated higher than those who only engaged in discussion. Additionally, individuals who participated in behavioral rehearsals as the therapist earned higher scores than individuals who participated in behavioral rehearsals as the child.

To evaluate validity, three licensed psychologists, who are experts in child anxiety and experienced in providing consultation, rated the CCRS on 7-point Likert scales from 0 (*strongly disagree*) to 6 (*strongly agree*) on whether it (1) covered all it should ($M = 5.67$, $SD = 0.47$), (2) allowed for sufficient variability ($M = 5.67$, $SD = 0.47$), (3) accurately reflected consultation content ($M = 5.33$, $SD = 0.47$), and (4) accurately reflected consultation techniques ($M = 6$, $SD = 0$).

Coders were three doctoral students in psychology (one of whom is the first author) and one post-undergraduate psychology research assistant trained through didactics and supervised practice with feedback. Interrater reliability was established between the first author and the three independent coders prior to initiating the official coding of calls. Coders were blind to the skill and adherence data of clinicians. All independent observers met an ICC or kappa coefficient criterion of .70 at the outset of the study on a sample of 12 consultation sessions for variables pertinent to the current study. The ICC reliability score for the continuous variable of interest was .92 for individual clinician involvement. The mean kappa coefficients for the categorical variables of interest were .98 for behavioral rehearsals and .98 for consultant-led behavioral rehearsals. A random check during the coding phase revealed maintained reliability for constructs of interest.

For the present study, descriptive analyses were conducted examining frequency counts (in minutes) and the proportion of time spent discussing each content area and using each consultative method. Inferential analyses centered on the following CCRS items: 1) proportion of time in sessions dedicated to behavioral rehearsal and 2) level of clinician involvement during the sessions. Given that clinicians participated in multiple calls, the total proportion of time dedicated to behavioral rehearsals and the clinician's average level of involvement across all calls attended were calculated and used in analyses (see Table 2 for a scoring example).

Procedure

For the present study, the consultation sessions conducted during a training and consultation study (see Beidas et al., 2012) were coded using the CCRS. Specifically, the 104 consultation sessions (out of 108) that had complete digital recordings were randomly divided among coders who subsequently completed the CCRS for each assigned call. The mean frequency counts and Likert ratings of the 104 digitally recorded calls were entered for the four calls that had not been recorded.

With regard to the larger study, community clinicians signed up for one of six training dates, each of which was randomly assigned to one of three training conditions (computer training, routine training, or augmented training). Clinicians then participated in weekly consultation sessions for three months. Skill and adherence was assessed at pre-training (i.e., within 1 week prior to workshop), post-training (i.e., within 1 week following the workshop), and post-consultation (i.e., 3 months following the workshop and after completing consultation sessions) using the ASCL. Self-efficacy and consultation satisfaction were assessed at post-consultation.

Consultation was conducted via the WebEx virtual conferencing platform by an advanced doctoral student under the supervision of an expert in CBT for child anxiety. Participants were given the option to call in via telephone or computer. Those who called in via computer did not activate their personal web cameras but were able to view the consultant as well as a whiteboard of the session's agenda and notes pertinent to the session[2]. A 12-week consultation curriculum was designed with participant input. The resulting curriculum focused on different aspects of the treatment each week (e.g., how to engage in cognitive restructuring, how to address comorbidities), as well as topics that clinicians requested more information on (e.g., how to treat youth with comorbid depression). Clinicians entered the consultation phase in a staggered fashion based on their training date. As such, the same session could contain first-time participants in addition to participants who were completing their final consultation session. There was no standardized order in which clinicians participated in consultation sessions. In addition to case discussion and didactics, the consultant offered opportunities to engage in behavioral rehearsals in order for participants to practice problem-solving, cognitive restructuring, conducting an imaginal exposure, and preparing youth for an exposure task. The consultant often volunteered to play the role of the therapist first in a behavioral rehearsal to model the interaction before asking a clinician to play that role. The consultant asked for volunteers for behavioral rehearsals. If no one volunteered, the consultant selected clinicians to participate. In this case, the consultant attempted to select clinicians who had not yet participated in a behavioral rehearsal. Selected clinicians were allowed to decline. A total of 108 consultations were completed. The consultation sessions were digitally recorded although four are missing due to experimenter error/technological malfunctioning.

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[2]Unfortunately, we did not archive whether clinicians participated in consultations sessions via telephone or computer.

Data Analysis

Power analysis

A sensitivity analysis was conducted using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) to determine the effect size that could be detected with the study's sample size and the number of predictors included in a linear multiple regression analysis for the primary hypotheses. The study was powered to detect a medium effect ($f^2 = 0.20$).

Data Analytic Plan

Multiple regression analyses examined the relation between the proportion of time across all calls attended by each clinician that was dedicated to behavioral rehearsals (regardless of whether or not the clinician participated in the behavioral rehearsals) and clinician adherence, skill, self-efficacy, and satisfaction. Clinician involvement during consultation sessions was examined as a potential moderator of the relationship between behavioral rehearsals during consultation sessions and outcomes. Thus, in addition to entering clinician involvement and proportion of time dedicated to behavioral rehearsals during consultation sessions as separate variables, an interaction term multiplying these two items was created and entered into the model. All analyses controlled for the number of consultation calls attended given that this was a significant predictor of outcome in the Beidas et al. (2012) investigation. Analyses on post-consultation adherence controlled for therapists' post-training adherence scores. Analyses on post-consultation skill controlled for therapists' post-training skill scores.

With regard to statistical assumptions, post-consultation skill and consultation satisfaction failed to meet the assumption of normality based on the Shapiro-Wilkes test ($p < .05$). A squared transformation ameliorated non-normality for post-consultation skill, and thus, analyses pertaining to post-consultation skill were derived using the transformed data. Transformations did not improve the normality of consultation satisfaction, and thus, the raw data were used for analyses. Diagnostics comparing variance inflation factors (VIFs) revealed all VIFs under the recommended threshold of ten (Hocking et al., 2003), indicating no issues of multicollinearity.

Results

Descriptive Analyses

The average length of the consultation session was 52.95 minutes ($SD = 10.70$; range = 23–66 minutes). On average, 7.82 participants attended each session ($SD = 4.52$; range = 1–22 participants). The average number of cases discussed per call was 2.69 ($SD = 1.90$; range = 0–7 cases). Participants in the total training sample ($N = 115$) attended an average of 7.15 consultation sessions ($SD = 3.17$; range = 0–11). Participants in the current sample ($N = 99$) attended an average of 8.11 consultation sessions ($SD = 2.07$; range = 1 – 11).

Table 3 shows the average number of minutes and proportions of time per consultation session spent discussing each content area and using each consultation method as coded by the CCRS. With regard to content, the highest proportions of time were dedicated to discussing exposures and reviewing cases. Less time was spent discussing additional components of CBT (e.g., relaxation, problem-solving). With regard to methods, case discussion around an example provided by the clinician and general informing from the consultant were most prevalent. Additionally, the consultant frequently offered feedback to participants and guided consultation sessions with prompts and/or questions. Less time was spent officially providing didactics, and behavioral rehearsals accounted for a small proportion of time in consultation.

A closer examination of behavioral rehearsals found that the average number of behavioral rehearsals completed by clinicians across all sessions they attended was only .66 (SD = .82, range = 0–3). The average number of times clinicians participated in a behavioral rehearsal in the role of therapist was only .29 (SD = .50, range = 0–2). With regard to frequency counts across all calls attended, 2% of clinicians participated in two behavioral rehearsals as the therapist, 25% participated in one behavioral rehearsal as the therapist, and 72% participated in no behavioral rehearsals as a therapist. With regard to behavioral rehearsals as the client, 1% of clinicians participated in three behavioral rehearsals as the client, 3% participated in two behavioral rehearsals as the client, 27% participated in one behavioral rehearsal as the client, and 69% participated in no behavioral rehearsals as the client. Fifty-three percent of clinicians participated in no behavioral rehearsals as either the therapist or the client.

Effects of Behavioral Rehearsal and Clinician Involvement

Adherence—Multiple regression analyses indicated no significant relation between proportion of time dedicated to behavioral rehearsals during consultation sessions and post-consultation adherence scores as well as no moderating effect of clinician involvement during consultation sessions on the relationship between behavioral rehearsals and adherence (see Table 4). The only significant predictor was the post-training adherence score, indicating that higher adherence scores at post-training predicted higher adherence scores at post-consultation.

Skill—Multiple regression analyses indicated no significant relation between proportion of time dedicated to behavioral rehearsals during consultation sessions and post-consultation skill scores (see Table 4). Post-training skill score was a significant predictor, indicating that higher skill scores at post-training predicted higher skill scores at post-consultation.

In the second model, a positive interaction was found between clinician involvement and the proportion of time dedicated to behavioral rehearsals during consultation sessions, indicating that level of involvement during consultation sessions moderated the effect of behavioral rehearsals during consultation sessions on post-consultation skill (see Table 4). Thus, as the proportion of time dedicated to behavioral rehearsals during consultation sessions increased, the effect of clinician involvement on skill increased (or alternatively, as clinician involvement increased, the effect of behavioral rehearsals during consultation sessions on skill increased). Also, a conditional effect for clinician involvement was found, which indicates that when there were no behavioral rehearsals present on the calls, an increase in clinician involvement was associated with a decrease in post-consultation skill.

Self-Efficacy—Multiple regression analyses indicated no significant relation between any predictors and post-consultation self-efficacy scores (all β < .25, all p > .05).

Satisfaction—Multiple regression analyses indicated no significant relation between proportion of time dedicated to behavioral rehearsals during consultation sessions and satisfaction as well as no moderating effect of clinician involvement during consultation sessions on the relationship between behavioral rehearsals and satisfaction (see Table 4). The only significant predictor was the number of consultation sessions attended, indicating that greater attendance predicted higher satisfaction ratings.

Discussion

The present study is one of the first to (a) examine the components of consultation provided to community therapists following workshop training and (b) evaluate the relation between

consultation techniques and training outcomes. Contrary to hypotheses, no significant relation was found between behavioral rehearsals during group consultation sessions and therapist adherence, skill, self-efficacy, and satisfaction. However, findings point to the importance of *clinician involvement* as a moderator of the relationship between behavioral rehearsals during consultation sessions and skill; clinicians who were more involved in consultation benefited more from behavioral rehearsals conducted during consultation sessions than clinicians who were less involved in consultation.

In response to criticisms regarding the lack of clear descriptions of training and ongoing support methods (Rakovshik & McManus, 2010), the present study provides a detailed account of content areas covered and consultative method employed during consultation sessions following initial workshop training in CBT for youth anxiety. With regard to content, findings indicate that time was spent to varying degrees discussing the core components of CBT for youth anxiety. A majority of time was spent discussing exposure tasks, which appears appropriate given that exposures are considered a central component of treatment (e.g., half of the sessions of the *Coping Cat* program focus on exposure) and may be considered the most challenging component of CBT. In addition to discussing CBT components, consultation sessions offered time for participants to discuss specific cases with which they were attempting to implement CBT, a finding consistent with other examinations of consultation (Pimentel et al., 2012). With regard to consultative methods employed, case discussion as well as feedback, general informing, and prompts/questions from the consultant were most often employed. Official didactic segments were less prevalent. Despite theoretical support for the role of active learning (Kolb, 1984), only a small proportion of time was dedicated to behavioral rehearsals, particularly behavioral rehearsals in which the clinician played the role of therapist. It is possible that time constraints and/or limited willingness of the clinicians interfered with the use of behavioral rehearsals. The allocation of time dedicated to consultative methods varied depending on how many clinicians had personal cases to discuss. It may be that behavioral rehearsals were prioritized less than case discussion and didactics. Future consultation sessions may benefit from better allocation of time spent on various consultative methods (e.g., dedicating some sessions entirely to behavioral rehearsals). Additionally, it may be beneficial to limit the number of participants per call to allow sufficient time to discuss personal cases, complete didactics, and engage in behavioral rehearsals. Consultation sessions had up to 22 participants in the present study, which made it difficult to implement behavioral rehearsals and allow opportunities for each therapist to participate in them. Also, the current study focused on behavioral rehearsal as an indicator of active learning: it may be that unmeasured active learning techniques (e.g., reflective practice) were present and contributed to outcomes.

More research is needed to determine the importance of active learning techniques in consultation. We examined only one such technique, and 72% of the clinicians did not partake in behavioral rehearsals as the therapist. Perhaps a certain threshold of active learning must be achieved in order for it to result in improved outcomes; it may be key to examine a wider range of active learning techniques, such as reflective practice and self-experiential work (Bennett-Levy, McManus, Westling, & Fennell, 2009). Other potential explanations for the null findings are explored in order to guide future research in this area. For example, it may be that the overall amount of time spent in consultation, regardless of the specific techniques used, is what accounts for the positive effects of ongoing support. Alternatively, it may be that a mix of techniques is optimal for improving outcomes rather than active learning techniques alone. Advocates of blended learning (e.g., Heinze & Procter, 2006) suggest the importance of a blended learning environment, which can be defined as "a learning facilitation that incorporates different modes of delivery, models of teaching, and learning styles, introduces multiple media to the dialog between the learner and the facilitator" (p. 235). Therapist variables, such as anxiety-level and learning style,

may have also contributed to the findings. For example, behavioral rehearsals may have elicited anxiety in the therapists. They may not have spent enough time participating in behavioral rehearsals to achieve habituation, which may have negatively impacted their ability to benefit from them. The findings may also be reflective of the varied learning styles of clinicians. Although Kolb's (1984) theory refers to stages of learning, it can also be interpreted to suggest that individuals vary with regard to their preferred learning styles, defined as "generalized differences in learning orientation based on the degree to which people emphasize the four modes of the learning process" (Kolb 1984, 67) and as "the complex manner in which, and conditions under which, learners most efficiently and most effectively perceive, process, store, and recall what they are attempting to learn" (James & Gardner, 1995, p. 20). It may be erroneous to examine the main effects of behavioral rehearsals across all participants given potential variability in learning style. Consideration of learning style is in accord with a systems-contextual framework (Beidas & Kendall, 2010), which asserts that trainees are embedded within various contexts. Learning style was not examined as a moderator in the present study because it had not been assessed.

The main moderator of interest examined in the present study was clinician involvement during consultation sessions, which was assessed based on how extensively the clinician engaged in discussion and participated in behavioral rehearsals (i.e., higher scores were assigned to individuals who participated in both case discussion and behavioral rehearsals). The group format of the consultation calls allowed for variability in the amount of involvement of each participant. Whereas some clinicians actively participated in case discussion, didactic discussion, and behavioral rehearsals, others attended sessions but did not speak beyond initial greetings. Although no conditional effects were hypothesized, a conditional effect was observed such that when no behavioral rehearsals were present, an increase in clinician discussion was associated with a decrease in skill. Greater discussion within the context of no behavioral rehearsals may result in lower skill due to the lack of specific skill-building activities. It may also be that clinicians who were having greater difficulty with CBT skills were more involved in discussion than those who had already mastered CBT skills. Although clinician involvement during consultation sessions did not appear to moderate the relation between the proportion of time dedicated to behavioral rehearsals during consultation sessions and post-consultation adherence, self-efficacy, and satisfaction, it did moderate the relation between the proportion of time dedicated to behavioral rehearsals during consultation sessions and post-consultation skill. Specifically, as the proportion of time dedicated to behavioral rehearsals during consultation sessions increased, the effect of clinician involvement on skill increased. Alternatively speaking, as clinician involvement during consultation sessions increased, the effect of behavioral rehearsals on skill increased. In other words, behavioral rehearsals during consultation sessions became a stronger predictor of skill as clinician involvement increased, highlighting the importance of both incorporating behavioral rehearsals and engaging participants in these exercises along with general discussion. These findings suggest that in addition to witnessing behavioral rehearsals, it is important to encourage therapists to engage in them and actively participate in discussion. Although Bandura (1977) suggested the potency of learning through the modeling of others, the present study suggests that participating in discussion and behavioral rehearsals during consultation sessions is more beneficial than observing them. This has important implications for future training endeavors, particularly those that incorporate group consultation formats. Consultants are encouraged to monitor the involvement of participants, provide multiple opportunities for each participant to actively engage in discussion and behavioral rehearsal, and set expectations regarding involvement in skill practice and discussion.

The limitations of the present study are important to consider. The present study only examined one active learning technique, and the amount of time dedicated to the technique

examined was very limited. Measurement limitations included lack of objective data regarding client outcomes and clinician skill and adherence. Our rating of clinician involvement during consultation sessions confounded participation in discussion and behavioral rehearsals. Additionally, we did not code whether clinicians were selected or volunteered for behavioral rehearsals, and the effectiveness of behavioral rehearsal may depend on whether clinicians seek out participation. Lastly, although our primary focus was on understanding the effect of behavioral rehearsals, our analyses focused on proportion of time dedicated to behavioral rehearsals on calls attended. Given the group nature of the calls, people may have attended calls with behavioral rehearsals without actually participating in them, which could have weakened findings.

To further elucidate the effects of consultation, future work should address these limitations. For example, studies should objectively assess therapist and client outcomes during and following consultation. To identify which training and consultation techniques work best for whom, by whom, and under which circumstances, future work would benefit from adopting a systems-contextual framework (Beidas & Kendall, 2010) and examining contextual factors (e.g., learning styles, group size). Comparative studies that involve random allocation of techniques to therapists would allow us to identify the differential effectiveness of various consultation techniques (e.g., behavioral rehearsals versus modeling). Studies examining the effects of other consultation components are also warranted. This work has begun, including investigations of the role of exposure-related discussion (Read et al., 2012) and case discussion (Brodman et al., 2012) using the current data. Given null findings for these investigations, more work is needed to identify effective consultation components in order to optimize the training of community clinicians and close the research-practice chasm.

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Table 1

CCRS Clinician Involvement Rating Criteria

Rating	Criteria
0 =	Therapist did not talk at all
1 =	Therapist did not talk beyond initial greetings
2 =	Therapist participated in some discussion (but did not participate in behavioral rehearsals or discuss cases in any depth)
3 =	Therapist participated in discussion to some depth or participated in the behavioral rehearsal as the child
4 =	Therapist participated in case discussion and either extensively discussed a personal case or participated in a behavioral rehearsal (not both)
5 =	Therapist participated in discussion, brought up a personal case, and participated in a behavioral rehearsal (as the child)
6 =	Therapist participated in discussion, brought up a personal case, and participated in a behavioral rehearsal (as the therapist)

Note. CCRS = Consultation Coding and Rating System.

Table 2

Scoring Example of Key CCRS Items for One Therapist

	Call 1	Call 2	Call 3	Call 4	Call 5	Call 6	Average
Clinician Involvement Rating	4	4	4	4	3	2	3.67 [a]
							Total
Behavioral Rehearsal Minutes of Consultation Call	0	24	15	0	9	0	48
Total Consultation Call Minutes	63	63	59	59	35	36	315
							Proportion
							$48/315 = 0.152$ [b]

Note. CCRS = Consultation Coding and Rating System.

[a] This number was entered into regression models when examining clinician involvement as a moderator of outcomes.

[b] This number was entered into regression models when examining the effect of behavioral rehearsal on outcomes.

Table 3

Mean Minutes and Ratios of Calls Dedicated to Content Areas and Methods Per Call

Item	Minutes		Ratios	
	M (SD)	Range	M (SD)	Range
Content				
CBT model	.77 (1.23)	0–5	.01 (.02)	.00–.08
Identifying somatic thoughts/arousal	9.23 (6.97)	0–27	.17 (.12)	.00–.46
Relaxation	4.85 (3.62)	0–22	.09 (.06)	.00–.35
Coping thoughts	6.91 (5.25)	0–25	.13 (.09)	.00–.42
Problem-solving	4.57 (6.25)	0–30	.08 (.11)	.00–.49
Exposure	14.98 (10.25)	0–42	.30 (.23)	.00–1
Homework	2.66 (2.87)	0–14	.05 (.05)	.00–.24
Positive reinforcement.	5.07 (4.26)	0–22	.10 (.08)	.00–.37
Case Review	21.19 (13.20)	0–55	.37 (.21)	.00–.87
Technical issues	6.30 (4.07)	0–21	.12 (.07)	.00–.37
Methods				
Case discussion of consultant example	5.02 (4.18)	0–21	.10 (.09)	.00–.57
Case discussion of clinician example	30.91 (17.31)	0–63	.55 (.28)	.00–.98
Informing	28.25 (9.30)	3–51	.55 (.19)	.13–1
Didactics	12.28 (9.16)	0–37	.26 (.24)	.00–1
Modeling	5.83 (3.43)	0–16	.11 (.06)	.00–.29
Clinician-led behavioral rehearsals	1.83 (4.51)	0–24	.03 (.08)	.00–.44
Consultant-led behavioral rehearsals	2.88 (4.64)	0–16	.06 (.10)	.00–.50
Total behavioral rehearsals	4.71 (6.94)	0–34	.09 (.13)	.00–.56
Feedback/Suggestions	25.30 (11.67)	0–51	.45 (.18)	.00–.82
Prompts/Probes/Questions	22.91 (8.65)	4–49	.43 (.13)	.16–.78
Call length	52.95 (10.70)	23–66	--	--

Note. CBT = cognitive-behavioral therapy. All variables had a Cohen's kappa of 0.60.

Table 4

Multiple Regression Analyses Examining Active Learning and Clinician Involvement as Predictors of Adherence, Skill, and Satisfaction at Post-Consultation

	B	SE B	β	*p*
Adherence[a]				
Step 1				
Constant	1.52	.62		
Post-training adherence score	.48	.09	.45	***
Number of consultation calls attended	.11	.06	.15	
Ratio of time dedicated to active learning	1.33	3.34	.04	
Step 2				
Constant	1.59	.70		
Post-training adherence score	.47	.10	.45	***
Number of consultation calls attended	.10	.07	.14	
Ratio of time dedicated to active learning	3.80	7.92	.10	
Clinician involvement	−.01	.23	−.01	
Active learning x clinician involvement	−.96	2.96	−.08	
Skill[b]				
Step 1				
Constant	7.03	4.90		
Post-training skill score	3.69	.73	.47	***
Number of consultation calls attended	.06	.50	.01	
Ratio of time dedicated to active learning	24.01	25.68	.09	
Step 2				
Constant	10.83	5.20		
Post-training skill score	4.16	.75	.53	***
Number of consultation calls attended	.44	.53	.08	
Ratio of time dedicated to active learning	−84.99	60.33	−.30	
Clinician involvement	−3.90	1.81	−.35	*
Active learning x clinician involvement	45.90	22.67	.53	*
Satisfaction[c]				
Step 1				
Constant	8.70	1.30		
Number of consultation calls attended	.42	.15	.29	**
Ratio of time dedicated to active learning	−2.45	4.91	−.05	
Step 2				
Constant	8.41	1.54		
Number of consultation calls attended	.40	.15	.28*	*
Ratio of time dedicated to active learning	−.90	12.31	−.02	
Clinician involvement	.20	.40	.11	
Active learning x clinician involvement	−.57	5.48	−.03	

Note.

[a]Analysis includes those who participated in at least one consultation call and completed all study assessments, yielding 99 total participants. R^2 = .23 for Step 1 (ps < .001); ΔR^2 = .00 for Step 2 (ps = .81).

[b]Analysis includes those who participated in at least one consultation call and completed all study assessments, yielding 99 total participants. A squared transformation was used for post-consultation skill. R^2 = .23 for Step 1 (ps < .001); ΔR^2 = .04 for Step 2 (ps = .10).

[c]Analysis includes those who participated in at least one consultation call and completed the Consultation Feedback Form, yielding 91 total participants. R^2 = .08 for Step 1 (ps < .01); ΔR^2 = .00 for Step 2 (ps = .61); ΔR^2 = .02 for Step 3 (ps = .17).

[*]$p < .05$,

[**]$p < .01$,

[***]$p < .001$