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We investigated changes over 12 to 42 months in 23 predoctoral trainees during their externship training in a psychodynamic/interpersonal psychotherapy clinic. Over time, trainees increased in client-rated working alliance and real relationship, therapist-rated working alliance, client-rated interpersonal functioning, ability to use helping skills (e.g., challenges, immediacy), higher-order functioning (e.g., conceptualization ability, countertransference management), feelings about themselves as therapists (e.g., more authentic, more self-aware), and understanding about being a therapist (e.g., theoretical orientation, curiosity about client dynamics). In contrast, trainees did not change in engaging clients (return after intake or for at least 8 sessions), judge-rated psychodynamic techniques in third and ninth sessions across clients (although trainees used more cognitive–behavioral techniques over time in third but not ninth sessions), or changes in client-rated symptomatology. Trainees primarily attributed changes to graduate training, individual and group supervision, research participation, and working with clients. Implications for training and research are discussed.

Keywords: trainee development, psychotherapy training, psychotherapy techniques, tasks and goals of psychotherapy, psychotherapy supervision

As psychotherapy educators, we spend considerable time and energy training doctoral students in counseling and clinical psychology to become therapists, and both faculty and students hope and assume that this training is beneficial. Indeed, we generally believe that we see substantial gains in the therapeutic ability of students who have gone through graduate training and supervision. In their extensive review of the literature, however, Hill and Knox (2013) concluded that there is only tentative evidence that graduate training is effective, and that much of the evidence is cross-sectional rather than longitudinal. Given the current state of the literature, it seemed clear to us that more research is needed on graduate training, particularly research that tracks trainee changes over time.

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We were particularly interested in changes over time in psychodynamic/interpersonal training because evidence suggests that it takes longer for trainees to feel competent when learning psychodynamic therapy than when learning cognitive therapy (Najavits et al., 2004). The focus of psychodynamic/interpersonal training is on helping trainees establish a relationship with clients, become curious about client dynamics and relationship patterns, interpret defenses and resistances, become aware of and deal with client dynamics in the therapeutic relationship, and become aware of and manage countertransference. Such training is typically accomplished initially through coursework and readings and later through individual and group supervision, where the focus is on teaching individual trainees to conceptualize and intervene with specific clients as well as to examine the influence of their countertransference on the therapeutic process. For the present study, we were interested in examining changes across time for trainees as well as attributions as to what helped trainees change.

Changes Across Time

The changes we were most interested in involved engagement of clients in treatment, forming a therapeutic relationship with clients, implementing the tasks of techniques involved in psychodynamic/interpersonal psychotherapy, and changes in client outcomes.

Engagement

Although some clients do not return because they believe they have gotten all they need, Tryon (2002) noted that failure of clients to return after intake typically reflects the lack of the establishment of an initial working alliance. In her review of the engagement literature, Tryon found an engagement quotient (number of clients

who returned for at least one session past intake divided by number of clients seen) of 20% to 70% for counseling and clinical doctoral trainees, suggesting a wide range of ability to get clients involved in psychotherapy. Given that professional counselors generally had higher engagement quotients than did trainees, Tryon speculated that counselor ability to engage clients improves with experience, but she offered no longitudinal evidence to support this claim. We operationalized client engagement as (a) clients returning after intake, similar to Tryon's (2002) definition; and (b) as clients attending at least eight sessions, given that this study was conducted within a clinic that provided psychodynamic/interpersonal psychotherapy that was expected to go well beyond eight sessions.

Establishment of a Therapeutic Relationship

Another change that we might expect is for therapists-in-training to increase in their ability to establish a therapeutic relationship (working alliance, real relationship) with clients across time. In a cross-sectional study, Mallinckrodt and Nelson (1991) found that client ratings of the task and goal components of the working alliance were higher for advanced trainees and experienced counselors than for novice counselors, although they found no differences across levels of training for the bond component of the working alliance as rated by clients and therapists after the third session of counseling. Unfortunately, the cross-sectional nature of this study limits the ability to infer change across time. Longitudinal research is needed to tease out changes over time in postsession ratings of therapeutic process and outcome.

Changes in Postsession Evaluations and Treatment Outcomes

In their review, Hill and Knox (2013) noted that the best evidence of change comes from changes in session and treatment outcome. Simply put, if trainees benefit from training, the judged quality of their sessions should improve over time, and their clients should start reporting more changes in symptomatology and interpersonal functioning. Unfortunately, Hill and Knox (2013) also noted that we have no such longitudinal evidence.

Change in Use of Theory-Specific Techniques

Given that a goal of training is to teach trainees specific techniques, we would expect trainees to use more of the targeted techniques as they progress through training. We found three longitudinal studies assessing changes in skills across time. Hill, Charles, and Reed (1981) assessed changes in use of helping skills in brief sessions across 3 years of graduate training for 12 counseling psychology doctoral students. Students used more minimal encouragers and fewer questions over time, but did not change in verbal activity (i.e., amount of talk time), anxiety levels, or rated quality of their sessions. Similarly, Thompson (1986) assessed changes in the use of helping skills in brief sessions at the beginning and end of 1 year of graduate training. Students gave more information, open and closed questions, restatements, and confrontations, but fewer minimal encouragers and interpretations over time. In addition, judge-rated quality of sessions increased, and scores of self-report measures of inner-directness and self-acceptance increased.

Hilsenroth, Defife, Blagys, and Ackerman (2006) investigated changes in skills in Sessions 3 and 9 of the first two cases seen by 15 clinical psychology graduate students learning psychodynamic-interpersonal therapy. Therapists used more psychodynamic techniques in Session 3 of the second case than in the first case, although no differences were found across cases for Session 9. No changes were found across cases for use of cognitive–behavioral techniques. It may be that studying trainee changes in technique use across a longer period of time and with more clients may yield a different picture of how technique use changes over time.

In sum, although there have been three studies of changes in therapist skills across training, the findings have differed across studies. Hence, at this time we cannot say how trainees change in terms of what they do in sessions with clients as a result of training. More research is clearly needed from a longitudinal perspective examining changes across clients across time.

Self-Reported Changes

A few qualitative studies have shown that trainees reported having made changes as a result of training. In the aforementioned Hill et al. (1981) study, interviews were conducted with students during the third year of their graduate training. Looking back, students reported gains in advanced skills (e.g., interpretations, confrontation, silence), session management (e.g., timing, appropriateness), ability to conceptualize client dynamics, and emotional regulation (e.g., feeling more relaxed, natural, and spontaneous with clients). The qualitative analyses were conducted informally and need to be replicated with more rigorous methods. In addition, Hill, Sullivan, Knox, and Schlosser (2007) found that trainees gained in the ability to facilitate client exploration and insight using specific techniques and became more confident connecting with clients. Pascual-Leone, Wolfe, and O'Connor (2012) and Pascual-Leone, Rodriguez-Rubio, and Metler (2013) found growth in professional development (applied theory and skills, experiencing oneself as a therapist, developing therapeutic presence, formulating goals for improvement) and self-development (personal growth and relating to others). In sum, trainees have reported substantial changes over training; these results need to be extended to training in a psychodynamic/interpersonal orientation.

Trainee Attribution of What Leads to Changes Across Time

Hill and Knox (2013) summarized the results of a number of surveys conducted with therapists across mental health disciplines, nations, and levels of experience about their attributions of what led to changes. Hands-on experiences with clients, being in personal therapy, and receiving supervision were perceived as the most helpful factors in therapists' growth, whereas coursework, seminars, and theories were perceived as less helpful. For example, in Rønnestad and Skovholt's (2003) study of 100 therapists across the range of experience, therapists consistently reported being influenced by interactions with clients, professional mentors, and peers, as well as by early family and adult interactions. Taken together, the extant evidence (Hill & Knox, 2013) suggests that therapists at all levels of training attribute their professional growth to formal training (e.g., supervision, experiences with clients), as well as other experiences (e.g., personal psychotherapy, family, peer relations).

Although the existing studies provide relatively consistent data regarding attributions about influences on change, it is important to note that all of these studies relied on survey data, such that participants responded to items generated by the researchers rather than reflecting upon their own ideas about sources of training and how these sources contributed to their growth. We believe that a qualitative approach could provide richer, deeper information about how trainees experience these different influences.

Given that most of the training in psychodynamic/interpersonal psychotherapy takes place within the context of supervision, we also wanted to specifically take a closer look at how the trainees believed that they benefited from supervision. In terms of past research on individual supervision (Allen, Szollos, & Williams, 1986; Britt & Gleaves, 2011; Nelson, 1978; Shanfield, Hetherly, & Matthews, 2001; Worthen & McNeill, 1996), trainees preferred supervisors who were flexible, permissive, outgoing, self-disclosing, empathic, nonjudgmental, expert, trustworthy, and supportive. They also liked supervisors who helped them explore their feelings, allowed them to develop their own therapeutic style, emphasized growth over technical skills, and provided guidance about highly charged clinical dilemmas. Furthermore, they liked supervision relationships characterized by collaboration, mutual understanding, and genuineness. In a study of group supervision (Mastoras & Andrews, 2011), group cohesion and the provision of feedback were cited as helpful aspects.

Purposes of the Present Study

We present purposes (research questions) rather than hypotheses because there were not consistent findings in the literature. The first purpose was *to assess whether and how therapist-trainees changed over the course of training in a psychodynamic/interpersonal clinic*. We examined the following variables: (a) engagement of clients beyond intake or for at least eight sessions; (b) ability to establish a working alliance and real relationship with clients; (c) change in client outcomes (session-level and treatment level assessments); and (d) use of psychodynamic and cognitive–behavioral skills. In terms of changes in the quantitative measures (a–d), we were interested only in longitudinal changes in therapists across clients across time. Changes within individual cases might reflect an increasing connection with these clients (which would be true for experienced therapists as well as novice therapists). Furthermore, because differences in the level of difficulty of cases could obscure therapist change, we controlled for client factors (initial levels of symptomatology and interpersonal functioning) in the analyses. We were also interested in the changes trainees perceived that they had made over the course of their training, as expressed in (e) self-report questionnaires of helping skills and functioning as a therapist, and (f) semistructured interviews regarding changes. We want to highlight that we included interviews so that we could probe for changes that might not have been assessed using quantitative measures.

Our second purpose was *to examine the attributions trainees make regarding their changes,* particularly how trainees viewed the suggested importance of individual and group supervision given the role of supervision in psychodynamic/interpersonal psychotherapy training.

Method

Data Set

The study was conducted in a clinic in which doctoral counseling psychology student trainees offered low-fee, weekly, individual psychodynamic/interpersonal psychotherapy to adult community clients. Students participated in an annual 2-day orientation, provided individual therapy to two to five clients per week, and engaged in weekly individual supervision and biweekly group supervision. The training experience was tailored to help the individual trainee learn and implement psychodynamic and interpersonal constructs (e.g., insight, immediacy, self-disclosure, immediacy, transference/countertransference, boundaries, dreams). The research orientation of the clinic emphasized the importance of research through post session questionnaires and participation in psychotherapy studies. In addition, the clinic was situated in a counseling psychology doctoral training program that trained students to be aware of all major theoretical approaches, although faculty leaned toward a psychodynamic multicultural approach.

The data were collected over 6 years, with five to 10 therapists in the clinic during any given year seeing one to five clients at a time, with each therapist staying in the clinic from 12 to 42 months. Number of sessions per client ranged from 0 (just intake) to 181 ($M = 20.52$, $SD = 30.23$). Although two trainees had two different individual supervisors, the others each had one individual supervisor for their whole time in the clinic.

It is important to note that the trainees who began externships in this clinic were not completely novice therapists: Many came into the doctoral program with previous experience, they all had learned helping skills during a prepracticum course, and they all had one practicum focusing on interpersonal therapy and one practicum focusing on psychodynamic therapy. Although we collected data from only one externship site, we think these data are relatively representative of doctoral students in counseling psychology given the similarity of requirements across programs approved by the American Psychological Association.

Participants

Therapists. Twenty-three (15 female, eight male; nine European American, two European International, one Asian American, seven Asian International, two African American, one Hispanic American, one Hispanic International; ranging in age from 25 to 50 when they started at the clinic, $M = 29.65$, $SD = 5.41$) doctoral counseling psychology student trainees participated in this study. Theoretical orientation, assessed via the Therapist Orientation Profile Scale—Revised (TOPS, Worthington & Dillon, 2003), was higher for the psychoanalytic/psychodynamic scale ($M = 7.29$, $SD = 1.01$) than for the cognitive-behavioral scale ($M = 4.74$, $SD = 1.46$). Therapists had 2 to 6 years of counseling experience prior to starting at the clinic ($M = 3.17$, $SD = 1.10$), had been in a counseling psychology doctoral program at least one year, had completed a prepracticum and at least two practicum prior to joining the clinic as externs.

A subset of 12 (six female, six male; five European American, four Asian International, one Asian American, one Hispanic International, and one African American; mean age = 31.17; $SD = 6.43$) therapists were included in the techniques analyses. A subset

of nine (four female, five male; four Asian International, three European American, one Asian American, one Hispanic International, one African American; mean age = 32.33, *SD* = 6.91) therapists were included in the qualitative analyses.

Clients. The total sample of 168 (95 female, 71 male, two unknown; 77 European American, 35 African American, 14 Multiethnic, 18 International, eight Hispanic American, six Asian American, 10 no information about race/ethnicity; mean age = 34.00, *SD* = 11.81) different clients were included in the engagement analyses (10 clients worked with more than one therapist). Presenting problems (clients typically described more than one) described during screening included relationship concerns (95 clients), anxiety or depression (91 clients), grief and loss (nine clients), anger issues (eight clients) career concerns (21 clients), issues related to abuse or trauma (four clients), coming out concerns (two clients), immigration issues (nine clients), assertiveness (one client), and caregiver burnout (one client). No formal *DSM* diagnoses were made.

A subset of 121 (67 female, 54 male; 62 European American, 23 African American, 11 Multiethnic, 11 International, five Hispanic American, three Asian American, six no information about race/ethnicity; mean age = 33.81, *SD* = 11.83) clients were included in the postsession data analyses. A subset of 70 (37 female, 33 male; 37 European American, 13 African American, seven Multiethnic, five International, three Hispanic American, five no information about race/ethnicity; mean age = 33.48, *SD* = 11.62) clients were included in the analyses of techniques.

Judges. Coders for the Comparative Psychotherapy Process Scale (CPPS; Hilsenroth, Defife, Blagys, & Ackerman, 2006) were one female counseling psychology doctoral student and three (two female, one male) undergraduate psychology students. Coders for the qualitative analysis were one female counseling psychology professor, one female postdoctoral clinical psychologist, and three (two female, one male) counseling psychology doctoral students. None of the coders were therapists in the study.

Interviewer. The interviewer for the interviews with the therapists was the female professor mentioned above. She had been the instructor for all of the therapists in their first course (*Theories and Strategies of Counseling Psychology*) in the doctoral program, was a codirector of the clinic, and was the group supervisor for their clinic clients.

Measures

The Comparative Psychotherapy Process Scale (CPPS; Hilsenroth et al., 2006) assesses therapist activity. It includes 10 items on a psychodynamic-interpersonal subscale (PI; e.g., "The therapist focuses attention on similarities among the patient's relationships repeated over time, settings, or people") and 10 items on a cognitive-behavioral subscale (CB; e.g., "The therapist gives explicit advice or direct suggestions to the patient"). Each item is rated by trained judges on a scale from 0 (*not at all characteristic*) to 6 (*extremely characteristic*). The PI scale was significantly related to other measures of psychodynamic techniques (Hilsenroth, Blagys, Ackerman, Bonge, & Blais, 2005). Hilsenroth et al. (2006) reported interrater reliability using intraclass correlation coefficients (ICC2) of .82 for both the PI and CB subscales. Interrater reliability for the present study was assessed using generalizability theory because two to four judges rated each session. G(*q*,*k*), which is interpreted similarly to an intraclass correlation (Putka, Le, McCloy, & Diaz, 2008), was .93 for PI and .95 for CB.

The Working Alliance Inventory-Short Revised (WAI-SR; Hatcher & Gillaspy, 2006) is a 12-item measure that assesses client perceptions of the working alliance. Items are rated on a 5-point scale ranging from 1 (*seldom*) to 5 (*always*). Hatcher and Gillaspy developed this version through factor analyses and item response theory of the original 36-item WAI (Horvath & Greenberg, 1986). Extensive validity and an internal consistency $\alpha = .91$ have been reported (Hatcher & Gillaspy, 2006). A comparable 12-item therapist version developed by Hatcher and Gillaspy was also used in this study, as in Hill et al. (2014). Internal consistency alphas in the present study were .88 and .95 for the client and therapist forms, respectively.

The Session Evaluation Scale (SES; Hill & Kellems, 2002) assesses client and therapist perceptions of the quality of the session. We used the 5-item version of the SES, as did Lent et al. (2006), who added a fifth item to the original version to increase the variability of scores. The items are rated on 5-point Likert scales from 1 (*strongly disagree*) to 5 (*strongly agree*). Validity was demonstrated by positive correlations with other postsession measures (Hill & Kellems, 2002). Internal consistency alpha for the present sample was .93 for clients and .90 for therapists.

As in Hill et al. (2014), the 12-item versions of the Real Relationship Inventory-Therapist and the Real Relationship Inventory-Client (RRI-T and RRI-C; Gelso et al., 2005; Kelley, Gelso, Fuertes, Marmarosh, & Lanier, 2010) were used to assess perceptions of realism and genuineness. Each item is scored on a 5-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The measures related in theoretically predicted ways to other process variables, and to treatment progress and outcome (Lo Coco, Gullo, Prestano, & Gelso, 2011; Fuertes et al., 2007; Marmarosh et al., 2009). Hill et al. (2014) reported correlations of .91 and .96, respectively, between the 12-item and original 24-item client and therapist forms. Internal consistency alpha for the present sample was .87 for both client and therapist forms.

The Outcome Questionnaire 45.2 (OQ; Lambert et al., 1996) is a 45-item self-report instrument designed for repeated measurement of client progress specifically focused on symptomatology, interpersonal functioning, and social role performance. Adequate validity and reliability has been reported for this widely used measure. For the present sample, the internal consistency alpha for the OQ completed at intake was .92.

The Inventory of Interpersonal Problems–32 (IIP; Barkham, Hardy, & Startup, 1996) is a widely used 32-item self-report instrument of interpersonal distress (shortened from the original 127-item measure developed by Horowitz, Rosenberg, Baer, Ureño, & Villaseñor, 1988). Items are scored on a 5-point Likert scale from 0 (*not at all*) to 4 (*extremely*). We used the total score in this study (the average of all items), where high scores indicate more distressed interpersonal functioning. Adequate validity and reliability have been reported (Barkham et al., 1996). For the present sample, the internal consistency for the IIP completed at intake was .90.

Interviews. A semistructured interview protocol was developed by the authors. The protocol was piloted and revised based on feedback. The therapist trainees were asked: (a) How have you changed as a therapist since you began at the clinic? (b) What

helped you grow and learn? (c) Discuss your relationship with your individual supervisor and how it changed over time, and (d) Describe your experiences in group supervision.

Posttraining questionnaire. We developed this questionnaire to assess specific constructs we thought would be influenced by the psychodynamic/interpersonal training. The first set of items, based on Hill (2009), assessed therapists' ability to use specific basic helping skills (approval-reassurance, restatement, reflection of feelings, open question, challenge, interpretation, self-disclosure, immediacy, information, direct guidance, not interrupting, silence). The second set of items, based on Hill et al. (1981), Hill, Stahl, and Roffman (2007), and Hill and Knox (2013), assessed higher-order aspects of being a therapist (confidence, professionalism, trusting instincts, conceptualizing client dynamics, session management, dealing with difficult client situations, genuineness/empathy/compassion, focus on clients instead of self, countertransference management, responsiveness to clients, anxiety management, and negotiating boundaries such as time and fees). Therapists rated themselves on 24 items using a 9-point scale (1 = *deficient*, 5 = *neutral*, 9 = functioning well) as to their functioning when they started their work at the clinic as well as currently. Thus, responses may be seen as retrospective perspectives regarding how therapists had changed, which Howard and Dailey (1979) found to be a valid way of assessing change. Because of the small number of therapists, no psychometric properties were assessed for this measure.

Procedures

Therapy sessions. Trainees (all of whom indicated an interest in learning and practicing psychodynamic/interpersonal psychotherapy) attended annual required 2-day orientations at the beginning of every academic year in the clinic. Clients were assigned to therapists according to therapist availability and perceived client–therapist match (as determined by the clinic codirector), with each therapist seeing between one to five clients at any given time. Prior to the intake and after every eight sessions, clients completed the OQ and IIP. Treatment was psychodynamic/interpersonal in orientation and open-ended (within the boundaries of the therapist's time at the clinic). After every session, therapists and clients completed their respective versions of the WAI, RRI, and SES. Therapists participated in weekly psychodynamic/interpersonal individual supervision and biweekly group supervision.

Training and coding of therapy sessions on the CPPS. The four coders were trained by the first author for 12 hr to use the CPPS. They watched six DVDs of master therapists, independently coded each separate therapist intervention into one of the 20 categories, and then independently rated each of the 20 items for the entire session. Coders then compared their overall ratings with ratings done by Hilsenroth's team for these sessions and discussed discrepancies. In the final training session, there was an alpha of .94 among the four coders across all items. Rotating teams of two to four coders were then randomly assigned to code sessions for this study, such that a given team rated all of the sessions for the assigned therapist in a random order. Coding was done independently, although coders discussed ratings after each session to ensure consistency in their thinking and coding.

Interview and posttraining questionnaire. Six therapists were interviewed at the end of their training in the clinic (between 2 to 3 years). An additional three therapists, who were continuing at the clinic, were interviewed around the same time (they had been at the clinic between 2 1/2 to 3 1/2 years at the time of the interviews). All the questions on the interview protocol were asked, along with probes to clarify information and additional questions to pursue topics that were unique to individuals (e.g., peer relationships). All interviews (average length 60 min to 90 min) were conducted by the first author. After the interview, therapists completed the posttraining questionnaire. Interviews were transcribed verbatim except for stutters and minimal responses (e.g., "MmHmm," "you know").

Quantitative Data Analyses

Hierarchical linear and nonlinear modeling (HLM; Version 7.0 Student; Raudenbush, Bryk, Cheong, Congdon, & du Tolt, 2011) was used for the assessment of changes in engagement, postsession measures, treatment outcome, and techniques.

Engagement. To examine therapist trainees' ability to engage clients to return after the intake or after eight sessions, we used HLM with client engagement within therapists at Level 1 and engagement between therapists at Level 2. The outcome variable for the two engagement analyses was a dummy-coded dichotomous variable (0 for those who did not return, and 1 for those who did return, using a Bernoulli distribution).

Given that we were interested in the within-therapist effects of training, the time point of the first session with the first client at the clinic was set as zero for each therapist. Days-in-clinic was calculated for all subsequent sessions from that time point. To disaggregate within-therapist variability and between-therapist variability in the days-in-clinic factor, we utilized the statistical centering method of detrending (Curran & Bauer, 2011) to create two new variables: (a) within-therapist time-in-clinic, which is a factor of how many days in clinic and how many clients the therapist had prior to intake with each client; and (b) between-therapist time-in-clinic, which is each therapist's overall mean number of days in clinic at client intake across all of his or her clients. To create the within-therapist time-in-clinic variable, we regressed the therapists' days-in-clinic on serially centered clients within each therapist and used the unstandardized residual as the within-therapist factor. The Level-2, between-therapist time-in-clinic variable represents each therapist's overall mean number of days in clinic at the time of client intakes. To account for client distress, intake scores of the OQ and IIP were included as predictors at Level 1. To account for working alliance, means of the WAI-C from intake and Session 1 were included for the analyses of return after intake and return for eight sessions, respectively.

We had complete data for 173 clients (within-therapist) at Level 1, and 23 therapists (between-therapist) at Level 2 (therapists saw 2 to 15 clients). The within-therapist days-in-clinic parameter at Level 1 served as the centering variable; all other predictors were uncentered.

Postsession data. We used HLM with sessions at Level 1, clients at Level 2, and therapists at Level 3 to evaluate whether therapist's training time (i.e., days-in-clinic) was related to clients' and therapists' evaluations of SES, WAI, and RRI. We used detrending (Curran & Bauer, 2011) to create three new variables: (a) within-client days-in-clinic, which represents the amount of time the therapist had been in the clinic prior to each particular session (Level 1, sessions); (b) within-therapist intercept for days-

in-clinic, which represents the amount of training the therapist had prior to intake with each client (Level 2, clients); and (c) between-therapists differences for days-in-clinic, which represents the amount of training in clinic for different therapists (Level 3, therapists). We created the within-client predictor by regressing the therapists' days-in-clinic variable on sessions, centered at midtreatment, separately for each client, using ordinary least squares. The resulting within-client deviations over sessions in therapy represent the within-client component of the time-varying therapist's days in the clinic. In this way, the within-client deviations are conceptualized as the difference between a time-specific observation and the trend line for the variable (i.e., the expected value given a linear growth in the variable).

Because our purpose was to examine the effect of within-therapist change across clients in postsession scores, we retained the client specific intercepts from the OLS regression, described above, and then computed the mean intercept across all of the clients seen by a particular therapist. This mean was subtracted from each client's intercept to represent their between-client (within-therapist) component. For the between-therapist variable, we used the aforementioned therapist's mean intercept across all of his or her clients. These detrended variables were used as predictors of client and therapist postsession scores (SES, WAI, RRI). To account for client symptomatic distress and interpersonal difficulties, intake scores of the OQ and IIP were included as predictors in Level 2. To allow for an easier way to interpret the coefficients, we standardized the outcome and predictor variables.

For client reports, we had information for 3,110 sessions in Level 1, 130 clients in Level 2, and 23 therapists in Level 3. We had data for one to 11 clients for therapists, and three to 133 sessions for clients. For therapist reports, we had information for 2,828 sessions in Level 1, 129 clients in Level 2 and 22 therapists in Level 3. We had data for two to 11 clients per therapist, and one to 115 sessions per client. Missing data for all models were handled by listwise deletion. Within-client days-in-clinic and within-therapist days-in-clinic were centered around the group mean. Between-therapist days-in-clinic, OQ, and IIP were centered around the grand mean.

Changes across time in treatment outcome measures. We used HLM to evaluate whether therapist's training time (i.e., days-in-clinic) was related to *the change* in clients' reports of OQ and IIP. We had information for 454 measurements in Level 1, 134 clients in Level 2 and 22 therapists in Level 3. Therapists saw between one to 12 clients and clients completed the measures between one to 19 times. Because the measures were not completed regularly, we did not use the detrending procedure described above. Based on a different study examining outcome data in our clinic (Kivlighan et al., in preparation), we used a log-time growth model in Level 1, for which time-in-treatment was operationalized as the log of the number of days from the intake session to the completion of the measures.

In Level 2, we calculated therapists' number of days from the first day in the clinic until the intake session with each specific client. This within-therapist variable was used as a predictor of the Level 2 slope (i.e., the **change** in the outcome measures). We did not add predictors to Level 3 because we were not interested in the between-therapists effect. To allow for an easier interpretation of the coefficients, we used standardized outcome and predictor variables. The log-time variable and the days-in-clinic variable were centered around the group mean.

Use of techniques. For the analyses of therapist use of PI and CB techniques in the third and ninth session, we used HLM with clients at Level 1 and therapists at Level 2 to assess linear changes over time. We used detrending (Curran & Bauer, 2011) to create a within-therapist variable and a between-therapist variable using the methods described above. Level 2 was included to control for the between-therapist variance in the subscale, although between-therapist differences were not of interest for this analysis. Pretherapy OQ and IIP, included to control for between-client variance, were centered around the group mean. For the third session, we had data for 78 clients in Level 1 and 12 therapists in Level 2. For the ninth session, we had data for 52 clients in Level 1 and 12 therapists in Level 2. Therapists saw between three and 10 clients.

Qualitative Data Analyses

Interview data were analyzed using consensual qualitative research (CQR; Hill, 2012). Specifically, the coding team developed a domain list after reviewing several interviews. They then went back and placed each distinct participant utterance (thought unit) for each case into one or more domains. The team then summarized data within each domain for each case into core ideas (i.e., summaries or abstracts of what the interviewee said). These domains and core ideas were audited by team members who had not been involved in the primary analyses, with the primary team carefully considering each of the auditors' suggestions and revising the core ideas as deemed necessary. The data across cases in each domain were then examined to search for themes (cross-analyses). Once categories and subcategories were developed for these themes, the team went back and placed each core idea into categories/subcategories. Once again, the cross-analyses were each audited by at least one outside team member, with suggestions considered. All decisions of the primary team were made by consensus, with considerable discussion and checking back with the original data.

Results

Changes Across Time Across Clients

Engagement. Across the whole sample of 110 clients who had at least an intake session, 81 (74%) returned after intake, with a range of 56% to 100% across the 12 therapists. Of the 110 clients, 55 persisted at least eight sessions beyond intake (50%), with a range of 22% to 88% across therapists. These analyses revealed large differences among therapists in terms of engagement.

Table 1 presents nonparametric correlations between and means and standard deviations of within-therapist time-in-clinic, client return after intake, client return for eight sessions, and client IIP, OQ, and WAI scores. Return after intake and for Session 8 were not significantly correlated with therapist days in clinic, but the within-therapist variable was significantly negatively correlated with client return for at least eight sessions, $r = -.15$, $p < .05$, suggesting that the longer therapists were at the clinic the less likely their clients were to return for at least eight sessions.

Table 1
Nonparametric Correlations, Means, and Standard Deviations for Engagement Data

	1	2	3	4	5	6	*M*	*SD*
1. W/in therapist time-in-clinic	—						−.65	61.60
2. Return after intake	−.10	—					—	—
3. Return for 8 sessions	.15*	.48**	—				—	—
4. IIP	−.11	−.08	.08	—			47.46	19.97
5. OQ	−.05	−.13	−.05	.50**	—		78.63	21.32
6. WAI-C early	.04	.10	.12	.11	−.17*	—	3.25	.77

Note. $N = 179$; W/in therapist time-in-clinic = detrended factor of therapist time in clinic and number of clients; Return after intake = Binomial variable representing whether the client returned after intake; Return for 8 sessions = Binomial variable representing whether the client returned for at least 8 sessions; IIP = client's raw score on the Inventory of Interpersonal Problems-32; OQ = client's total score on the raw score on the Outcome Questionnaire-45; WAI-C Early = mean of client WAI from intake and Session 1.
* $p < .05$. ** $p < .01$.

Given the significant correlations, we proceeded with HLM analyses of trainee change over time in ability to engage clients. We began by constructing baseline unit-specific Bernoulli models predicting client return after intake and for at least eight sessions with only the within-therapist time-in-clinic and between-therapist time-in-clinic variables in the model. ICCs calculated for the Bernoulli model (Snijders & Bosker, 1999) were 0.0374 and 0.0599, indicating that therapist effects accounted for about 4% of the variance for return after intake and 6% of the variance for return for at least eight sessions. Odds ratios for the baseline model were significant: .9718, 95% CI [0.95, 0.99] for time in clinic predicting return after intake and 0.98, 95% CI [0.524, 1.622] for time in clinic predicting return after eight sessions.

Given the baseline model results, we then constructed a model including IIP, OQ, and WAI as predictors. Fixed effects for the unit-specific Bernoulli models predicting client return after intake and return for at least eight sessions are in Tables 2 and 3, respectively. Although the within-therapist time-in-clinic factor and between-therapist time-in-clinic factor were significant for client return after intake and for at least eight sessions, odds ratios were 1.00008, 95% CI [1.00, 1.00] for return after intake and 1.00005, 95% CI [1.00, 1.00] for return for eight sessions. Client IIP, OQ, and WAI were not significant predictors in either analysis. Hence, although the within-therapist time-in-clinic and between-therapist time-in-clinic factors were statistically significant, odds ratios indicated that trainees' ability to engage clients was trivial and was not predicted by client distress levels at intake or by working alliance.

Changes across time in postsession measures. Table 4 presents means, standard deviations and correlations between post session scores, rated by clients and therapists, as well as clients' IIP and OQ scores. We examined the amount of variation in postsession measures attributable to between-therapist differences by calculating the intraclass correlation coefficient (ICC) of 3-level models for therapist- and client-rated WAI, RRI, and SES. The ICCs for therapist-rated WAI, RRI, and SES were 0.2953, 0.1233, and 0.1756, respectively, indicating that between 12% to 30% of the total variances were attributable to differences among therapists. In contrast, the ICCs for client-rated postsession measures all approached 0, indicating that the total variances were not attributable to differences among therapists. However, to keep all analyses consistent, we continued with three level models for client-rated measures as well. Table 5 presents the fixed effects for the relationship between therapist's days-in-clinic and the client- and therapist-rated postsession scores, controlling for client's OQ and IIP. There was a significant within-therapist effect for client-rated WAI and RRI, and for therapist-rated WAI, although the within-therapist effect for SES was not significant. The significant coefficients represent low to moderate correlations between therapist's training time, client rated WAI and RRI (both $r = .22$), and

Table 2
Fixed Effects (Unit-Specific) and Odds Ratios for the Relationship Between Therapist Time in Clinic and Client Return After Intake

Fixed effect	Coefficient	*SE*	*t*-ratio	Approx. *df*	*p*-value	Odds ratio	Confidence interval
Client return after intake, π_0	−1.13	3.10	−0.36	21	0.721	0.32	(0.00, 206.43)
Between-therapist time-in-clinic, β_{01}	−0.01	0.01	1.07	21	0.297	1.01	(0.99, 1.03)
Within-therapist time-in-clinic, π_1	−0.05	0.01	−3.58**	21	0.002	.95	(0.93, 0.98
Between-therapist time-in-clinic, β_{11}	0.00	0.00	3.60**	21	0.002	1.00	(1.00, 1.00)
WAI early, π_2	0.40	0.78	0.52	21	0.611	1.49	(0.30, 7.50)
Between-therapist time-in-clinic, β_{21}	0.00	0.00	0.17	21	0.863	1.00	(1.00, 1.00)
IIP, π_3	0.04	0.04	1.03	21	0.316	1.05	(0.96, 1.14)
Between-therapist time-in-clinic, β_{31}	0.00	0.00	−1.70	21	0.104	1.00	(1.00, 1.00)
OQ, π_4	0.00	0.03	0.56	21	0.956	1.00	(0.94, 1.07)
Between-therapist time-in-clinic, β_{41}	0.00	0.00	−0.02	21	0.984	1.00	(1.00, 1.00)

Note. Level-1 $n = 173$; Level-2 $n = 23$. WAI-SR = Working Alliance Inventory-Short-Revised; IIP-32 = Inventory of Interpersonal Problems-32; OQ-45 = Outcome Questionnaire-45.
** $p < .01$.

Table 3
Fixed Effects (Unit-Specific) and Odds Ratios for the Relationship Between Therapist Time in Clinic and Client Return for Eight Sessions

Fixed effect	Coefficient	*SE*	*t*-ratio	Approx. *df*	*p*-value	Odds ratio	Confidence interval
Client return after intake, π_0	1.46	2.45	0.60	21	0.56	4.33	(0.03, 708.88)
Between-therapist time-in-clinic, β_{01}	−0.01	0.01	−0.79	21	0.44	1.01	(0.97, 1.03)
Within-therapist time-in-clinic, π_1	−0.02	0.01	−2.02	21	0.06	0.98	(0.97, 1.00)
Between-therapist time-in-clinic, β_{11}	0.00	0.00	2.09*	21	0.05	1.00	(1.00, 1.00)
WAI-SR Early, π_2	−0.24	0.55	−0.45	21	0.66	0.78	(0.25, 2.44)
Between-therapist time-in-clinic, β_{21}	0.00	0.00	0.87	21	0.40	1.00	(1.00, 1.00)
IIP, π_3	0.02	0.02	1.13	21	0.27	1.03	(0.98, 1.07)
Between-therapist time-in-clinic, β_{31}	0.00	0.00	−0.73	21	0.47	1.00	(1.00, 1.00)
OQ, π_4	−0.02	0.02	−1.56	21	0.13	0.98	(0.94, 1.01)
Between-therapist time-in-clinic, β_{41}	0.00	0.00	0.85	21	0.40	1.00	(1.00, 1.00)

Note. Level-1 $n = 173$; Level-2 $n = 23$. WAI-SR = Working Alliance Inventory-Short-Revised; IIP = Inventory of Interpersonal Problems-32; OQ = Outcome Questionnaire-45.
* $p < .05$.

therapist rated working alliance ($r = .19$). Hence, there were increases in client- and therapist-rated working alliance and client-rated real relationship (although no changes in therapist-rated real relationship or client- or therapist-rated session evaluation), as therapists gained experience in the clinic, and these effects were not accounted for by initial client distress.

Although not of primary interest in this study, pretherapy ratings of distress on the OQ and IIP did influence the data. The greater the dysfunction on the pretherapy OQ, the lower the clients and therapists rated the WAI, RRI, and SES, whereas the greater the interpersonal dysfunction on the pretherapy IIP, the higher the clients rated the WAI, RRI, and SES and the higher the therapists rated the WAI. In addition, client SES scores increased whereas therapist WAI and RRI scores decreased during treatment.

Changes across time in treatment outcome measures. We examined the amount of variation in treatment outcome attributable to between-therapist differences by calculating the intraclass correlation coefficient (ICC) of 3-level models for IIP-32 and OQ-45. The ICCs were 0.0838 and 0.0300, respectively, indicating that 8% of the total variance in IIP-32 and 3% of the total variance in OQ-45 were attributable to differences among therapists. Table 6 presents the fixed effects for the relationship between therapist days-in-clinic and change in OQ and IIP. An almost significant negative relationship was found between log-transformed time-in-treatment and change in IIP and OQ, such that IIP and OQ scores decreased with an initial rapid change and a less rapid change over time as treatment progressed (technically the growth curves look like negative splines). For IIP, therapist days-in-clinic was significant but relatively small ($r = -.10$), such that the decrease in IIP scores was greater for clients treated later in the therapist's training. Hence, as therapists gained experience in the clinic, their clients improved more in terms of interpersonal difficulties. No significant relationship was found between therapist's days-in-clinic and change in client OQ.

Changes across time in third and ninth session techniques. Table 7 shows means, standard deviations, and correlations between judge-rated PI and CB subscales and clients' OQ and IIP scores. As would be expected in a psychodynamic/interpersonal clinic, paired sample *t* tests showed that therapists used significantly more PI than CB skills in their third, $M_{PI} = 2.27$, $SD_{\mathrm{PI}} = .72$ versus $M_{CB} = .69$, $SD_{\mathrm{CB}} = .57$, $t(77) = 15.46$, $p < .001$, and ninth sessions, $M_{PI} = 2.48$, $SD_{\mathrm{PI}} = .62$ versus $M_{CB} = .64$, $SD_{\mathrm{CB}} = .49$, $t(51) = 14.82$, $p < .001$, with clients.

We compared the PI and CB scores for the present sample with those in the Hilsenroth et al. (2006) study. For PI skills, the therapists in Hilsenroth et al. (2006) were higher (first client, third session: $M = 3.10$, $SD = .65$; ninth session: $M = 3.70$, $SD = .67$; second client, third session: $M = 3.70$, $SD = .74$; ninth session:

Table 4
Means, Standard Deviations and Intercorrelations for Therapist and Client Reports of Postsession Scores

	M	*SD*	1	2	3	4	5	6	7	8
1. SES-C	4.24	0.65	—							
2. WAI-C	3.63	0.80	0.81**	—						
3. RRI-C	3.95	0.57	0.78**	0.83**	—					
4. SES-T	3.83	0.46	0.44**	0.50**	0.48**	—				
5. WAI-T	3.46	0.59	0.35**	0.48**	0.42**	0.80**	—			
6. RRI-T	3.56	0.47	0.41**	0.43**	0.47**	0.66**	0.71**	—		
7. IIP	42.33	18.21	0.16	0.18*	0.20*	0.08	0.02	−0.01	—	
8. OQ	76.02	22.71	0.03	−0.04	0.09	−0.06	−0.09	−0.05	0.60**	—

Note. SES = Session Evaluation Scale; WAI = Working Alliance Inventory; RRI = Real Relationship Inventory; IIP = Inventory of Interpersonal Problems-32; OQ = Outcome Questionnaire-45; C = Client; T = Therapist; Higher scores reflect higher levels of the construct. *N* for correlations = 130 to 132.
* $p < .05$. ** $p < .01$.

Table 5
Fixed Effects for the Relationship Between Therapist's Days-in-Clinic and Postsession Standardized Scores, as Rated by Clients and Therapists

	Coefficient	*SE*	*t*-ratio	*df*
Client rated working alliance, γ_{000}	−0.31	0.08	−4.04***	21
Between-therapists days-in-clinic, γ_{001}	0.12	0.06	1.93	21
Within-therapist days-in-clinic, γ_{010}	0.22	0.08	2.80*	22
IIP, γ_{020}	0.28	0.07	3.87***	22
OQ, γ_{030}	−0.33	0.06	−5.51***	22
Within-client days-in-clinic, γ_{100}	−0.07	0.09	−0.72	22
Client rated real relationship, γ_{000}	−0.25	0.07	−3.67**	21
Between-therapists days-in-clinic, γ_{001}	0.07	0.05	1.28	21
Within-therapist days-in-clinic, γ_{010}	0.22	0.07	3.16**	22
IIP, γ_{020}	0.18	0.08	2.15*	22
OQ, γ_{030}	−0.20	0.05	−3.89***	22
Within-client days-in-clinic, γ_{100}	−0.05	0.05	−0.94	22
Client rated session quality, γ_{000}	−0.03	0.05	−0.54	21
Between-therapists days-in-clinic, γ_{001}	0.04	0.04	1.09	21
Within-therapist days-in-clinic, γ_{010}	0.03	0.05	0.70	22
IIP, γ_{020}	0.15	0.04	3.44**	22
OQ, γ_{030}	−0.21	0.04	−5.60***	22
Within-client days-in-clinic, γ_{100}	0.10	0.02	4.95***	22
Therapist rated working alliance, γ_{000}	−0.36	0.15	−2.44*	20
Between-therapists days-in-clinic, γ_{001}	0.17	0.13	1.36	20
Within-therapist days-in-clinic, γ_{010}	0.19	0.05	3.77**	21
IIP, γ_{020}	0.15	0.06	2.55	21
OQ, γ_{030}	−0.20	0.05	−3.70*	21
Within-client days-in-clinic, γ_{100}	−0.10	0.03	−3.20*	21
Therapist rated real relationship, γ_{000}	−0.20	0.10	−1.97	20
Between-therapists days-in-clinic, γ_{001}	0.04	0.08	0.55	20
Within-therapist days-in-clinic, γ_{010}	0.02	0.06	0.35	21
IIP, γ_{020}	0.08	0.06	1.36	21
OQ, γ_{030}	−0.14	0.06	−2.22*	21
Within-client days-in-clinic, γ_{100}	−0.21	0.05	−3.78**	21
Therapist rated session quality, γ_{000}	−0.14	0.11	−1.31	20
Between-therapists days-in-clinic, γ_{001}	0.07	0.09	0.83	20
Within-therapist days-in-clinic, γ_{010}	0.04	0.03	1.24	21
IIP, γ_{020}	0.12	0.05	2.43*	21
OQ, γ_{030}	−0.11	0.04	−2.58*	21
Within-client days-in-clinic, γ_{100}	−0.03	0.03	−0.82	21

* $p < .05$. ** $p < .01$. *** $p < .001$.

$M = 4.00$, $SD = .75$) than our therapists (third session: $M = 2.27$, $SD = .72$; ninth session: $M = 2.48$, $SD = .62$). Similarly, for CB skills, Hilsenroth et al. (2006) therapists were higher (first client, third session: $M = 1.20$ $SD = .46$; ninth session: $M = 1.00$, $SD = .22$; second client, third session: $M = 1.20$, $SD = .53$; ninth session: $M = 1.20$, $SD = .32$) than our therapists (third session: $M = .69$, $SD = .57$; ninth session: $M = .64$, $SD = .49$). Thus, the therapists in Hilsenroth et al. (2006) were consistently higher in their use of both PI and CB techniques as compared with the therapists in the current study.

We examined the amount of variation in the use of PI and CB skills attributable to between-therapist differences by calculating the intraclass correlation coefficient (ICC) of 2-level models for PI and CB skills used in third and ninth sessions. The ICCs were 0.1886 (third session PI), 0.2492 (third session CB), 0.1663 (ninth session PI), and 0.1925 (ninth session CB), indicating that between

Table 6
Fixed Effects for the Relationship Between Therapist's Days-in-Clinic and Change in IIP and OQ Scores

	Coefficient	*SE*	*t*-ratio	*df*
Client-rated IIP, γ_{00}	−0.07	0.08	−0.8	21
Log transformed time of completion, γ_{10}	−0.11	0.06	−1.99~	21
Therapist's days-in-clinic, γ_{20}	−0.10	0.03	−3.06*	21
Client rated OQ, γ_{00}	0.08	0.09	0.94	21
Log-transformed time of completion, γ_{10}	−0.08	0.04	−1.91~	21
Therapist's days-in-clinic, γ_{20}	−0.02	0.03	−0.93	21

* $p < .05$. ~ $p < .07$.

Table 7
Correlations, Means, and Standard Deviations for PI and CB Technique Use

	M	*SD*	*N*	1	2	3	4	5	6
1. PI subscale third session	2.27	.72	77	—					
2. PI subscale ninth session	2.48	.62	77	.26	—				
3. CB subscale third session	.69	.57	52	.04	−.13	—			
4. CB subscale ninth session	.64	.69	52	−.07	−.28	−.48**	—		
5. IIP at intake	42.12	17.24	75	.24*	.19	−.08	−.03	—	
6. OQ at intake	76.17	19.51	75	.06	−.09	.00	.16	.59**	—

Note. IIP is the client's raw score on the Inventory of Interpersonal Problems-32; OQ-45 is the client's total score on the raw score on the Outcome Questionnaire-45.
* $p < .05$. ** $p < .01$.

16%–25% of the total variances were attributable to differences among therapists. Table 8 presents the fixed effects for the relation between therapist's days-in-clinic and use of PI and CB techniques, controlling for OQ and IIP. The unconditional linear trajectory model was not significant for the PI subscale for either Session 3 or Session 9, indicating no change in the use of psychodynamic/interpersonal techniques across the course of training. The model for the CB subscale was significant for Session 3, $\gamma_{30} = 0.0015$, $SE = 0.00$, $t = 2.58$, $p = .03$, but not for Session 9, indicating that therapists increased in their use of cognitive–behavioral skills in third (but not ninth) sessions with clients.

Changes in self-ratings of abilities. Table 9 shows the means and standard deviations for the retrospective pretraining and current ratings of functioning and the paired-sample *t* test results for changes across time. Of the 24 tests, 11 were significant, using an alpha of $p < .001$ (a Bonferroni adjustment would have been .05/24 = .002). The changes were in helping skills (reflection of feelings, open questions, challenges, interpretation, immediacy, silence) as well as more advanced functioning (confidence, conceptualization ability, dealing with difficult client situations, managing anxiety, and negotiating boundaries). Although trainees reported having been below 5 (the midpoint) on 14 of the 24 items prior to being in the clinic, all ratings were above 5 at the end of their clinic experience. Thus, trainees viewed themselves as having improved substantially over the course of their time in the clinic.

Qualitative data related to changes. For reporting the qualitative results, we use the frequency designations suggested by Hill (2012) of general (eight or nine cases), typical (five to seven cases), and variant (two to four cases). In providing quotes, ellipses are used when material within the quote was deleted to preserve confidentiality or to shorten a statement. In the figures, we show all the findings, but in the text, we describe only those findings that were at least typical. Changes could be divided into three categories: self as therapist, therapeutic ability/skills, and understanding about being a therapist (see Figure 1).

Changes in self as a therapist. Therapists generally felt more self-efficacious in their abilities as therapists. One trainee said:

Table 8
Fixed Effects for the Relationship Between Days-in-Clinic and PI and CB Techniques at the Third and Ninth Sessions

	Coefficient	*SE*	*t*-ratio	*df*
Third session PI subscale, γ_{00}	2.11	0.38	5.49***	10
Between-therapists days-in-clinic, γ_{01}	0.00	0.00	0.48	10
OQ, γ_{10}	0.00	0.01	−0.18	11
IIP, γ_{20}	0.01	0.01	1.18	11
Within-therapist days-in-clinic, γ_{30}	0.00	0.00	0.02	11
Third session CB subscale, γ_{00}	0.96	0.29	3.30**	10
Between-therapists days-in-clinic, γ_{01}	0.00	0.00	−0.86	10
OQ, γ_{10}	0.00	0.01	0.67	11
IIP, γ_{20}	0.00	0.01	−0.66	11
Within-therapist days-in-clinic, γ_{30}	0.00	0.00	2.58*	11
Ninth session PI subscale, γ_{00}	2.29	0.27	8.38***	10
Between-therapists days-in-clinic, γ_{01}	0.00	0.00	0.72	10
OQ, γ_{10}	0.00	0.01	−0.48	11
IIP, γ_{20}	0.00	0.01	−0.02	11
Within-therapist days-in-clinic, γ_{30}	0.00	0.00	0.57	11
Ninth session CB subscale, γ_{00}	0.48	0.25	0.91	10
Between-therapists days-in-clinic, γ_{01}	0.00	0.00	0.84	10
OQ, γ_{10}	0.00	0.01	0.49	11
IIP, γ_{20}	−0.01	0.01	−0.58	11
Within-therapist days-in-clinic, γ_{30}	0.00	0.00	−0.55	11

Note. Coefficient γ_{30} for third session CB subscale = 0.0015.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 9
Means and Standard Deviations for Retrospective Pre and Current Functioning Based on Responses to the Posttraining Questionnaire

	Retro Pre		Current		
	M	*SD*	*M*	*SD*	*t*-tests
Specific basic helping skills					
Approval-reassurance	6.44	1.33	7.33	1.22	−1.51
Restatement	6.33	1.22	7.78	0.83	−3.51
Reflection of feelings	5.78	1.56	7.89	0.78	−5.43*
Open question	6.00	1.12	8.00	0.71	−6.00*
Challenge	4.67	1.00	7.00	0.87	−8.08*
Interpretation	4.44	1.01	7.44	0.73	−9.00*
Self-disclosure	3.89	1.45	6.67	1.22	−3.85
Immediacy	3.89	1.90	7.28	1.15	−6.29*
Information	4.89	1.17	6.67	1.50	−2.87
Direct guidance	4.89	0.93	6.78	1.09	−3.69
Not interrupting	5.56	1.13	7.11	1.05	−3.28
Silence	4.44	1.59	7.22	0.83	−6.93*
Higher-order aspects of being a therapist					
Confidence	4.56	1.67	7.56	0.73	−6.36*
Professionalism	7.00	1.12	7.33	1.32	−.82
Trusting instincts	4.00	2.00	7.11	1.05	−4.23
Conceptualization ability	4.44	1.42	7.44	0.73	−10.39*
Session management	4.89	1.76	7.44	0.73	−4.24
Difficult client situations	4.11	1.45	7.44	0.88	−10.00*
Genuine/empathic/compassionate	6.11	1.45	8.11	1.05	−4.24
Focus on clients instead of self	5.89	1.45	7.89	0.60	−4.24
Manage countertransference	4.22	1.30	6.89	0.93	−4.28
Responsiveness to clients	5.89	1.05	7.56	1.13	−3.54
Manage anxiety	5.00	1.32	7.67	0.71	−7.16*
Negotiate boundaries (time, fees)	4.44	1.51	7.00	0.87	−6.20*

Note. $N = 9$. All items were rated on a 9-point scale where 1 = *deficient*, 5 = *neutral*, 9 = *functioning well*.
* $p < .001$.

> I have definitely become more confident . . . more comfortable being in a room with my clients and dealing with whatever possibilities or issues they might bring up. Confident in that I have the skills to be able to address whatever issues they might bring up . . . and knowing how to help the client in that moment and realizing my limitations to be able to help them as well, and being comfortable to admit that to the client.

Trainees also typically were able to be more authentic in sessions, such that they felt freer to be themselves and act genuinely rather than putting on the professional mask of being a therapist. For example, one trainee said, "I took time to find out in that process what fit me, what didn't, what worked."

Enhanced self-awareness was another change. Therapists indicated that they had more understanding of their own biases, countertransference, anxiety, and emotions. In addition, they were more self-reflective and aware of their strengths and limitations. According to one trainee, "Knowing I have my own agenda, and they may have theirs, and not trying to push mine too quickly without hearing their piece . . . being more tolerant of ambiguities, tolerant of things that they may disagree with me in the sense that I may be less defensive."

Finally, therapists typically indicated that they were increasingly able to be present in the therapy room. They became more comfortable in the role and able to focus on the client rather than being hindered or distracted by their own anxieties (e.g., "Trying to be present and real, and attuned from the beginning and picking up on things that I notice.").

Changes in therapeutic abilities or skills. Therapists generally indicated that they were better able to use therapeutic skills (techniques) in sessions as time went on. They spoke about using specific helping skills (e.g., open question, probes for insights, reflections of feelings, immediacy) appropriately and responsively with clients (e.g., "I really started working on immediacy, kind of the next step, mixed with some challenges and . . . practicing, moderating, tempering, gaining more nuance in my use of immediacy, and improving my open questions, which comes through conceptualization and empathic understanding.").

Trainees were also typically better able to manage countertransference in sessions with clients. They believed that they did not react as defensively, were more able to own their feelings, and were better able to tolerate and manage discomfort. In reaction to angry clients, one trainee said, "In this process of finding myself at times I sort of overcompensated. I used to react to information, whatever rationalization that we can see. But instead of sort of getting more in contact with the difficulties or the anger within myself, or the frustration at times, I would go to the other side and be too nice."

Typically, therapists also felt that they were better at managing the logistics of sessions (e.g., collecting fees, ending on time). They were also more flexible in sessions, trusted the therapeutic process more, and were less rigid and overly prepared. According to one trainee, "In my mind as a beginner there's more tendency to follow some hard and fast rules about what you disclose with your clients. Being able to talk with my supervisors that these are my

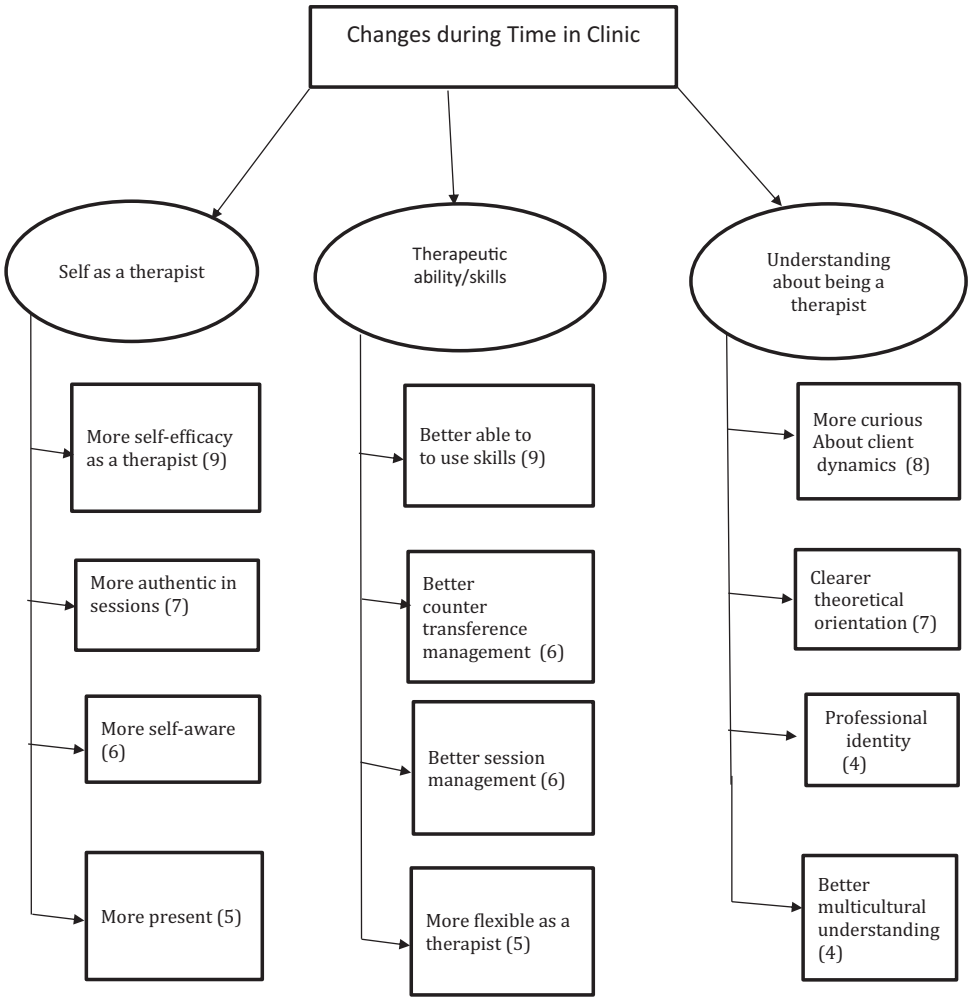

Figure 1. Changes that participants perceive as having been achieved during their externship in the clinic.

own rules and knowing where the client is coming from, I can be a little more flexible with them."

Changes in understanding about being a therapist. Therapists typically indicated that they had become more curious over time about client and relationship dynamics. Rather than taking what clients said at face value, they became interested in searching for deeper meanings. For one trainee, "The questions of insight and of like where, what's going on for the client where is this coming from . . . Really getting curious and being more not just kind of trying to fix the client but being curious about deeper issues." A related change was that trainees typically gained clarity about their theoretical orientation.

Attributions of What Led to Changes

Trainees found two aspects of their training to be helpful: the counseling psychology program and experiences in the clinic. Figure 2 highlights these findings.

Counseling psychology doctoral program. Interviewees believed that their doctoral program helped them learn about becoming a therapist. Within the program, supervision, didactic/instructional experiences, and clinical experiences were all identified as helpful.

Supervision. Supervision generally helped trainees deepen their theoretical orientation, learn skills, and improve conceptualization ability. One trainee stated, "Overall, I'm really lucky. I've had some people who just through their years of clinical experience it was a gift to be with them and to understand this is how you conceptualize, this is how you deal with someone with an eating disorder, this is how you recognize someone with borderline personality disorder." More specifically, trainees said that they had benefited from their supervisors' feedback and guidance.

Counseling coursework (didactic/instructional experiences). Trainees specifically mentioned their helping skills training in their initial theories course (e.g., "It really kind of made me reflect on kind of who I was and what questions were interesting to me. The questions of insight and . . . what's going on for the client, where is this coming from, like, I feel like that's really perpetuated in our training, to really be mindful of that as a base, and whatever it is you want to do, like, whatever you ascribe to theoretically, it kind of like grows from that."). They also found the advanced

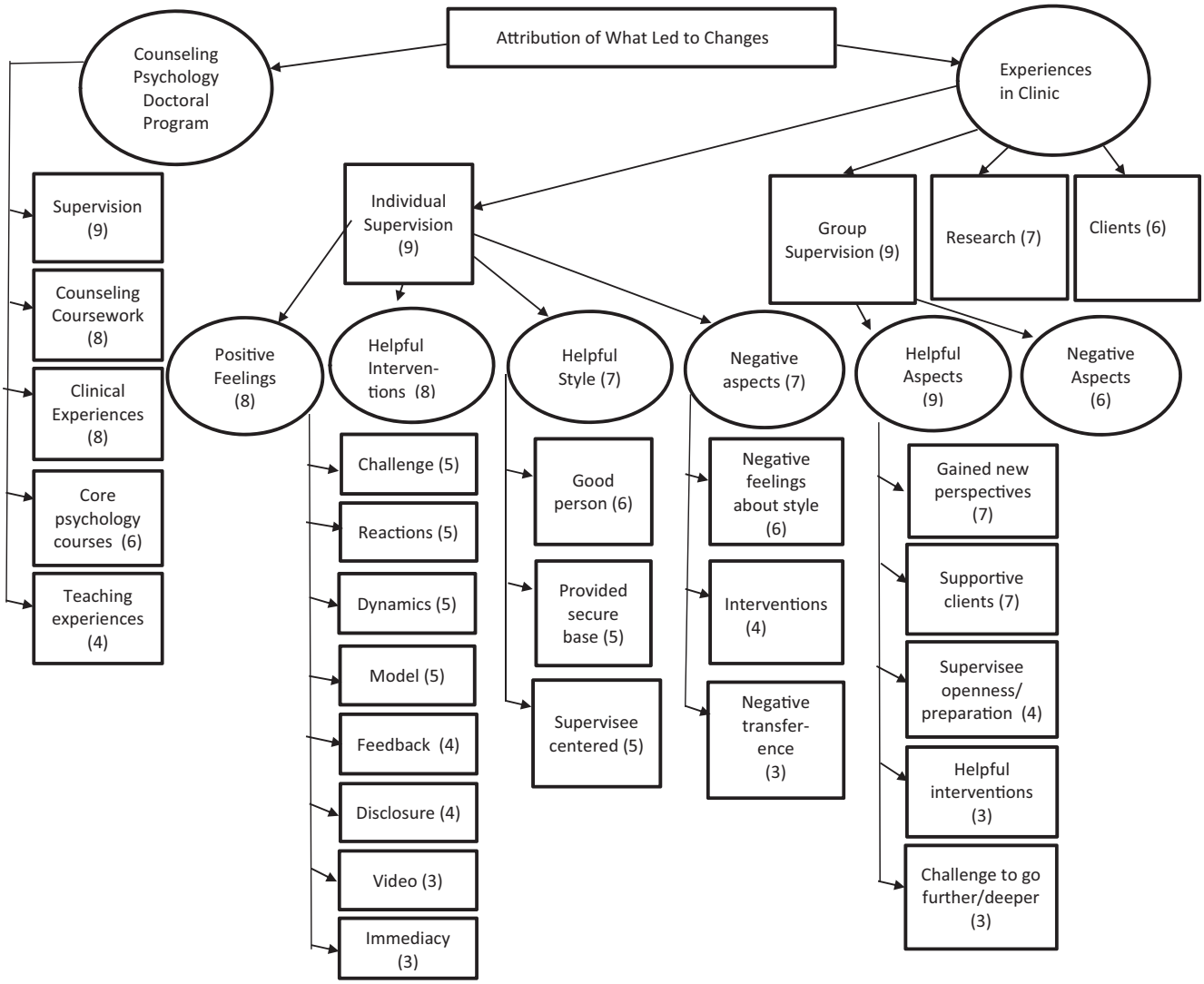

Figure 2. Attribution of what led to changes during time in the clinic.

psychodynamic practicum to be helpful (e.g., "I learned some relational theory . . . as I'm leaving, I feel more strongly toward that, and I experience how these techniques could be used and how that would sort of change a person.").

Clinical experiences outside the clinic. Working with clients generally helped therapists hone their skills. It helped them feel more confident and better able to be open and authentic (e.g., "By having more client experience . . . I learned how to be more open with my clients.").

Core psychology courses. Trainees mentioned that core psychology courses helped them broaden their perspectives and think more deeply about client concerns. Specifically, a course in biopsychology alerted them to possible physical and medical issues that needed to be taken into account, and a course in attachment provided deeper knowledge about family dynamics.

Experiences in the clinic. Trainees also generally attributed changes to their experiences in the clinic. They specifically described the learning from individual supervision, group supervision, participation in the research, and working with clients.

Individual supervision. The trainees talked at great length about their individual supervision in the clinic. In terms of helpful aspects of individual supervision, they generally mentioned positive feelings often calling it a formative experience, generally talked about specific helpful interventions, and typically talked about a helpful supervisor style. In terms of negative aspects, they also typically had negative reactions to things about the supervisor style.

Positive feelings. Trainees generally had positive feelings about their supervision and the supervisory relationship. One trainee described it as, "Meaningful, valuable . . . it's a unique relationship that I feel like you know compared to other supervision relationships, this seems to be a deeper relationship. Not only because I spent more time with [supervisor], but I feel like we went through a lot of challenging cases." They also stressed the importance of the longer-term supervisory relationship that provided opportunities for modeling, stability, and empathy (e.g., "Going to my supervisor every week and learning from her, exposing what I've done (whether that would be good or bad) with her and just

getting the feedback in that regard. And getting the feedback that it's okay if you mess up . . . supervision helped a lot.").

Specific helpful interventions. Trainees generally mentioned specific helpful interventions that their individual supervisors provided. For example, they typically appreciated supervisors challenging them (e.g., "I enjoyed him pushing me . . . if something is up with the clients and there's some kind of countertransference going on toward my client but he will push me, even if I didn't want to go there. I loved that aspect of him.").

Another typical helpful supervisor intervention was focusing on supervisee's reactions to clients. By helping trainees figure out their reactions, supervisors could help trainees deal more effectively with clients (e.g., "She was the one who stayed so steady and wanting to know more about my client and *my* reactions. Very, *very* rarely giving advice.").

Assisting trainees in exploring client dynamics was another typical helpful intervention. Having the chance to talk about their clients helped trainees to develop and implement their conceptualizations of their clients (e.g., "Thinking about client dynamics, thinking about exact things to say. So an example is that she would conceptualize and conceptualize and then she would catch herself and say, 'What do you do with this?' I love that when that happens because that's when I would be writing down notes when the words that you can use to lead them into the conceptual picture that we are building.").

Trainees also typically found it helpful when supervisors modeled what they could do in sessions with clients. For one trainee, "I learned how to be more open with my clients. For example the one who kept asking questions then because [supervisor] was open a little bit about her life I was like, 'Oh okay, it is not a big deal,' and we talked about, you know, when I saw my clients on the street, and she talked about her reactions, and it was very normal as it was for me."

Helpful supervisor style. Trainees described aspects of their individual supervisor's approach or style that they found to be beneficial. First, they typically indicated that their supervisors were good people, exuding qualities such as genuineness, realness, warmth, and niceness (e.g., "I clearly, clearly am very grateful to [supervisor] for not being judgmental, and at times we even tease, and I can even tease, 'Oh, he [client] sucked.' But I think that's the main piece for me because of how that can occur and to be matched from the other side to allow me to grow."). A second aspect of supervisory style that trainees typically found helpful was that supervisors provided a secure base (e.g., "[Supervisor] is like a secure base for me professionally. I mean emotionally she is an anchor . . . I feel like I have a backup."). Trainees also typically thought supervision was centered on their needs (e.g., "She let me find my own way . . . was really empowering.").

Negative aspects about the supervisor style. Trainees also typically mentioned some aspects of their supervisors' style that they did not benefit from or like. One trainee said, "Not much of a real relationship at all. Yeah, even on the e-mails I remember there were no names even saying hello without my name or hi. So it may be my sensitivity, it may be style over e-mail communications but it felt cold even on the e-mails."

Group supervision. In terms of helpful aspects, trainees typically mentioned that group supervision provided them with new perspectives (e.g., "I think I've used group supervision as sort of looking at things in different ways. Last time I was saying how it's been eye-opening for me when I hear all the different perspectives or the different ideas."). Trainees also typically liked the support they received in group supervision (e.g., "I like somebody who is willing to go there . . . because I think that means the other person trusts my power and they believe I can go deeper. If they push me they are coming from somewhere and they know I can handle it, so I love that aspect of it. For group supervision, I think that is one of the best parts of the clinic."). Although no one aspect of group supervision stood out in terms of negative aspects, trainees variantly mentioned things like the size of the group (one year there were nine trainees, whereas other years there were four to five trainees) and feeling vulnerable with peers.

Research participation. Another aspect of trainees' experience at the clinic that they typically described as being helpful was research participation. All trainees were on a research team that qualitatively examined the effects of immediacy in psychotherapy (Hill et al., 2014). One trainee stated, "All the transcripts I've been through, and all the listening, and watching, and close attention to therapy sessions, being able to pick up on clients had a huge impact." Another helpful aspect of the research involved completing measures about the working alliance, real relationship, insight, immediacy, and transference after sessions. According to one trainee:

> The WAI to me seemed very important because I had trouble focusing on goals and tasks and [that] seemed to be the thing that kept me honest. Because I go out of the session and I'd be thinking did we talk about goals? Tasks? . . . That always reminded me, these things are still important. And then, the real relationship, I think I liked filling that one out because I sort of would see how it changed over time. I'd be thinking, I don't remember making these marks like a few weeks ago or a few months ago, especially with clients who would really misperceive things or when I was misperceiving things.

Working with clients. Trainees typically noted the importance of seeing challenging clients from the community, given that it was very different from seeing clients at a college counseling center as they had during practicum. According to one trainee:

> That has been quite a learning curve being at the clinic. I feel more like a private practitioner, because I have a hard time negotiating fees and collecting fees, managing my countertransference, sometimes knowing that the client doesn't really have that much in terms of resources and stuff like that, and to still maintain boundaries. And also kind of being more observant with the nonverbal and the preformed transference . . . Before coming to [the clinic], I definitely didn't see that as important . . . [supervisor] always asked me, "Do you notice that's what [the client] does? Oh yeah? Why?" Being more curious about little things I observe from the client. These are things I did not quite notice before studying with the clinic.

Discussion

Doctoral trainee therapists changed during the course of 12 to 42 months of externship therapy training in a psychodynamic/interpersonal community clinic in a number of ways although they did not change in other ways. In addition, we had considerable support for the attribution of changes being due to graduate training as well as experience in the clinic.

Changes During Training

Over their time in the clinic, trainees were able to form stronger working alliances (as rated by both clients and therapists) and stronger real relationships (as rated by clients), indicating that as therapists progressed in their externship and gained experience, they were better able to form relationships with clients. In addition, over time in training, therapists were better able to facilitate improvement in their clients' interpersonal relationships. Therapists also rated themselves on a posttraining questionnaire as having changed considerably in their ability to use specific skills (e.g., challenges, immediacy) and in higher order functioning (e.g., conceptualization ability, handling difficult client situations) across their time in the clinic.

Qualitative interviews shed some light on these various changes. Trainees believed they had changed in terms of how they viewed themselves as therapists: They felt more self-efficacious, authentic, self-aware, emotionally present, and available to their clients in sessions. They also reported better therapeutic ability, in terms of being better able to use specific skills (e.g., open questions, immediacy), manage countertransference reactions, and manage the logistics of sessions. Trainees also reported a greater understanding of what it means to be a therapist, specifically becoming more curious about clients and relationship dynamics and gaining clarity about their own personal theoretical orientation. And, they noted that their experiences in the clinic enabled them to go to a deep level of skills, primarily because of the long-term nature of the work and because they had to deal with issues such as negotiating fees. All these changes reflect important targets of psychodynamic/interpersonal training.

On the other hand, trainees did not change in terms of therapist- and client-rated session quality, therapist-rated real relationship, engagement of clients after intake or eighth session, or reductions in client's symptomatic distress. It is not clear to us why there were no changes in these variables in comparison with the other variables, although we would emphasize that trainees had considerable experience when they started at the clinic.

Similarly, use of psychodynamic-interpersonal techniques did not change across third and ninth sessions with successive clients. Thus, we were unable to replicate the findings from Hilsenroth et al. (2006), who found a significant increase in therapist use of psychodynamic-interpersonal skills across time in third sessions (though not across ninth sessions). Surprisingly, trainees increased in their use of cognitive–behavioral techniques over time in their third (but not ninth) sessions, which again is not similar to Hilsenroth et al.'s findings on no changes over time. One notable difference between the two sets of findings is that the average scores for both PI and CB skills used by our therapists were lower at both the third and ninth sessions than those in Hilsenroth et al., which may reflect differences in the selection and training of students at the two sites. Given that the CPPS was developed by Hilsenroth et al. (2005), it could be that the measure was more sensitive to the type of training provided at their site. It could also be that we were not training students in a manualized approach at our clinic and thus allowed therapists to be more flexible in their implementation of skills based on what they perceived clients to need (and indeed many clients noted in posttherapy interviews that they would have liked therapists to be more direct and structured in their approach). We should note that there are no benchmarks for the adequate or optimal level of the use of skills, so we have no way of determining whether our therapists were performing adequately or optimally prior to or after training.

In sum, there was considerable evidence that trainees changed in ways that would be expected given the psychodynamic/interpersonal training in which they were engaged at the clinic. It is particularly noteworthy that the major changes were in terms of the therapeutic relationship and client interpersonal functioning. These results add considerably to the literature cited by Hill and Knox (2013), primarily because the changes assessed here were multidimensional, longitudinal in nature (rather than cross-sectional as in most previous studies), and derived through sophisticated statistics which allowed us to examine within-therapist trends.

Attribution of What Led to Changes

Therapists attributed growth to influences within both graduate training (supervision, coursework, clinical experiences) and the clinic (individual supervision, group supervision, research participation, and working with clients). Our findings extend the prior literature (Hill & Knox, 2013) by suggesting *how* or *why* these factors were perceived as influential.

Supervision. Supervision, both within the overall graduate training and within the clinic, was cited by all trainees as an extremely influential factor in their growth. Supervision helped trainees develop and deepen necessary tools and attitudes (e.g., theoretical orientation, conceptualizing ability, clinical skills, etc.) to become successful therapists. Notably, therapists highlighted the influence of their supervisors and the supervisory relationship itself, suggesting that a great deal of the learning about psychotherapy takes place through this important interpersonal experience. Trainees also stressed the benefits of the long-term nature of the relationships they had with their supervisors in the clinic (many stayed with their supervisors more than a year) as compared with having to switch supervisors every semester in previous training experiences.

In individual supervision, trainees appreciated when supervisors challenged them, focused on their reactions to clients, helped them explore and conceptualize client dynamics, and modeled clinical behaviors. It is noteworthy that trainees valued being pushed to go beyond themselves and think deeply about their clients more than just being supported. Trainees also valued supervisors who had good interpersonal qualities (e.g., genuineness, authenticity, warmth), who were able to provide a secure base, and who had a tendency to focus on the supervisee's needs. The fact that the supervisors were cited as a secure base may be related to the sample of trainees, all of whom had been exposed to attachment theory in their graduate work.

Fewer things were cited related to what trainees did not like in individual supervision, and there was not much agreement about things that were cited, suggesting that these issues were idiosyncratic to supervisors and trainees. In terms of supervisors' interventions, some trainees cited getting unhelpful feedback or too many microlevel criticisms. In terms of supervisors' style, one trainee mentioned that the supervisor was intimidating, and another noted that the supervisor was cold and impersonal. We should note that supervisors were carefully chosen for their expertise, and so it is perhaps not surprising that there were not many problems.

In group supervision, trainees valued getting a variety of perspectives from their peers, and they became more comfortable providing feedback to peers, supporting previous research that diverse perspectives provide vicarious learning opportunities (Proctor & Inskipp, 2001). Supervisees also liked the supportive climate where they were able to be open and vulnerable, although they did not like when there were more than five or six trainees in the group. Although previous research looking at group size has been inconclusive (Ray & Altekruse, 2000), this study suggests that, at least for this training site, smaller was better.

These findings suggest that the functions of individual and group supervision may be somewhat different. Trainees spoke mostly about the helpfulness of the individual supervisor's interventions and style, whereas they spoke more about gaining new perspectives and receiving support in group supervision.

Clinical experiences. Clinical experiences, both in the graduate program and in the clinic, were perceived as influential to growth. Specifically in the clinic, therapists liked that they had learned how to conduct intakes, assess client strengths and pathology, negotiate and collect fees, establish and maintain boundaries, trust their instincts, be more open and authentic, and manage countertransference reactions. These findings support those of Stahl et al. (2009) that much of learning for graduate trainees comes from direct experience with clients.

Other influences. Of note, as well, was the emergence of influences within graduate school that have not been described in previous literature. For example, trainees reported that didactic or instructional experiences in their doctoral counseling psychology program helped in the acquisition and maintenance of basic and advance therapeutic skills and helped them develop their theoretical orientation. Core psychology courses in biopsychology and attachment were particularly relevant for students in their clinical work. They also indicated that their experiences being involved in a research team in the clinic contributed to their growth as therapists because they were conducting research on therapist immediacy that was relevant to clinical practice. In addition, they believed that completing measures after every session helped them focus on what had occurred in the sessions. Such synergy between research and practice is an example of what can be done within the scientist-practitioner model to foster trainee growth and interest in clinical work that is informed by research (and vice versa).

Limitations and Implications

One set of limitations relates to the sample. The therapist trainees were all externs at one clinic within one counseling psychology doctoral program, although there was some ethnic diversity. They were not novice trainees, but rather had engaged in helping experiences prior to graduate training and practicum prior to working in the clinic. They were also selected for the clinic because they were psychodynamic/interpersonal in orientation.

Furthermore, trainees were not randomly assigned to training versus no training, so this study was not an experimental test of the effects of training (we cannot rule out threats to internal validity such as maturation and history) and so we cannot make causal inferences. A limitation of the qualitative data in this study was the use of only one interviewer who had been the trainees' professor, group supervisor, and clinic codirector. Trainees seemed comfortable in the interviews and may have opened up more because of the prior relationship and shared knowledge about clients, but results probably would have differed with other interviewers.

In terms of implications, we encourage researchers to conduct longitudinal investigations and to begin these early in training (i.e., in the first helping skills class in either graduate training), given that Hill and Knox (2013) noted that the biggest changes probably occur early in training. In addition, it would be interesting to include ratings by supervisors who have observed trainees closely and thus have a valuable perspective on their development. We also need to look at other more subtle changes that trainees make. For example, trainees may rebound more quickly following problems with clients, be better able to identify and manage countertransference, and detect resistance and severe pathology in clients as they gain experience. Or, as Leon, Martinovich, Lutz, and Lyons (2005) found, therapists may learn from working with clients but only be able to apply these learnings to new clients with similar presenting problems/pathology. Given the qualitative results of more nuanced changes, we suggest developing new measures to assess feelings of authenticity, self-awareness, presence, countertransference management, flexibility, curiosity about client dynamics, clarity of theoretical orientation, professional identity, and multicultural understanding.

In conclusion, we are encouraged that the quantitative and qualitative findings were somewhat similar in showing changes. We suggest that the choice of measures, the longitudinal nature of the data collection, the use of real as opposed to analog clients, and the sophisticated quantitative analyses allowed us to show changes that past researchers were not able to show. We hope that future researchers will conduct longitudinal studies encompassing the entire course of graduate training and include more nuanced theoretically specific measures of change.

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