ABSTRACT

Title of thesis: CHARACTERIZING THERAPIST SELF-DISCLOSURE IN PSYCHODYNAMIC PSYCHOTHERAPY

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This mixed-methods study examined therapist self-disclosure (TSD) in 16 cases of naturalistic therapy to describe how real therapists use self-disclosure with real clients and to explore which characteristics of TSD contribute to its effectiveness. Judges coded 185 TSD events from 115 sessions of psychodynamic psychotherapy for type (facts, feelings, insight, strategy); whether disclosures were reassuring, challenging, both, or neither; intimacy level; quality level; and initiator. Relationships among these characteristics and clients' session outcome ratings (Real Relationship Inventory and Working Alliance Inventory) were examined using Hierarchical Linear Modeling. Likelihood of disclosure occurrence and certain disclosure types and characteristics were related to client post-session ratings of the real relationship and the working alliance. Higher-intimacy disclosures (moderately intimate) were associated with stronger client ratings of the real relationship and the working alliance. It is argued that therapist self-disclosure is multifaceted and complex. Implications for research, training, and practice are discussed.

CHARACTERIZING THERAPIST SELF-DISCLOSURE IN PSYCHODYNAMIC PSYCHOTHERAPY

by

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Introduction

Should therapists share personal information with clients during psychotherapy? This question has long been debated by theorists and practitioners alike (e.g., Freud, 1958; Jourard, 1971; Curtis, 1981; Doster & Nesbitt, 1979; Lane & Hull, 1990; Hill & Knox, 2002). In the past, some argued that therapist self-disclosure (TSD) can impede treatment (Freud, 1958; Greenson, 1967; Curtis, 1982), whereas others argued that it can enhance therapy's effectiveness (Bugental, 1965; Kaiser, 1965; Jourard, 1971; Strassberg, Roback, D'Antonio, & Gabel, 1977; Derlega, Hendrick, Winstead, & Berg, 1991). More current literature, however, indicates that therapists and theorists of various orientations are converging on the belief that TSD can have a variety of beneficial effects if used intentionally and judiciously, and that avoiding disclosure in all circumstances may have detrimental effects on both the client and the therapy (Farber, 2006; Hill et al., 2008; Henretty & Levitt, 2010; Eagle, 2011). Indeed, in his recent analysis of the ethical and clinical considerations surrounding TSD, Barnett (2011) suggested that a policy of rigidly failing to share any personal information with clients could potentially damage the relationship and clients by engendering "a very sterile psychotherapeutic environment" (p. 317).

In their review, Hill and Knox (2002) defined TSD as "therapist statements that reveal something personal about the therapist" and as a "personal self-revelatory statement" (p. 256). For this paper, I use this definition, explicitly *excluding* nonverbal self-disclosures (such as wearing a wedding ring) and immediacy (also known as self-involving disclosures in which the therapist shares with the client "here and now" feelings about the client or the therapeutic relationship).

Although TSD is used infrequently compared to other therapist responses—accounting for about 3.5% of interventions (Hill & Knox, 2002)—more than 90% of therapists reported having disclosed to clients (Henretty & Levitt, 2010; Mathews, 1989; Pope, Tabachnick, & Keith-Spiegel, 1987; Edwards & Murdock, 1994). Though empirical findings are mixed, there is some evidence that TSD can validate reality, reassure and normalize clients, strengthen the working alliance, play a positive or negative role in the real relationship, model appropriate disclosure, and encourage client change (Ain & Gelso, 2008; Hill & Knox, 2002). In addition, clients rated TSD as the most helpful intervention in one study (Hill et al., 1988), and in another (Hanson, 2005) clients indicated that therapist disclosures were likely to be helpful while non-disclosures on the part of the therapist were likely to be unhelpful. As the vast majority of practitioners use self-disclosure, albeit infrequently, and because it is helpful, continued research is called for to provide clinicians with recommendations for how to use the intervention therapeutically. In their guidelines for advancing the study and use of TSD, Gelso and Palma (2011) emphasized the necessity of answering the "'who, what, when, and where' questions" (p. 342) surrounding the intervention's effectiveness.

Additionally, given the prevalence of TSD, understanding how it occurs in therapy may prove important for training programs. A recent study of clinical psychology trainees' experiences with TSD found that trainees and supervisors were reluctant to broach the topic, and confirmed previous findings that training programs did not include discussions about the use of TSD (Bottrill, Pistrang, Barker, & Worrell, 2010; Burkard, Knox, Groen, Perez, & Hess, 2006). Seasoned practitioners and trainees alike

need to be prepared to handle inevitable decisions about when, whether, and what to disclose.

Most research in the area of TSD has used analogue data (see Henretty & Levitt, 2010; Hill & Knox, 2002), using varying definitions of and rating scales for coding self-disclosure, varying "doses" or quantities, and varying experimental manipulations, making it difficult to reach overall conclusions (see Appendix N for details). Nonetheless, analogue and simulated studies offer the benefit of experimentally controlling variables of interest, and their results, though mixed, have provided informative and provocative perspectives, indicating that: 1) students' previous experience in therapy may or may not affect their ratings of TSD types, therapist, and therapy session (i.e., results were mixed); 2) beliefs about the strength of the working alliance prior to TSD may be an important contextual factor that affects students' ratings of TSD events, therapists, and therapy sessions; and 3) TSD (in its varying types) may or may not affect (i.e., results were mixed): a) students' perceptions of "therapist" trustworthiness, expertise, empathy, warmth, credibility, attractiveness, professionalism, and ability to inspire hope; b) students' levels of self-disclosure; c) students' ratings of session smoothness, depth, and positivity; and d) students' helpfulness ratings for TSD (McCarthy & Betz, 1978; Dowd & Boroto, 1982; Hoffman-Graff, 1977; Reynolds & Fischer, 1983; Myers & Hayes, 2006; Yeh & Hayes, 2011). However, many of these studies used non-client (student) volunteers in single brief (e.g., 6-, 10- or 12-minute) sessions, and/or asked participants to respond to recorded or written (analogue) client and/or therapist stimuli, neither of which is a close approximation of actual therapy. It is difficult, if not impossible, to simulate contextual variables such as client and therapist

background, much less the interplay between the two individuals (i.e., the moment-by-moment interactional sequence [Hill, 2009] of therapist intentions and interventions with client reactions, perceptions, and changing needs and goals.)

Research from naturally-occurring psychotherapy has provided rich qualitative retrospective accounts of clients' views on the positive and negative effects of TSD. Some of these studies have compared disclosure in a dichotomous way (e.g., self-involving / self-disclosing, reassuring/challenging, helpful/non-helpful) while others have examined variables such as the helpfulness, amount, and relevance of TSD, and their relationships to treatment process and outcome variables. These findings have also led to intriguing conclusions: 1) TSD can have positive or negative consequences, though positive effects seem more prevalent; 2) TSD influences the quality of the therapeutic relationship and client involvement in therapy and is related to treatment progress and treatment outcome; 3) failure to disclose may be detrimental to the therapeutic alliance; 4) consequences of TSD may be affected by contextual factors such as client expectations and preferences about TSD, the strength of the working alliance before the TSD, and the skill level with which TSD is delivered; and 5) clients assess the therapist's intentions for disclosing and evaluate TSDs for relevance to their issues and therapeutic needs (Hill et al., 1988; Hill et al., 1989; Knox et al., 1997; Barrett & Berman, 2001; Hanson, 2005; Audet & Everall, 2010; Audet, 2011; Ain & Gelso, 2008).

A major problem with previous studies of TSD is that most have included many diverse behaviors under the umbrella of TSD, and have not broken these down into types or components. Given that TSD can range from purely factual data to deeply intimate

revelations, it seems important to explore the variety of behaviors that comprise this intervention.

The overall purpose in the present study was to investigate and describe the occurrence of therapist self-disclosure in open-ended psychodynamic/interpersonal psychotherapy. Understanding how TSD occurs in a naturalistic setting is critical to take into account the myriad nuances of client factors (e.g., presenting problems, perceptions of therapists, desire for closeness/separateness, boundaries, ego strength), therapist factors (e.g., empathy, responsiveness, theoretical orientation), the complex moment-to-moment interaction between the two individuals, and the overall dynamics of their relationship (e.g., strength of real relationship and working alliance, agreement on tasks and goals, transference and countertransference). Little is known about how TSD occurs in actual therapy, but we do know that context and situational factors are extremely influential when it comes to how a client experiences TSD (Farber, 2006; Collins & Miller, 1994), so it is important to understand how the intervention occurs in psychotherapy sessions with real therapists and real clients.

The first purpose was to determine the types of TSD that occurred in naturalistic therapy. Second, I wanted to examine whether TSDs were reassuring, challenging, neither, or both. My third purpose was to determine the average duration of TSD events. My fourth purpose was to examine whether TSD intimacy was related to type, initiator, and whether the TSD was reassuring or challenging. My fifth purpose was to predict client post-session measures (the Real Relationship Inventory and the Working Alliance Inventory) based on TSD occurrence or non-occurrence, intimacy level, and quality. My

sixth purpose was to predict TSD quality by examining TSD type, whether the disclosure was reassuring or challenging, intimacy level, and initiator.

Method

Archival Data

Participants

In this study, 16 cases conducted within a psychology department clinic that provided open-ended psychotherapy to community clients for a low fee were analyzed. Cases were selected in which therapists and clients met for at least 8 sessions past intake (given that I wanted to examine open-ended [i.e., not time-limited] therapy, and also because process data [e.g., Working Alliance Inventory and Real Relationship Inventory] existed on all cases after every 8 sessions), including cases with planned and unplanned terminations. Data were collected over a three-year period, and only those cases that were completed were included in this study. Number of sessions per case ranged from 11 to 60 ($M = 24.44$, $SD = 12.57$).

Therapists. Nine (5 female, 4 male; 5 European Americans, 1 Asian American, 1 Asian international, 1 Chilean international, 1 African American) doctoral students ranging in age from 26 to 50 years ($M = 31.78$, $SD = 7.46$) who were in their 2nd to 5th year of a counseling psychology doctoral program served as therapists in this study. All had completed at least two psychotherapy practica before working in the clinic. Therapists participated in bi-weekly group supervision and weekly individual supervision. Therapists worked in the clinic for 1 to 3 years, and saw 1 to 3 of the clients included in this study.

Clients. Sixteen (8 female, 8 male; 11 European American, 3 Hispanic American, 1 African American, 1 Asian American) clients, ranging in age from 21 to 60 years ($M = 34.56$, $SD = 12.77$) at the time of intake, participated in the current study. In

terms of presenting problems described during screening (some described more than one), 11 cited relationship concerns, 5 cited anxiety or depression, 1 cited career concerns, 1 cited coming out, and 1 cited immigration issues. To be eligible for services at the clinic, the clients had to be experiencing interpersonal problems that they wanted to address in therapy. Potential participants were excluded if they were under 18 years of age, experiencing alcohol or drug abuse, psychosis, or suicidal threats, or if they were currently in individual therapy elsewhere. Those taking psychotropic medications had been stable on their medications for at least 2 months.

Measures

Real Relationship Inventory – Client. This 12-item self-report is based on the 24-item measure (RRI-C; Kelley, Gelso, Fuertes, Marmarosh, & Lanier, 2010) designed to assess client perceptions of the real relationship. Clients use a 5-point Likert-type scale from strongly disagree (1) to strongly agree (5) to describe their views about the strength of the relationship, its realism, and its genuineness. The RRI-C has been found to relate to other variables and to treatment progress and outcome in theoretically predicted ways (Lo Coco, Gullo, Prestano, & Gelso, 2011), and high internal consistency has been found in previous studies (e.g., Fuertes, Mislowack, Brown, Shovel, Wilkinson, & Gelso, 2007; Marmarosh, Gelso, Markin, & Majors, 2009). The 12 items from the Hill et al. (under review) study of immediacy with these same cases were used; internal consistency (alpha) for the present sample was .91. See Appendix A for the 12-item client version of the measure.

Working Alliance Inventory – Short Revised. This measure (WAI-SR; Hatcher & Gillaspy, 2006), a revision developed using extensive factor analyses of the 36-item

Working Alliance Inventory (Horvath & Greenburg, 1989), is a 12-item self-report designed to assess client perceptions of the working alliance. Clients use a 5-point Likert-type scale from seldom (1) to always (5) to describe their views about the therapeutic relationship. Hatcher and Gillaspy (2006) reported that the total scale and each subscale (bond, task, goal) were related to other alliance measures and had adequate internal consistency ($\alpha > .85$). The internal consistency (alpha) for the present study was .91. See Appendix B for the measure.

Procedures

Recruiting. Clients were recruited through announcements in local newspapers, flyers sent to local therapists and local agencies, an Internet website, and word of mouth. Therapists were recruited via announcements in the doctoral program housing the clinic.

Screening and Intake. When potential clients contacted the clinic, they were given a brief phone screening to determine eligibility. Those who were eligible were scheduled for an intake, during which time they signed a consent form and were interviewed by a therapist with continued attention given to eligibility for services at the clinic. If eligible, the intake therapist then assessed whether the person (a) was willing to be videotaped, (b) was willing to work on relational aspects of her/his problems, (c) was willing and able to pay the fee, and (d) was willing to work with the therapist who completed the intake. Clients and therapists were assigned code numbers for all data to protect confidentiality. Those people who were not eligible at any step of the process were offered referrals to other mental health providers.

Treatment. Therapist trainees conducted sessions from a psychodynamic/interpersonal orientation. Most sessions were 45-60 minutes in length.

Therapists met with clients weekly, twice a week, or for double sessions (90-120 minutes in length). No limit was placed on the number of sessions, other than therapist availability. Seven of the 16 cases were terminated when therapists' externships in the clinic ended. Clients could occasionally bring in significant others, as was deemed appropriate by therapist trainees in consultation with their supervisors. All sessions were videotaped. Following all sessions (including the intake), clients completed the Real Relationship Inventory and the Working Alliance Inventory. Both clients and therapists completed other measures not included in the current study.

Current Study

Judges

All judges except the first author were undergraduate psychology majors working as research assistants in the clinic. Clinic research assistant candidates were interviewed and evaluated on the basis of grade point average (minimum: 3.25), interest in psychotherapy, professionalism, and motivation. All research assistants had completed at least three psychology courses and an online basic ethics course for those conducting human subjects research. Aside from conducting coding for this study as described below, research assistants' responsibilities in the clinic included watching and transcribing therapy sessions. They received course credit and a grade for their work in the clinic.

Phase 1. Phase 1 judges were 21 clinic research assistants in the clinic (15 females and 6 males; 15 psychology majors, 2 psychology-philosophy double majors, 1 psychology-English double major, 3 unknown; 19 to 25 years old; 12 European Americans, 1 African American, 1 Hispanic/White American, 2 Middle Eastern, 2 Asian

Americans/Pacific Islanders, 2 unknown; 3 sophomores, 7 juniors, 11 seniors), who individually reviewed sessions and identified instances of various events, including therapist self-disclosure.

Phase 2. Phase 2 judges were 6 research assistants in the clinic (a subset of the Phase 1 judges) and the first author (all female psychology majors, one with a double major in philosophy; 1 19 years old, 2 20 years old, 1 21 years old, 1 22 years old, 1 25 years old, 1 41 years old; 4 European Americans, 1 African American, 1 Hispanic/White American, 1 Asian American/Pacific Islander; 1 sophomore, 2 juniors, 2 seniors, 2 post-baccalaureates). The mean grade point average for Phase 2 judges when the project began was 3.74 (*SD* = 0.31; ranging from 3.25 to 4.0; mode = 4.0.)

Phase 2 judges were very invested in the research and said that they enjoyed the task. They all brought training materials and definitions to each meeting and referenced them regularly to address questions. If either team could not resolve a question (e.g., "Is this really therapist self-disclosure?"), the first author consulted with her advisor, a 64-year-old female European-American professor of psychology and practicing psychologist experienced with therapist self-disclosure research and consensual qualitative research (CQR; Hill, 2012).

Biases. In CQR (Hill, 2012), researchers discuss the opinions and personal biases they bring to the research topic as a way of attempting to "bracket" them, or set them aside, in hopes of achieving a higher level of objectivity when evaluating the data (Hill et al., 2005). Phase 2 judges' expectations and biases were discussed before coding began, and are reported here briefly to enable readers to evaluate these findings in context.

Prior experience with and opinion of therapist self-disclosure. Of the 7 Phase 2 coders, 6 had heard about therapist self-disclosure in psychology classes and 6 had heard of it in the clinic while serving as Phase 1 judges. Of these, 4 reported having learned it was not always a good thing for therapists to do, but that it could be beneficial on occasion. One of these indicated that she "accepted the mainstream reasoning that it's best for therapists not to disclose," but also acknowledged that she thought her "therapist's reluctance to disclose (in her personal therapy) had the effect of creating distance and power imbalance between us." The remaining three judges viewed TSD more favorably. One suggested that "it humanizes the therapist and it helps the client relate to the therapist." Another indicated, "TSD could be very useful, especially for establishing rapport with the client…and allows a relationship to genuinely develop." The final judge said she "had a bias for self-disclosure as a way to genuinely connect with the client." All 7 judges believed that excessive disclosure on the part of the therapist could be harmful.

Prior experience / familiarity with Helping Skills (Hill, 2009). Three Phase 2 judges had taken Basic Helping Skills or a peer counseling class that used the Hill (2009) text book; two took Basic Helping Skills while working on this project. The two judges who had not taken Basic Helping Skills had experience viewing, transcribing, and coding therapy sessions in the clinic.

Prior experience coding or watching therapy sessions. All of the Phase 2 judges had experience watching and coding videotaped therapy sessions in the clinic or in another lab before the project began.

Prior experience in personal therapy or as a volunteer client for therapists in training. Of the 7 judges, 4 had been in personal therapy and/or served as a volunteer client for a therapist in training.

Measures

Self-disclosure definition. Definitions of self-disclosure have changed over the years. For the current study, I used Knox and Hill's (2003) typology and definition for therapist self-disclosure (see Appendix C). Specifically, self-disclosure was defined as "therapist statements that reveal something personal about the therapist." Both nonverbal self-disclosures (such as wearing a wedding ring) and immediacy (also known as self-involving disclosures, in which the therapist shares with the client "here and now" feelings about the client or the therapeutic relationship) were explicitly excluded. (Note: a study of the occurrence of immediacy in the 16 cases included in this study was conducted. See Appendix L for a summary.) Coders were given a handout with detailed explanations of TSD, including examples for disclosures of feeling, insight, and strategies. See Appendix K for the handout.

Self-disclosure types. The interventions identified as TSD were coded as disclosure of: (a) facts (i.e., factual information such as the institution from which the practitioner earned his or her degree), (b) feelings (i.e., therapists sharing actual or hypothetical emotions experienced when in a similar situation to what the client is experiencing), (c) insight (i.e., realizations therapists had about themselves when facing a similar situation to what the client is experiencing), and (d) strategy (i.e., methods therapists have used to handle difficulties or solve problems similar to those being

discussed in therapy). (Adapted from Hill & Knox, 2001). See Appendix C for examples of disclosure types.

Reassuring/challenging dimension. To measure each disclosure event on whether it was reassuring or challenging, a single item that was rated on a 4-point scale (neither, reassuring, challenging, both) was used. Each TSD event was coded on this dimension based on judges' interpretation of the therapist's intention for the intervention.

Duration. The measure developed for this study identified the length (duration) of self-disclosure events. The therapist's actual speaking time was calculated for each TSD event (whether within a single speaking turn or across speaking turns if on the same subject).

Intimacy. To measure the level of intimacy of the information in each disclosure event, a single item that was rated on a 9-point Likert-type scale (1 = low or not at all intimate, 5 = medium or moderately intimate, 9 = high or very intimate) was used. This measure—which was modeled after the Helpfulness Scale (Elliott, 1985), an instrument widely used in counseling research—was previously used by Kim et al. (2003) in a study of TSD and counseling process with East Asian clients. Before the teams began coding, the judges collaboratively developed anchors on the intimacy scale to serve as a guide (e.g., professional qualifications = 1, insecurity/needing help [e.g., fear of public speaking] = 3; personal hardship/emotional struggle = 5; social stigma [e.g., suicide, drug addiction, sexual issues, illegality] = 9). When evaluating intimacy, judges considered: a) the level of intimacy of the disclosure content (e.g., low-intimacy content: everyday mundane such as late because of traffic or parking, professional or educational history; medium-intimacy content: insecurity or needing help, fear of public speaking, personal

hardship, emotional struggle; high-intimacy content: suicide, drug addiction, sexuality, illegal activity, anything related to social stigma), b) the amount of information shared, c) the emotional context of the TSD and d) the therapist's vulnerability (i.e., whether the therapist seemed comfortable sharing the information and whether the information might put the therapist at risk by possibly altering the client's view of the therapist).

Quality. The measure developed for this study identified the level of quality of each disclosure event on a 3-point scale (low quality, medium or moderate level of quality, high quality). When rating quality, judges considered: a) whether the disclosure was reciprocal (i.e., was in response to a similar client disclosure, as defined by Barrett and Berman, 2001) b) whether it benefited the relationship between the client and therapist or contributed to the therapeutic bond, and c) whether it was relevant to the therapeutic work (i.e., the client's issues).

Initiation. The measure developed for this study identified the initiator of TSD (client or therapist). Raters determined whether the client initiated the disclosure (i.e., asked for the disclosure from the therapist) or the therapist offered the disclosure without being asked.

Return of focus. This (yes/no) scale was developed for this study to assess whether the focus of the session returned to the client following a therapist's self-disclosure.

Procedures

Phase 1. ***Recruiting.*** Judges (undergraduate psychology major research assistants) were recruited initially by self-selection when they expressed interest in being

a research assistant for the clinic in which the study took place. All clinic research assistants participated in Phase 1 coding.

Training. Undergraduate research assistants read definitions of the events to be coded, which included "client asking therapist for disclosure," "therapist disclosing," and other events not included in this study. (Other events were being coded for other studies and may be found in Appendix D.) They then met as a group for a 3-hour workshop to discuss how to code recorded therapy sessions. During the workshop they viewed DVDs of therapy sessions not included in the sample for this study that showed clinical examples of the events to be coded. They practiced individually coding the events using a standard coding sheet (see Appendix D). Additional meetings were held as needed to review any questions that arose during individual coding. Phase 1 judges consulted each other, the first author, and clinic therapists in training to help resolve coding questions.

Coding process. Each judge individually viewed DVDs of therapy sessions from among the 16 cases as assigned by the first author, and coded the presence of self-disclosure events and other events not included in this study (such as laughter and crying, see Appendix D for details). Research assistants used the coding sheet to note session start and stop times and to calculate session duration. They also identified start times, stop times, and duration for each of the events being coded. Finally, they wrote a brief narrative description summarizing the content of each event.

Phase 2. ***Selection.*** Phase 2 judges were selected from the group of 21 Phase 1 judges based on the diligence, attention to detail, ability to understand abstract concepts, and interpersonal skills they exhibited in their work as clinic research assistants, as well as expression of interest in the topic. The intention was that Phase 2 judges be generally

informed about psychotherapy but that they also evaluate the TSD events in question with as few preconceptions as possible (i.e., without a major bias for or against TSD or a detailed understanding or opinion regarding the role it might play in therapy), as is important in qualitative research (Hallberg, 2006).

Training. Phase 2 judges had all received Phase 1 training and all but one had prior experience conducting Phase 1 coding. Phase 2 training began by first reading summary articles describing self-disclosure (Knox & Hill, 2003; Hill & Knox, 2002). Each team (both teams included 3 judges and the first author) then met as a group for two 3-hour workshops to discuss the intervention, how to recognize it, and how it might be applied in therapy. Then each team viewed videos of therapy sessions not included in the sample for this study. Examples of each type of self-disclosure were included (see Appendix D for types), and the team members practiced coding these disclosures consensually. They also practiced working together to write qualitative descriptions of self-disclosure events (see Appendix F, Event Summary section).

Coding process. In an effort to achieve in-depth examination of TSD occurrence and a rich perspective on the data, I adopted some guidelines used in consensual qualitative research for case study research (CQR–C; Jackson et al., 2012) to collect the data and construct the findings.

Because the study's aims were to obtain a nuanced perspective on TSD and to begin to understand more about its qualities, I valued diverse opinions and accordingly used several judges during the initial coding step of Phase 2. Decisions made by consensus have been shown to be higher in quality as a result of diverse views being considered (Michaelsen, Watson, & Black, 1989; Sundstrom, Busby, & Bobrow, 1997;

Miller, 1989), so *final* "judgments about the meaning of the data" (Hill et al., 2005, p. 196) were established through consensus among the judges. This approach provided a rigorous process for examining the data and allowed consideration of multiple perspectives.

Following recommendations by Jackson et al. (2012) that there be 4 to 6 members on CQR–C teams both to ensure sufficient diversity of perspectives and to compensate for not having an auditor, Phase 2 judges were grouped into two teams of 4 (the first author participated on both teams to keep consistency across teams). Each team worked together to consensually code self-disclosure events in 8 of the 16 cases. Each team began by watching the intake session or reading the therapist's session notes for the case to gain an understanding of the case. Then the team viewed the events identified in Phase 1 as TSD, in the order in which they occurred in therapy (i.e., events in session 2 were watched before those in session 3) for purposes of continuity. After the team members watched an event, judges first confirmed whether it was indeed a self-disclosure event, especially making sure it was not an immediacy event. If the judges agreed the event *was not* a therapist self-disclosure (i.e., it was mistakenly coded in Phase 1), they moved on to the next TSD on the list. If the judges agreed the event *was* a self-disclosure, the team rewound the DVD, watched the 10 minutes before the event occurred, *and* re-watched the event itself.

Narrative description. Once a TSD was identified, the first author coded the start time (when within the session the event occurred) and end time, as well as speaking time for both client and therapist during the event. Next the judges worked together to describe each event in narrative form (including what was happening just before the

event, the content of the TSD itself, and the effect of the TSD event on the client). This collaboratively-developed narrative was projected on a screen in the room so all team members could contribute to and modify the description. The coding teams found it was most effective to write the narrative description first, before coding the event, because doing so ensured that judges watched the event enough times to get the sequence of events clear in the narrative summary *before* coding, rather than having each team member coding the event based on her (often flawed) memory of the sequence of events. The narrative description provided a reference point for coding each event and avoided confusion and the need to go back and recode events after having initially coded them based on inaccurate recollection.

Coding the event. After finalization of the narrative description, variables were coded independently by each judge in the following order: type, reassuring/challenging, intimacy level, quality level, initiator, and whether focus returned to the client after the therapist's disclosure. Once the independent ratings had been done, team members' individual ratings were entered into an electronic spreadsheet and projected onto a screen in the room so all team members could see all the ratings during the discussion. The team members rotated who shared her rating first for each event to avoid having the same team member always go first or last, and to safeguard against domination of the conversation by more persuasive or opinionated members. Next, each team member explained her rationale for the rating she gave, without any reaction from other team members.

Discussion. Once each team member had shared her initial thoughts and rationale, team members discussed their perspectives and stated why they agreed or

disagreed with other team members. Before coding began and repeatedly throughout Phase 2, the team discussed the importance of ensuring that each individual member was given the opportunity to fully participate in the discussion and that no individual or combination of individuals exert undue influence on the final ratings. The first author, who participated on both teams, made a special effort to ensure that each team member (first author included) both expressed her perspective fully and listened to others respectfully.

Constant comparative process. Adapting a constant comparative process from grounded theory research (Hallberg, 2006), the event being coded was compared to previously coded events to ensure consistency of rating within each scale. This was especially useful for the intimacy and quality scales (e.g., "Do we all agree that this event was higher in intimacy than X event but lower than Y event?").

We created a "histogram" to use as a tool in coding intimacy level. Level of intimacy was on the horizontal axis, with 1 = low on the far left and 7 = high on the far right. The vertical axis indicated quantity of TSD events. After each event was coded, the coding team created a short-hand code for that disclosure event with the case number, session number, disclosure number, and an identifying phrase (e.g., "#13009, 24, #3, Hanukkah") and positioned the disclosure on the "histogram" according to its respective consensual intimacy rating (e.g., "2"). Then, using a constant comparative process (Hallberg, 2006), as judges reviewed and coded each disclosure for intimacy level, we also compared the disclosure being coded to all the previously-coded disclosures to ensure we were assigning an appropriate intimacy level. When all the disclosures had been coded and positioned on the intimacy "histogram," the number of disclosures in

each "bucket" was also a visual indicator of frequency for different intimacy levels. See Appendix G for the intimacy histogram. I found this to be an extremely helpful approach and highly recommend that others apply a similar constant comparative process to prevent rater "drift" when coding multiple events over a long period of time.

Similarly, for quality I created a "histogram" with level of quality (low on the left, medium in the middle, high on the right) on the horizontal axis. As before, the vertical axis indicated quantity of TSD events. After judges coded each event, we created a short-hand code for that disclosure event with the case number, session number, disclosure number, and an identifying phrase (e.g., "#13009, 24, #3, Hanukkah") and positioned the disclosure on the "histogram" according to its respective consensual quality rating (e.g., "medium"). As judges reviewed and coded each disclosure for quality level, we also compared the disclosure being coded to all the previously-coded disclosures to ensure we were assigning an appropriate quality level. See Appendix H for the quality histogram.

Achieving consensus. Consensus was reached quickly for some disclosures (e.g., coding an event as a factual disclosure was typically relatively straightforward, with all team members agreeing and little need for discussion), but only after considerable discussion for others (e.g., some events took nearly an hour to code). Final consensus ratings for each event were documented in the electronic spreadsheet.

Case summary. Finally, after viewing all TSD events for a specific dyad, the coding team consensually wrote a summary of how therapist self-disclosure was used within the entire case, projecting the in-progress description on a screen so all team members could participate in developing the summary.

The teams met for a total of 135 hours, combined (135 hours x 4 team members in each team = 540 hours if counting total number of person-hours spent) to code 185 disclosures.

Results

First I describe the data overall, answering research questions that were descriptive in nature (descriptive results are summarized in Table 1). Then, I explain why Hierarchical Linear Modeling (HLM) was used to analyze the results; describe the levels of analyses and how variance was distributed among those levels (see Table 2 and Table 4, respectively); provide a sample empty model; and present 8 tables summarizing the results of statistical analyses at level 1 (between events), level 2 (between sessions), and level 3 (between clients). Table 2 summarizes the variables at each level of the hierarchical model. Table 3 provides an overview of the variables and research questions addressed in Tables 5 through 11, which summarize how variables were related; these tables are organized by level of analysis. In some cases, answers to research questions are presented out of order to keep related results together (e.g., answers to research questions 1e through 1g are presented in Table 5 with other intimacy-related findings; see Table 3).

Alpha was set at 0.05 for statistical analyses, and only significant results ($p < 0.05$) are discussed in the narrative.

Description of Therapist Self-Disclosure Events

The data set consisted of video recordings from 16 therapy dyads (with 9 therapists, each seeing 1 to 3 clients), comprising a total of 360 sessions (ranging from 11 to 60 sessions per case, including intake sessions) that had both Working Alliance Inventory and Real Relationship Inventory data and audible videotapes. For the case with 60 sessions, sessions 21–25, 31–35, 41–45, and 51–55 were eliminated to make the number of sessions across cases more equivalent. Of the 360 sessions in the sample, 115

sessions included at least one therapist self-disclosure event (ranging from 1 to 29 self-disclosure events per case). Table 1 summarizes descriptive data for the self-disclosure events in the sample.

Research Question 1: *How many TSD events occurred?*

To determine how many TSD events occurred (per session and per case), a mean and a standard deviation for each case were computed. To control for the varying number of sessions across cases, I first computed the mean number of events for each case (i.e., total number of events in case / number of sessions), and then computed the average across cases. Within the 115 sessions in which therapist self-disclosure occurred, there were a total of 185 therapist self-disclosure events (ranging from 1 to 7 events per session, with 71 of the 115 sessions, 62%, containing only 1 event). The average number of therapist self-disclosure events per session across the 16 cases was 0.45 (*SD* = 0.31, ranging from 0.08 to 1.50 per session per case). Hence, in terms of overall frequency, approximately 1 self-disclosure occurred every other session, on average.

Table 1
Description of Therapist Self-Disclosure Events Across 16 Cases

	Mean	*SD*	*Min.*	*Max.*	*Range of Scale*
Type					
Facts	0.26	0.22	0.04	0.88	0 = did not occur, 1 = did occur
Feelings	0.11	0.12	0.00	0.46	0 = did not occur, 1 = did occur
Insight	0.07	0.08	0.00	0.23	0 = did not occur, 1 = did occur
Strategy	0.01	0.04	0.00	0.13	0 = did not occur, 1 = did occur
Reassuring/Challenging					
Reassuring	0.09	0.10	0.00	0.29	0 = did not occur, 1 = did occur
Challenging	0.03	0.04	0.00	0.14	0 = did not occur, 1 = did occur
Both	0.11	0.11	0.00	0.36	0 = did not occur, 1 = did occur
Neither	0.23	0.18	0.04	0.75	0 = did not occur, 1 = did occur
Duration	11.03	12.33	1.00	75.00	0 to 75 seconds
Intimacy	2.46	0.65	1.00	3.67	1 = low or not at all intimate, 5 = medium or moderately intimate, 9 = high or very intimate
Focus returned to client	0.96	0.07	0.82	1.00	0 = focus not returned, 1 = focus returned
Quality	0.70	0.43	0.00	1.56	0 = low quality, 1 = medium quality, 2 = high quality
RRI	4.05	0.29	3.53	4.53	1 = weakest, 5 = strongest
WAI	3.79	0.37	2.28	4.22	1 = weakest, 5 = strongest

Note. RRI = Real Relationship Inventory. WAI = Working Alliance Inventory. SD = standard deviation. Min. = minimum, Max. = maximum.

Research Question 1a: *Do some types (facts, feelings, insight, strategy) of TSD occur more than others?*

To determine whether some types (facts, feelings, insight, strategy) of TSD occurred more than others, means and standard deviations for each type across cases were computed. The average numbers of therapist self-disclosure events per session across the 16 cases, by type, were: *facts* = 0.26 (*SD* = 0.22) (e.g., "I minored in Spanish in college."); *feelings* = 0.11 (*SD* = 0.12) (e.g., "I can imagine feeling sad in those younger days and wanting the relationship to be different. I may also perhaps feel angry."); *insight* = 0.07 *(SD* = 0.08) (e.g., "The expectation serves a protective function. I know that my expectations for people affect how I am in relationships."); and *strategy* = 0.01 (*SD* = 0.04) (e.g., "Sometimes I think it helps me to think, 'What's good enough?' as opposed to, 'What's perfect?'").

A between groups repeated measures analysis of variance (ANOVA) was conducted to determine whether the four disclosure types (facts, feelings, insight, strategy) occurred with different frequencies. Mauchly's test indicated that the assumption of sphericity had been violated, $\chi^2(5) = 17.57$, $p = 0.004$, therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\epsilon = 0.57$). The results showed that there was a significant effect of disclosure type on occurrence, $F(1.72, 25.72) = 12.95$, $p < 0.001$. Post hoc tests using the Bonferroni correction for multiple comparisons revealed that disclosures of facts and disclosures of feelings occurred equally often ($p = 0.07$). Disclosures of facts occurred more often than disclosures of insight ($p = 0.01$) and disclosures of strategy ($p = 0.002$). Occurrence of disclosures of feelings did not differ significantly from insight ($p = 0.77$) or strategy

($p = 0.07$). Likewise, disclosures of insight and disclosures of strategy did not differ significantly ($p = 0.11$).

Research Question 1b: *Do TSD events that are reassuring, challenging, both, or neither occur with different frequencies?*

To determine whether TSD events that are reassuring, challenging, both, or neither occurred with different frequencies, means and standard deviations across cases were computed. The average numbers of therapist self-disclosure events per session across the 16 cases were: *neither* = 0.23 (*SD* = 0.18) (e.g., "I would feel more comfortable if you had met the [new] therapist first. I would not want to talk about you to a stranger."); *both* = 0.11 (*SD* = 0.11) (e.g., "I have two friends who are married and 30 years old who are moving in with parents. They are educated people and have jobs."); *reassuring* = 0.09 (*SD* = 0.10) (e.g., "You're really excited about staying home all day and watching TV. That's something I can relate to. Anything one enjoys is not a waste of time."); and *challenging* = 0.03 (*SD* = 0.04) (e.g., "If I were in therapy it would affect me if I thought the therapist weren't genuinely interested in me and didn't care about me.").

A between groups repeated measures ANOVA was conducted to determine whether the four types (reassuring, challenging, neither, both) occurred with different frequencies. Mauchly's test indicated that the assumption of sphericity had been met $\chi^2(5) = 9.59$,

($p = 0.088$). There was a significant difference among the four types in terms of occurrence, $F(3, 45) = 9.39$, $p < 0.001$. Post hoc tests using the Bonferroni correction for multiple comparisons revealed that disclosures that were *neither* reassuring nor

challenging occurred most often, and significantly more often than disclosures that were *challenging* ($p = 0.004$). However, *neither* disclosures did not differ significantly from disclosures that were *reassuring* ($p = 0.06$) or disclosures that were *both* reassuring and challenging ($p = 0.30$). Disclosures that were *both* reassuring and challenging occurred significantly more often than did challenging disclosures ($p = 0.041$). Disclosures that were *reassuring* did not differ significantly from *challenging* disclosures ($p = 0.187$) or from disclosures that were *both* reassuring and challenging ($p = 1.00$).

Research Question 1c: *What is the average duration of TSD events?*

The average therapist speaking time (duration) for an event across cases was 11.03 seconds (*SD* = 12.33 seconds, ranging from 1 second to 75 seconds per event). This figure was the average of averages across cases.

Research Question 1d: *What is the average level of intimacy of TSD events?*

To determine the average intimacy level of TSD events, the average was computed by case and then across cases. On a 9-point Likert-type scale ranging from 1 (*least intimate)* to 9 (*most intimate*), the average intimacy rating for an event across cases was 2.46 (*SD* = 0.65). The majority (82%) of events were rated as low intimacy (levels 1 to 3). There were no disclosures rated 8 or 9 on the scale, so the sample did not include any disclosures the judges considered to be extremely intimate. Examples of disclosures at different levels of intimacy (from six different cases) follow:

- 1 = "I know a little about the process of applying to law school. I know a lot of people who have applied to law school and am familiar with the process, but I don't have personal experience with it."

- 2 = “I can imagine being nervous about meeting someone for the first time. I would be a little nervous.”
- 3 = “I am surprised you have a canvassing job. ...I see people doing that all the time and I think, ‘Wow, I don't think I could do that.’ You have to really put yourself out there. ...I don't know how I would be at that job.”
- 4 = “I don’t have a lot of experience with European men, but I know some, and they have a very different attitude toward women than American men do. I see a strange power dynamic with them and find them very sexist.”
- 5 = “I agree (that Asian women typically are not comfortable talking about sex and infidelity). Two years ago, when I started practicing, I would have been uncomfortable, but now I am more comfortable.”
- 6 = “I’m being judgmental, but from my perspective that’s extremely harsh for a family member to do that to you.”
- 7 = “I am in a similar process of trying to figure out the broader picture of who I am, what the meaning of life is, what kind of person I want to be, what kind of person I am striving to become. I can understand and relate to your ‘urgentness,’ because I have a sense of really wanting to find my answer.”

The analyses for research questions 1e through 1 g are reported later in the Results given that they were analyzed along with research question 2 using HLM.

Research Question 1h: *How much do therapists vs. clients initiate TSD?*

To determine how much therapists vs. clients initiated TSD, the average percentage of events initiated by the therapist per case across cases was calculated. Therapists initiated an average of 76% (*SD* = 30%) of disclosure events across cases

(ranging from 0% to 100% per case). In 5 of the 16 cases, the therapist initiated 100% of the therapist self-disclosures. In all cases, when the client initiated the therapist self-disclosure (i.e., solicited information), the subsequent disclosure was a disclosure of facts.

Research Question 1i: *How often does the focus of the session return to the client following therapist self-disclosure?*

To determine how often the focus of the session returns to the client following therapist self-disclosures, the average percentage of events in which the focus returns to the client was calculated per case across cases. Focus returned to the client following all but 13 self-disclosure events, with focus returned following an average of 96% (*SD* = 7%) of disclosures across cases. In 10 of the 16 cases, the focus of the session returned to the client following 100% of therapist self-disclosure events. Hence, focus almost always returned to the client following a therapist self-disclosure.

Research Question 1j: *What is the average level of TSD quality?*

To determine the average level of TSD quality, the average quality of events per case across cases was calculated. The numerical values of 0, 1, and 2, respectively, were assigned to low, medium and high ratings. The average disclosure quality across cases was 0.70 (*SD* = 0.43). Overall, the majority (57%) of disclosures were rated as low in quality; 17% were rated as medium; and 26% were rated as high. Thus, the average level of TSD quality was low.

Justification for Using Hierarchical Linear Modeling for the Remainder of the Analyses

In psychotherapy, process data such as those in the present study, when multiple observations come from the same client within the same therapy dyad, are by definition not independent, and therefore violate assumptions of traditional techniques such as multiple regression. In the past, fixed parameter simple linear regression techniques (aggregation and disaggregation) were used to analyze hierarchical data, but these approaches neglected to account for shared variance (i.e., dependencies in the data), incorrectly partitioned variance, and increased the risk of Type I error (Woltman et al., 2012). In contrast, hierarchical linear modeling (HLM; Raudenbush, Bryk, Cheong, Congdon, & du Tolt, 2011) accounts for the hierarchical structure of data, dividing variance into components based on different variables and controlling for between-participant differences when modeling within-participant differences. HLM "effectively disentangles individual and group effects on the outcome variable," at various levels of the model and is, accordingly, the "favored technique for analyzing hierarchical data" (Woltman et al., 2012, pp. 55-56).

HLM thus extends multiple regression to nested or repeated-measures data, and has additional advantages over traditional methods (e.g., repeated measures analysis of variance [ANOVA]) (see Woltman et al., 2012, for an accessible and "straightforward overview of the basic principles of HLM." p. 52; for additional details see Bryk & Raudenbush, 1992; Bryk & Raudenbush, 2002; and Verbeke & Molenberghs, 2000). Specifically, HLM accommodates multiple outcome variables (whether discrete or continuous) in the same analysis (Raudenbush & Bryk, 2002), is more robust to

violations of assumptions than is repeated-measures ANOVA, and produces more accurate error terms than ANOVA. HLM was expressly designed to adjust the degrees of freedom in the model to compensate for nonindependence of observations due to repeated measures, and as a result yields higher power in the testing of effects (Raudenbush & Bryk, 2002). Finally, as mentioned previously, fewer assumptions must be met to use HLM (e.g., nonindependence of observations, lack of sphericity, and heterogeneity of variance across repeated measures).

As described, HLM addresses the limitations of aggregation and disaggregation, but like any statistical technique, it has some limitations. Disadvantages of HLM include a requirement for large sample sizes for adequate power and an inability to handle missing data at level 2 or above. In addition, like most multiple regression models, HLM assumes that variables are measured without error (Jacobs et al., 2002).

HLM was used to analyze the multi-level data structure because disclosure events (level 1) were nested within sessions (level 2), which were nested within clients (level 3), which were nested within therapists (level 4). The sample size for therapists was small (9 therapists). Indeed, with certain outcome variables there was so little between-therapist variance that HLM could not estimate the model. So level 4 (between therapists) was eliminated and analysis proceeded using a three-level model (events within sessions within clients) for level 1 and a two-level model (sessions within clients) for level 2. As is shown in Table 2, at the lowest level of the model (level 1) are TSD-level variables (e.g., TSD intimacy, TSD quality); at level 2 are session-level variables (e.g., RRI score for a specific session, TSD occurrence – yes/no for a specific session); and at the highest level of the model (level 3) are client-level variables (e.g., the average Real Relationship

Inventory score for a client). Level 1 (TSD event level) variables are impacted by level 2 (session-level) variables because they are nested within them and therefore share common variance (i.e., event-level variables are impacted by session-level variables). Likewise, level 2 (session-level) variables are nested within and impacted by level 3 (client-level) variables.

Table 2
Variables at Each Hierarchical Level of the Multilevel Model

Hierarchical Level	***Variables***	***Comments***
Level 1: TSD Event	Type Reassuring/challenging Initiator Return of focus Intimacy Quality	Analyses at this level include *only* sessions in which disclosure *occurred*: 183 TSDs nested within in **113** sessions nested within 16 clients
Level 2: Session	RRI score for session WAI score for session TSD occurrence – yes/no	Analyses at these levels include sessions in which disclosure occurred *and* did not occur: 183 TSDs nested within **360** sessions nested within 16 clients
Level 3: Client	Average RRI (slope) Average WAI (slope)	

Associations among variables, with degrees of freedom, standard errors, *t*-scores, and *p* values are presented using summary tables. Table 3 provides a roadmap of all of the statistical analyses presented in the following summary tables. It is intended to serve as an aide to the reader both as a high-level list of results and as a tool for finding results at a certain level of analysis (column 1), related to a certain criterion variable (column 2), related to a certain predictor variable (column 3), or that answer a specific research question (column 4). Results that approached significance ($p < 0.10$) are included in the summary tables because this study was conducted with a small sample, and as such, was underpowered. Results may not have reached the $p < 0.05$ significance level, but still have had large effects. The original output tables from HLM and more detailed results write-ups are included in Appendix P. Between-events (level 1) results are presented in Tables 5 through 9. Table 5 summarizes results related to intimacy. Table 6 summarizes results relating to quality. Table 7 summarizes results relating to timing. Tables 8 and 9 summarize additional findings related to therapist self-disclosure type, reassuring / challenging descriptor, and session outcome measures. Between-sessions (level 2) results

are summarized in Table 10. Between-clients (level 3) results are summarized in Table 11.

Table 3

Overview of Results Summary Tables for Each Level of the Hierarchical Model

Hierarchical Level	**Criterion Variable**	**Predictor Variables**	**Research Questions Answered**	**Table #, page #**
Level 1: TSD Event	Intimacy	• Type • Reassuring / Challenging • Initiator • RRI • WAI	1e: Does event intimacy differ by TSD type (facts, feelings, strategy, insight)? 1f: Does event intimacy differ based on whether a TSD is reassuring, challenging, neither, or both? 1g: Is event intimacy higher when the therapist initiates than when the client initiates? 3a: What is the relationship between event intimacy and the real relationship? 3b: What is the relationship between event intimacy and the working alliance?	Table 5, p. 45
	Quality	• Type • Reassuring / Challenging • Intimacy • Initiator • RRI • WAI	4a: What is the relationship between event quality and the real relationship? 4b: What is the relationship between event quality and the working alliance? 5a: Does event quality differ by TSD type (facts, feelings, strategy, insight)? 5b: Does event quality differ based on whether a TSD is reassuring, challenging, neither, or both? 5c: What is the relationship between levels of TSD intimacy and event quality? 5d: Is event quality higher when the therapist initiates than when the client initiates?	Table 6, p. 49
	Type	• RRI • WAI	Post Hoc Question 1: What was the relationship between disclosure type and session outcome ratings?	Table 8, p. 55
	Reassuring / Challenging	• Type	Post Hoc Question 2: What was the relationship between disclosure type and reassuring/challenging descriptor?	Table 9, p. 57
	Type	• Timing	Post Hoc Question 3: What was the relationship between timing and disclosure type?	Table 7, p. 52
Level 2: Session	• RRI • WAI	• TSD occurrence • Type • Reassuring / Challenging	2a: Does the real relationship differ based on disclosure occurrence (no disclosure vs. some disclosure)? 2b: Does the working alliance differ based on disclosure occurrence (no disclosure vs. some disclosure)?	Table 10, p. 61
Level 3: Client	• RRI • WAI	• TSD occurrence • Type • Reassuring / Challenging	2a: Does the real relationship differ based on disclosure occurrence (no disclosure vs. some disclosure)? 2b: Does the working alliance differ based on disclosure occurrence (no disclosure vs. some disclosure)?	Table 11, p. 63

Note: Research questions not included in Table 3 were answered in the above Description of Therapist Self-Disclosure Events.

Between-event (level 1) results. Sessions in which self-disclosure occurred were examined first. Because HLM cannot handle missing data, three sessions were not included that lacked data from outcome variables (Real Relationship Inventory and/or Working Alliance Inventory scores), leaving a total of 183 disclosures nested within 113 sessions within 16 clients. TSD varied widely across cases, and the majority of variance occurred at the event level, rather than at the session or client level (see Table 4).

An example empty model (i.e., a model that includes only the dependent variable without any predictors) is provided for the first outcome variable, and the variance partition is explained, followed by a table summarizing variance partitioning for all variables. The purpose of the empty model is to determine how much variance occurs for a variable at each level of the hierarchical model. See Appendix M for empty models for the other outcome variables.

Example empty model for type outcome variable. HLM was used to examine the question of whether some types (facts, feelings, insight, strategy) of therapist self-disclosure occurred more than others. Type was a categorical rating including four categories of therapist self-disclosure: facts, feelings, insight, and strategy.

At level 1, the empty model for between-events for the outcome variable type was:

$$DISCLOSURE\_TYPE_{ijk} = \pi_{0jk} + e_{ijk}$$

where $DISCLOSURE\_TYPE_{ijk}$ is the type of therapist self-disclosure for event i of session j for client k; π_{0jk} is the mean disclosure type for session j for client k; and e_{ijk} is the random event effect, or the deviation of event ijk's score from the session mean.

At level 2, the session level, the model was:

$\pi_{0jk} = \beta_{00k} + r_{0jk}$

where π_{0jk} is the mean disclosure type for session *j* for client *k*; β_{00k} is the mean disclosure type for client *k*; and r_{0jk} is the random session effect, or the deviation of session *jk*'s mean from the client mean.

At level 3, the client level, the model was:

$\beta_{00k} = \gamma_{000} + u_{00k}$

where β_{00k} is the mean disclosure type for client *k;* γ_{000} is the grand mean for the disclosure type; and u_{00k} is the random client effect, or the deviation of client *k*'s mean from the grand mean.

Variance partition calculation and summary table. Results from this model allowed a partitioning of variance in the outcome measure among three sources: between events, between sessions, and between clients. The following equations were used to calculate the proportion of variability attributable to each of these sources for each outcome variable:

$\frac{\sigma^2}{\sigma^2 + \tau_\pi + \tau_\beta}$ = proportion of variance between events;

$\frac{\tau_\pi}{\sigma^2 + \tau_\pi + \tau_\beta}$ = proportion of variance between sessions; and

$\frac{\tau_\beta}{\sigma^2 + \tau_\pi + \tau_\beta}$ = proportion of variance between clients.

Variance portioning is important statistically and conceptually. Statistically, the variance partitioning examines how much "nesting" there is for each of the variables. If the session- and client-level variances are significant then it is important to control for the nested data structure in the statistical analyses. Conceptually, the variance partitioning gives an idea of the importance of the different levels (events, sessions, and clients) in

understanding the phenomena. Table 4 summarizes the variance partitioning (i.e., how much variance occurred at what level of the hierarchical model; see Table 2) for each outcome variable. For all of the outcome variables, the majority of the variance (ranging from 74% to 96%) was found in level 1, between events, rather than between sessions (level 2) or between clients (level 3). In other words, the greatest variance in disclosures for all variables happened at the event level. Sessions and clients seem to be far less important, though in some cases, session-level and client-level variance was small but significant, validating the use of the hierarchical model for analyzing the data.

Table 4
Amount of Variance at Each Level of Hierarchical Model (Event, Session, Client) for TSD Variables

	Percent of Variance	*Variance*							
		σ^2	τ_π	τ_β	*SE*	*SD*	χ^2	*df*	*p*
Type									
Facts									
Event	78%	0.19			0.03	0.44			
Session	9%		0.02		0.02	0.14	118.25	97	0.070
Client	13%			0.03	0.02	0.18	40.94	15	<0.001***
Feelings									
Event	77%	0.14			0.02	0.38			
Session	16%		0.03		0.02	0.17	136.95	97	0.005**
Client	6%			0.01	0.01	0.11	24.19	15	0.062
Insight									
Event	78%	0.10			0.02	0.32			
Session	14%		0.02		0.01	0.13	127.29	97	0.021*
Client	8%			0.01	0.01	0.11	27.23	15	0.027*
Reassuring / Challenging									
Reassuring									
Event	96%	0.15			0.02	0.39			
Session	<1%		0.0001		0.01	0.14	86.46	97	>0.500
Client	4%			0.006	0.01	0.08	21.74	15	0.115
Challenging									
Event	90%	0.06			0.01	0.39			
Session	<1%		0.0003		0.01	0.01	93.35	97	>0.500
Client	10%			0.006	0.01	0.08	32.67	15	0.005**
Both									
Event	78%	0.14			0.02	0.38			
Session	15%		0.03		0.02	0.17	132.69	97	0.009**
Client	7%			0.01	0.01	0.11	26.72	15	0.031*

Table 4
Amount of Variance at Each Level of Hierarchical Model (Event, Session, Client) for TSD Variables

	Percent of Variance	*Variance*							
		σ^2	τ_π	τ_β	*SE*	*SD*	χ^2	*df*	*p*
Neither									
Event	76%	0.19			0.03	0.44			
Session	10%		0.03		0.03	0.16	116.88	97	0.083
Client	13%			0.03	0.02	0.18	41.78	15	<0.001***
Initiator									
Event	74%	0.14			0.02	0.38			
Session	1%		0.002		0.02	0.04	85.27	97	>0.500
Client	25%			0.05	0.02	0.22	89.59	15	<0.001***
Intimacy									
Event	85%	1.24			0.02	1.11			
Session	9%		0.13		0.16	0.35	106.67	97	0.236
Client	6%			0.09	0.08	0.30	26.67	15	0.031**
Quality									
Event	60%	0.44			0.07	0.45			
Session	27%		0.20		0.08	0.67	168.05	97	<0.001***
Client	13%			0.09	0.06	0.31	36.08	15	0.002**

Note. Level 1 = between events, Level 2 = between sessions, Level 3 = between clients. SE = standard error, SD = standard deviation, df = degrees of freedom.
*p <0.05. **p <0.01. ***p <0.001.

Between-events (level 1) results summary tables. Results summarizing how variables (type, reassuring/challenging descriptor, initiator, intimacy, quality, and session outcome ratings) were related are presented in Tables 5 through 10 below, starting with the lowest level of analysis. Specifically, between-events (level 1) results are presented in tables 5 through 9. Table 5 summarizes results related to intimacy and type, reassuring/challenging descriptor, initiator, and client session outcome ratings. Table 6 summarizes results relating to quality and type, reassuring/challenging descriptor, intimacy, initiator, and client session outcome ratings. Table 7 summarizes results relating to timing and type. Tables 8 and 9 summarize additional between-events findings related to therapist self-disclosure type, reassuring / challenging descriptor, and client session outcome ratings.

In all cases, research questions and a brief description of results are included before tables to provide context. In some cases, answers to research questions are presented out of order to keep like content together and to keep analyses at the same level together (see Tables 2 and 3). Parts of table headings are bolded to help readers differentiate among tables. Bolded statements in the Comments column are summary statements of the results listed for that variable.

Research Question 1e: *Does event intimacy differ by TSD type (facts, feelings, strategy, insight)?*

Table 5 summarizes results related to intimacy. TSD event intimacy differed by TSD type. Disclosures of feelings were more intimate than disclosures of facts. Similarly, disclosures of insight were more intimate than disclosures of facts. Disclosures of feelings and disclosures of insight did not differ in intimacy.

Research Question 1f: *Does event intimacy differ based on whether a TSD is reassuring, challenging, neither, or both?*

Again, see Table 5. TSD event intimacy differed based on whether a TSD was reassuring, challenging, neither, or both. Disclosures that were challenging or *both reassuring and challenging* were more intimate than disclosures that were reassuring and disclosures that were *neither reassuring nor challenging*. Challenging disclosures were significantly higher in average intimacy rating than disclosures that were *neither* challenging nor reassuring. Disclosures that were *both* reassuring and challenging were significantly higher in average intimacy rating than disclosures that were *neither* challenging nor reassuring. Reassuring disclosures did not differ significantly from disclosures rated as *neither* reassuring nor challenging.

Research Question 1g: *Is event intimacy higher when the therapist initiates than when the client initiates?*

Again, see Table 5. TSD event intimacy did not differ based on whether the therapist or the client initiated the disclosure.

Research Question 3: *What is the relationship between event intimacy and the real relationship and the working alliance?*

Research Question 3a: *What is the relationship between event intimacy and the* real relationship*?*

Table 5 shows that TSD event intimacy and client RRI ratings were positively correlated. As the strength of the real relationship increased, the intimacy of self-disclosures increased. Hence, in sessions that were rated high in real relationship

strength, the TSDs were more intimate (recall that only moderate levels of intimacy were found).

Research Question 3b: *What is the relationship between event intimacy and the* working alliance*?*

Table 5 shows that TSD event intimacy and client WAI ratings were positively correlated. As the strength of the working alliance increased, the intimacy of self-disclosures increased. Hence, sessions that were rated higher in WAI had TSDs that were more moderate than low in intimacy.

Table 5

Level 1 (Between-Events) HLM Results: ***Intimacy*** *as a Function of Type, Reassuring/Challenging, Initiator, and Session Outcome*

	coef.	*SE*	*t*	*df*	*p*	*Inter-cept*	*Pred. Value*	*Comments*
Type						1.96		*Type reference group: Facts* **Disclosures of feelings were more intimate than disclosures of facts. Similarly, disclosures of insight were more intimate than disclosures of facts. Disclosures of feelings and disclosures of insight did not differ in intimacy.**
Feelings	1.39	0.19	7.26	15	<0.001***		3.35	Disclosures of feelings were significantly more intimate than disclosures of facts.
Insight	1.32	0.22	5.99	15	<0.001***		3.28	Disclosures of insight were significantly more intimate than disclosures of facts.
Reassuring / Challenging						2.48		*Reassuring / challenging reference group: Neither* **Disclosures that were challenging or both reassuring and challenging were more intimate than disclosures that were reassuring and disclosures that were neither reassuring nor challenging.**
Reassuring	0.70	0.41	1.72	15	0.105		3.18	Reassuring disclosures did not differ significantly from disclosures rated as neither.
Challenging	2.52	0.47	5.42	15	<0.001***		5.00	Challenging disclosures were significantly higher in average intimacy rating than disclosures that were neither challenging nor reassuring.
Both	1.47	0.35	4.26	15	<0.001***		3.95	Disclosures that were *both* reassuring and challenging were significantly higher in average intimacy rating than disclosures that were *neither* challenging nor reassuring.
Initiator						2.50		*Initiator reference group: Client*
Therapist	0.37	0.38	0.97	15	0.348		2.86	n/s

Table 5

Level 1 (Between-Events) HLM Results: ***Intimacy*** *as a Function of Type, Reassuring/Challenging, Initiator, and Session Outcome*

	coef.	*SE*	*t*	*df*	*p*	*Inter-cept*	*Pred. Value*	*Comments*
Session Outcome Ratings						n/a	n/a	**As the strength of the real relationship increased, the intimacy of self-disclosures increased. Similarly, as the strength of the working alliance increased, the intimacy of self-disclosures increased.**
RRI	0.98	0.28	3.47	15	0.003**			For every one-point increase in the RRI, the intimacy of therapist self-disclosures increased by 0.98.
WAI	0.89	0.24	3.79	15	0.002**			For every one-point increase in the WAI score, the intimacy ratings of therapist self-disclosures increased by 0.89.

Note. HLM = hierarchical linear modeling, coef. = coefficient, SE = standard error, df = degrees of freedom, Pred. value = the predicted value of the rating for that variable based on the data, RRI = Real Relationship Inventory, WAI = Working Alliance Inventory, n/a = not applicable.

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$.

Research Question 4: *What is the relationship between event quality and the real relationship and the working alliance?*

Research Question 4a: *What is the relationship between event quality and the* real relationship*?*

Table 6 shows that no significant relationship was found between event quality and RRI.

Research Question 4b: *What is the relationship between event quality and the* working alliance*?*

Table 6 shows that no significant relationship between event quality and WAI.

Research Question 5: *Does event quality differ based on disclosure variables?*

Research Question 5a: *Does event quality differ by TSD type (facts, feelings, strategy, insight)?*

Table 6 shows that TSD event quality differed by TSD type. Disclosures of feelings were higher in quality than disclosures of facts. Similarly, disclosures of insight were higher in quality than disclosures of facts. Disclosures of feelings and disclosures of insight did not differ from each other in quality.

Research Question 5b: *Does event quality differ based on whether a TSD is reassuring, challenging, neither, or both?*

Table 6 shows that TSD event quality differed based on whether a TSD was reassuring, challenging, neither, or both. Challenging disclosures and disclosures that were *both* challenging and reassuring were rated highest in quality when compared to disclosures that were reassuring and disclosures that were *neither* reassuring nor challenging.

Research Question 5c: *What is the relationship between levels of TSD intimacy and event quality?*

TSD intimacy and TSD quality were positively correlated. As self-disclosure intimacy increased, quality ratings also increased. Hence, TSDs that were more intimate (i.e., moderately intimate) were more likely to be rated higher in quality.

Research Question 5d: *Is event quality higher when the therapist initiates than when the client initiates?*

TSD event quality was significantly higher when the therapist initiated than when the client initiated.

Table 6

Level 1 (Between-Events) HLM Results: ***Quality*** *as a Function of Type, Reassuring/Challenging, Intimacy, Initiator, and Session Outcome*

	coef.	*SE*	*t*	*df*	*p*	*Inter-cept*	*Pred. Value*	*Comments*
Type						0.24		*Quality reference group: Facts* **Disclosures of feelings were higher in quality than disclosures of facts. Similarly, disclosures of insight were higher in quality than disclosures of facts. Disclosures of feelings and disclosures of insight did not differ from each other in quality.**
Feelings	1.20	0.12	9.97	15	<0.001***		1.44	Disclosures of feelings were significantly higher in quality than disclosures of facts.
Insight	1.13	0.17	6.72	15	<0.001***		1.37	Disclosures of insight were significantly higher in quality than disclosures of facts.
Reassuring / Challenging						0.72		*Reassuring/challenging reference group: Neither* **Challenging disclosures and disclosures that were both challenging and reassuring were rated highest in quality when compared to disclosures that were reassuring and disclosures that were neither reassuring nor challenging.**
Reassuring	0.60	0.17	3.47	15	0.003**		1.32	Disclosures in all three groups (reassuring, challenging, and both reassuring and challenging) were significantly higher in average quality rating than disclosures that were neither reassuring nor challenging.
Challenging	1.61	0.19	8.54	15	<0.001***		2.33	Challenging disclosures were rated as higher in quality than reassuring disclosures (difference = 1.01, *SE* = 0.19, t(*df* = 15) = 5.35, *p* < 0.001***).
Both	1.40	0.16	9.07	15	<0.001***		2.12	Disclosures that were both reassuring and challenging were rated as higher in quality than reassuring self-disclosures (difference = 0.80, *SE* = 0.19, t(*df* = 15) = 4.23, *p* < 0.001***). There was no difference in quality between self-disclosures that were challenging and those that were both challenging and reassuring.

Table 6

Level 1 (Between-Events) HLM Results: ***Quality*** *as a Function of Type, Reassuring/Challenging, Intimacy, Initiator, and Session Outcome*

	coef.	*SE*	*t*	*df*	*p*	*Inter-cept*	*Pred. Value*	*Comments*
Intimacy	2.49	0.13	19.82	15	<0.001***	n/a	n/a	**Disclosure intimacy level was significant in predicting disclosure quality ratings. Therefore, as self-disclosure intimacy increased, quality ratings also increased.** For every one-point increase in the intimacy level, the quality rating of therapist self-disclosures increased by 2.49 points.
Initiator						0.71		*Initiator reference group: client initiated*
Therapist initiated	0.74	0.21	3.55	15	0.003**		1.45	**Initiator was significant in predicting disclosure quality. Therefore, quality was significantly higher when the therapist initiated than when the client initiated.**
Session Outcome Ratings								
RRI	0.38	0.24	1.60	15	0.130	n/a	n/a	n/s
WAI	0.39	0.18	2.10	15	0.053	n/a	n/a	n/s - There was a trend such that as the client's rating of the Working Alliance increased, quality ratings for therapist self-disclosure also increased. However, this finding was not significant at the $p < 0.05$ level.

Note. HLM = hierarchical linear modeling. coef. = coefficient, SE = standard error, df = degrees of freedom, Pred. Value = the predicted value of the rating for that variable based on the data. RRI = Real Relationship Inventory, WAI = Working Alliance Inventory, n/s = no significant results, n/a = not applicable. *p <0.05. **p <0.01. ***p <0.001.

Additional post hoc findings.

Post Hoc Question 1: What was the relationship between disclosure type and session outcome ratings?

Table 8 shows that disclosure types related differently to session outcome ratings. Significant results are discussed by type of disclosure.

Facts. Factual disclosures were negatively related to clients' ratings on both the Real Relationship Inventory and the Working Alliance Inventory. Therefore, when a client reported a stronger real relationship, the therapist was less likely to make factual disclosures than when a client reported a weaker real relationship. Similarly, when a client reported a stronger working alliance, the therapist was less likely to make factual disclosures than when a client reported a weaker working alliance. It seems that the closer the client felt to the therapist (in terms of the real relationship) or the stronger the client perceived the dyad's collaboration on goals and tasks to be (in terms of the working alliance), the less likely it was that the therapist disclosed facts.

Feelings. Disclosures of feelings were not significantly related to clients' scores on the Working Alliance Inventory. However, disclosures of feelings were positively related to clients' ratings on the Real Relationship Inventory. Therefore, when a client reported a strong real relationship the therapist was more likely to make disclosures of feelings than when a client reported a weak real relationship. It seems that the closer the client felt to the therapist (in terms of the Real Relationship), the more likely the therapist was to disclose feelings, or vice versa.

Insight. Disclosures of insight were positively related to clients' ratings on the Working Alliance Inventory, occurring more often when the measure reflected a strong

relationship. The more aligned the client felt s/he was with the therapist (in terms of the working alliance), the more likely the therapist was to disclose an insight.

Post Hoc Question 2: What was the relationship between disclosure type and reassuring/challenging descriptor?

Table 9 shows that disclosure types related differently to reassuring/challenging descriptor. Significant results are discussed by type of disclosure.

Feelings. Disclosures of feelings were more likely to be rated as *both* reassuring and challenging than were factual disclosures.

Insight. Disclosures of insight were more likely to be rated as *both* reassuring and challenging than were factual disclosures.

Post Hoc Question 3: What was the relationship between timing and disclosure type?

Table 7 shows that when dividing each course of therapy into thirds based on number of sessions (early, middle, late) therapist self-disclosure (all types together) occurred more in the early and late thirds of therapy than in the middle. Additional analyses conducted to determine whether these differences were statistically significant are described below.

Table 7
Descriptive Summary of Timing by TSD Type

	Early	**Middle**	**Late**	*sum*
Facts	62	13	34	*109*
Feelings	24	5	14	*43*
Insight	11	5	11	*27*
Strategy	2	2	2	*6*
sum:	99	25	61	185
mean:	0.15	0.03	0.08	

Disclosure occurrence. A between groups repeated measures analysis of variance (ANOVA) was conducted to determine whether therapist self-disclosure occurred with different frequencies based on timing. Mauchly's test indicated that the assumption of sphericity had been met, $\chi^2(2) = 0.26$, ($p = 0.88$). There was a significant effect of timing on occurrence, $F(2,14) = 9.17$, $p = 0.003$. Post hoc tests using the Bonferroni correction for multiple comparisons revealed that TSD occurred significantly more often early in therapy (i.e., first third) ($p = 0.002$) and late (i.e., third third) ($p = 0.04$) in therapy than in the middle (second third). The occurrence of TSD in early and late in therapy did not differ ($p = 0.61$).

Facts. A between groups repeated measures analysis of variance (ANOVA) was conducted to determine whether factual disclosures occurred with different frequencies based on timing (early, in the middle, or late in therapy when the course of therapy was divided into thirds). Mauchly's test indicated that the assumption of sphericity had been met, $\chi^2(2) = 2.13$,
($p = 0.35$). There was a significant effect of timing on occurrence, $F(2,14) = 6.68$, $p = 0.009$. Post hoc tests using the Bonferroni correction for multiple comparisons revealed that factual disclosures occurred significantly more often early (i.e., during the first third of the course of therapy; $p = .014$) and late in therapy (third third; $p = 0.04$) than during the middle of therapy. Occurrence of factual disclosures early and late in therapy did not differ ($p = .69$).

Feelings. A between groups repeated measures analysis of variance (ANOVA) was conducted to determine whether disclosures of feeling occurred with different frequencies based on timing (early, in the middle, or late in therapy when the course of

therapy was divided into thirds). Mauchly's test indicated that the assumption of sphericity had been violated, $\chi^2(2) = 8.06$, $p = 0.018$, therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\epsilon = 6.96$). There was no significant effect of timing on occurrence of disclosures of feeling, $F(1.39, 20.87) = 3.35$, $p = 0.07$.

Insight. A between groups repeated measures analysis of variance (ANOVA) was conducted to determine whether disclosures of insight occurred with different frequencies based on timing (early, in the middle, or late in therapy when the course of therapy was divided into thirds). Mauchly's test indicated that the assumption of sphericity had been met, $\chi^2(2) = 4.20$,
($p = 0.12$). There was no significant effect of timing on occurrence of disclosures of insight, $F(2,14) = 2.04$, $p = 0.17$.

Summary of timing analyses. Therapist self-disclosure (all types together) occurred significantly more often early in therapy (i.e., first third) and late in therapy (i.e., third third) than in the middle (second third). Likewise, factual disclosures occurred more often early and late in therapy than during the middle of therapy. Occurrence of feelings and insight disclosures did not differ based on timing. There were too few disclosures of strategy to analyze (6).

Table 8
Level 1 (Between-Events) HLM Results: ***Disclosure Type*** *as a Function of* ***Client Session Outcome Ratings***

	coef.	*SE*	*t*	*df*	*p*	*Odds ratio*	*Comments*
Facts							**Disclosures of facts were negatively related to clients' scores on both the RRI and the WAI. Therefore, when a client reported a stronger real relationship, the therapist was less likely to make factual disclosures than when a client reported a weaker real relationship. Similarly, when a client reported a stronger working alliance, the therapist was less likely to make factual disclosures than when a client reported a weaker working alliance.**
RRI	-1.70	0.56	-3.02	15	0.009**	0.18	A one-point increase in the RRI score decreased the odds of a factual disclosure by 82%.
WAI	-1.78	0.57	-3.10	15	0.007**	0.17	A one-point increase in the WAI score decreased the odds of a therapist making a factual disclosure by 83%.
Feelings							**Disclosures of feelings were positively related to clients' scores on the RRI. Therefore, when a client reported a strong real relationship the therapist was more likely to make disclosures of feelings than when a client reported a weak real relationship.**
RRI	1.81	0.64	2.83	15	0.013*	6.11	With a one-point increase in the RRI score, the likelihood of a therapist disclosing feelings increased 6-fold (611%).
WAI	0.96	0.64	1.51	15	0.152	2.62	n/s

Table 8
Level 1 (Between-Events) HLM Results: ***Disclosure Type*** *as a Function of* ***Client Session Outcome Ratings***

	coef.	*SE*	*t*	*df*	*p*	*Odds ratio*	*Comments*
Insight							
RRI	0.38	0.67	0.56	15	0.582	1.46	n/s
WAI	1.51	0.77	1.96	15	0.069	4.54	n/s - There was a trend that disclosures of insight were positively related to clients' scores on the WAI. Therefore, when a client reported a strong working alliance the therapist was more likely to make disclosures of insight than when a client reported a weak working alliance. As clients' ratings on the WAI increased, there was a trend that likelihood of self-disclosures of insight occurring increased 4.5-fold. However, this finding was not significant at the $p < 0.05$ level.

Note. HLM = hierarchical linear modeling, coef. = coefficient, SE = standard error, df = degrees of freedom, Odds Ratio = the likelihood of self-disclosure occurring (the odds ratio is appropriate because this is a dichotomous variable). RRI = Real Relationship Inventory, WAI = Working Alliance Inventory, n/s = no significant results.
*p <0.05. **p <0.01. ***p <0.001.

Table 9
Level 1 (Between-Events) HLM Results: ***Reassuring / Challenging Descriptor*** *as a Function of* ***Disclosure Type*** *(reference group: facts)*

	coef.	*SE*	*t*	*df*	*p*	*Odds ratio*	*Comments*
Reassuring							
Feelings	0.35	0.50	0.70	15	0.495	0.19	n/s
Insight	0.55	0.59	0.93	15	0.369	1.42	n/s
Both							**Disclosures of feelings were much more likely than disclosures of facts to be rated as both reassuring and challenging. Similarly, disclosures of insight were much more likely to be rated as both reassuring and challenging than were disclosures of facts.**
Feelings	3.14	0.56	5.59	15	<0.001***	23.20	Disclosures of feelings were 23 times more likely to be rated as both reassuring and challenging than factual disclosures.
Insight	2.94	0.60	4.92	15	<0.001***	18.84	Disclosures of insight were 19 times more likely to be rated as both reassuring and challenging than factual disclosures.
Neither							**Disclosures of feelings were much less likely than disclosures of facts to be rated as neither reassuring nor challenging. Similarly, disclosures of insight were much less likely to be rated as neither reassuring nor challenging than were disclosures of facts.**
Feelings	-3.06	0.52	-5.84	15	<0.001***	0.05	The likelihood of a disclosure that was neither reassuring nor challenging decreased by 95% when disclosures of feelings rated were compared with disclosures of facts.
Insight	-3.82	0.70	-5.46	15	<0.001***	0.02	The likelihood of a disclosure that was neither reassuring nor challenging decreased by 98% when disclosures of insight rated were compared with disclosures of facts.

Note. HLM = hierarchical linear modeling, coef. = coefficient, SE = standard error, df = degrees of freedom. Odds Ratio = the likelihood of self-disclosure occurring (the odds ratio is appropriate because this is a dichotomous variable). n/s = no significant results.
*p <0.05. **p <0.01. ***p <0.001.

Between-sessions (level 2) and between-clients (level 3) results: Session outcome and disclosure occurrence. The following analyses differ from previous results (which included *only* sessions in which disclosure occurred: 183 TSDs nested within in 113 sessions nested within 16 clients) because they included sessions in which self-disclosure *did* occur as well as those in which self-disclosure *did not* occur (i.e., 183 TSDs nested within 360 sessions nested within 16 clients). As with the Level 1 (between-events) analyses described previously, Level 4 (between-therapists) analyses were not conducted here due to the small number of therapists (9), so the following between-sessions analyses were conducted using a two-level model (between sessions and between clients). Tables 10 and 11 summarize the answers to research questions 2a and 2b regarding how disclosure occurrence was related to client ratings of the real relationship. Between-sessions (level 2) results are summarized in Table 10. Between-clients (level 3) results are summarized in Table 11.

Research Question 2: *Do the real relationship and the working alliance differ based on disclosure occurrence (no disclosure vs. some disclosure)?*

Research Question 2a: *Does the* real relationship *differ based on disclosure occurrence (no disclosure vs. some disclosure)?*

Because RRI and disclosures are measured across time it is possible and important to decompose these variables into between-session and between-client components. The between-sessions part of the analysis examines RRI and self-disclosure at the session level. That is, do sessions after which the client reports a stronger real relationship have more or less of a particular disclosure type compared to sessions after which the client reports a weaker real relationship? The between-clients part of the

analysis examines RRI and self-disclosure at the client level. That is, do clients who report a stronger real relationship have more or less of a particular disclosure type when compared to clients with a weaker real relationship? RRI scores were examined in relation to TSD type and reassuring/challenging descriptor. There were significant relationships between disclosure occurrence and RRI *for a session* (level 2, between-sessions). However, there were no significant relationships between disclosure occurrence and average RRI score *across sessions for a client* (level 3, between-clients). In other words, occurrence of certain types of disclosure (as described below) in a specific session was related to the RRI score for that session, but disclosure occurrence was not related to the RRI score averaged across all sessions for a specific client.

Challenging. The stronger the RRI *for a session*, the more likely a challenging disclosure was to occur in that session.

Neither. The stronger the RRI *for a session*, the less likely a disclosure that was neither reassuring nor challenging was to have occurred in that session.

Research Question 2b: *Does the* working alliance *differ based on disclosure occurrence (no disclosure vs. some disclosure)?*

WAI scores were examined in relation to TSD type and reassuring/challenging descriptor. There were no significant relationships between TSD occurrence and the WAI score *for a session* or *across sessions for a client*.

In summary, the real relationship was related to disclosure occurrence by session, but not by client. Specifically, the stronger the RRI for a session, the more likely a challenging disclosure was to occur and the less likely a disclosure that was neither

reassuring nor challenging was to occur. However, the working alliance was not related to disclosure occurrence by session or by client.

Table 10

*Level 2 (Between-**Sessions**) HLM Results: **Session Outcome** as a Function of Disclosure **Occurrence vs. Non-Occurrence***

	coef.	*SE*	*t*	*df*	*p*	*Odds Ratio*	*Comments*
Session Outcome Ratings							
RRI	-0.48	0.48	-1.00	15	0.335	3.27	n/s
WAI	-0.41	0.44	-0.94	15	0.363	0.66	n/s
Type							
Facts							**The stronger the RRI score for a session, the less likely a disclosure of facts was to occur in that session.**
RRI	-1.21	0.50	-2.43	15	0.028*	0.30	For every one-point increase in the RRI score, the odds of a therapist making a factual disclosure decreased by 70%.
WAI	-0.97	0.50	-1.98	15	0.066	0.38	n/s - There was a trend that the stronger the WAI score for a session the less likely a disclosure of facts was to occur in that session. For every one-point increase in the WAI score, the odds of a therapist making a factual disclosure decreased by 66%. However, this finding was not significant at the $p < 0.05$ level.
Feelings							
RRI	0.74	0.66	1.13	15	0.278	2.10	n/s
WAI	0.33	0.56	0.59	15	0.564	1.39	n/s
Insight							
RRI	0.40	0.68	0.59	15	0.562	1.50	n/s
WAI	0.96	0.66	1.46	15	0.165	2.62	n/s

Table 10
*Level 2 (Between-**Sessions**) HLM Results: **Session Outcome** as a Function of Disclosure **Occurrence vs. Non-Occurrence***

	coef.	*SE*	*t*	*df*	*p*	*Odds Ratio*	*Comments*
Reassuring / Challenging							
Reassuring							
RRI	-0.34	0.64	-0.53	15	0.606	0.64	n/s
WAI	0.22	0.53	0.43	15	0.677	1.25	n/s
Challenging							**The stronger the RRI for a session, the more likely a challenging disclosure was to occur in that session.**
RRI	2.74	1.13	2.43	15	0.028*	15.51	For every one-point increase in the RRI score, the odds of a therapist making a challenging disclosure increased 15-fold.
WAI	-0.10	0.78	-0.12	15	0.904	0.91	n/s
Both							
RRI	0.73	0.64	1.14	15	0.271	2.07	n/s
WAI	0.87	0.58	1.50	15	0.155	2.39	n/s
Neither							**The stronger the RRI for a session, the less likely a disclosure that was neither reassuring nor challenging was to occur in that session.**
RRI	-1.37	0.52	02.65	15	0.018*	0.25	For every one-point increase in the RRI score, the odds of a therapist making a neither disclosure decreased by 74%.
WAI	-0.99	0.50	-1.99	15	0.065	0.37	n/s - There was a trend that the stronger the WAI score for a session, the less likely a disclosure that was neither reassuring nor challenging was to occur in that session. For every one-point increase in the WAI score, the odds of a therapist making a neither disclosure decreased by 63%. However, this finding was not significant at the $p < 0.05$ level.

Note. HLM = hierarchical linear modeling. coef. = coefficient, SE = standard error, df = degrees of freedom, Odds Ratio = the likelihood of self-disclosure occurring (the odds ratio is appropriate because this is a dichotomous variable). RRI = Real Relationship Inventory, WAI = Working Alliance Inventory, n/s = no significant results.
*p <0.05. **p <0.01. ***p <0.001.

Table 11
*Level 3 (Between-**Clients**) HLM Results: **Session Outcome** as a Function of Disclosure **Occurrence vs. Non-Occurrence***

	coef.	*SE*	*t*	*df*	*p*	*Odds Ratio*	*Comments*
Session Outcome Ratings							**The stronger the working alliance averaged across sessions for a client was, the more likely a disclosure was to occur.**
RRI	1.19	0.71	1.68	14	0.115	0.62	n/s
WAI	1.05	0.42	2.49	14	0.026*	2.86	For every one-point increase in the WAI averaged across sessions for a client, there was a trend that the odds of a therapist making a disclosure increased nearly 3-fold.
Type							
Facts							
RRI	0.82	0.67	1.23	14	0.240	2.27	n/s
WAI	0.74	0.42	1.79	14	0.096	2.10	n/s - There was a trend that the stronger the working alliance averaged across sessions for a client was, the more likely a factual disclosure was to occur. For every one-point increase in the WAI averaged across sessions for a client, there was a trend that the odds of a therapist making a disclosure of facts increased 2-fold. However, this finding was not significant at the $p < 0.05$ level.
Feelings							
RRI	1.67	0.88	1.90	14	0.079	5.32	n/s - There was a trend that the stronger the real relationship averaged across sessions for a client was, the more likely a feelings disclosure was to occur. For every one-point increase in the RRI averaged across sessions for a client, there was a trend that the odds of a therapist making a disclosure of feelings increased 5-fold. However, this finding was not significant at the $p < 0.05$ level.
WAI	0.93	0.56	1.67	14	0.118	2.55	n/s
Insight							
RRI	0.63	1.01	0.63	14	0.542	0.68	n/s
WAI	0.39	0.59	0.67	14	0.512	1.48	n/s

Table 11
*Level 3 (Between-**Clients**) HLM Results: **Session Outcome** as a Function of Disclosure **Occurrence vs. Non-Occurrence***

	coef.	*SE*	*t*	*df*	*p*	*Odds Ratio*	*Comments*
Reassuring / Challenging							
Reassuring							
RRI	0.65	1.02	0.65	14	0.530	1.92	n/s
WAI	0.03	0.60	0.05	14	0.959	1.03	n/s
Challenging							
RRI	-0.43	1.14	-0.38	14	0.710	0.65	n/s
WAI	-0.01	0.60	-0.02	14	0.938	0.99	n/s
Both							
RRI	1.02	0.96	1.06	14	0.308	2.77	n/s
WAI	1.09	0.60	1.81	14	0.092	2.97	n/s - There was a trend that the stronger the working alliance averaged across sessions for a client, the more likely a disclosure that was both reassuring and challenging was to occur. For every one-point increase in the WAI averaged across sessions for a client, the odds of a therapist making a disclosure that was both reassuring and challenging increased nearly 3-fold. However, this finding was not significant at the $p < 0.05$ level.
Neither							
RRI	0.59	0.68	0.86	14	0.403	1.81	n/s
WAI	0.69	0.42	1.66	14	0.119	2.00	n/s

Note. HLM = hierarchical linear modeling. coef. = coefficient, SE = standard error, df = degrees of freedom, Odds Ratio = the likelihood of self-disclosure occurring (the odds ratio is appropriate because this is a dichotomous variable). RRI = Real Relationship Inventory, WAI = Working Alliance Inventory, n/s = no significant results.
*p <0.05. **p <0.01. ***p <0.001.

Discussion

These results should be considered in the context that this study was naturalistic and did not include experimental design or random assignment. Accordingly, I am not making causal inferences, but rather describing what happened with this particular sample. The sample consisted of 9 psychology trainees practicing open-ended psychodynamic / interpersonal psychotherapy with 16 clients.

My primary aim in this study was to enhance understanding of how therapist self-disclosure occurs in naturally-occurring psychotherapy. As previous research has examined TSD globally, the intention was to examine its variations, subtypes, and characteristics in hopes of learning what might contribute to TSD's effectiveness in real therapy with real therapists and real clients. Accordingly, I examined its variations, and explored whether the characteristics of self-disclosure that were examined (types, reassuring/challenging descriptor, intimacy, quality level) were associated with each other and/or with client ratings of session outcomes (i.e., therapy effectiveness).

Research Questions

This study set out to answer research questions rather than to test specific hypotheses. I have used these questions to organize the discussion of findings.

Research Question 1: *How many TSD events occur?*

In terms of overall frequency, approximately 1 self-disclosure occurred every other session, on average. This infrequency of occurrence was expected as it coincides with recommendations in the literature for infrequent use of therapist self-disclosure (Knox & Hill, 2003) and with previous findings that therapist self-disclosure is used relatively rarely (Hill & Knox, 2002).

Research Question 1a: *Do some types (facts, feelings, insight, strategy) of TSD occur more than others?*

Disclosures of facts and disclosures of feelings occurred with similar frequencies, but disclosures of facts occurred significantly more frequently than disclosures of insight and disclosures of strategy. This preponderance of factual disclosures was somewhat surprising, given the emphasis in the literature (Henretty & Levitt, 2010; Knox & Hill, 2003) on the importance of using moderately-intimate disclosures with therapeutic intention. It is possible that disclosures of facts are less risky than other types because (for the most part) they tend to be innocuous, and therefore therapists may feel more comfortable with them, and as a result, make them more frequently. For example, disclosing one's professional qualifications, television shows one watches, or phrases with which one is familiar involves less likelihood of therapists feeling vulnerable. Indeed, disclosures of facts are the only type not specifically discussed in Hill's (2009) text book on helping skills, which provides rationale, intentions, helpful hints, and "how to" suggestions for the other three types.

Facts. Disclosures of facts constituted 59% of the 185 disclosures. Factual disclosures tended to be low in both quality and intimacy, and were likely to be rated as neither reassuring nor challenging.

Feelings. Accounting for 23% of the disclosures in the present study, disclosures of feelings tended to be rated as both challenging and reassuring, as moderately intimate (intimacy level 3), and as high quality.

Insight. Disclosures of insight constituted 15% of the disclosures examined. They tended to be rated as both reassuring and challenging, as moderately intimate (intimacy level 3), and as high quality.

Strategy. A brief description of disclosures of strategy is included for the sake of completeness. However, the instances were too few to draw meaningful conclusions, so caution is warranted in interpreting this data. Accounting for only 3% of the disclosures examined, the 6 disclosures of strategy were evenly divided with 2 each rated as challenging, neither challenging nor reassuring, and both challenging and reassuring. Likewise, disclosures of strategy were split in terms of intimacy, with 3 rated as low in intimacy (intimacy level 2) and 3 rated as moderately intimate (intimacy level 4). Half of the disclosures of strategy were rated as high quality. It is possible that disclosures of strategy occurred infrequently because they are focused on action, rather than exploration or insight, and could be perceived as overly directive by therapist practicing from a psychodynamic orientation. On the other hand, it may be that recommendations for action were made as suggestions rather than as therapist self-disclosures.

Research Question 1b: *Do TSD events that are reassuring, challenging, both, or neither occur with different frequencies?*

The average frequency of occurrence differed significantly depending on whether disclosures were reassuring, challenging, *both* reassuring and challenging, or *neither* reassuring nor challenging. Across cases, the most frequently occurring disclosures were those that were *neither* reassuring nor challenging followed by those that were *both* reassuring and challenging. Both of these categories occurred more frequently than did

challenging disclosures but did not differ statistically from occurrence of *reassuring* disclosures.

Neither. Though it is consistent with the preponderance of factual disclosures in this study (and with the finding that factual disclosures are the type most likely to be rated as neither challenging nor reassuring), the finding that the largest percentage of disclosures in this sample (50%) was neither reassuring nor challenging was somewhat unexpected. Disclosures of feelings and disclosures of insight were, respectively, 95% and 98% less likely than disclosures of facts to be rated as *neither* reassuring nor challenging. In other words, compared to disclosures of feelings or disclosures of insight, disclosures of facts were more likely to be rated as neither reassuring nor challenging. Relatively speaking, disclosures of facts were more neutral.

Both. On the other hand, statistically speaking, disclosures that were both reassuring and challenging occurred just as frequently (24%) as did disclosures that were neither reassuring nor challenging. It seems that offering a disclosure that simultaneously reassures and challenges a client constitutes a complex intervention requiring a great deal of knowledge about the client, willingness to take a risk, and intentionality (e.g., "I have two friends who are married and 30 years old who are moving in with parents. They are educated people and have jobs." This disclosure was made to a client who was contemplating moving back in with his parents. The therapist contradicted the client's assertion that only losers live with their parents and also normalized the action the client intended to take).

Reassuring. Disclosures that were *only* reassuring (20%) did not differ in frequency from the other categories. An unexpected finding was that the *reassuring*

descriptor was not related to any self-disclosure types (i.e., disclosures of feelings were not more likely than the other types to be rated as reassuring). Given that in previous research (Hill et al., 1989) reassuring disclosures were found to facilitate client progress, equalize the relationship, and increase clients' feelings of safety, and that they were rated as leading to higher levels of client experiencing and as more helpful than challenging disclosures (Hill et al., 1989), I expected that disclosures of feelings and/or insight would be associated with the reassuring descriptor. This finding may be related to the introduction in the current study of a new category comprising disclosures that were *both* challenging and reassuring. Disclosures that were both challenging and reassuring were positively related to both disclosures of feelings and disclosures of insight. Another possibility is that therapists in this sample elected to use other skills, such as reflections of feelings, rather than therapist self-disclosure, to reassure clients.

Challenging. Challenging disclosures occurred the least often (6%)—and less often than disclosures that were *both* reassuring and challenging as well as those that were *neither* reassuring nor challenging—perhaps because they inherently carry the most risk. This finding is consistent with past research that challenges were used infrequently (Hill, 2009) and accounted for 1% to 5% of all therapist statements (Hill et al., 1988). Hill emphasized in her helping skills text book that challenges—which are intended to bring into awareness clients' discrepancies, contradictions, and maladaptive beliefs and thoughts—are a difficult skill to learn and also that they should be presented "in such a way that clients can hear them and feel supported rather than attacked" (2009, p. 210). A poorly-delivered challenge or one the client is not ready to take in has the potential to cause a rupture in the therapeutic relationship. It stands to reason that given their

potential peril, when they did occur, challenging disclosures were positively related to clients' ratings on the Real Relationship Inventory. The closer the client felt to the therapist (in terms of the real relationship), the more likely the therapist was to use a challenging disclosure (or vice versa).

Research Question 1c: *What is the average duration of TSD events?*

The average therapist speaking time (duration) for a TSD event across cases was a relatively brief 11.03 seconds. This finding is consistent with theory (Knox & Hill, 2003; Henretty & Levitt, 2010), which cautions therapists to avoid shifting the focus away from the client by disclosing, as was the finding that focus turned back to the client following the majority of disclosures (93%) in the sample.

Research Question 1d: *What is the average level of intimacy of TSD events?*

At 2.46, the average intimacy rating for a TSD event across cases was relatively low (on a 9-point Likert-type scale ranging from 1 = least intimate to 9 = most intimate). The majority (82%) of events were rated as low intimacy (levels 1 to 3), consistent with findings that the majority of events were also disclosures of facts and rated as neither reassuring nor challenging. There were no disclosures rated 8 or 9 on the scale, so the sample did not include any disclosures the judges considered to be extremely intimate.

These findings are consistent with recommendations in the literature that disclosures not be too intimate (Knox & Hill, 2003). However, Knox and Hill (2003) also recommended that to be most helpful, therapist self-disclosures should be moderately intimate. They suggested that impersonal disclosures may not achieve the beneficial effects of making therapists more real or human or establishing trust between therapist and client, whereas highly intimate disclosures may make clients uncomfortable.

If this is true, in the majority of cases, therapists in this sample may not have been disclosing with "enough" intimacy to realize the potential therapeutic effects of the intervention. On the other hand, in their review of the self-disclosure literature, Henretty and Levitt (2010) found that clients disclosed more of their own material following therapist self-disclosures that were low-to-moderate in intimacy than following no therapist self-disclosure, implying that some therapist self-disclosure was better than none, at least in terms of encouraging client self-disclosure. Henretty and Levitt (2010) found mixed results on the question of whether TSD intimacy levels had differential impacts on clients, with three studies favoring more intimate disclosures, two favoring less intimate disclosures, and four resulting in no differential effects.

It is important to remember that the sample consisted of therapist trainees and that these therapy sessions were videotaped and viewed by supervisors. As such, it is possible that the intimacy level in this sample might have been different from that found in a sample of practicing clinicians whose work is not being recorded or reviewed by others.

Research Question 1e: *Does event intimacy differ by TSD type (facts, feelings, strategy, insight)?*

Disclosures of feelings and disclosures of insight were significantly more intimate than disclosures of facts, but not different from each other. It was unexpected that disclosures of insight would be as intimate as disclosures of feelings, given that insights tend to involve intellectual processing while feelings imply some level of emotional arousal. It seems that the judges found learning about how therapists *think* about things to be as intimate how they *feel* about them. However, given that the majority of therapists' disclosures of feeling were hypothetical ("If I were in your situation, I can

imagine feeling…"), it is possible that these disclosures of feeling were less intimate than disclosures of *actual* therapist feelings would have been.

Research Question 1f: *Does event intimacy differ based on whether a TSD is reassuring, challenging, neither, or both?*

Challenging disclosures were the most intimate, followed by disclosures that were both reassuring and challenging, then by reassuring disclosures. Disclosures that were neither reassuring nor challenging were least intimate, but did not differ significantly in intimacy from reassuring disclosures. As described above, challenging the client inherently carries risk, so it makes sense that disclosures that were either challenging or both challenging and reassuring would be the most intimate. An unexpected finding was that reassuring disclosures did not differ in intimacy from disclosures that were neither challenging nor reassuring. However, it may be that this resulted from the fact that my operationalization of intimacy considered the therapist's vulnerability, as well as level of intimacy of disclosure content and the emotional context of the disclosure.

Research Question 1g: *Is event intimacy higher when the therapist initiates than when the client initiates?*

There was no significant difference in intimacy level when comparing disclosures the client initiated to those the therapist volunteered. I had anticipated that therapists might feel more vulnerable when clients requested information, and would disclose less intimate material as a result, but the data did not bear this notion out. It may be that therapists feel equipped by their training to respond to client queries. Or it may be a restriction of range issue, given that the majority of the disclosures were not very intimate.

Research Question 1h: *How much do therapists vs. clients initiate TSD?*

It has been suggested that therapists feel vulnerable and anxious about self-disclosing (Hill et al., 1989; Hill & Knox, 2002; Knox & Hill, 2003), nonetheless, therapists initiated the majority (135) of the 185 disclosures in this sample. As described, the majority of these disclosures were minimally intimate, and therefore, perhaps, not anxiety-provoking for therapists. It is also worth pointing out that two of the 16 clients accounted for more than half of the client-initiated disclosures (28 of 50) in the sample, so, as expected, there were differences among dyads with regard to not only the frequency of therapist self-disclosure, but who initiated that self-disclosure.

Research Question 1i: *How often does the focus of the session return to the client following therapist self-disclosure?*

Focus returned to the client following all but 13 of 185 self-disclosure events. Hence, focus almost always returned to the client following a therapist self-disclosure in this sample, consistent with recommendations in the literature (Knox & Hill, 2003) that therapists safeguard against shifting the focus of the session away from the client (Geller & Farber, 1997) by clearly returning attention to the client following disclosure. Indeed, 6 of the 13 events after which attention was not returned to the client occurred at the very end of a session, precluding the shifting of the focus back to the client.

Research Question 1j: *What is the average level of TSD quality?*

The average level of disclosure quality was low (average = 0.70 where 0 = low, 1 = medium, and 2 = high quality), with more than half of the disclosures in this sample (57 percent) rated as such. This makes sense, given that the majority of disclosures were factual and neither reassuring nor challenging.

High-quality disclosures accounted for 26% of the total. As these TSDs are interesting for practitioners and researchers alike, they are described in detail below and several examples are provided. Additional details about the relations between quality and other disclosure variables are discussed below (See answers to research questions 4 and 5).

Of the 185 therapist self-disclosures examined in this study, 48 were judged to be of high quality. As operationalized, these high-quality disclosures were made in response to a similar client disclosure or were relevant to what client had said, benefitted the relationship between client and therapist, contributed to the therapeutic bond, and were relevant to the therapeutic work (i.e., the client's issues). Aside from meeting these criteria, what do these high-quality disclosures have in common? Most of them (29 disclosures) were coded as disclosures of feelings and as both reassuring and challenging (33 disclosures). As the literature (Knox & Hill, 2003; Henretty & Levitt, 2010) recommended, the intimacy level for the majority (44) of these high-quality disclosures was moderate, in the 3 to 5 range of the scale. Therapists initiated all of the disclosures rated as high quality, and focus returned to clients following therapist self-disclosure in all but 4 of the 48 instances.

Describing something as nuanced as therapist self-disclosure in the aggregate is very unsatisfying and leaves the reader without any sense of the nature, depth, or impact of the disclosures. Accordingly, specific examples of high-quality disclosures from different cases follow to put some "meat on the bones" of this summary. These exemplars were selected to convey a range of types with moderate but varying intimacy levels.

"I am single and do not have experience with extramarital affairs but members of my family have, and they have affairs for a reason" (Coding: type = facts, reassuring/challenging = reassuring, intimacy = 4, focus return = yes). The client had disclosed having been unfaithful to his ex-wife and had also explicitly stated that he felt particularly uncomfortable discussing the infidelity because of the therapist's gender, age, and ethnicity, implying that her perspective would cause her to judge him negatively. The client was so concerned about the therapist's possible negative reaction that he raised the subject more than once to solicit reassurance from the therapist that she was not uncomfortable discussing his extramarital affair. The therapist's disclosure normalized the client's experience, reassured the client that the therapist's views on extramarital affairs did not align with the client's expectations, and implicitly gave the client permission to continue discussing content that was central to his therapy.

"I'm being judgmental, but from my perspective that's extremely harsh for a family member to do that to you" (Coding: type = insight, reassuring/challenging = both, intimacy = 6, focus return = yes). According to the intake notes and the session videotapes viewed by the judges, this client had experienced significant trauma, was socially isolated, had difficulty connecting with others, and had a hard time getting in touch with his emotions. He expected the worst from others and seemed to take bad treatment by others as a matter of course. The therapist prefaced this disclosure by admitting that he was "being judgmental," implying, perhaps, that he had an emotional reaction to the incident the client had described. He went on to provide some normalization for the client in terms of the kind of response he believed would be warranted in the situation. The therapist reassured the client by taking the client's side

against his family while also challenging the client's apparent lack of affect surrounding the situation by expressly stating that what had been done to him was "extremely harsh." Though the words and the tone were tempered, the therapist seemed to be expressing outrage at the treatment his client had received. Assuming the client was ready to accept the therapist's assessment of the situation (and he seemed to be), the therapist's risk in sharing his emotional reaction and his judgment of the situation flew in the face of the client's core issue of feeling disconnected from others and modeled an appropriate emotional response to what was happening in the client's life at the moment.

"It sounds like something that I've done in the past too, where I talk about myself as Mommy. But your son is 21, and to me, it sounds like something you would say to a little guy" (Coding: type = insight, reassuring/challenging = both, intimacy = 5, focus return = yes). In this disclosure, the therapist normalized the client's experience and validated her behavior by indicating that she, too, had referred to herself in the third person as "Mommy" with her children, while also providing a reality check and suggesting that in the context the client had described (i.e., with an adult child) the behavior was not appropriate. This feedback touched on one of the client's key presenting concerns: She was worried about her teenaged children getting into trouble and the fact that they did not respect or obey her.

"I can imagine, if it were me, feeling like, if the feelings I had weren't returned, wanting to point out some of his flaws, even for myself, 'this guy's not that great,' or wanting to hurt him because he hurt me" (Coding: type = insight, reassuring/challenging = both, intimacy = 4, focus return = yes). This is an example of a hypothetical disclosure (i.e., "I can imagine, if it were me…"). In this instance, the therapist's disclosure went

beyond what the client had said about a situation in which he had been betrayed to explicitly state and validate an embarrassing but natural human reaction: wanting to retaliate as a result of having been hurt. This intervention was especially important because this client had a tendency to deny his feelings and lacked the ability to develop close interpersonal relationships.

"If you said that to me, I would think you were irritated and upset with me" (Coding: type = feelings, reassuring/challenging = challenging, intimacy = 5, focus return = yes). The client had just related something he had said to his wife and indicated that his wife's reaction was unexpected and did not match the intention behind what he had said (i.e., he believed his wife had overreacted). The therapist's response confirmed that she would have made the same assumptions that the client's wife had made, challenging the client to re-evaluate both his assessment of the interaction and the emotion and motivation behind his own behavior.

As these high-quality examples illustrate, therapist self-disclosure is a complicated, multi-faceted intervention that differs widely from one instance to the next. TSDs can range from a straightforward statement of fact that would not be rated as high quality (e.g., "I am not a doctor. I don't have that label yet because I'm still a graduate student.") to a nuanced, affect-laden challenge (e.g., "I'm being judgmental, but from my perspective that's extremely harsh for a family member to do that to you."). Furthermore, the context of the therapeutic relationship and the moment-to-moment interaction between therapist and client were essential for understanding each instance of therapist self-disclosure. As such, it is possible that reading these examples does not truly convey their import.

Research Question 2: *Do the real relationship and the working alliance differ based on disclosure occurrence (no disclosure vs. some disclosure)?*

To answer research questions 2a and 2b, analyses were conducted using *all therapy sessions* for which complete data was available (n = 360 sessions) for the 16 cases, including sessions in which therapist self-disclosure did not occur (whereas the other analyses included only the sessions in which therapist self-disclosure occurred). It is important to keep in mind that the findings were correlational, not causal, and thus directionality is unclear. Changes in clients' ratings of the therapeutic relationship could have led to changes in therapists' self-disclosures, changes in therapists' self-disclosure could have led to changes in how clients rated the therapeutic relationship, or an unidentified third variable could have caused changes in both clients' ratings of the therapeutic relationship and in therapists' self-disclosure.

My findings suggested that clients' ratings of the real relationship and the working alliance are associated with disclosure occurrence (no disclosure vs. some disclosure), but *in different ways*. Specifically, clients' Working Alliance Inventory scores were positively associated with therapist self-disclosure occurrence (regardless of disclosure characteristics) as well as with occurrence of disclosures that were both challenging and reassuring, whereas clients' Real Relationship Inventory scores were negatively associated with disclosures of facts and disclosures that were neither challenging nor reassuring and positively associated with challenging disclosures. In other words, the stronger clients' reported the working alliance was, the more likely therapist self-disclosure was to occur and the more likely those disclosures were to be both challenging and reassuring. However, the stronger clients' reported the real

relationship was, the less likely disclosures that were factual or neither challenging nor reassuring were to occur, and the more likely challenging disclosures were to occur. These divergent associations underscore the differences among types of therapist self-disclosure and the importance of examining the types separately and also suggest that the Real Relationship Inventory and the Working Alliance Inventory are measuring different constructs.

In the Level 2 analyses of disclosure occurrence and non-occurrence, some of the between-sessions effects were significant (see tables 10 and 11). In other words, *sessions*, rather than *clients*, were related to whether or not therapist self-disclosure occurred. These findings suggest that therapists were reading clients in the moment and deciding whether or not to disclose, and, importantly, *what kind of disclosure to make*, based on what happened during a specific session, not basing the decision to disclose on a particular client and his or her characteristics. In their book on countertransference, Gelso and Hayes (2007) posited that "…the therapist takes into account factors such as timing, content, tone, affect, and the patient's capacity to receive what the therapist wishes to convey, and then engages in empathic expression." (p. 110). As mentioned, these data do not allow for determination of causal directionality, but a possible explanation is that in addition to considering factors put forward by Gelso and Hayes (2007), therapists also used their sense of the working alliance and the real relationship to decide what kinds of disclosure to make. While it is also possible that therapist self-disclosures are driving client session outcome ratings, this direction seems less likely, given the many factors that go into an evaluation of the therapeutic relationship. It is also possible that there is a bi-directional effect in which the strength of the therapeutic

relationship affects therapist self-disclosures and vice versa, or that a third variable is affecting both therapist self-disclosure and the strength of the therapeutic relationship.

Focusing more specifically now on the findings about the associations among ratings of the real relationship, factual disclosures and those that were neither reassuring nor challenging occurred less frequently in the context of a stronger real relationship. Factual disclosures tended to be neither challenging nor reassuring (e.g., "Yes, I watch 'The Office' on TV"), so these two findings are addressed together. One possible explanation is that, in most (but not all) cases, factual disclosures were not very likely to be therapeutic for clients because they lacked both the possibility of increasing the client's understanding and the emotional arousal "hook" necessary for change to occur (Frank & Frank, 1991). It seems that such disclosures are more likely to be used early in therapy (Hanson, 2005; Audet & Everall, 2003; Hendrick, 1988; Simon, 1988), when the members of the dyad are getting to know each other and establishing rapport (e.g., "I am a non-native speaker from China, a female, and younger than you. How is it for you to work with me?") Indeed, when interviewing clients about their experiences of therapist self-disclosure, Audet and Everall (2010) found that clients believed their therapists' disclosures played a role in "forming a connection with the client in the early stages of therapy" (p. 338). Whereas factual disclosures that are neither reassuring nor challenging may be useful in the initial stages of developing a therapeutic relationship, the data suggest that they become less so in the context of a stronger real relationship, and therefore occur less frequently.

In contrast, in the current sample, challenging therapist self-disclosures, which were oppositional in some way, occurred more frequently when the real relationship was

strong. In her helping skills text book, Hill (2009) indicated that challenges (i.e., not challenging self-disclosures but challenges in general) serve to foster awareness, suggesting that they "point out maladaptive beliefs and thoughts, discrepancies, or contradictions of which the client is unaware or unwilling to change." (p. 205). Presumably, a strong real relationship provides a safe enough environment for the therapist to risk contradicting the client's perspective. It makes sense that such confrontations, whether phrased straightforwardly or tentatively, would be contraindicated in the context of a weak real relationship. If a client perceives a lack of genuineness on the part of the therapist or the two do not see each other realistically, the client is unlikely to hear and be able to process a challenge in a way that is therapeutic.

In the context of a stronger working alliance (as measured by clients' ratings), therapists: 1) disclosed more frequently and 2) made more disclosures that were both challenging and reassuring. It seems that a strong therapist-client working bond and agreement on treatment goals and tasks (Gelso, 2011; Bordin, 1979) and an environment in which therapist self-disclosure was more likely to occur were related, and further, said disclosure was likely to simultaneously reassure and challenge the client. Perhaps the more in touch therapists were with clients' issues and therapeutic goals, the more comfortable they were using self-disclosure. It is possible that clarity about treatment goals and effective collaboration toward achievement of those goals provided therapists with a level of comfort about the direction of therapy, mitigating the potential risk of shifting the focus away from the client and allowing the therapist more leeway to engage in therapist self-disclosure. To establish a strong working alliance, the therapist would

need a deep understanding of the client's issues, and such understanding would also facilitate therapist self-disclosures that reassured and challenged the client.

These findings coincide with conclusions drawn by Audet and Everall (2010) that there is a link between therapist self-disclosure and the working alliance. Specifically, these researchers found that "[therapist] disclosure can influence the extent to which clients are willing to share and process information that is therapeutically relevant to them" and also that therapists' attunement with clients' issues and needs, as reflected in therapist self-disclosure, had "a bearing on client confidence in the therapist's abilities and the working relationship, creating conditions that either supported or hindered engagement" (Audet & Everall, 2010, p. 339). It is also possible that the directionality is reversed: more frequent therapist self-disclosure may build a stronger working alliance between client and therapist. Perhaps a cyclical pattern exists in which effective therapist self-disclosure engenders client confidence in the therapist and in treatment, which leads to increased engagement on the client's part, and a subsequent strengthening of the working alliance. As Audet and Everall (2010) noted, the cycle could also move in the opposite direction, harming the working alliance, should the therapist disclose inappropriate or irrelevant material.

Our finding that the working alliance, but not the real relationship, was positively associated with occurrence of therapist self-disclosure seems to contradict Ain and Gelso's (2008; 2011) findings that real relationship strength correlated with amount of therapist self-disclosure. However, in these studies the researchers compared clients' perceptions of the real relationship with clients' ratings of the amount of therapist self-disclosure, whereas in the current study I examined actual occurrence of observer-coded

therapist self-disclosure. It may be that when clients rate the overall amount of therapist self-disclosure they are conflating it with their general feelings about the therapy and treatment as a whole, and providing an overall satisfaction rating.

Research Question 3: *What is the relationship between event intimacy and the real relationship and the working alliance?*

The intimacy of therapist self-disclosures (which ranged from low to moderately intimate) was positively related to client ratings of both the real relationship and the working alliance. It makes intuitive sense that therapists would not disclose even moderately intimate material in the absence of a strong therapeutic relationship. Similarly, as the relationship strengthens, I would expect an increase in the intimacy of therapist self-disclosure content as was reflected in the data. I would not, however, anticipate that the relationship would continue in a linear fashion into the higher ranges of the intimacy scale. There were no extremely intimate therapist self-disclosures in this sample. Indeed, it may be that highly intimate therapist material is never, or almost never, appropriate in therapy, regardless of the strength of the therapeutic relationship.

Research Question 4: *What is the relationship between event quality and the real relationship and the working alliance?*

As clients' ratings of the working alliance increased, judges' quality ratings for therapist self-disclosure events also increased. It may be that the more in touch therapists were with clients' issues and therapeutic goals, the more that understanding was reflected in their self-disclosures, and, in turn, the more judges perceived therapists' disclosures to be relevant, beneficial, and therapeutic. Directionality is unclear here, so it is also possible that higher-quality self-disclosures led to a stronger working alliance.

These results align with guidance in the literature and findings from qualitative client interviews. Hill and Knox (2003) advised therapists to only disclose material that is relevant to the client. Audet and Everall (2010) found that clients assessed therapist self-disclosure (for suitability, relevance, and context appropriateness) and used it to determine both how attuned therapists were to their issues and needs and how responsive they felt therapists were. In addition, in an analogue study, Myers and Hayes (2006) found that students acting as therapy patients perceived personal therapist self-disclosures favorably in the context of a strong working alliance, but not in the context of a weak working alliance. Thus, even removed from the moment-to-moment interaction of actual therapy, the working alliance is related to how the content of therapist self-disclosure is perceived, perhaps as a function of social norms and expectations for behavior.

Whereas clients' ratings of the working alliance were related to judges' ratings of therapist self-disclosure, there was no relationship found between clients' ratings of the real relationship and judges' ratings of quality. In contrast, Ain and Gelso (2008) found that overall therapist self-disclosure relevance (which was one component of my operational definition of quality) as perceived by clients was related to the strength of the real relationship. However, Ain and Gelso used retrospective client ratings of past therapy to measure relevance of therapist self-disclosure whereas the current study used outside observers. In addition, relevance was only one of several components of my definition of quality. A later study of ongoing therapy dyads by the same researchers (Ain and Gelso, 2011) did not find an association between relevance of therapist self-disclosure and strength of the real relationship.

Research Question 5a: *Does event quality differ by TSD type (facts, feelings, strategy, insight)?*

Disclosures of feelings and disclosures of insight were highest in quality, and received similar quality ratings. Disclosures of facts received the lowest quality ratings. Given that disclosures of facts typically (though not always) conveyed basic information that was not necessarily related to client issues (e.g., "Yes, I have heard the expression 'dog and pony show'"), it makes sense that factual disclosures were judged as lowest in quality among the types. Such disclosures were not likely to contribute to the bond or to benefit the relationship between the client and the therapist. As mentioned previously, in most cases disclosures of fact lacked both the emotional arousal "hook" necessary for change to occur (Frank & Frank, 1991) and the possibility of increasing the client's understanding, and therefore were less likely to appear therapeutic for clients. On the contrary, disclosures of feelings and disclosures of insight were likely to be directly relevant to client material and therefore were more likely to be perceived as eliciting therapeutic benefits. Specifically, disclosures of feelings tend to encourage increased client experiencing and emotional arousal and disclosures of insight are likely to encourage client exploration and understanding (Hill, 2009). Furthermore, if used effectively, both types (feelings and insight) may serve to convey to the client that the therapist understands his or her issues deeply (Audet & Everall, 2010), thereby strengthening the therapeutic relationship and facilitating client change.

Research Question 5b: *Does event quality differ based on whether a TSD is reassuring, challenging, neither, or both?*

Challenging disclosures and disclosures that were both challenging and reassuring were rated highest in quality. Reassuring disclosures were higher in quality than disclosures that were neither challenging nor reassuring. It stands to reason that disclosures that were neither reassuring nor challenging would be rated lowest in quality. One may ask what the purpose would be for such a disclosure, and would likely find that it was a disclosure of fact with minimal, if any, therapeutic relevance. On the other hand (assuming therapist competence), a challenge is, by definition, therapeutically relevant. If timed and executed well, a challenge communicates to the client the therapist's attunement with his or her issues as well as an understanding of ways in which the client is stuck, has blind spots, or is experiencing maladaptive beliefs and thoughts (Hill, 2009). A therapist self-disclosure can be a gentle way to challenge a client and may temper the challenge because the therapist is taking a risk by bringing some of him or herself into the conversation. When the therapist self-disclosure was both reassuring and challenging, it was often particularly gentle. It may be that the dual nature of a therapist self-disclosure that was both reassuring and challenging communicated the therapist's benevolent but opposing intentions—supporting the client while also encouraging growth—and also made room for the client to hear the challenge. In other words, the reassurance component of the disclosure may preempt the client's defenses, providing a level of safety that allows the client to remain open to cognitively or affectively exploring the challenge.

Research Question 5c: *What is the relationship between levels of TSD intimacy and event quality?*

As disclosure intimacy increased, quality ratings also increased, although it is important to remember that intimacy was only minimal to moderate. The present sample did not have any disclosures at the high end of the intimacy scale; the question of whether the relationship across the whole spectrum would be an inverted U as Gelso and Palma (2011) suggested was not tested.

Research Question 5d: *Is event quality higher when the therapist initiates than when the client initiates?*

Disclosure quality was higher when the therapist initiated than when the client initiated. I expected that therapists feel less vulnerable when initiating a self-disclosure, presumably because they have planned it or have done a quick, in-the-moment assessment of the content they expect to reveal and deemed it appropriate. On the other hand, therapists may feel put on the spot when a client requests information, and may feel less equipped to disclose extemporaneously. Most importantly, a therapist-initiated self-disclosure is more likely to have therapeutic intent, and this is likely the reason that such disclosures received higher quality ratings than client solicitations for disclosure (90% of which resulted in disclosures of facts).

Additional post hoc findings.

Post Hoc Question 1: What was the relationship between disclosure type and session outcome ratings?

Facts. When a client reported a stronger real relationship, the therapist was less likely to make factual disclosures than when a client reported a weaker real relationship.

Similarly, when a client reported a stronger working alliance, the therapist was less likely to make factual disclosures than when a client reported a weaker working alliance. It seems that the closer the client felt to the therapist (in terms of the real relationship) or the stronger the client perceived the dyad's collaboration on goals and tasks to be (in terms of the working alliance), the less likely it was that the therapist disclosed facts. Early disclosures about professional background can contribute to developing a working relationship (Hanson, 2005; Hendrick, 1988) and some therapists use factual disclosures early in therapy (before a relationship has had the chance to develop) to establish credibility, model openness, and allow clients to make informed decisions about whether the therapist is a good fit for them (Simon, 1988; Audet & Everall, 2003). The data indicated that, in most (but not all) cases, factual disclosures lacked both the possibility of increasing the client's understanding and the emotional arousal "hook" necessary for change to occur (Frank & Frank, 1991), and therefore were less likely to be therapeutic for clients.

If we consider the common factors that contribute to the effectiveness of mainstream approaches to therapy (Frank & Frank, 1991; Hill, 2009), it stands to reason that factual disclosures—which tend to convey basic information not necessarily related to client issues—are less likely than other types to contribute to the therapeutic relationship, instill hope, provide new learning experiences, prompt emotional arousal, or enhance mastery or self-efficacy, and therefore are not likely to be associated with stronger real relationship or working alliance scores. That said, with therapist self-disclosure it seems there is always an exception to the rule. Just such a disclosure (presumably factual) was described by Knox and colleagues (1997), in which an

experienced therapist disclosed to his client that he had tried street drugs. The client struggled with drug addiction and assumed the therapist could not understand her situation because he did not have any relevant experience. His disclosure shocked the client and caused her to re-evaluate her assumptions about the therapist as well as her assumptions about others and about relationships in general. This example demonstrates that powerful, helpful factual disclosures can and do occur, though they did not in this sample with more novice therapists.

Feelings. Disclosures of feelings were positively related to clients' ratings on the Real Relationship Inventory. Therefore, when a client reported a strong real relationship the therapist was more likely to make disclosures of feelings than when a client reported a weak real relationship. It seems that the closer the client felt to the therapist (in terms of the Real Relationship), the more likely the therapist was to disclose feelings, or vice versa.

A disclosure of feeling can be a risky intervention, because if the therapist chooses the wrong emotion (i.e., an emotion far from the client's experience), s/he risks alienating the client. I posit that a therapist would be unlikely to disclose feelings about something important unless the therapist: 1) feels confident that s/he knows the client and his/her emotional state well enough to disclose a feeling that will resonate strongly with the client's experience in the moment, 2) has considered the context of the therapeutic relationship and believes it is strong enough to support a potential gaffe, and 3) feels close enough to the client that s/he is willing to be vulnerable by sharing his/her feelings. Being sensitively attuned to the client's emotional state in this way is an important part of what Kohut (1977) termed the therapist's ability to resonate with the client: "vicarious

introspection." In a study of compassion in therapy, Vivino et al. (2011) described how vicarious introspection is applied and suggested that it is a mutative component of psychotherapy: The therapist "gets" the client's suffering and has compassion for him/her, and, "This compassion is behaviorally communicated to the client ('I understand your pain'), who then feels understood ('I am not alone in my suffering and can allow myself to experience it') and thus experiences symptom relief ('I can let some of my pain and suffering go')." (p. 169). When feelings (whether the client's or the therapist's) are being shared accurately and received empathically, the two people are closer together, with fewer boundaries. It also follows that when the therapist shares his/her feelings, the client would be more likely to see the therapist as a real person and to rate the real relationship as stronger. Disclosures of feelings have more potential than disclosures of fact to make the client feel heard, understood, and "seen," and therefore are more likely to prompt emotional arousal and to contribute to the therapeutic relationship.

Insight. Disclosures of insight were positively related to clients' ratings on the Working Alliance Inventory, occurring more often when the measure reflected a strong relationship. The more aligned the client felt s/he was with the therapist (in terms of the working alliance), the more likely the therapist was to disclose an insight (e.g., "One of the reactions I would have [to this individual in the client's life] is, 'It doesn't make a difference if I'm nice to you or not, you're going to kind of overreact either way.' This is the way I see things. How do you see it?"). Logically speaking, a therapist's ability to provide useful insight to a client would be related to the therapist's understanding of the client's goals for therapy, as well as to the client's sense that the dyad is collaborating effectively. Indeed, disclosures of insight may function similarly to effective use of

interpretation, which, with consistent use, communicates to the client both the therapist's competence and his/her understanding of the client (Gelso & Hayes, 1998, p. 32).

Post Hoc Question 2: What was the relationship between disclosure type and reassuring/challenging descriptor?

Disclosures of feelings and disclosures of insight were more likely to be rated as *both* reassuring and challenging than were factual disclosures. As I mentioned previously, factual disclosures tended to convey basic information that was not related to clients' issues. As such, it seemed that factual disclosures were intended to inform rather than to reassure or challenge the client.

Post Hoc Question 3: What was the relationship between timing and disclosure type?

Therapist self-disclosure (all types together) occurred significantly more often early in therapy (i.e., first third) and late in therapy (i.e., third third) than in the middle (second third). Likewise, factual disclosures occurred more often early and late in therapy than during the middle of therapy. The use of therapist self-disclosure early in therapy has already been addressed (see discussion of research question 2); the extant literature puts forward numerous reasons that for increased therapist self-disclosure late in therapy. Several researchers have suggested that therapist self-disclosure in the final stages of therapy facilitates termination (Henretty & Levitt, 2010; Hill et al., 2007; Knox & Hill, 2003; Geller, 2003; Hill & Knox, 2002; Hill, 1989) by encouraging separateness (Geller, 2003) making therapists more real (Hill & Knox, 2002), and fostering clients' sense of therapists as authentic human beings (Knox & Hill, 2003). In their review of the literature, Henretty and Levitt (2010) suggested that many therapists increase their use of self-disclosures at the end of therapy as a way of "showing realness as a person" (p. 72)

and Geller (2003) posited that disclosures late in therapy differ in function from those in the earlier stages, namely that they are intended to deepen the intimacy of the relationship. Indeed, Hill and colleagues (2007) found that "even therapists who believe that disclosures are inappropriate use them to end the therapy with a 'gift' of a disclosure," terming such interventions "good-bye" disclosures (p. 294). Based on data gathered from interviews of therapists, Geller submitted, "the inclination [for therapists] to self-disclose intensifies during the termination phase of therapy" (2003, p. 551), putting forward as motivations both a desire to become closer to the client before the impending "goodbye" and an attempt to equalize the relationship as the end of therapy approaches. These are all potential explanations for my finding of increased therapist self-disclosure at the end of therapy.

Strengths

The most significant strength of this study was that it was conducted in a naturalistic clinical setting with actual clients. An additional strength was the rigorous process of analysis undertaken by the judges, which involved at least four judges coding each therapist self-disclosure and a constant comparative process for placing each therapist self-disclosure event in the context of the others. Additionally, therapist self-disclosure was clearly defined and broken down into various components, rather than treated as a one-dimensional intervention. Two final strengths were the mixed-method nature of the study (i.e., analyzing the data both quantitatively and qualitatively) and the use of HLM to analyze the multi-level data.

Limitations

The first set of limitations related to the sample. With 16 therapeutic dyads, the sample was relatively small, and as such, was underpowered. The sample of both therapists and clients included good representation from both genders. The majority of clients (11) and therapists (5) were European American, but other ethnicities/races were also represented. In addition, the cases, ranging from 11 to 60 sessions, were relatively brief when compared with the typical length of psychodynamic psychotherapy in private practice, and only cases with at least 8 sessions that had already terminated at the time of the study were evaluated. Also narrowing the representativeness of the results, the therapists were doctoral trainees and were all trained in the same psychodynamically / interpersonally-oriented doctoral program. Finally, the termination of these cases may not have been representative of successfully completed psychodynamic psychotherapy cases, given that seven of the 16 terminated when the therapist left the clinic, two moved out of the region, three terminated against their therapists' advice, three dropped out without explaining why, and one ended individual therapy to begin couples therapy with a partner. Accordingly, results may not generalize to other populations and settings.

A second limitation is that the only source of data regarding the self-disclosure events was judges' observations. Furthermore, while the judges worked to identify and bracket their biases and discussed each self-disclosure to consider as many perspectives as possible, the judges themselves played a significant role in the construction of the findings. Because consensual qualitative research is primarily a constructivist process, ratings are always subjective, and results obtained from one group's consensual coding may not match those obtained from another group.

A third limitation is that the scales used to assess intimacy and quality were developed for this study. Further research is needed to establish their reliability and validity.

A fourth set of limitations relates to the typology used to code therapist self-disclosure. Early in coding it was discovered that the reassurance/support versus challenging nature of the disclosures was not mutually exclusive. Any disclosure (whether of facts, feelings, insight, or strategy) could be reassuring, challenging, neither reassuring nor challenging, or both reassuring and challenging. Accordingly, each disclosure was coded for type as well as for reassuring/challenging, and I would recommend that future researchers do the same. I recommend removing reassurance/support and challenging disclosures from the typology (Knox & Hill, 2003).

In addition, there were some disclosures that did not fit well into the typology. Several examples follow to elucidate the issue.

"I want you to know I really did want to come in for our session last week, despite having a cold." (Coding: type = feelings) The difficulty was that "wanting" is not a clear feeling, and the judges were uncertain what feeling motivated the disclosure. It may have been guilt or concern, but no feeling was explicitly stated. As such, the disclosure could have been coded as a disclosure of facts or of feelings.

"I agree that discussing (your recent dream) was useful. Dreams are meaningful. I value dreams." (Coding: type = facts) The judges agreed that the value judgment entailed here pushed it beyond a typical factual disclosure; the therapist reveals more about her beliefs than in other disclosures of facts.

"You're really excited about staying home all day and watching TV. That's something I can relate to. Anything one enjoys is not a waste of time." (Coding: type = feelings) It seems here that the therapist is relating to a feeling, but it is possible that she is relating to the behavior (watching television, stating home). The second part of the disclosure is a statement of opinion about what comprises a waste of time. Like the previous disclosure, this involves a value judgment on the part of the therapist.

"I don't think extramarital affairs are good or bad." (Coding: type = insight) Again, this disclosure involves an opinion or value judgment on the part of the therapist. We learn about her beliefs, not necessarily about an insight the therapist came to about herself. The judges were not comfortable coding disclosures of opinion as facts because we were learning something more about the therapist in these cases than a mere disclosure of fact would entail. In this case, it seemed that the therapist had gone through a thought process about extramarital affairs, and after consideration, had made a determination about her view of them but we did not know why she had this belief.

Misfit disclosures such as these were "forced" into the existing categories, but revision to the typology may be warranted to enable a better fit.

Implications for Practice, Training, and Research

This study has deepened understanding of therapist self-disclosure as it occurs in naturalistic therapy. One of the key findings is that therapist self-disclosure is not an "it," but rather a "they." Intentions, intimacy, and quality differ from one therapist self-disclosure to the next. This is certainly true *across* types of disclosure and it is also true *within* a given disclosure type (e.g., one disclosure of feeling may vary greatly from another on one or more of these characteristics).

Practice. To disclose or not to disclose? It seems that therapists must ask themselves not only whether to disclose and how often, but also for what purpose(s) and in what context(s), as well as what kind of disclosure to use. Given that clients have said it is a helpful intervention (Hill et al., 1988; Hanson, 2005) and that non-disclosure on the part of the therapist was found to be unhelpful (Hanson, 2005), it seems important that therapists include self-disclosure as part of their repertoire. However, as articulated by Gelso and Hayes (2007) in their book about countertransference and the therapist's inner world, questions of "…just how and how much of [the therapist's] world should be expressed during the [therapy] hour, and in which ways this inner world should be expressed" (p. 91) remain unanswered with regard to therapist self-disclosure. I concur with earlier theorizing that quantity does not equal quality; more therapist self-disclosure is not necessarily better. "It may even be that therapist self-disclosure yields its positive effects because it occurs so infrequently" (Hill & Knox, 2001, p. 416). I suggest that therapist self-disclosure can be a particularly powerful intervention when used sparingly with forethought and intention. To maximize the benefits of self-disclosure, I join others in encouraging therapists to disclose in ways that are "therapeutically meaningful to the client" (Audet & Everall, 2010, p. 339). This caution is important and particularly compelling given findings that clients assess therapist self-disclosures for relevance and therapeutic intent (Audet & Everall, 2010). When considering using therapist self-disclosure, therapists should contemplate the context of the disclosure, including the strength of the therapeutic relationship, timing, the client's readiness to hear the disclosure, and how the client will perceive what the therapist shares.

Therapists may also wish to use their own urges to self-disclose as a gauge for what is happening in the relationship. For example, if a therapist feels pulled to disclose facts, this may be a clue that the relationship needs strengthening. The association of factual disclosures with weaker client ratings of the Real Relationship Inventory and Working Alliance Inventory suggest that therapists should think twice before using disclosures of facts once the real relationship and working alliance have been established. Similarly, if a therapist finds him/herself disclosing a lot of facts, it may be that s/he is trying to build a stronger relationship. In at least one case in the present study, the therapist seemed to be making unplanned personal disclosures in a desperate attempt to connect with the client. In one particularly memorable example, at the end of a session while the client was writing a check, the therapist said, "You're left-handed. Me too." The disclosure felt strange to the judges and must have felt so to the client as well. One couldn't help but wonder about the therapist's intention. Indeed, in the post-treatment interview the therapist admitted that he struggled to get close to this client throughout their work together, and this disclosure seemed to be a manifestation of his frustration. Disclosures of facts early in therapy may help to further such aims as demonstrating the therapist's openness, establishing credibility, building rapport, and responding to client questions. Later in therapy, it seems that disclosures of facts do not add much therapeutic value. However, therapists may use them during the termination process to signal the changing nature of the relationship.

What kind of disclosures should therapists make? The highest-quality disclosures in this sample were disclosures of insight and disclosures of feelings that were directly relevant to client concerns and client material. In addition, disclosures that were

challenging or both reassuring and challenging received the highest quality ratings. Therapists should keep in mind that it is likely that therapist self-disclosure intimacy, like frequency, is likely "good up to a certain point" (Gelso and Palma, 2011, p. 347), but beyond that point it may cease to be useful or therapeutic. Consistent with Knox and Hill's (2003) recommendations, I suggest that therapists disclose with moderate levels of intimacy to maximize beneficial effects. I also recommend that therapists return the focus of the session to the client following self-disclosure and assess the effect of each disclosure.

Training and Research. For the purposes of training and research, it is important to conceptualize therapist self-disclosure as complex and multi-faceted, rather than as a monolithic intervention. Given the many and varied potential uses cited in the literature for therapist self-disclosure—encouraging honesty and understanding (Bugental, 1965; Jourard, 1971; Strassberg, Roback, D'Antonio, & Gabel, 1977); demonstrating genuineness, authenticity, realness, and mutuality (Robitschek & McCarthy, 1991; Goldstein, 1997); cultivating client openness, trust, intimacy, gains in self-understanding, and change (Hill & Knox, 2002; Rogers, 1951; Truax & Carkhuff, 1967); modeling and encouraging openness, vulnerability, strength, and sharing intense feelings (Rogers, 1951; Truax & Carkhuff, 1967; Knox, Hess, Petersen & Hill, 1997, Kottler, 2003); providing feedback, reducing client fears, and modeling effective functioning (Goldfried, Burckell, & Eubanks, 2003); decreasing the power imbalance in the relationship, empowering the client, and encouraging collaboration in therapy (Brown & Walker, 1990; Brown, 1994; Simi & Mahalik, 1997; Mahalik, Van Ormer, & Simi, 2000); and avoiding appearing "overly secretive" (Barnett, 2011, p. 316)—it makes

sense that different intentions and types would be associated with different levels of intimacy, quality, and session outcome ratings. Put concisely, therapist self-disclosure is not one therapeutic intervention, but many, and should be treated as such.

As an example, Ain and Gelso (2011) found a positive relationship between therapists' and patients' ratings of the amount of therapist self-disclosure and their ratings of the strength of the real relationship. This is an interesting finding but it treats therapist self-disclosure as a global entity rather than breaking disclosures down into the various types and examining relationships at a lower level. Whereas Ain and Gelso (2008) found clients' ratings of therapy outcome to be positively associated with their ratings of both amount of TSD used and appropriateness of TSD amount used, my results indicated that different types of disclosure tended to be differently related to post-session measures of the therapeutic relationship. I recommend that each type of therapist self-disclosure be taught and researched separately, with attention paid to differing intentions, impacts, and relationships with other variables (e.g., session outcome measures) based on disclosure type.

From a training perspective, it has been documented in the literature that it is hard to teach insight skills (Hill, 2009; Chui et al., in preparation; Jackson et al., in preparation; Spangler et al., in preparation) "because they are conceptually more complex and less structured and because students do not typically have the opportunity to develop the long-term therapeutic relationship needed to acquire deeper knowledge of a client's issues" (Spangler et al., in preparation, p. 4). Accordingly, more effort and attention may be required to teach how to make disclosures of insight or challenging disclosures than disclosures of facts, feelings, or insight, or reassuring disclosures. Based on the cited

research and on experience leading small groups of students learning helping skills, I would expect that students would find it difficult to learn to make disclosures that are simultaneously challenging and reassuring.

It would be informative for future research to include data from multiple perspectives (i.e., client, therapist, and observers) to provide a more comprehensive view of therapist self-disclosure and to allow for triangulation of findings. Use of an approach like interpersonal process recall to obtain post-session feedback from therapists and clients, respectively, about intentions for and effects of therapist self-disclosure would provide particularly useful information and may lead to insights into how therapist self-disclosures are formulated and received.

Appendices

Appendix A

Real Relationship Inventory – Client Form

Please use the following scale to evaluate your perceptions of yourself, your therapist, and your relationship with your therapist.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

R+5. My therapist liked the "real me."

G+7. I was open and honest with my therapist.

G+10. My therapist seemed genuinely connected to me.

G-12. My therapist was holding back his/her genuine self.

R+13. I appreciated my therapist's limitations and strengths.

R-14. We do not really know each other realistically.

G+15. My therapist and I were able to be authentic in our relationship.

G+19. My therapist and I expressed a deep and genuine caring for one another.

R+20. I had a realistic understanding of my therapist as a person.

R-21. My therapist did not see me as I really am.

G-22. I felt there was a significant holding back in our relationship.

R+23. My therapist's perceptions of me were accurate.

Genuineness items: 1, 3, 4, 7, 10, 11, 12, 15, 17, 19, 22, 24
Realism items: 2, 5, 6, 8, 9, 13, 14, 16, 18, 20, 21, 23,
Reversed scored items: 3, 6, 8, 12, 14, 21, 22, 24

From Kelley, F. A., Gelso, C. J., Fuertes, J. N., Marmarosh, C. L., Stacey, H. (2010). The real relationship inventory: Development and psychometric investigation of the client form. *Psychotherapy: Theory, Research, Practice, Training, 47(4)*, pp. 540-553.

Appendix B

Working Alliance Inventory – Short Revised – Client Form (WAI-SRC)

Instructions: Below is a list of statements and questions about experiences people might have with their therapy or therapist. Some items refer directly to your therapist with an underlined space -- as you read the sentences, mentally insert the name of your therapist in place of _____ in the text. Think about your experience in therapy, and decide which category best describes your own experience.

IMPORTANT!!! Take time to consider each question. Note that the anchors on the scales are different!!!!

1. As a result of these sessions I am clearer as to how I might be able to change.	① Seldom	② Sometimes	③ Fairly Often	④ Very Often	⑤ Always
2. What I am doing in therapy gives me new ways of looking at my problem.	④ Always	③ Very Often	② Fairly Often	① Sometimes	Seldom
3. I believe___likes me.	① Seldom	② Sometimes	③ Fairly Often	④ Very Often	⑤ Always
4. __ and I collaborate on setting goals for my therapy.	① Seldom	② Sometimes	③ Fairly Often	④ Very Often	⑤ Always
5. __ and I respect each other.	⑤ Always	④ Very Often	③ Fairly Often	② Sometimes	① Seldom
6. __ and I are working towards mutually agreed upon goals.	⑤ Always	④ Very Often	③ Fairly Often	② Sometimes	① Seldom
7. I feel that___appreciates me.	① Seldom	② Sometimes	③ Fairly Often	④ Very Often	⑤ Always
8. ___ and I agree on what is important for me to work on.	⑤ Always	④ Very Often	③ Fairly Often	② Sometimes	① Seldom

9. I feel ____ cares about me even when I do things that he/she does not approve of.	① Seldom	② Sometimes	③ Fairly Often	④ Very Often	⑤ Always
10. I feel that the things I do in therapy will help me to accomplish the changes that I want.	⑤ Always	④ Very Often	③ Fairly Often	② Sometimes	① Seldom
11. _____ and I have established a good understanding of the kind of changes that would be good for me.	⑤ Always	④ Very Often	③ Fairly Often	② Sometimes	① Seldom
12. I believe the way we are working with my problem is correct.	① Seldom	② Sometimes	③ Fairly Often	④ Very Often	⑤ Always

Note: Items copyright © Adam Horvath. Goal Items: 4, 6, 8, 11; Task Items: 1, 2, 10, 12; Bond Items: 3, 5, 7, 9

From Hatcher, R. L. & Gillaspy, J. A. (2006). Development and validation of a revised short version of the Working Alliance Inventory. *Psychotherapy Research, 16,* 12-25.

Appendix C

Types of Therapist Self-Disclosures

Type	Example
Disclosures of facts	"I have a Ph.D. in counseling psychology and work primarily with college students."
Disclosure of feeling	"When I have been in situations similar to yours, I felt scared because I didn't know how things would turn out for me."
Disclosures of insight	"When I was having a similar conflict with my male colleague, I realized that I shut down because I was afraid that he would reject me like my father did."
Disclosures of strategy	"When I faced circumstances like yours, it helped me to gather as much information as I could so that I would be prepared for what might happen."
Disclosures of reassurance/support*	"I understand your anxiety because I also have a difficult time when I have to give a talk."
Disclosures of challenge*	"I don't know if you are aware that I, too, am divorced, and have had to think hard about my contributions to the failure of the marriage."
Disclosures of immediacy	"As you describe the cold relationships in your family now, I am aware that I am feeling very distant and closed off from you. I wonder if that is similar to how you felt with your family?"

From Knox, S., & Hill, C. E. (2003). Therapist self-disclosure: Research-based suggestions for practitioners. *Journal of Clinical Psychology, 59*, pp. 529-539.

* The authors of the current study recommend removing disclosures of reassurance/support and disclosures of challenge from the typology, and evaluating whether disclosures are reassuring or challenging separately from categorizing disclosure type.

Appendix D

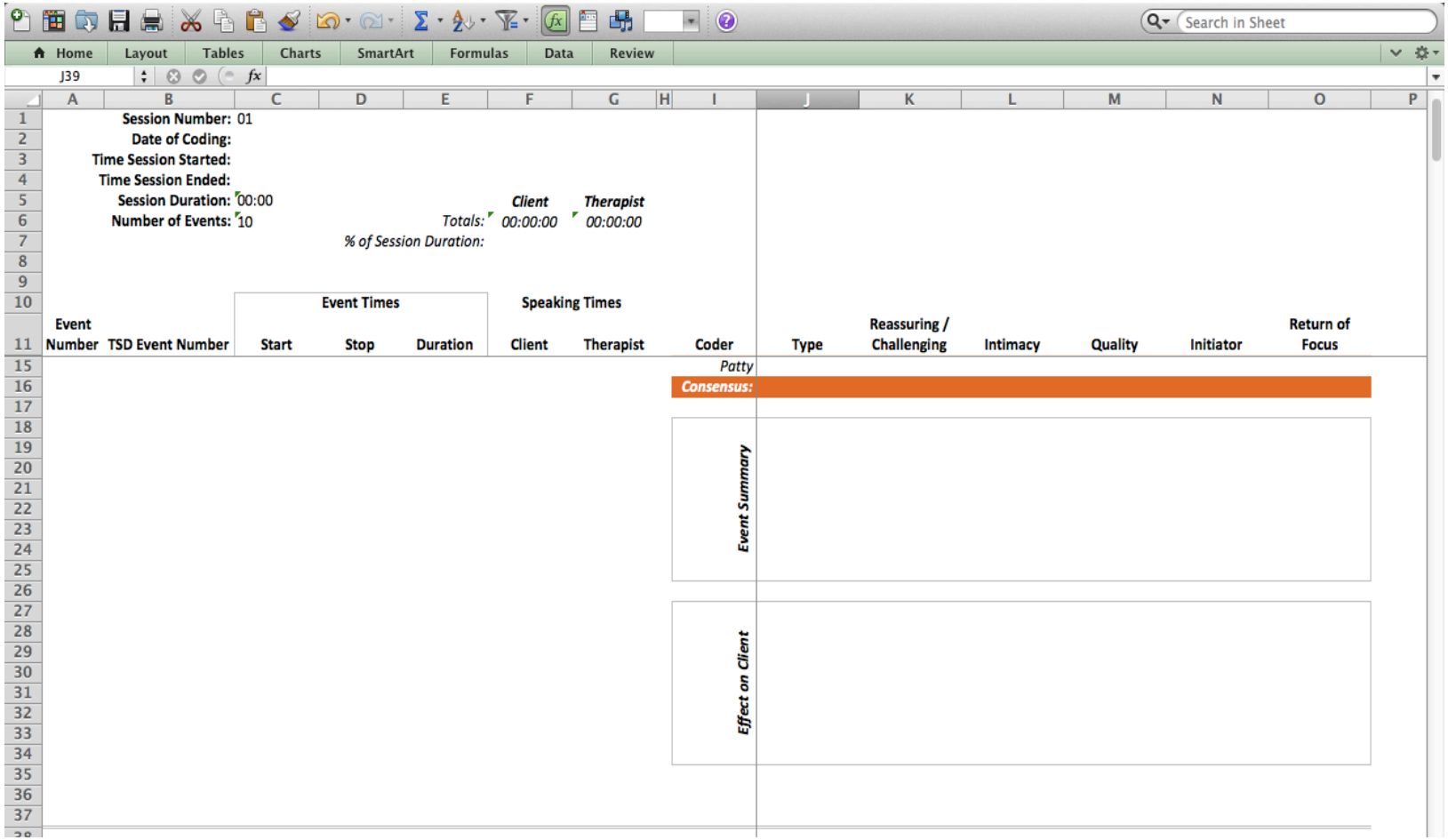
Phase 1 Coding Sheet – Identifying Self-Disclosure Events

Case	1012
Session #	2
Coder	Research Assistant Name
Date of coding	1/16/12
Time session started	0:00
Time session ended	47:52:00
Session duration	47 minutes 52 seconds

	Start Time	**Stop Time**	**Duration**	**Comments**
Silence	None			
Boundaries/processes	00:07	0:24	18 seconds	Description
Client asking therapist for advice	None			
Client asking therapist for disclosure	None			
Client asking therapist for feedback/reassurance	None			
Client secrets	None			
Client crying	None			
Client anger	None			
Client mentioning something therapist did/said in past session that was helpful	None			
Laughter	16:34	16:38	4 seconds	Description
	20:34	20:35	1 second	Description
Therapist disclosing	None			
Therapist immediacy	None			
Therapist apology	None			
Therapist giving advice	None			
Therapist giving feedback/reassurance	09:17	09:35	18 seconds	Description
	22:05	22:07	2 seconds	Description
Unusual events	None			

Appendix E

Phase 2 Coding Sheet – Therapist Self-Disclosures



Appendix F

Coding Guide for Phase 2 Coding Sheet – Self-Disclosures

Type: 1 – facts, 2 – feeling, 3 – insight, 4 – strategy

Reassuring/Challenging: therapist's intention, rated on a 4-point scale (neither, reassuring, challenging, both)

Intimacy: rated on a 9-point scale (1= lowest, 9 = highest), considering: level of intimacy of disclosure content, emotional context of TSD, and therapist's vulnerability

Quality: rated on a 3-point scale (low, medium, high). Includes evaluation of whether disclosure: is reciprocal (i.e., in response to a similar client disclosure or relevant to what client has said) based on evaluation of content of the client's speaking turns for ten minutes prior to the start of the TSD event; benefits relationship between client and therapist; contributes to the therapeutic bond; and is relevant to the therapeutic work (i.e., the client's issues).

Initiator: client or therapist

Return of Focus: rated yes/no; therapist returns focus to client (i.e., therapist does not monopolize focus of session); note: if TSD event occurs at the end of the session and there is no opportunity to return focus to client, the event would receive a "no" rating

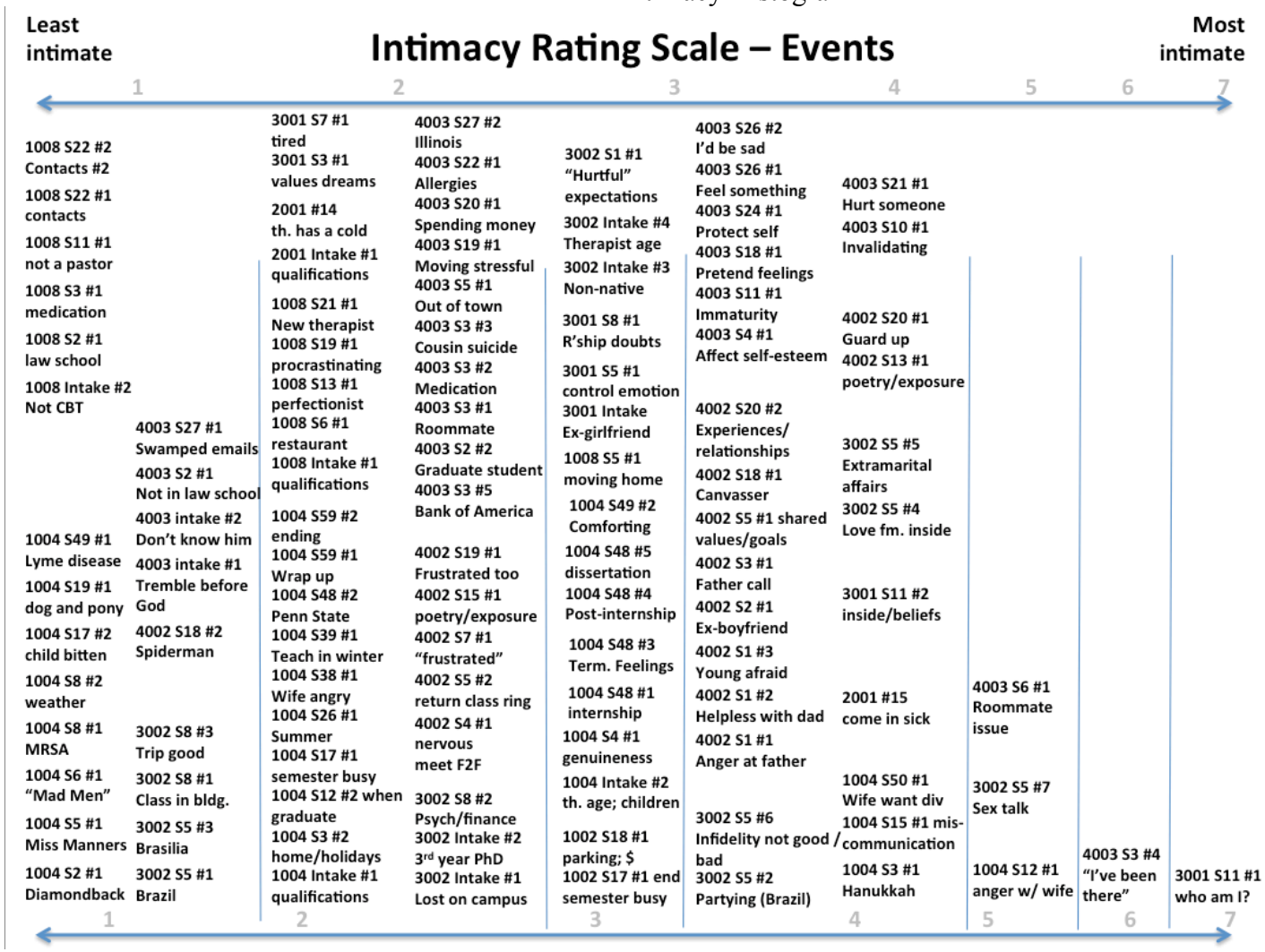
Event Summary: narrative description of content of TSD event

Effect on Client: narrative description of client's response to TSD event, if any

Case Summary: after coding all TSDs within a case, write a narrative description of how self-disclosure was used within the entire case

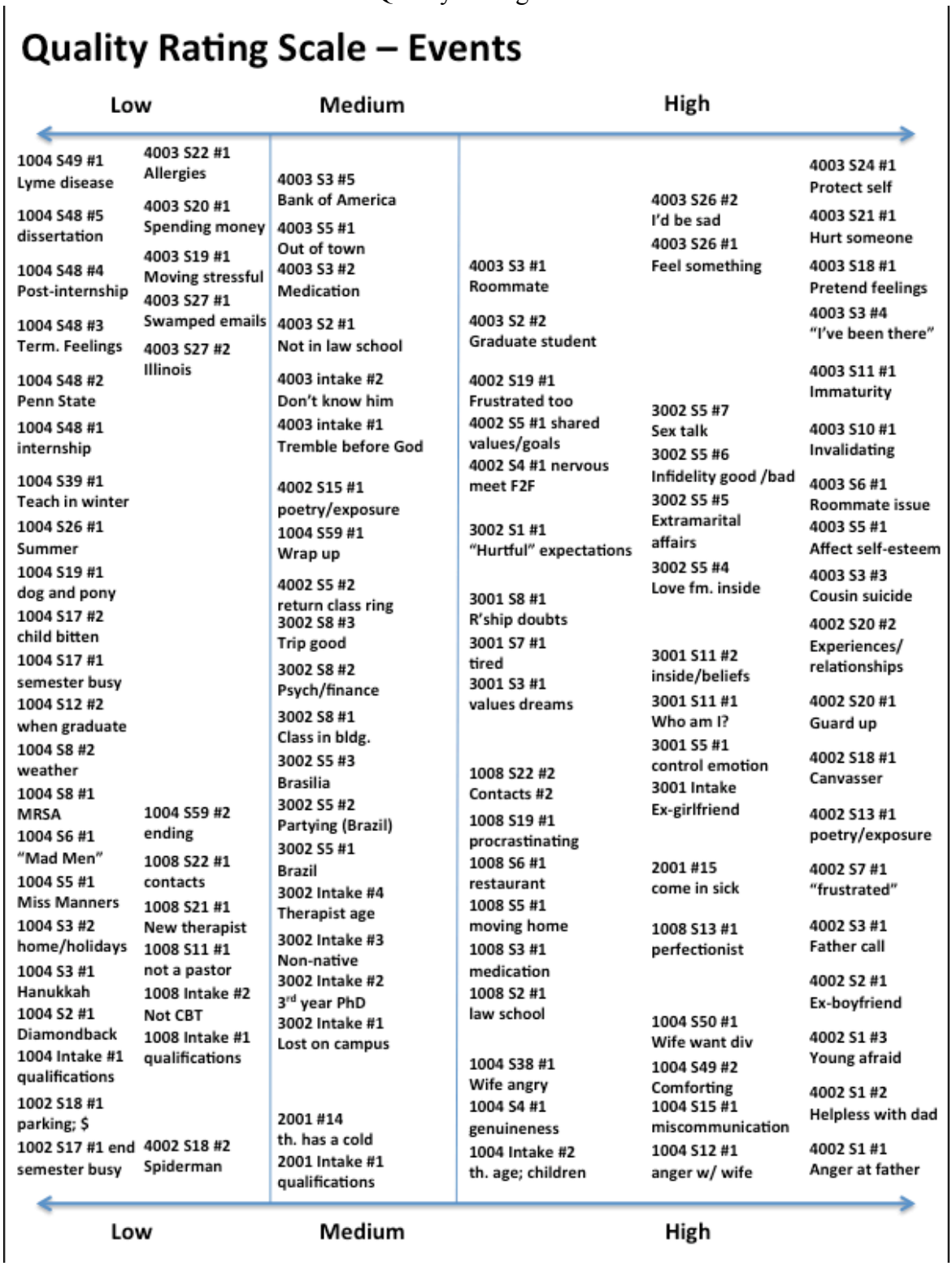
Appendix G

Intimacy Histogram



Appendix H

Quality Histogram



Appendix I

Client Demographic Form

Date: _____ Code (internal use only): _____

Age: _____

Sex: ☐ Male ☐ Female

Race/Ethnicity: (check as many as apply):

☐ White American
☐ African American
☐ Asian American/Pacific Islander
☐ Hispanic American
☐ Native American/Alaskan Native
☐ Middle Eastern
☐ Multiethnic (please specify: _____)
☐ International (please specify: _____)
☐ Other (please specify: _____)

Highest educational degree achieved: ☐ High School ☐ Bachelor's ☐ Master's ☐ Doctorate

Year at university (Check one): ☐ FRSH ☐ SOPH ☐ JUNR ☐ SENR ☐ GRAD ☐ NOT STUDENT

Major or field of study at university (if applicable): _____

OR current job: _____

Are you currently in counseling or psychotherapy? ☐ YES ☐ NO

Have you ever consulted a psychologist, therapist, social worker, counselor, or psychiatrist for any problem? (Check one): ☐ YES ☐ NO

Appendix J

Researcher Demographic Form

Date: _____ Code (internal use only): _____

Age: _____

Sex: ☐ Male ☐ Female

Race/Ethnicity: (check as many as apply):

☐ White American
☐ African American
☐ Asian American/Pacific Islander
☐ Hispanic American
☐ Native American/Alaskan Native
☐ Middle Eastern
☐ Multiethnic (please specify: _____)
☐ International (please specify: _____)
☐ Other (please specify: _____)

Year at university (Check one): ☐ FRSH ☐ SOPH ☐ JUNR ☐ SENR ☐ GRAD ☐ NOT STUDENT

Major or field of study at university: _____

Appendix K

Detailed Definition For Coding – Therapist Disclosing

Overview of Disclosure

	Disclosure of Feelings	**Disclosure of Insight**	**Disclosure of Strategies**
Definition	Disclosure of feelings is a statement about a feeling that the helper had in a similar situation as the client	Disclosure of insight refers to the helper's presentation of a personal experience (not in the immediate relationship) in which he or she gained some insight	Disclosure of strategies refers to the helper's presentation of actions that s/he has used in the past to cope w/ problems
Typical helper intentions	• To identify and intensify feelings • To encourage catharsis • To clarify • To instill hope • To encourage self-control	• To promote insight • To deal w/ resistance • To challenge • To relieve the therapist's needs	• To promote change
Examples	"When I was breaking up with my boyfriend, I felt sad." "If I were in your situation, I might feel angry."	"In the past, I often did not want others to feel upset by my successes, so I would underplay anything I did well. I wonder if that happens for you?" "I indulge in some bad habits just like you. I know they're bad habits, but just like you, I don't want to change them. I discovered that my mother was very controlling. Does that fit for you?"	"When I have been in similar situations with my mother, I call her and ask to talk. I try to be as honest as possible and let her know that I messed up. Usually she is pretty understanding."

Disclosure of Feelings

- When the helper suggests a feeling that he or she had in a similar situation as the client
- Can be real: "When I was in that situation, I felt stressed, " hypothetical: "If I were in your situation, I might feel stressed", or how the helper feels hearing the client talk (e.g., "Hearing you talk about that makes me feel stressed.")
- Disclosures of feelings can be used to model for clients what they might be feeling
  - Can stimulate clients to recognized and express their feelings
  - Can be helpful for clients who are afraid to experience their feelings, esp. feelings of shame and embarrassment
- Disclosure of feelings can help clients feel more normal because they learn other people have similar feelings; hearing that others have felt the same way can be a tremendous relief

  - Yalom (1995) posited that **universality** (i.e., a sense that others feel the same way) is a curative agent in therapy
- Disclosures of feelings can be a good way for helpers not to impose feelings on clients
  - Being respectful by owning that they are the ones who have the feelings
  - Acknowledge their projections and then ask how clients feel
  - Afterward, helpers should turn focus back to client

Disclosures of Insight

- A disclosure of insight reveals an understanding the helper has learned about him- or herself and is used to facilitate the client's understanding of his / her thoughts, feelings, behaviors, and issues
- Instead of using challenges or interpretations, **helpers share insights that they have learned about themselves in the hope of encouraging clients to think about themselves at a deeper level**
- Note that the intention is not to further the helper's understanding of him- or herself, but to **facilitate client insight**
- The key feature is that the helper has a hint about an insight that might help the client and **uses his or her experience to present the insight in a more tentative way than an interpretation**

Disclosure of Strategies

- Helpers make suggestions through **disclosing strategies** that they personally have tried in the past (another form of disclosure)
- Rather than telling clients what to do, helpers provide suggestions through disclosing what has worked for them previously if they think their strategy might work for the client
- Helpers then turn the focus back to the clients and ask for their reaction

From Hill, C. E. (2009). Helping Skills: Facilitating Exploration, Insight, and Action. 3rd Edition. Washington, D.C.: American Psychological Association.

Appendix L

Summary of Immediacy Study Conducted with 16 Cases Included in Current Study

Immediacy study of 16 cases in current study. Hill et al. (under review) investigated the uses and consequences of immediacy—one type of TSD (Knox & Hill, 2003)—in the 16 cases of psychodynamic psychotherapy examined in the current study. They found that immediacy events were brief (*M* = 285 seconds), infrequent (5% to 14% of total time in therapy), and generally initiated by the therapist (85%). Immediacy events—which could be coded into more than one type—were focused on: helping clients explore unexpressed feelings about the therapeutic relationship (59%), negotiating tasks and goals (26%), discussing parallels to other relationships (26%), and discussing ruptures (8%). The authors evaluated the consequences of immediacy on an event-level basis and on a case-level basis. The most common consequences in the event-level analysis were: the client expressing feelings about the therapist or therapy (50% of events); establishment or clarification of boundaries (36%); no consequences (24%); and the client feeling reassured or validated (13%). The most common consequences in the case-level analysis were: client expressing feelings toward the therapist or therapy (50% of cases); client gaining insight (50%); boundary establishment or clarification (44%); no consequences (19%); client feeling reassured or validated (13%); and 12% each for establishment of relationship, repair of ruptures, and corrective relational experience. While 8% of events were found to have negative effects in the event-level analysis, no negative effects were found in the overall case-level analysis. The authors suggested that the reason for this discrepancy could be that negative effects were minor and temporary.

Eleven of the clients participated in post-therapy interviews, and each of them remembered immediacy events, with 8 indicating extremely positive effects and 3

indicating neutral effects. The authors noted that while the majority of the clients interviewed described immediacy in therapy as helpful and positive, the five clients who terminated without interviews could have had negative things to say. Hill et al. (under review) also evaluated the relationship between immediacy and post-session ratings of process and outcome by both clients and therapists. They found that the number of immediacy events was related to therapists' but not to clients' post-session evaluations, and that there were no correlations above .30 for average (observers') quality ratings or average event length with client or therapist post-session measures. They further found that immediacy amount and quality were not associated with clients' changes in interpersonal functioning over the course of therapy.

Hill et al. (under review) also analyzed the association of clients' pre-therapy (self-reported) attachment style (eight fearful vs. eight secure clients) and therapists' use of immediacy types. Immediacy events with fearful clients were initiated by therapists more often, rated as higher in quality, and longer in duration, than immediacy events with secure clients. In addition, with fearful clients, fewer events focused on tasks and ruptures and more focused on feelings. The authors emphasized that with the 16 cases in their study, client attachment style moderated both therapists' use of and the consequences of immediacy. They concluded that immediacy is not necessarily appropriate for every client, but that it is helpful and has positive effects some of the time, depending on the therapist, the client, and the situation.

Appendix M

Empty Models

Outcome variable: Reassuring/challenging descriptor. At Level 1, the empty model for between-events for the outcome variable reassuring/challenging descriptor was:

$$DISCLOSURE\_REASSURING/CHALLENGING\_DESCRIPTOR_{ijk} = \pi_{0jk} + e_{ijk}$$

where $DISCLOSURE\_REASSURING/CHALLENGING\_DESCRIPTOR_{ijk}$ is the reassuring/challenging descriptor of therapist self-disclosure for event *i* of session *j* for client *k*; π_{0jk} is the mean reassuring/challenging descriptor for session *j* for client *k*; and e_{ijk} is the random event effect, or the deviation of event *ijk*'s score from the session mean.

At Level 2, the session level, the model was:

$$\pi_{0jk} = \beta_{00k} + r_{0jk}$$

where π_{0jk} is the mean reassuring/challenging descriptor for session *j* for client *k*; β_{00k} is the mean reassuring/challenging descriptor for client *k*; and r_{0jk} is the random session effect, or the deviation of session *jk*'s mean from the client mean.

At Level 3, the client level, the model was:

$$\beta_{00k} = \gamma_{000} + u_{00k}$$

where β_{00k} is the mean reassuring/challenging descriptor for client *k;* γ_{000} is the grand mean for the disclosure reassuring/challenging descriptor; and u_{00k} is the random client effect, or the deviation of client *k*'s mean from the grand mean.

Outcome variable: Initiator. At Level 1, the empty model for between-events for the outcome variable initiator was:

$$INITIATOR_{ijk} = \pi_{0jk} + e_{ijk}$$

where $INITIATOR_{ijk}$ is the initiator of therapist self-disclosure occurrence for event *i* of session *j* for client *k*; π_{0jk} is the mean initiator for session *j* for client *k*; and e_{ijk} is the random event effect, or the deviation of event *ijk*'s score from the session mean.

At Level 2, the session level, the model was:

$$\pi_{0jk} = \beta_{00k} + r_{0jk}$$

where π_{0jk} is the mean initiator for session *j* for client *k*; β_{00k} is the mean initiator for client *k*; and r_{0jk} is the random session effect, or the deviation of session *jk*'s mean from the client mean.

At Level 3, the client level, the model was:

$$\beta_{00k} = \gamma_{000} + u_{00k}$$

where β_{00k} is the mean initiator for client *k;* γ_{000} is the grand mean for the disclosure initiator; and u_{00k} is the random client effect, or the deviation of client *k*'s mean from the grand mean.

Outcome variable: Focus return. At Level 1, the empty model for between-events for the outcome variable focus returned was:

$$FOCUS_{ijk} = \pi_{0jk} + e_{ijk}$$

where $FOCUS_{ijk}$ is the focus returned code of therapist self-disclosure occurrence for event *i* of session *j* for client *k*; π_{0jk} is the mean focus returned for session *j* for client *k*; and e_{ijk} is the random event effect, or the deviation of event *ijk*'s score from the session mean.

At Level 2, the session level, the model was:

$\pi_{0jk} = \beta_{00k} + r_{0jk}$

where π_{0jk} is the mean focus return for session *j* for client *k*; β_{00k} is the mean focus return for client *k*; and r_{0jk} is the random session effect, or the deviation of session *jk*'s mean from the client mean.

At Level 3, the client level, the model was:

$\beta_{00k} = \gamma_{000} + u_{00k}$

where β_{00k} is the mean focus return for client *k;* γ_{000} is the grand mean for the disclosure focus return; and u_{00k} is the random client effect, or the deviation of client *k*'s mean from the grand mean.

Outcome variable: Intimacy. At Level 1, the empty model for between-events for the outcome variable intimacy returned was:

$INTIMACY_{ijk} = \pi_{0jk} + e_{ijk}$

where $INTIMACY_{ijk}$ is the intimacy level of therapist self-disclosure occurrence for event *i* of session *j* for client *k*; π_{0jk} is the mean intimacy for session *j* for client *k*; and e_{ijk} is the random event effect, or the deviation of event *ijk*'s score from the session mean.

At Level 2, the session level, the model was:

$\pi_{0jk} = \beta_{00k} + r_{0jk}$

where π_{0jk} is the mean intimacy for session *j* for client *k*; β_{00k} is the mean intimacy for client *k*; and r_{0jk} is the random session effect, or the deviation of session *jk*'s mean from the client mean.

At Level 3, the client level, the model was:

$\beta_{00k} = \gamma_{000} + u_{00k}$

where β_{00k} is the mean intimacy for client *k;* γ_{000} is the grand mean for disclosure intimacy; and u_{00k} is the random client effect, or the deviation of client *k*'s mean from the grand mean.

Outcome variable: Quality. At Level 1, the empty model for between-events for the outcome variable intimacy returned was:

$$QUALITY_{ijk} = \pi_{0jk} + e_{ijk}$$

where $QUALITY_{ijk}$ is the quality of therapist self-disclosure occurrence for event *i* of session *j* for client *k*; π_{0jk} is the mean quality for session *j* for client *k*; and e_{ijk} is the random event effect, or the deviation of event *ijk*'s score from the session mean.

At Level 2, the session level, the model was:

$$\pi_{0jk} = \beta_{00k} + r_{0jk}$$

where $\pi 0jk$ is the mean quality for session *j* for client *k*; $\beta 00k$ is the mean quality for client *k*; and *r0jk* is the random session effect, or the deviation of session *jk*'s mean from the client mean.

At Level 3, the client level, the model was:

$$\beta_{00k} = \gamma_{000} + u_{00k}$$

where $\beta 00k$ is the mean quality for client *k;* $\gamma 000$ is the grand mean for disclosure quality; and *u00k* is the random client effect, or the deviation of client *k*'s mean from the grand mean.

Appendix N

Review of Literature

This chapter includes an overview of differing theoretical perspectives on TSD and summaries of relevant empirical findings from the literature. I consider analogue studies as well as investigations of the intervention in naturally occurring psychotherapy. I conclude with a summary of key findings from the literature.

Theoretical Perspectives

In the past, psychoanalytic therapists argued that use of self-disclosure shifts the focus away from the client and therefore threatens to interfere with the therapeutic process (Freud, 1912/1958; Greenson, 1967; Curtis, 1982). They maintained that therapist self-disclosure hinders therapists' ability to act as a mirror or "blank screen" onto which clients project their emotional reactions, according to traditional psychoanalytic theory (Freud, 1912/1958, p. 118). In addition to raising concerns about disruption of therapeutic anonymity (Greenson, 1967) and inhibiting clinicians' ability to work with client transference (Goldstein, 1997), traditional psychoanalytic theorists feared that self-disclosure may reveal therapist weaknesses or vulnerabilities, thereby undermining the therapist's credibility in the client's eyes (Curtis, 1981, 1982) and damaging client trust in the therapist. However, contemporary psychoanalysis replaces the "blank screen" conception of the analyst with "a more active and interactional therapeutic role," (Eagle, 2011, p. 196), which for some, includes advocating use of therapist self-disclosure (Bridges, 2001; Davies, 1998; Ehrenberg, 1995).

Among the first to embrace the use of TSD (Henretty & Levitt, 2010; Farber, 2006), humanistic theorists argue that therapist self-disclosure has a positive impact on

treatment, enhancing therapy's effectiveness (Jourard, 1971; Derlega, Hendrick, Winstead, & Berg, 1991; Kaiser, 1965) by encouraging honesty and understanding as a foundation for a stronger therapeutic relationship (Bugental, 1965; Jourard, 1971; Strassberg, Roback, D'Antonio, & Gabel, 1977). Specifically, they postulate that therapists can demonstrate genuineness, authenticity, realness, and mutuality through TSD (Robitschek & McCarthy, 1991; Goldstein, 1997), which lays the groundwork for cultivating client openness, trust, intimacy, gains in self-understanding, and change (Hill & Knox, 2002; Rogers, 1951; Truax & Carkhuff, 1967). Humanists also point out that TSD enables therapists to model and encourage openness, vulnerability, strength, and sharing intense feelings (Rogers, 1951; Truax & Carkhuff, 1967; Knox, Hess, Petersen & Hill, 1997; Kottler, 2003) as well as to avoid appearing "overly secretive" (Barnett, 2011, p. 316). In his analysis of the ethical and clinical considerations surrounding TSD, Barnett (2011) suggested that a policy of rigidly failing to share any personal information with the client could potentially damage the relationship and the client by engendering "a very sterile psychotherapeutic environment." (p. 317).

Cognitive-behavioral therapists have also espoused the use of TSD. Goldfried, Burckell, and Eubanks (2003) described it as a tool that is useful for: "strengthening the therapeutic bond and facilitating client change," (p. 555), providing feedback, reducing client fears, and modeling effective functioning. Feminist and multicultural therapists use self-disclosure to decrease the power imbalance in the relationship, empower the client, and encourage collaboration in therapy (Brown & Walker, 1990; Brown, 1994; Simi & Mahalik, 1997; Mahalik, Van Ormer, & Simi, 2000).

In sum, therapists and theorists of various orientations seem to be converging on the belief that TSD can have a variety of beneficial effects if used intentionally and judiciously and that avoiding disclosure in all circumstances may have detrimental effects on both the client and the therapy.

Empirical Background

In this section I consider analogue studies as well as investigations of TSD in naturally occurring psychotherapy, providing an overview of findings from the literature from the past 4 decades.

Analogue studies. Henretty and Levitt (2010) and Hill and Knox (2002) summarized the TSD literature, emphasizing that most research in this area has used analogue data. As described below, definitions of and rating scales for self-involving and self-disclosing statements varied, and results from these studies were mixed (Hill, Mahalik, & Thompson, 1989).

Hoffman-Graff (1977) used an experimental manipulation to examine how use of three positive or negative self-disclosures affected interviewee perceptions of the interviewer and of their own behavior in a study that was described to potential participants as "an investigation of procrastination through an interview with an experienced counselor." (p. 185). While controlling intimacy, frequency, and duration of disclosures, as well as sex pairing of interviewer and subject, the author manipulated disclosure content (i.e., positive or negative) during 20-minute standardized interviews with participants. Positive disclosures were defined as "statements revealing personal strengths or positive experiences and personal characteristics"; negative disclosures were defines as "interviewer statements revealing personal foibles or negative experiences and

personal characteristics." (p. 184). Results indicated that interviewees (72 introductory psychology students participating in the study for extra credit; 36 female, 36 male) perceived interviewers (6 counseling psychology doctoral students; 3 female, 3 male) using negative disclosures as more empathic, warm, and credible than those using positive disclosures. In addition, these interviewees' pre-interview and post-interview estimates of how much they procrastinate decreased. However, procrastination estimates by participants in the positive disclosure condition increased following the interview. It is important to note that the content of the "positive" disclosures indicated that the interviewer did not struggle with procrastination, thereby suggesting that they were unlike the interviewee, while those in the "negative" disclosure condition indicated that the interviewer and interviewee shared a tendency to procrastinate. The author concluded that admitting to personal weaknesses caused interviewers to be perceived more favorably by interviewees, perhaps by establishing a more equitable relationship in which the interviewee's risk of rejection was decreased. She attributed interviewees' changed perceptions of their own levels of procrastination following the interview to social comparison theory. She further suggested based on this change in self-perception that counselor positive or negative self-disclosure could be used in a similar way therapy to modify clients' perceptions of the severity of their problems.

McCarthy and Betz (1978) used audiotaped 11-minute simulated counseling interviews as stimuli in an investigation of the effects of self-involving disclosures (defined as present tense statements about the therapist's personal response to the client; also known today as immediacy) and self-disclosing statements (defined as using past tense statements regarding the therapist's personal experiences). The counselor

interviewed the (female) client about her dissatisfaction with herself, her lack of friends, and difficulties with her parents. Counselor disclosures were all positive in nature. One interview included 10 positive self-disclosing statements, which expressed similarity of personal experiences between counselor and client; the other contained 10 positive self-involving statements, which expressed positive feelings about or reactions to the client. After listening to one of the recorded interviews, 107 female undergraduate volunteer "clients" (enrolled in an introductory psychology course) rated their perceptions of counselor expertness, attractiveness, and trustworthiness and generated written responses. The authors found that therapists in the self-involving condition were rated as significantly more trustworthy and expert than therapists in the self-disclosing condition. No difference was found for attractiveness. Volunteer clients in the self-involving condition used more present-tense self-referent statements, less counselor-referents, and less questions about the counselor when responding to the recorded stimulus than those in the self-disclosing condition. The authors concluded that self-involving and self-disclosing statements elicit different responses from clients (in terms of the written response) and result in different perceptions of the counselor. They emphasized the importance of these findings for clinical practice, suggesting that self-involving responses may enhance client exploration and maintain a focus on the client, while self-disclosing statements may be a distraction from client exploration and shift the focus of the session to the counselor.

In contrast to the McCarthy and Betz (1978) study, using the same definitions and an experimental manipulation, Dowd and Boroto (1982) did not find differences among the self-involving and self-disclosing conditions in perceived expertness or

trustworthiness of therapists as rated by 217 upper-class undergraduate education majors after viewing videotaped 20-minute simulated counseling sessions in which an advanced doctoral student in clinical or counseling psychology interviewed a (male undergraduate volunteer) "client" about stress. There were five conditions, with the (male) counselor ending the session in different ways in each video: 1) summarized session, 2) disclosed a past personal problem (that resembled the client's concern), 3) disclosed a present personal problem (that resembled the client's concern), 4) engaged in self-involving statements, or 5) offered dynamic interpretation. Though there were no differences among the present self-disclosure, past self-disclosure, and self-involving conditions in terms of perceived counselor attractiveness, counselors in all three of those conditions were perceived as more attractive than those in the summary and dynamic interpretation conditions.

Reynolds and Fischer (1983) modified the audiotaped simulated counseling session from the McCarthy and Betz (1978) study and used the resulting 6-minute recording to examine whether 80 female introductory psychology student volunteer "clients" would respond differently to self-involving statements (of the counselor's personal reactions to the client during the session) and self-disclosing statements (about the counselors personal experiences or feelings outside the session). Disclosures also varied along a positive-negative dimension and by content (personal vs. professional). Positive self-disclosure was defined as the counselor disclosing positive personal information. Negative self-disclosure was defined as the counselor disclosing negative personal information. When using positive self-involving statements the counselor expressed a positive personal reaction to the client. When using negative self-involving

statements, the counselor revealed "a negative, but not critical personal feeling regarding a statement made by the client, e.g., 'I'm kind of frustrated that I don't understand what you're saying'" (p. 452). Supporting the McCarthy and Betz findings, results indicated that a female therapist using self-involving disclosures was rated as more credible than one using self-disclosing statements and that self-disclosing statements focused the subjects' attention on the counselor, while self-involving statements maintained focus on the client. In contrast to Hoffman-Graff's (1977) findings that negative interviewer disclosure increases credibility ratings, differences among ratings were not found between therapist disclosures of positive feelings when compared with therapist disclosures of negative feelings.

More recently, Myers and Hayes (2006) examined the effects of general disclosures, countertransference disclosures (defined as disclosure of "internal and overt reactions to clients that are rooted in therapists' unresolved intrapsychic conflicts," p. 173), and no disclosures by the therapist (in one of three videotaped 10-minute simulated therapy sessions—one session for each disclosure condition) on undergraduate psychology and education students' perceptions of session depth and positivity and therapist expertise, trustworthiness and attractiveness in the context of either a positive or negative working alliance. In the positive alliance condition, students rated the session as deeper and the therapist as more expert when the therapist made general disclosures (rather than no disclosures or countertransference disclosures). When students believed the alliance was negative, they rated the session as shallower and the therapist less expert when general or countertransference disclosures were made, and rated expertness and depth higher when no disclosures were made. No differences were found among the

disclosure conditions (general, countertransference, none) for students' ratings of therapist trustworthiness or attractiveness. However, Myers and Hayes found that there was a difference in students' ratings of disclosure conditions based on whether the student had prior therapy experience. Specifically, students who had been in therapy before rated sessions deeper and more positive in the countertransference disclosure condition than in the general disclosure condition; students who had not had prior therapy experience rated sessions deeper and more positive in the general self-disclosure condition than in the countertransference disclosure condition. The authors concluded that when the relationship is weak, both general and countertransference disclosures may be problematic, but when the relationship is strong, general disclosure may be beneficial (i.e., perceived as deeper and more positive.) They emphasized the differential pattern of students' ratings based on past therapy experience and the importance of considering the context (i.e., client's prior therapy experience and expectations and the strength of the working alliance) before disclosing.

Yeh and Hayes (2011) investigated the effects of therapist disclosures of more and less resolved countertransference issues on undergraduate students' perceptions of therapist (attractiveness, trustworthiness, expertness, and ability to instill hope) and therapy session (depth, smoothness, and universality between client and therapist) based on students' viewing one of two 12-minute "therapeutic interactions" simulated by two actors (p. 323). They found that students perceived a therapist who disclosed relatively resolved countertransference issues as more trustworthy, attractive, and better at providing hope, than a therapist who discloses unresolved countertransference issues. However, type of countertransference disclosure (resolved vs. unresolved) did not affect

students' perceptions of: therapist expertise, session depth or smoothness, or universality between client and therapist. Yeh and Hayes also compared students' ratings based on prior therapy experience, and contrary to the findings of Myers and Hayes (2006), they did not find differences on any measured variables as rated by students who had or had not been in therapy previously.

Summary of analogue studies. Analogue research has used varying definitions of and rating scales for coding self-disclosure, and varying "doses" or quantities, making it difficult to reach overall conclusions. For example, based on the scenarios used in their manipulations, Hoffman-Graff (1977) and McCarthy and Betz (1978) operationalized "positive self-disclosure" in such a way that their meanings were opposite. In the former study, positive self-disclosure was described as a statement revealing personal strengths or positive experience or characteristics of the interviewer. As operationalized, this meant that the interviewer *revealed something dissimilar to the client's experience,* namely, the interviewer did not procrastinate like the interviewee did. However, in the McCarthy and Betz (1978) study, positive self-disclosure was defined as past-tense statements regarding the therapist's personal experiences that *expressed similarity of experience between the counselor and the client*.

In addition, the experimental manipulations varied significantly. In the closest approximation to actual therapy in the analogue studies reviewed, Hoffman-Graff (1977) used a 20-minute live interview and compared a condition with 3 *positive* self-disclosures to a condition with 3 *negative* self-disclosures. McCarthy and Betz (1978) used an 11-minute simulated audiotaped counselor interview to compare 10 positive *self-involving* disclosures with 10 positive *self-disclosing* disclosures. Dowd and Boroto (1982)

manipulated only the ending (last 5 minutes) of a 20-minute videotaped simulated counseling session, with different 5 scenarios, one including disclosure of a past personal problem that resembled the client's concern, one including disclosure of a present personal problem that resembled the client's concern, and one including self-involving statements. Reynolds and Fischer (1983) modified the McCarthy and Betz (1978) audiotape so the conditions comparing positive and negative self-involving and self-disclosing statements entailed 6-minute simulated counseling sessions.

The findings of these analogue studies have been informative and intriguing, but mixed, indicating that: 1) students' previous experience in therapy may or may not affect their ratings of TSD types, therapist, and therapy session; 2) beliefs about the strength of the working alliance prior to TSD may be an important contextual factor that affects students' ratings of TSD events, therapists, and therapy sessions; and 3) TSD (in its varying types) may or may not affect: a) students' perceptions of "therapist" trustworthiness, expertise, empathy, warmth, credibility, attractiveness, professionalism, and ability to inspire hope; b) students' levels of self-disclosure; c) students' ratings of session smoothness, depth, and positivity; and d) students' helpfulness ratings for TSD (McCarthy & Betz, 1978; Dowd & Boroto, 1982; Hoffman-Graff, 1977; Reynolds & Fischer, 1983; Myers & Hayes, 2006; Yeh & Hayes, 2011).

Analogue and simulated studies have provided interesting and provocative perspectives, and offer the benefit of experimentally controlling variables of interest. However, many of these studies used non-client (student) volunteers in single brief (e.g., 6-, 10- or 12-minute) sessions, and/or asked participants to respond to recorded or written (analogue) client and/or therapist stimuli, neither of which is a close approximation of

actual therapy. Hill and Knox (2002) suggested that results of analogue studies might not be generalizable to real therapy. For example, Kushner, Bordin, and Ryan (1979) compared therapist responses to a filmed client (an analogue) with therapist responses to real clients in intake sessions, and found that therapists behaved differently in the two situations. The researchers concluded, "One cannot assume that results obtained in analogues can be extrapolated to real therapy settings," and emphasized, "therapist behavior is highly responsive to situational factors" (Kushner et al., 1979, p. 766). In other words, the complex context of real-life therapeutic dyads cannot be recreated in therapy simulations. It is difficult, if not impossible, to simulate contextual variables such as client and therapist background, much less the interplay between the two individuals (i.e., the moment-by-moment interactional sequence (Hill, 2009) of therapist intentions and interventions with client reactions, perceptions, and changing needs and goals.)

Naturally-occurring psychotherapy. Hill et al. (1988) examined the effects of therapist response modes using the revised Hill Counselor Verbal Response Modes Category System (Hill, 1985, 1986), as well as their relationships with therapist intentions and client experiencing, in eight cases of brief psychotherapy. They found that TSD received the highest client helpfulness ratings of all response modes and led to the highest client experiencing levels. The researchers posited that clients value TSD because it makes the therapist more human and equalizes the power in the relationship. However, therapists were divided in their reactions, with three rating TSD as the most helpful response mode and five rating it least helpful. Hill et al. (1988) suggested that therapists may have felt vulnerable while disclosing or uncomfortable with the

accompanying power shift, and rated TSD lower for these reasons. They emphasized that the mixed finding among therapists is consistent with the theoretical literature, in which psychoanalytic writers (e.g., Curtis, 1981) oppose TSD and humanistic therapists (e.g., Meador & Rogers, 1984; Carkhuff, 1969) espouse its use.

In a further analysis of the Hill et al. (1988) data, Hill, Mahalik, and Thompson (1989) judges rated two dimensions of TSD (involving/disclosing and reassuring/challenging), and then looked at these ratings in relation to other process variables. Clients and therapists rated reassuring disclosures as more helpful than challenging disclosures, and indicated that the former led to higher levels of client experiencing than did the latter. The researchers concluded that reassuring disclosures facilitated client progress, equalized the relationship, and increased clients' feelings of safety, though they noted that the reassuring/challenging scale applied more readily to self-involving than to self-disclosing revelations by therapists. Contrary to findings in previous analogue literature (McCarthy & Betz, 1978; Reynolds & Fischer, 1983), Hill et al. (1989) did not find involving disclosures to be more helpful than disclosing disclosures. On the basis of these results, Hill et al. (1988) suggested that there were several types of TSD: facts, similarity between therapist and client, feelings, and strategies. Knox and Hill (2003) later revised these into seven types: facts, feelings, insight, strategies, reassurance/support, challenge, and immediacy. See Appendix C for descriptions of each type.

In a qualitative analysis of client perceptions of the effects of helpful TSD, Knox, Hess, Petersen, and Hill (1997) interviewed 13 adult long-term psychotherapy clients about their experience of helpful self-disclosure. They found that clients characterized

helpful therapist disclosures as important, memorable events. Specifically, clients perceived TSD as occurring when they were discussing important personal issues. They felt TSDs were intentional and that therapists used them to normalize or reassure clients. Also, they described TSDs as including personal historical information about the therapist. Though the definition of "helpful therapist self-disclosure" used by Knox et al. (1997) to solicit examples from clients included both self-involving and self-disclosing statements, clients only volunteered the latter, differing from suggestions in previous analogue literature that immediate (or self-involving) reassuring revelations were most helpful (e.g., Hoffman & Spencer, 1977; Hoffman-Graff, 1977; McCarthy & Betz, 1978). Knox et al. (1997) found that helpful TSD resulted in both positive (e.g., led to clients perceiving therapists as more real and more human, and that it helped to equalize the power in the relationship, enhance the connection between the two individuals, and foster the therapeutic work) and negative consequences (e.g., one client feared the closeness caused by the TSD and another was uneasy that a therapeutic boundary had been crossed), though the former occurred more frequently. Clients indicated their therapists' disclosures made them feel reassured or normalized, or helped them gain a sense of universality. In addition, TSDs were found to lead to client insights or new ways of seeing, which enabled clients to engage in personal change. However, the authors noted that results were not consistent across cases, with clients differing in their desire for and responses to TSD.

Barrett and Berman (2001) assessed whether therapist self-disclosures made in response to client disclosures, which they called "reciprocal" disclosures, influenced the outcome of psychotherapy. Levels of therapist self-disclosure were manipulated during

the first four sessions of psychotherapy in 36 cases (15 men, 21 women) to assess whether disclosures had a causal influence on therapy outcome. Each therapist ($N = 18$) treated two clients during the study. With one client, therapists increased the number of self-disclosures; with the other client, therapists limited the number of self-disclosures. Results from the experiment indicated that clients receiving psychotherapy under heightened therapist disclosure reported lower levels of symptom distress and higher liking of their therapists when compared to clients receiving limited self-disclosure. The authors concluded that TSD may improve both the quality of therapeutic relationship and the outcome of treatment. These findings support previous findings that when therapists self-disclose, clients are more likely to see the therapist as friendly, open, helpful, and warm (Dies, 1973; Feigenbaum, 1977; May & Thompson, 1973; Murphy & Strong, 1972). The authors emphasized that in each condition, levels of therapist self-disclosure were modest, with an average of 4.3 self-disclosures per session in the increased disclosure condition, with each event averaging less than 13 seconds in length, and an average of 2.6 disclosures with a mean of 8.5 seconds in the decreased disclosure condition. They also emphasized that because there was not a control group, it was not possible to determine whether increasing disclosure benefits treatment, restricting therapist disclosure impairs treatment, or both.

Hanson (2005) interviewed 18 people (16 females, 2 males) in therapy in Canada about their perceptions of self-disclosure and non-disclosure. These individuals generated and described 157 incidents of disclosure ($N = 131$) and non-disclosure ($N = 26$; defined as "an interaction in which a therapist chooses not to reveal information about her or himself, in response to a specific question" the client has asked, J. Hanson, personal

communication, October 29, 2012), which were coded as helpful, unhelpful, neutral, or mixed. Disclosure incidents were also coded as "self-revealing" or "self-involving." Hanson found that disclosures were more than twice as likely to be experienced by clients as helpful, while non-disclosures were twice as likely to be perceived as unhelpful. Self-revealing statements were neither more nor less helpful than self-involving statements. The participants in this study indicated that self-disclosures contributed to the real relationship with the therapist (e.g., provided a sense of safety, warmth, intimacy, increased trust, increased egalitarianism), while non-disclosure was detrimental to the therapeutic alliance (e.g., experienced as hurtful, inhibited client disclosure, and decreased trust). Hanson further found that therapist skill level in delivery affected client perceptions of the event for both disclosure and non-disclosure. Skillful disclosure was described as reciprocal/directly relevant to client material (Knox et al., 1997; Barrett & Berman, 2001); designed to emphasize similarities between the client and therapist; brief with few details; and well timed. Skill deficits identified with unhelpful disclosures included poor timing; sharing too much information; and lacking in technical neutrality. The few helpful non-disclosures described in this study were characterized by compassion and included an explanation of why refusal to answer questions was actually beneficial to the client (e.g., the therapist refusing to offer an opinion because he trusted the client to make a decision on her own.) Rigidity was the most-cited skill deficit related to non-disclosure. One client felt insulted by a therapist's policy of not disclosing, because he did not take her character into account. Hanson found that skillful use of either disclosure or non-disclosure had a main effect on the therapeutic alliance, either contributing to or hindering its development. A strong alliance (as described by

clients) seemed to buffer the impact of skill deficits, while a weak alliance combined with skills deficits increased the likelihood of termination. One finding Hanson described as new was the use of "small talk" self-disclosure as a kind of transition into and/or out of sessions. Clients said these pre- and post-session transitions put them at ease and allowed them to refocus their attention inward or outward. Hanson concluded that avoiding disclosure entirely is a disservice to clients, advocating that therapists use disclosure deliberately, skillfully, and with therapeutic intent.

Ain and Gelso (2008) examined clients' retrospective perceptions of therapy relationships, specifically: TSD (amount, relevance, and appropriateness of amount), the real relationship (strength, realism, genuineness), and therapy outcomes. Participants were 94 volunteer undergraduate and graduate students who had completed a course of at least three therapy sessions within the past three years. Data regarding clients' recollection of therapy were collected via hard copy or online measures (Real Relationship Inventory—Client; Therapist Self-Disclosure Questionnaire – a measure specifically designed for this study to assess client-rated amount of TSD and appropriateness of that amount; and the Counseling Outcome Measure (Gelso & Johnson, 1983)). The authors found a positive correlation between clients' ratings of: 1) strength of the real relationship and relevance of TSDs, 2) therapy outcomes and relevance of TSDs, 3) overall amount of TSD and relevance of TSD, and 4) real relationship strength and therapy outcomes. Clients who indicated therapists disclosed an appropriate amount reported stronger real relationships and better therapy outcomes than those who reported their therapists did not disclose enough. The authors noted that only five participants indicated their therapists disclosed too much, while nine indicated their therapists did not

disclose at all. Client ratings of overall TSD amount were positively correlated with their ratings of real relationship strength, genuineness, realism, therapy outcome, and overall relevance of TSDs. The authors concluded that clients' perceptions of TSD relate to their experience of the real relationship, and suggest that "therapists should self-disclose an appropriate amount of information that is relevant to their clients" (p. 1).

As part of a larger qualitative study exploring client experience of TSD in therapy, Audet and Everall (2010) interviewed nine clients (5 males; 4 females) about their experience of the therapeutic relationship in the context of non-immediate TSD and analyzed the transcripts using a phenomenological "discovery-oriented" approach. They found that clients evaluated therapist disclosures for relevance and therapeutic intentions and perceived disclosure as contributing to development of the relationship early in the process. Clients perceived TSD as having both facilitative and hindering effects on the therapeutic relationship. The authors identified three main themes in clients' descriptions of TSD events: early connection with therapist, therapist presence, and engagement in therapy. Some clients felt that disclosure made the therapist seem more human and thereby alleviated the power imbalance in the relationship. Others, for whom disclosures went outside the bounds of expected and desired therapist behavior, reported that disclosures derailed the therapy and hindered alliance development. Based on the content, context, and delivery of TSDs, clients assessed therapists' attentiveness to, understanding of, and attunement with them, their issues, and their therapeutic needs. Clients reported that therapist disclosure served as an indicator of the therapist's presence and attunement, and as such, fostered or hindered confidence in the therapist and the relationship. The perceived relevance/reciprocity and appropriateness of TSD caused

clients to see therapists either as understanding and attentive on one hand, or out of touch and unresponsive on the other. The authors concluded that TSD has a bearing on the quality and value of the client-therapist relationship, and suggested that it may play an important role in enhancing or inhibiting client involvement in therapy.

Audet (2011) examined client perspectives on boundaries and therapist professionalism in the context of non-immediate TSDs in a further evaluation of the data described above (Audet & Everall, 2010). Nine clients (5 male, 4 female) reported both positive and negative effects of TSD on boundaries and professionalism in therapy, with 5 clients reporting positive experiences, 2 clients reporting negative experiences, and 2 clients reporting both positive and negative experiences. Disclosures were determined to have positive or negative effects based on disclosure frequency (infrequent disclosure preferred); intimacy level (low-to-moderate intimacy preferred); amount of detail (brief preferred); similarity to client's experience (similar preferred); congruence with client's personal values (congruent with client's issues/values preferred); and relevance/responsiveness to client's issues, needs, and the therapeutic context (high relevance preferred). All participants indicated that it was important for therapists to maintain professional boundaries when disclosing. For clients who had a positive experience of therapist disclosure, perceptions of therapists changed as a result of TSDs early in therapy. These clients said that disclosure helped to humanize the therapist, reduced the power imbalance in the relationship, and made them feel more connected to the therapist. In addition, these clients said TSD helped them to feel less objectified by the therapist and more worthy of trust and respect, while they saw the disclosing therapist as "caring, respectful and non-judgmental," (Audet, 2011, p. 94) and the relationship as

more egalitarian and collaborative. However, two clients who reported experiencing negative effects from TSD felt that while disclosure equalized the power balance in the relationship, it also went beyond their preferred boundaries. In one case, it caused the client to consider seeking out another therapist; in another, the client felt the sessions were reduced to friendly chatter because the therapist shared too much too often. Clients who had negative experiences reported that frequent irrelevant TSD shifted the focus to the therapist, restricted the client's exploration and discussion of important issues, resulted in a discomfiting role reversal, and led clients to lose confidence in both the therapist and the therapy. Audet concluded, "clients are cognizant of the importance of therapeutic boundaries and perceive self-disclosure as a plausible therapist behavior in therapy" (Audet, 2011, p. 96). She emphasized that when done well, TSD has a positive impact on the therapeutic relationship, but cautioned that inappropriate TSD has significant negative effects, as described above.

Ain (2011) examined clients' and therapists' perceptions of the real relationship, amount and relevance of TSD, and treatment progress for 61 dyads in ongoing psychotherapy using online measures (clients: Real Relationship Inventory – Client Form, Therapist Self-Disclosure Questionnaire – Client Form, the Counseling Outcome Measure; therapists: Real Relationship Inventory – Therapist Form, Therapist Self-Disclosure Questionnaire – Therapist Form; the Counseling Outcome Measure, the Global Assessment of Functioning Scale). Therapists' ratings of overall TSD amount (rated from 1 = not at all to 5 = very much) positively correlated with their ratings of real relationship strength, genuineness, realism, and treatment progress. Clients' ratings of TSD amount positively correlated with their ratings of real relationship strength. Clients'

ratings of TSD relevance (rated from 1 = not at all to 5 = very much) positively correlated with treatment progress. The majority of therapists and clients indicated that the therapist disclosed "about the right amount"; the average amount of TSD from both perspectives fell between 1 = not at all and 2 = some. Therapist perceptions of TSD amount were positively correlated with client perceptions of TSD amount and also with client perceptions of treatment progress. Client perceptions of TSD relevance were positively related to therapist perceptions of treatment progress.

Both therapists' and clients' perceptions of real relationship strength were positively correlated with their ratings of treatment progress, and both therapists' and clients' ratings of TSD amount showed a positive correlation with therapist age. Client perceptions of real relationship strength were positively correlated with therapist perceptions of TSD amount. Contrary to previous findings (Ain & Gelso, 2008), TSD relevance was not significantly associated with real relationship strength (from either the therapist or the client perspective). Ain concluded that therapists should work to strengthen the real relationship, and that appropriate TSD use may help them to do this.

Summary of naturally-occurring psychotherapy. Research from naturally-occurring psychotherapy has provided rich qualitative accounts of clients' views on the positive and negative effects of TSD, though it must be kept in mind that these accounts are retrospective. Some of these studies have compared disclosure in a dichotomous way (e.g., self-involving/self-disclosing, reassuring/challenging, helpful/non-helpful) while others have examined variables such as the helpfulness, amount, and relevance of TSD, and their relationships to treatment process and outcome variables. The findings have led to important conclusions: 1) TSD can have positive or negative consequences, though

positive effects seem more prevalent; 2) TSD has a bearing on the quality of the therapeutic relationship and client involvement in therapy and is related to treatment progress and treatment outcome; 3) failure to disclose may be detrimental to the therapeutic alliance; 4) consequences of TSD may be affected by contextual factors such as client expectations and preferences about TSD, the strength of the working alliance before the TSD, and the skill level with which TSD is delivered; and 5) clients assess the therapist's intentions for disclosing and evaluate TSDs for relevance to their issues and therapeutic needs (Hill et al., 1988; Hill et al., 1989; Knox et al., 1997; Barrett & Berman, 2001; Hanson, 2005; Audet & Everall, 2010; Audet, 2011; Ain & Gelso, 2008).

Appendix O

Statement of Problem

The purpose of the present study is to investigate TSD in the 16 cases of psychodynamic/interpersonal psychotherapy in which Hill et al. (under review) examined occurrences of immediacy (see Appendix L for a summary). My intention is to begin to answer the question, "How does therapist self-disclosure occur in real therapy with real therapists and real clients?" for this sample of doctoral student trainees doing open-ended psychodynamic psychotherapy.

Given that results obtained using analogues cannot be extrapolated to actual therapy (Kushner et al., 1979), that clients rated self-disclosure as the most helpful of all therapist response modes (Hill et al., 1988), and that TSD may improve both therapeutic relationship quality and treatment outcome (Barrett & Berman, 2001; Hanson, 2005; Ain & Gelso, 2008; Audet & Everall, 2010), it is important to examine how TSD occurs (e.g., types, duration, intimacy level, quality level) in real therapy with real therapists and real clients. This focus is consistent with recommendations for future research by Henretty and Levitt (2010), Ain and Gelso (2008) and Knox and Hill (2003).

The aim of this study is to provide a description of TSD occurrence in actual therapy. One goal is to understand how TSD is used in naturally-occurring psychotherapy. Furthermore, given that previous researchers examined TSDs globally without considering the many variations or subtypes, another goal is to identify characteristics of TSDs that contribute to effectiveness. Given the positive association of clients' ratings of therapy outcome with their ratings of both overall amounts of TSD

used and appropriateness of TSD amounts used (Ain & Gelso, 2008), my first research question is:

Research Question 1: *How many TSD events occur?*

Also of interest is what types of TSD occur. Knox and Hill (2003) suggested that there are several discrete types of TSD, but these have been minimally studied. Therefore, another research question is:

Research Question 1a: *Do some types (facts, feelings, insight, strategy) of TSD occur more than others?*

Hill et al. (1989) found that reassuring disclosures facilitated client progress, equalized the relationship, and increased clients' feelings of safety. Both clients and therapists rated reassuring disclosures as more helpful than challenging disclosures, and indicated that the former led to higher levels of client experiencing than did the latter (Hill et al., 1989). Accordingly, I am interested to learn the answer to the following research question:

Research Question 1b: *Do TSD events that are reassuring, challenging, both, or neither occur with different frequencies?*

An evaluation of TSD occurrence and amount would not be complete without an examination of the duration of TSD events. Therefore, I ask:

Research Question 1c: *What is the average duration of TSD events?*

Knox and Hill (2003) suggested that the beneficial effects of TSD vary as a function of intimacy, and recommended that to be most helpful, therapist self-disclosures should be intimate, but not too intimate. They suggested that impersonal disclosures may not achieve the beneficial effects of making therapists more real or human or establishing

trust between therapist and client, while highly intimate disclosures may make clients uncomfortable and cause them to question whether therapeutic boundaries have been crossed. However, Henretty and Levitt (2010) found mixed results in their literature review on the question of whether TSD intimacy levels had differential impacts on clients. Therefore, I ask several questions regarding the relation of intimacy level to other disclosure variables (type, reassuring/challenging descriptor, initiator, focus) and to client session outcome scores (Real Relationship Inventory and Working Alliance Inventory):

Research Question 1d: *What is the average level of intimacy of TSD events?*

Research Question 1e: *Does event intimacy differ by TSD type (facts, feelings, strategy, insight)?*

Research Question 1f: *Does event intimacy differ based on whether a TSD is reassuring, challenging, neither, or both?*

Research Question 1g: *Is event intimacy higher when the therapist initiates than when the client initiates?*

To my knowledge, there are no studies specifically examining whether the nature of TSD differs based on who initiates the disclosure. However, it has been suggested that the reason therapists consistently rate TSD helpfulness lower than clients do is that therapists feel vulnerable and anxious about self-disclosing (Hill et al., 1989; Hill & Knox, 2002; Knox & Hill, 2003). I speculate that intimacy will be higher when the therapist volunteers information compared with when the client requests it. A voluntary disclosure would presumably be more comfortable for the therapist and involve a therapeutic intention, while a client-requested disclosure may be unexpected, thereby

heightening therapists' feelings of vulnerability. Therefore, I am interested in determining:

Research Question 1h: *How much do therapists vs. clients initiate TSD?*

The shifting of focus from client to therapist has been used as a reason not to disclose (Geller & Farber, 1997), but Knox and Hill (2003) recommended safeguarding against this shift of focus by clearly returning attention to the client following disclosure. Literature reviews have recommended that it is beneficial for therapists to return the focus to the client immediately after a TSD, suggesting that doing so may increase the effectiveness of the TSD (Henretty & Levitt, 2010; Knox & Hill, 2003). In addition, clients have indicated that it is unhelpful when therapists share too much information in their disclosures, and have expressed dissatisfaction when therapists lose neutrality in the process of disclosing (Hanson, 2005; Audet, 2011). This hearkens back to one of the original psychoanalytic objections to TSD and the potentially harmful effect of shifting the focus away from the client (Freud, 1912/1958). Therefore, I am interested in knowing whether the focus shifts to clients after therapists self-disclose:

Research Question 1i: *How often does the focus of the session return to the client following therapist self-disclosure?*

Barrett and Berman (2001) posited that reciprocal self-disclosure (defined as "in direct response to comparable client disclosures," p. 598) reduces the risk of altering the focus of treatment, and suggested that therapist self-disclosures unrelated to client concerns could have a less positive impact on treatment, but they did not examine the question directly (i.e., reciprocal vs. non-reciprocal disclosures). In addition, Ain and Gelso (2008) found a positive relationship between client ratings of TSD relevance and

client ratings of therapy outcomes. They also found that overall TSD relevance was "uniquely related to the strength of the real relationship" (p. 65) as compared to overall amount of TSD. As a result, the authors emphasized the importance of specifically examining the relevance of TSDs to clients. Similarly, Audet and Everall (2010) found that clients "seem to respond more favourably to disclosure that conveys similarity to, and extends immediately from, what they have shared with the therapist" (p. 329). These findings align with the suggestion that therapists tailor TSDs to clients' individual needs and preferences (Hill & Knox, 2003) and with the claim that a TSD to which a client can directly relate is "a more successful therapeutic intervention" than one not specifically relevant to the client (Ain & Gelso, 2008, p. 62).

To my knowledge, there have not been any published studies to date evaluating the quality of TSD events. (Our definition of quality is explained in detail in chapter 4. It includes reciprocity, contribution to therapeutic bond, and relevance to the client's therapeutic issues.) Accordingly, I am interested in answering the following research question:

Research Question 1j: *What is the average level of TSD quality?*

Clients rated TSD as the most helpful intervention in one study (Hill et al., 1988), and in another clients indicated that therapist disclosures were likely to be helpful while non-disclosures on the part of the therapist were likely to be unhelpful (Hanson, 2005). Although Ain and Gelso (2008) did not find support for the hypothesis that client-perceived therapy outcomes for therapists who disclosed would be better than for those who did not, they questioned the meaningfulness of the finding, given the limited number of clients (9 of 94) who indicated that their therapists did not disclose. Furthermore, the

latter findings were based on retrospective measures conducted up to three years after therapy terminated. Accordingly, I am interested in the following research questions:

Research Question 2: *Do the real relationship and the working alliance differ based on disclosure occurrence (no disclosure vs. some disclosure)?*

Research Question 2a: *Does the* real relationship *differ based on disclosure occurrence (no disclosure vs. some disclosure)?*

Research Question 2b: *Does the* working alliance *differ based on disclosure occurrence (no disclosure vs. some disclosure)?*

Research Question 3: *What is the relationship between event intimacy and the real relationship and the working alliance?*

Research Question 3a: *What is the relationship between event intimacy and the* real relationship*?*

Research Question 3b: *What is the relationship between event intimacy and the* working alliance*?*

Research Question 4: *What is the relationship between event quality and the real relationship and the working alliance?*

Research Question 4a: *What is the relationship between event quality and the* real relationship*?*

Research Question 4b: *What is the relationship between event quality and the* working alliance*?*

Research Question 5: *Does event quality differ based on disclosure variables?*

Research Question 5a: *Does event quality differ by TSD type (facts, feelings, strategy, insight)?*

Research Question 4b: *Does event quality differ based on whether a TSD is reassuring, challenging, neither, or both?*

Research Question 5c: *What is the relationship between levels of TSD intimacy and event quality?*

Research Question 5d: *Is event quality higher when the therapist initiates than when the client initiates?*

Appendix P

HLM Results

Facts. For disclosures of facts, between-events (level 1), between-session (level 2) and between-clients (level 3) variance respectively accounted for 78% (σ^2 = 0.19, *SE* = 0.03, *SD* = 0.44), 9% ($\tau_\pi = 0.02$, *SE* = 0.02, *SD* =0.14, $\chi^2(df = 97) = 118.25$, $p = 0.070$), and 13% ($\tau_\beta = 0.03$, *SE* = 0.02, *SD* = 0.18, $\chi^2(df = 15) = 40.94$, $p < 0.001$) of the total variance. Variance between clients was significant, confirming that the data are not independent; dependencies in the data need to be accounted for in the statistical analysis (i.e., use of HLM is appropriate for this data). The majority of the variance in factual disclosures occurred between events.

Type as a function of RRI – Facts. There was a significant negative relationship between the likelihood that a therapist would make a self-disclosure of facts and client-rated real relationship (μ_{010} = -1.70, S.E. = 0.56, t(*df* = 15) = -3.02, *p* = 0.009). For every one-point increase in the Real Relationship Inventory score, the odds of a therapist making a factual disclosure decreased by 82%. Thus, therapists did more disclosure of facts when the real relationship was weak (as measured by clients' ratings on the RRI).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	0.331472	0.280977	1.180	15	0.256
For RRIC_AVE, *β01*					
INTRCPT3, *γ010*	-1.700960	0.563816	-3.017	15	0.009

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	0.331472	1.393017	(0.765,2.536)
For RRIC_AVE, *β01*			
INTRCPT3, *γ010*	-1.700960	0.182508	(0.055,0.607)

Type as a function of WAI – Facts. There was a significant negative relationship between the likelihood that a therapist would make a self-disclosure of facts and client-rated working alliance (μ_{010} = -1.78, S.E. = 0.57, t(*df* = 15) = -3.10, *p* = 0.007). A one-point increase in the Working Alliance Inventory score reduces the odds of a therapist making a factual disclosure by 83%. Thus, therapists did more disclosures of facts when the working alliance was weak (as measured by clients' ratings on the WAI).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	0.366171	0.283569	1.291	15	0.216
For WAIC_AVE, *β01*					
INTRCPT3, *γ010*	-1.775328	0.573169	-3.097	15	0.007

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	0.366171	1.442202	(0.788,2.640)
For WAIC_AVE, *β01*			
INTRCPT3, *γ010*	-1.775328	0.169428	(0.050,0.575)

Type as a function of both RRI and WAI – Facts. When clients' ratings for both the RRI and the WAI were included in the model, the WAI tended to made a unique contribution (μ_{010} = -1.33, S.E. = 0.69, t(*df* = 15) = -1.91, *p* = 0.075).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	0.369368	0.291922	1.265	15	0.225
For WAIC_AVE, *β01*					
INTRCPT3, *γ010*	-1.327379	0.693465	-1.914	15	0.075
For RRIC_AVE, *β02*					
INTRCPT3, *γ020*	-0.881499	0.699554	-1.260	15	0.227

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	0.369368	1.446820	(0.776,2.696)
For WAIC_AVE, *β01*			
INTRCPT3, *γ010*	-1.327379	0.265171	(0.060,1.163)
For RRIC_AVE, *β02*			
INTRCPT3, *γ020*	-0.881499	0.414162	(0.093,1.840)

Feelings. For disclosures of feelings, between-events (level 1), between-session (level 2) and between-clients (level 3) variance respectively accounted for 77% (σ^2 = 0.14, *SE* = 0.02, *SD* = 0.38), 16% ($\tau_\pi = 0.03$, *SE* = 0.02, *SD* = 0.17, $\chi^2(df = 97)$ = 136.95, $p = 0.005$), and 6% ($\tau_\beta = 0.01$, *SE* = 0.01, *SD* = 0.11, $\chi^2(df = 15) = 24.19$, p = 0.062) of the total variance. Variance between sessions was significant; variance between clients approached significance. The majority of the variance in disclosures of feeling occurred between events. This shows that the greatest variance in the disclosures of feelings happens at the event level. Sessions and clients seem to be far less important.

Type as a function of RRI – Feelings. There was a significant positive relationship between the likelihood that a therapist would make a self-disclosure of feelings and client-rated real relationship (μ_{010} = 1.81, S.E. = 0.64, t(df = 15) = 2.83, p = 0.013). With a one-point increase in the Real Relationship Inventory score, the likelihood of a therapist disclosing feelings increased 6 fold (611%). Thus, therapists gave more disclosures of feeling when there was a strong real relationship (as measured by clients' ratings on the RRI).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	-1.276601	0.264133	-4.833	15	<0.001
For RRIC_AVE, *β01*					
INTRCPT3, *γ010*	1.809355	0.638955	2.832	15	0.013

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	-1.276601	0.278984	(0.159,0.490)
For RRIC_AVE, *β01*			
INTRCPT3, *γ010*	1.809355	6.106505	(1.564,23.846)

Type as a function of WAI – Feelings. Clients' ratings on the Working Alliance Inventory were not related to the likelihood of self-disclosures of feelings (μ_{010} = 0.96, S.E. = 0.64, t(*df* = 15) = 1.51, *p* = 0.152).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	-1.233421	0.255648	-4.825	15	<0.001
For WAIC_AVE, *β01*					
INTRCPT3, *γ010*	0.961723	0.637170	1.509	15	0.152

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	-1.233421	0.291294	(0.169,0.502)
For WAIC_AVE, *β01*			
INTRCPT3, *γ010*	0.961723	2.616201	(0.673,10.177)

Type as a function of both RRI and WAI – Feelings. When clients' ratings for both the RRI and the WAI were included in the model, the RRI made a unique contribution (μ_{010} = 1.76, S.E. = 0.83, t(*df* = 15) = 2.12, *p* = 0.05). After controlling for

the effects of the WAI, a one-point increase in the RRI increased the likelihood that a therapist made a disclosure of feelings by almost six times (582%). Again, therapists gave more disclosures of feelings when there was a strong real relationship.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	-1.270751	0.266663	-4.765	15	<0.001
For WAIC_AVE, *β01*					
INTRCPT3, *γ010*	-0.031040	0.730399	-0.042	15	0.967
For RRIC_AVE, *β02*					
INTRCPT3, *γ020*	1.760365	0.831152	2.118	15	0.051

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	-1.270751	0.280621	(0.159,0.495)
For WAIC_AVE, *β01*			
INTRCPT3, *γ010*	-0.031040	0.969437	(0.204,4.601)
For RRIC_AVE, *β02*			
INTRCPT3, *γ020*	1.760365	5.814557	(0.988,34.205)

Insight. For disclosures of insight, between-events (level 1), between-session (level 2) and between-clients (level 3) variance respectively accounted for 78% (σ^2 = 0.10, *SE* = 0.02, *SD* = 0.32), 14% ($\tau_\pi = 0.02$, *SE* = 0.01, *SD* =0.13, $\chi^2(df = 97)$ = 127.29, *p* = 0.021), and 8% ($\tau_\beta = 0.01$, *SE* = 0.01, *SD* = 0.11, $\chi^2(df = 15) = 27.23$, *p* = 0.027) of the total variance. Variance between sessions and between clients was significant. The majority of variance in disclosures of insight occurred between events.

Type as a function of RRI – Insight. Clients' ratings on the Real Relationship Inventory were not related to the likelihood of self-disclosures of insight (μ_{010} = 0.38, S.E. = 0.67, t(*df* = 15) = 0.563, *p* = 0.582).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	-1.683049	0.288661	-5.831	15	<0.001
For RRIC_AVE, *β01*					
INTRCPT3, *γ010*	0.375102	0.666592	0.563	15	0.582

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	-1.683049	0.185807	(0.100,0.344)
For RRIC_AVE, *β01*			
INTRCPT3, *γ010*	0.375102	1.455140	(0.351,6.027)

Type as a function of WAI – Insight. There was a tendency that as clients' ratings on the Working Alliance Inventory increased, the likelihood of self-disclosures of insight also increased, but it was not significant (μ_{010} = 1.51, S.E. = 0.77, t(*df* = 15) = 1.956, *p* = 0.069).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	-1.768579	0.292735	-6.042	15	<0.001
For WAIC_AVE, *β01*					
INTRCPT3, *γ010*	1.512970	0.773435	1.956	15	0.069

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	-1.768579	0.170575	(0.091,0.318)
For WAIC_AVE, *β01*			
INTRCPT3, *γ010*	1.512970	4.540196	(0.873,23.616)

Type as a function of both RRI and WAI – Insight. When both the RRI (μ_{020} = -0.52, S.E. = 0.89, t(*df* = 15) = -0.582, *p* = 0.569) and the WAI (μ_{010} = 1.69, S.E. = 0.95,

t(*df* = 15) = 1.778, *p* = 0.096) were included in the model, there was a tendency for the WAI to make a unique contribution, but it was not significant.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	-1.753000	0.296764	-5.907	15	<0.001
For WAIC_AVE, *β01*					
INTRCPT3, *γ010*	1.685347	0.948137	1.778	15	0.096
For RRIC_AVE, *β02*					
INTRCPT3, *γ020*	-0.516169	0.886730	-0.582	15	0.569

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	-1.753000	0.173253	(0.092,0.326)
For WAIC_AVE, *β01*			
INTRCPT3, *γ010*	1.685347	5.394325	(0.715,40.722)
For RRIC_AVE, *β02*			
INTRCPT3, *γ020*	-0.516169	0.596802	(0.090,3.952)

Strategy. There were too few (6) disclosures of strategy to conduct these analyses.

Summary for Type Outcome Variable. Therapists disclosed more about facts when the real relationship and working alliance were weak. The results (i.e., the lack of significant findings when both RRI and WAI were included in the model with disclosures of facts as the dependent variable) suggest that the shared variance between the real relationship and the working alliance seem to account for this association, which may reflect a general relationship variable. In addition, therapists disclosed more about feelings when there was a good real relationship.

Outcome variable: Reassuring/challenging descriptor. HLM was used to examine whether events that are reassuring, challenging, both, or neither occur with

different frequencies. Disclosures were rated as reassuring, challenging, both reassuring and challenging, or neither reassuring nor challenging. There were too few disclosures of strategy to include them in these analyses.

Reassuring. For reassuring disclosures, between-events (level 1), between-session (level 2) and between-clients (level 3) variance respectively accounted for 96% (σ^2 = 0.15, *SE* = 0.02, *SD* = 0.39), less than 1% ($\tau_\pi = 0.0001$, *SE* = 0.01, *SD* = 0.14, $\chi^2(df = 97) = 86.46$, $p > 0.50$), and 4% ($\tau_\beta = 0.006$, *SE* = 0.01, *SD* = 0.08, $\chi^2(df = 15) = 21.74$, $p = 0.115$) of the total variance. Thus, the majority of the variance in reassuring disclosures occurred between events.

Reassuring as a function of type. HLM was used to examine the relationship between type (facts, feelings, insight) and reassuring disclosures. Using disclosures of fact as the reference group, there were no significant findings when using type as a predictor for disclosures rated as reassuring. Disclosures of feelings (μ_{100} = 0.35, S.E. = 0.50, t(*df* = 15) = 0.699, p = 0.495) and insight (μ_{200} = 0.55, S.E. = 0.59, t(*df* = 15) = 0.926, p = 0.369) were not significantly different from disclosures of fact. Thus, there was no relationship between reassuring disclosures and disclosure type.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, $\pi 0$					
For INTRCPT2, $\beta 00$					
INTRCPT3, $\gamma 000$	-1.619345	0.289105	-5.601	15	<0.001
For FEELINGS slope, $\pi 1$					
For INTRCPT2, $\beta 10$					
INTRCPT3, $\gamma 100$	0.350900	0.501781	0.699	15	0.495
For INSIGHT slope, $\pi 2$					
For INTRCPT2, $\beta 20$					
INTRCPT3, $\gamma 200$	0.544810	0.588328	0.926	15	0.369

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	-1.619345	0.198028	(0.107,0.367)
For FEELINGS slope, *π1*			
For INTRCPT2, *β10*			
INTRCPT3, *γ100*	0.350900	1.420346	(0.487,4.140)
For INSIGHT slope, *π2*			
For INTRCPT2, *β20*			
INTRCPT3, *γ200*	0.544810	1.724280	(0.492,6.044)

Challenging. For challenging disclosures, between-events (level 1), between-session (level 2) and between-clients (level 3) variance respectively accounted for 90% (σ^2 = 0.06, *SE* = 0.01, *SD* = 0.39), less than 1% ($\tau_\pi = 0.0003$, *SE* = 0.01, *SD* = 0.01, $\chi^2(df = 97) = 93.35$, $p > 0.50$), and 10% ($\tau_\beta = 0.006$, *SE* = 0.01, *SD* = 0.08, $\chi^2(df = 15) = 32.67$, $p = 0.005$) of the total variance. Between-client variance was significant. The majority of variance in challenging disclosures occurred between events. There were only 16 disclosures rated as challenging, so caution is warranted when interpreting these results.

Challenging as a function of type. HLM was used to examine the relationship between type (facts, feelings, insight) and challenging disclosures. Using disclosures of fact as the reference group, there was a significant positive relationship such that a self disclosure of insight was more likely to be rated as challenging (μ_{200} = 2.77, S.E. = 0.89, t(*df* = 15) = 3.12, *p* = 0.003). A disclosure of insight was 16 times more likely to be rated as challenging than a disclosure of facts. There was a trend such that disclosures of feelings (μ_{100} = 1.76, S.E. = 0.93, t(*df* = 15) = 1.89 *p* = 0.078) were nearly 6 times more likely to be rated as challenging than disclosures of facts.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	-4.046975	0.749433	-5.400	15	<0.001
For FEELINGS slope, *π1*					
For INTRCPT2, *β10*					
INTRCPT3, *γ100*	1.757441	0.928887	1.892	15	0.078
For INSIGHT slope, *π2*					
For INTRCPT2, *β20*					
INTRCPT3, *γ200*	2.767129	0.887211	3.119	80	0.003

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	-4.046975	0.017475	(0.004,0.086)
For FEELINGS slope, *π1*			
For INTRCPT2, *β10*			
INTRCPT3, *γ100*	1.757441	5.797583	(0.800,42.007)
For INSIGHT slope, *π2*			
For INTRCPT2, *β20*			
INTRCPT3, *γ200*	2.767129	15.912877	(2.720,93.090)

Both. HLM was used to examine the relationship between type (facts, feelings, insight) and disclosures that were both challenging and reassuring. For disclosures that were both challenging and reassuring, between-events (level 1), between-session (level 2) and between-clients (level 3) variance respectively accounted for 78% (σ^2 = 0.14, *SE* = 0.02, *SD* = 0.38), 15% ($\tau_\pi = 0.03$, *SE* = 0.02, *SD* = 0.17, $\chi^2(df = 97) = 132.69$, $p = 0.009$), and 7% ($\tau_\beta = 0.01$, *SE* = 0.01, *SD* = 0.11, $\chi^2(df = 15) = 26.72$, $p = 0.031$) of the total variance. Between-session and between-client variance were significant. The majority of the variance in disclosures that were both challenging and reassuring occurred between events.

Both as a function of type. Using disclosures of fact as the reference group, disclosures of feelings (μ_{100} = 3.14, S.E. = 0.56, t(*df* = 15) = 5.59, $p < 0.001$) and

disclosures of insight (μ_{200} = 2.94, S.E. = 0.596, t(*df* = 15) = 4.92, $p < 0.001$) were significantly more likely (23 times and 19 times more likely, respectively) than disclosures of facts to be rated as both reassuring and challenging.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	-2.880666	0.419745	-6.863	80	<0.001
For FEELINGS slope, *π1*					
For INTRCPT2, *β10*					
INTRCPT3, *γ100*	3.144239	0.562837	5.586	15	<0.001
For INSIGHT slope, *π2*					
For INTRCPT2, *β20*					
INTRCPT3, *γ200*	2.936005	0.596410	4.923	15	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	-2.880666	0.056097	(0.024,0.129)
For FEELINGS slope, *π1*			
For INTRCPT2, *β10*			
INTRCPT3, *γ100*	3.144239	23.202015	(6.989,77.031)
For INSIGHT slope, *π2*			
For INTRCPT2, *β20*			
INTRCPT3, *γ200*	2.936005	18.840423	(5.283,67.192)

Neither. HLM was used to examine the relationship between type (facts, feelings, insight) and disclosures that were neither challenging nor reassuring. For disclosures that were neither challenging nor reassuring, between-events (level 1), between-session (level 2) and between-clients (level 3) variance respectively accounted for 76% (σ^2 = 0.19, *SE* = 0.03, *SD* = 0.44), 10% ($\tau_\pi = 0.03$, *SE* = 0.03, *SD* = 0.16, $\chi^2(df = 97) = 116.88$, $p = 0.083$), and 13% ($\tau_\beta = 0.03$, *SE* = 0.02, *SD* = 0.18, $\chi^2(df = 15) = 41.78$, $p < 0.001$) of the total variance. Between-client variance was significant. The

majority of the variance in disclosures that were neither reassuring not challenging occurred between events.

Neither as a function of type. Using disclosures of facts as the reference group, disclosures of feelings (μ_{100} = -3.06, S.E. = 0.52, t(*df* = 15) = -5.84 $p < 0.001$) and disclosures of insight (μ_{200} = -3.82, S.E. = 0.698, t(*df* = 15) = -5.46, $p < 0.001$) were significantly less likely than disclosures of facts to be rated as neither reassuring nor challenging. The probability that a disclosure was neither supportive nor challenging was reduced by 95% and 98%, respectively, when disclosures of feelings and insight compared with disclosures of facts being rated as neither.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	1.118375	0.242492	4.612	15	<0.001
For FEELINGS slope, *π1*					
For INTRCPT2, *β10*					
INTRCPT3, *γ100*	-3.058549	0.524080	-5.836	15	<0.001
For INSIGHT slope, *π2*					
For INTRCPT2, *β20*					
INTRCPT3, *γ200*	-3.814997	0.698290	-5.463	15	<0.001

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	1.118375	3.059877	(1.825,5.131)
For FEELINGS slope, *π1*			
For INTRCPT2, *β10*			
INTRCPT3, *γ100*	-3.058549	0.046956	(0.015,0.144)
For INSIGHT slope, *π2*			
For INTRCPT2, *β20*			
INTRCPT3, *γ200*	-3.814997	0.022038	(0.005,0.098)

Summary for Outcome Variable Reassuring/Challenging Descriptor. There was no relationship between *reassuring* disclosures and disclosure type. However,

disclosures of insight were more likely to be rated as *challenging* than disclosures of facts. Similarly, disclosures of feelings were more likely to be rated as challenging than disclosures of facts. In addition, disclosures of feelings and disclosures of insight were more likely than disclosures of facts to be rated as *both* reassuring and challenging. Finally, disclosures of feelings and disclosures of insight were significantly less likely than disclosures of facts to be rated as *neither* reassuring nor challenging.

Outcome variable: Initiator. HLM was used to examine how much therapists vs. clients initiated therapist self-disclosure. Initiator was a dichotomous variable, with either the therapist or the client initiating each self-disclosure event. For the purposes of HLM analysis, client was coded as 0 and therapist was coded as 1. Between-events (level 1), between-session (level 2) and between-clients (level 3) variance respectively accounted for 74% (σ^2 = 0.14, *SE* = 0.02, *SD* = 0.38), 1% ($\tau_\pi = 0.002$, *SE* = 0.02, *SD* = 0.04, $\chi^2(df = 97) = 85.27$, $p > 0.500$), and 25% ($\tau_\beta = 0.05$, *SE* = 0.02, *SD* = 0.22, $\chi^2(df = 15) = 89.59$, $p < 0.001$) of the total variance for the outcome variable initiator. Between-client variance was significant. The majority of the variance for initiator occurred between events. Results examining the relationship of initiator to other variables are included under other outcome variables.

Outcome variable: Focus return. HLM was used to examine how often the focus of the session returned to the client following therapist self-disclosure. Focus return was a dichotomous variable, with the focus either returning or not returning to the client following each self-disclosure event. For the purposes of HLM analysis, focus not returned was coded as 0 and focus returned was coded as 1. Between-events (level 1), between-session (level 2) and between-clients (level 3) variance respectively accounted

for 99.9% (σ^2 = 0.14, *SE* = 0.02, *SD* = 0.26), 0.05% ($\tau_\pi = 0.00003$, *SE* = 0.006, *SD* = 0.05, $\chi^2(df = 97) = 67.46$, $p > 0.500$), and 0.0003% ($\tau_\beta = 0.00002$, *SE* = 0.002, *SD* = 0.005, $\chi^2(df = 15) = 12.50$, $p > 0.500$) of the total variance for the variable focus return. Essentially all of the variance in focus return occurred between events. Caution is warranted in interpreting these results because there were so few disclosures (*n* = 13) after which the focus did not return to the client.

Focus return by type. Using facts as the reference group, when predicting return of focus using disclosure type as a predictor, there were no significant findings.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	2.710840	0.326479	8.303	15	<0.001
For FEELINGS slope, *π1*					
For INTRCPT2, *β10*					
INTRCPT3, *γ100*	0.196031	1.668993	0.117	111	0.907
For INSIGHT slope, *π2*					
For INTRCPT2, *β20*					
INTRCPT3, *γ200*	1.267002	1.640720	0.772	111	0.442

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, *π0*			
For INTRCPT2, *β00*			
INTRCPT3, *γ000*	2.710840	15.041901	(7.860,28.785)
For FEELINGS slope, *π1*			
For INTRCPT2, *β10*			
INTRCPT3, *γ100*	0.196031	1.216565	(0.058,25.523)
For INSIGHT slope, *π2*			
For INTRCPT2, *β20*			
INTRCPT3, *γ200*	1.267002	3.550194	(0.716,17.612)

Outcome variable: Intimacy. HLM was used to examine whether intimacy level differed as a function of other disclosure variables (type, reassuring/challenging descriptor, initiator, focus return, RRI, WAI). Intimacy was rated on a 9-point Likert-

type scale (1 = least intimate, 9 = most intimate). Between-events (level 1), between-session (level 2) and between-clients (level 3) variance respectively accounted for 85% (σ^2 = 1.24, *SE* = 0.02, *SD* = 1.11), 9% ($\tau_\pi = 0.13$, *SE* = 0.16, *SD* = 0.35, $\chi^2(df = 97)$ = 106.67, p = 0.236), and 6% ($\tau_\beta = 0.09$, *SE* = 0.08, *SD* = 0.30, $\chi^2(df = 15) = 26.67$, p = 0.031) of the total variance for the outcome variable intimacy. Between-clients variance was significant. The majority of the variance in intimacy occurred between events. There were too few disclosures of strategy to include in the analysis.

Intimacy as a function of type. HLM was used to examine whether event intimacy differed as a function of disclosure type (facts, feelings, insight, strategy). In this analysis, the referent group was facts. Disclosures of feelings (μ_{100} = 1.39, S.E. = 0.19, t(df = 15) = 7.26, $p < 0.001$) and disclosures of insight (μ_{200} = 1.32, S.E. = 0.22, t(df = 15) = 5.99, $p < 0.001$) were significantly more intimate than disclosures of facts, but feelings and insight disclosures did not differ from each other in terms of intimacy ratings. Specifically, the estimated intimacy ratings for disclosures of facts, feelings, and insight were 1.96, 3.35, and 3.28, respectively.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	1.961979	0.100990	19.428	15	<0.001
For FEELINGS slope, *π1*					
For INTRCPT2, *β10*					
INTRCPT3, *γ100*	1.387095	0.191153	7.256	15	<0.001
For INSIGHT slope, *π2*					
For INTRCPT2, *β20*					
INTRCPT3, *γ200*	1.319653	0.220348	5.989	15	<0.001

Intimacy as a function of reassuring/challenging. HLM was used to examine whether event intimacy (1 = low intimacy, 7 = high intimacy) differed as a function of

reassuring/challenging descriptor (reassuring: $n = 36$, challenging: $n = 12$, both: $n = 45$, neither: $n = 92$). In this analysis, disclosures rated as neither reassuring nor challenging were the referent group. Challenging disclosures ($\mu_{200} = 2.52$, S.E. = 0.47, $t(df = 15) = 5.42$, $p < 0.001$) and disclosures that were both challenging and reassuring ($\mu_{300} = 1.47$, S.E. = 0.35, $t(df = 15) = 4.26$, $p < 0.001$) were significantly higher in average intimacy than disclosures rated as neither. However, reassuring disclosures ($\mu_{100} = 0.70$, S.E. = 0.41, $t(df = 15) = 1.72$, $p = 0.105$) did not differ significantly from disclosures rated as neither. The predicted levels of intimacy for neither, challenging, both challenging and reassuring, and reassuring disclosures were 2.48, 5.00, 3.95 and 3.18, respectively.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, $\pi 0$					
For INTRCPT2, $\beta 00$					
INTRCPT3, $\gamma 000$	2.477981	0.129797	19.091	15	<0.001
For REASSURI slope, $\pi 1$					
For INTRCPT2, $\beta 10$					
INTRCPT3, $\gamma 100$	0.698709	0.405487	1.723	15	0.105
For CHALLENG slope, $\pi 2$					
For INTRCPT2, $\beta 20$					
INTRCPT3, $\gamma 200$	2.524631	0.465878	5.419	15	<0.001
For BOTH slope, $\pi 3$					
For INTRCPT2, $\beta 30$					
INTRCPT3, $\gamma 300$	1.469200	0.345164	4.257	15	<0.001

Intimacy as a function of initiator. HLM was used to examine whether event intimacy differed as a function of initiator. The dichotomous variable indicating whether the client or the therapist initiated the disclosure was not significant in predicting disclosure intimacy level ($\mu_{100} = 0.37$, S.E. = 0.38, $t(df = 15) = 0.97$, $p = 0.348$). When the client initiated, the estimated intimacy rating of the self-disclosure was 2.50; when the therapist initiated, the estimated intimacy rating of the self-disclosure was 2.86.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	2.495391	0.124648	20.019	15	<0.001
For INITIATO slope, *π1*					
For INTRCPT2, *β10*					
INTRCPT3, *γ100*	0.368137	0.379635	0.970	15	0.348

Intimacy as a function of RRI. HLM was used to examine whether event quality differed as a function of the strength of the real relationship (based on clients' ratings on the RRI). The continuous variable indicating the client's rating of the real relationship was significantly related to intimacy (μ_{010} = 0.98, S.E. = 0.28, t(*df* = 15) = 3.472, *p* = 0.003). As the intimacy of self-disclosures increased, the strength of the Real Relationship also increased (as measured by client ratings on the RRI). Specifically, for every one-point of increase in the Real Relationship Inventory, the intimacy ratings of therapist self-disclosures increased by 0.98 points.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	2.501319	0.123385	20.272	15	<0.001
For RRIC_AVE, *β01*					
INTRCPT3, *γ010*	0.983308	0.283241	3.472	15	0.003

Intimacy as a function of WAI. HLM was used to examine whether event intimacy differed as a function of the strength of the working alliance (based on clients' ratings on the WAI). The continuous variable indicating the client's rating of the working alliance was significantly related to intimacy (μ_{010} = 0.89, S.E. = 0.24, t(*df* = 15) = 3.79, p = 0.002). As the intimacy of self-disclosures increased, the strength of the

Working Alliance also increased (as measured by client ratings on the WAI), the intimacy of self-disclosures increased. Specifically, for every one-point increase in the Working Alliance Inventory score, the intimacy ratings of therapist self-disclosures increased by 0.89 points.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, $\pi 0$					
For INTRCPT2, $\beta 00$					
INTRCPT3, $\gamma 000$	2.496999	0.125245	19.937	15	<0.001
For WAIC_AVE, $\beta 01$					
INTRCPT3, $\gamma 010$	0.891989	0.236728	3.768	15	0.002

Intimacy as a function of both RRI and WAI. HLM was used to examine whether event quality differed as a function of the strength of the both the real relationship and the working alliance (based on clients' ratings on the RRI and WAI). When both session outcome measures (RRI and WAI) were included in the model, neither WAI ($\mu_{010} = 0.53$, S.E. = 0.40, t($df = 15$) = 1.32, $p = 0.206$) nor RRI ($\mu_{020} = 0.63$, S.E. = 0.39, t($df = 15$) = 1.62, $p = 0.126$) made a significant independent contribution to the prediction of self-disclosure intimacy.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, $\pi 0$					
For INTRCPT2, $\beta 00$					
INTRCPT3, $\gamma 000$	2.503194	0.129499	19.330	15	<0.001
For WAIC_AVE, $\beta 01$					
INTRCPT3, $\gamma 010$	0.529044	0.400483	1.321	15	0.206
For RRIC_AVE, $\beta 02$					
INTRCPT3, $\gamma 020$	0.625705	0.385753	1.622	15	0.126

Summary of Results for Intimacy Outcome Variable. Disclosures of feelings and disclosures of were significantly more intimate than disclosures of facts, but feelings

and insight disclosures did not differ from each other in terms of intimacy ratings. Challenging disclosures and disclosures that were both challenging and were significantly higher in average intimacy than disclosures rated as neither. However, reassuring disclosures did not differ significantly from disclosures rated as neither. As the intimacy of self-disclosures increased, the strength of the Real Relationship also increased (as measured by client ratings on the RRI). Similarly, as the intimacy of self-disclosures increased, the strength of the Working Alliance also increased (as measured by client ratings on the WAI), the intimacy of self-disclosures increased.

TSD Effectiveness (Disclosure Variables in Relation to Quality Ratings)

HLM was used to understand the influence of TSD characteristics (e.g., type, reassuring/challenging descriptor, intimacy, initiator, return of focus) on quality ratings. Quality was rated on a 3-point scale (low quality, medium or moderate level of quality, high quality). For the purposes of the HLM analyses, low was coded as 0, medium as 1, and high as 3.

Results from the initial 4-level (disclosure events within sessions, sessions within clients, and clients within therapists) HLM analysis of the outcome variable quality indicated that variance existed at level 1 (85% of the variance was between-events), level 2 (9% of the variance was between sessions), and level 3 (6% of the variance was between clients), but that variance between therapists was not significant (only 0.04% of the total variance was accounted for by level 4). Accordingly, level 4 was eliminated and analysis proceeded with a 3-level model.

Outcome Variable: Quality. Quality was rated on a 3-point scale (low quality, medium or moderate level of quality, high quality). Between-events (level 1), between-

session (level 2) and between-clients (level 3) variance respectively accounted for 60% (σ^2 = 0.44, *SE* = 0.07, *SD* = 0.67), 27% ($\tau_\pi = 0.20$, *SE* = 0.08, *SD* = 0.45, $t(df = 97)$ = 168.05, $p < 0.001$), and 13% ($\tau_\beta = 0.09$, *SE* = 0.06, *SD* = 0.31, $t(df = 15) = 36.08$, p = 0.002) of the total variance in the quality outcome variable. Between-session and between-clients variances were significant. The majority of the variance in quality occurred between events. There were too few disclosures of strategy to include in the analyses.

Quality as a function of disclosure type. HLM was used to examine whether event quality differed based on disclosure type. Using disclosures of facts as the reference group, disclosures of feelings (μ_{100} = 1.20, S.E. = 0.12, t(*df* = 15) = 9.97, $p <$ 0.001) and disclosures of insight (μ_{200} = 1.13, S.E. = 0.17, t(*df* = 15) = 6.72, $p < 0.001$) were significantly higher in quality. They did not differ from each other in terms of quality ratings. The predicted levels of quality for disclosures of facts, feelings and insight were 0.24, 1.44 and 1.37, respectively, where 0 = low quality, 1 = medium quality, and 2 = high quality.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	0.239743	0.056012	4.280	15	<0.001
For FEELINGS slope, *π1*					
For INTRCPT2, *β10*					
INTRCPT3, *γ100*	1.196741	0.120004	9.972	15	<0.001
For INSIGHT slope, *π2*					
For INTRCPT2, *β20*					
INTRCPT3, *γ200*	1.124968	0.167449	6.718	15	<0.001

Quality as a function of reassuring/challenging descriptor. HLM was used to examine whether event quality differed based on reassuring/challenging descriptor.

When compared to the neither challenging nor reassuring referent group, all three remaining groups were significantly higher in average quality rating: challenging (μ_{200} = 1.61, S.E. = 0.19, t(*df* = 15) = 8.541, $p < 0.001$), reassuring (μ_{100} = 0.60, S.E. = 0.17, t(*df* = 15) = 3.473, $p = 0.003$), and both challenging and reassuring (μ_{300} = 1.40, S.E. = 0.16, t(*df* = 15) = 9.07, $p < 0.001$). Challenging self-disclosures were rated as higher in quality than reassuring self-disclosures (difference = 1.01, S.E. = 0.19, t(*df* = 15) = 5.35, $p < 0.001$), as were self-disclosures that were both challenging and reassuring (difference = 0.80, S.E. = 0.19, t(*df* = 15) = 4.23, $p < 0.001$). There was no difference in quality (0 = low, 1 = medium, 2 = high) between self-disclosures that were challenging and those that were both challenging and reassuring. The predicted levels of quality for neither, challenging, reassuring, and both challenging and reassuring disclosures were 0.72 (between low and medium), 2.33 (high quality), 1.32 (between medium and high quality) and 2.12 (high), respectively.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	0.717578	0.107918	6.649	15	<0.001
For REASSURI slope, *π1*					
For INTRCPT2, *β10*					
INTRCPT3, *γ100*	0.597865	0.172163	3.473	15	0.003
For CHALLENG slope, *π2*					
For INTRCPT2, *β20*					
INTRCPT3, *γ200*	1.613151	0.188864	8.541	15	<0.001
For BOTH slope, *π3*					
For INTRCPT2, *β30*					
INTRCPT3, *γ300*	1.402505	0.154639	9.070	15	<0.001

Quality as a function of intimacy. HLM was used to examine whether event quality differed based on event intimacy level. Both variables were measured by judges'

consensual ratings. The continuous variable indicating the level of disclosure intimacy (1 – low intimacy;

7 – high intimacy) was significant in predicting disclosure quality (μ_{000} = 2.49, S.E. = 0.13,

t(*df* = 15) = 19.82, $p < 0.001$). As self-disclosure intimacy increased, quality also increased. For every one-point of increase in the intimacy level, the quality rating of therapist self-disclosures increased by 1.13 points.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, $\pi 0$					
For INTRCPT2, $\beta 00$					
INTRCPT3, $\gamma 000$	2.487098	0.125489	19.819	15	<0.001
For QUALITY slope, $\pi 1$					
For INTRCPT2, $\beta 10$					
INTRCPT3, $\gamma 100$	1.126272	0.154009	7.313	15	<0.001

Quality as a function of initiator. HLM was used to examine whether event quality differed based on whether the therapist or client initiated the disclosure. The dichotomous variable indicating whether the client or the therapist initiated the disclosure was significant in predicting disclosure quality (μ_{100} = 0.74, S.E. = 0.21, t(*df* = 15) = 3.55, $p = 0.003$). Quality was significantly higher when the therapist initiated ($n = 135$) than when the client initiated ($n = 50$). The predicted level of quality when the client initiated was 0.71, meaning it was between low (coded as 0) and medium (coded as 1), but closer to medium. The predicted level of quality when the therapist initiated was 1.45, about halfway between medium quality (coded as 1) and high quality (coded as 2).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	0.712684	0.108056	6.596	15	<0.001
For INITIATO slope, *π1*					
For INTRCPT2, *β10*					
INTRCPT3, *γ100*	0.738814	0.207866	3.554	15	0.003

Quality as a function of RRI. HLM was used to examine whether event quality differed based on the strength of the real relationship as rated by the client on the Real Relationship Inventory. The continuous variable indicating the client's rating of the real relationship was not significant in predicting quality (μ_{010} = 0.38, S.E. = 0.24, $t(df = 15)$ = 1.60, p = 0.130).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	0.709492	0.107721	6.586	15	<0.001
For RRIC_AVE, *β01*					
INTRCPT3, *γ010*	0.383879	0.239877	1.600	15	0.130

Quality as a function of WAI. HLM was used to examine whether event quality differed based on the strength of the working alliance as rated by the client on the Working Alliance Inventory. There was a trend such that as the continuous variable indicating the client's rating of the working alliance (via the Working Alliance Inventory) increased, quality ratings for therapist self-disclosure also increased (μ_{010} = 0.39, S.E. = 0.18, $t(df = 15)$ = 2.10, p = 0.053).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, *π0*					
For INTRCPT2, *β00*					
INTRCPT3, *γ000*	0.709349	0.107747	6.583	15	<0.001
For WAIC_AVE, *β01*					
INTRCPT3, *γ010*	0.386137	0.183496	2.104	15	0.053

Summary of Results for Quality Outcome Variable. Disclosures of feelings and disclosures of insight were significantly higher in quality than were disclosures of facts. When compared to the neither challenging nor reassuring referent group, all three remaining groups were significantly higher in average quality rating (i.e., challenging, reassuring, and both challenging and reassuring disclosures). Challenging self-disclosures were rated as higher in quality than reassuring self-disclosures, as were self-disclosures that were both challenging and reassuring. There was no difference in between self-disclosures that were challenging and those that were both challenging and reassuring. As self-disclosure intimacy increased, quality also increased. Quality was significantly higher when the therapist initiated than when the client initiated. There was a trend such that as the continuous variable indicating the client's rating of the working alliance (via the Working Alliance Inventory) increased, quality ratings for therapist self-disclosure also increased.

TSD Effectiveness (Disclosure Variables in Relation to Client Session Outcome Ratings)

HLM was used to predict session outcome (as rated by RRI and WAI), using TSD type, reassuring/challenging descriptor, and occurrence vs. no occurrence as predictors. Variance in the predictor variable was divided into between-sessions and between-clients variance. This allowed us to determine whether the client's *overall level* of WAI or RRI

was important or the WAI and RRI *in a particular session* that were most important. In order to examine both within-person differences and between-person differences, each outcome variable was broken into two components—mean and deviation from the mean.

Session outcome as a function of disclosure occurrence vs. no occurrence. HLM was used to predict session outcome (as rated by RRI and WAI) based on whether disclosure occurred or did not occur.

Real relationship. The Real Relationship Inventory scores were centered around the mean (M = 0.00, SD = 0.26, ranging from -1.16 to 0.90). The dichotomous variable indicating whether or not therapist self-disclosure occurred was not significant in predicting either the between-*sessions* real relationship (μ_{10} = -0.48, S.E. = 0.48, t(df = 15) = -0.996, p = 0.335) or the between-*clients* real relationship (μ_{01} = 1.19, S.E. = 0.71, t(df = 14) = 1.681, p = 0.115) as rated by clients on the RRI. Thus, session-to-session changes in the real relationship for a given client were not related to the number of therapist self-disclosures, nor was overall level of real relationship across clients related to number of disclosures.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-0.800134	0.198578	-4.029	14	0.001
RR_RELAT, γ_{01}	1.184755	0.704788	1.681	14	0.115
For RR_BS slope, β_1					
INTRCPT2, γ_{10}	-0.476731	0.478567	-0.996	15	0.335

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-0.800134	0.449269	(0.293,0.688)
RR_RELAT, γ_{01}	1.184755	3.269885	(0.721,14.828)
For RR_BS slope, β_1			
INTRCPT2, γ_{10}	-0.476731	0.620810	(0.224,1.722)

Working alliance. The Working Alliance Inventory scores were centered around the mean (M = 0.00, SD = 0.29, ranging from -1.31 to 1.04). The dichotomous variable indicating whether or not a therapist self-disclosure occurred was significant in predicting the between-*clients* working alliance as rated by clients on the WAI. The stronger the working alliance for a session, the more likely a disclosure was to occur (μ_{01} = 1.05, S.E. = 0.42, t(df = 14) = 2.487, p = 0.026). For every one-point increase in the Working Alliance Inventory score averaged across sessions for a client, the odds of a therapist making a disclosure increased 3-fold (286%). The same variable was not significant in predicting the between-*sessions* working alliance (μ_{10} = -0.41, S.E. = 0.44, t(df = 15) = -0.939, p = 0.363). Thus, a client's overall or average working alliance was related to the number of therapist self-disclosures, but session-to-session changes in the working alliance were not.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-0.798265	0.209306	-3.814	14	0.002
WAI_RELA, γ_{01}	1.052100	0.423122	2.487	14	0.026
For WAI_BS slope, β_1					
INTRCPT2, γ_{10}	-0.412921	0.439754	-0.939	15	0.363

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-0.798265	0.450109	(0.287,0.705)
WAI_RELA, γ_{01}	1.052100	2.863657	(1.155,7.097)
ßFor WAI_BS slope, β_1			
INTRCPT2, γ_{10}	-0.412921	0.661715	(0.259,1.690)

Type. ***Real relationship.*** *Facts.* The dichotomous variable indicating whether or not a disclosure of facts occurred was significant in predicting the between-*sessions* real

relationship as rated by clients on the RRI. The stronger the RRI for a session, the less likely a disclosure of facts was to occur in that session (μ_{10} = -1.21, S.E. = 0.50, t(*df* = 15) = -2.429, *p* = 0.028). For every one-point increase in the Real Relationship Inventory score, the odds of a therapist making a factual disclosure decreased by 70%. The same variable was not significant in predicting the between-*clients* real relationship (μ_{01} = 0.82, S.E. = 0.67, t(*df* = 14) = 1.227, *p* = 0.240).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-1.470052	0.192434	-7.639	14	<0.001
RR_RELAT, γ_{01}	0.820451	0.668573	1.227	14	0.240
For RR_BS slope, β_1					
INTRCPT2, γ_{10}	-1.211066	0.498600	-2.429	15	0.028

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-1.470052	0.229913	(0.152,0.347)
RR_RELAT, γ_{01}	0.820451	2.271525	(0.541,9.531)
For RR_BS slope, β_1			
INTRCPT2, γ_{10}	-1.211066	0.297880	(0.103,0.862)

Feelings. The dichotomous variable indicating whether or not a disclosure of feelings occurred approached significance in predicting the between-*clients* real relationship (μ_{01} = 1.67, S.E. = 0.88, t(*df* = 14) = 1.895, *p* = 0.079) as rated by clients on the RRI. For every one-point increase in the RRI averaged across sessions for a client, there was a trend that the odds of a therapist making a disclosure of feelings increased 5-fold (532%). The same variable was not significant in predicting the between-*sessions* real relationship (μ_{10} = 0.74, S.E. = 0.66, t(*df* = 15) = 1.127, *p* = 0.278).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-2.218118	0.256496	-8.648	14	<0.001
RR_RELAT, γ_{01}	1.670963	0.881947	1.895	14	0.079
For RR_BS slope, β_1					
INTRCPT2, γ_{10}	0.742380	0.659002	1.127	15	0.278

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-2.218118	0.108814	(0.063,0.189)
RR_RELAT, γ_{01}	1.670963	5.317284	(0.802,35.260)
For RR_BS slope, β_1			
INTRCPT2, γ_{10}	0.742380	2.100929	(0.516,8.562)

Insight. The dichotomous variable indicating whether or not a disclosure of insight occurred was not significant in predicting either the between-*sessions* real relationship ($\mu_{10} = 0.40$, S.E. = 0.68, $t(df = 15) = 0.593$, $p = 0.562$) or the between-*clients* real relationship ($\mu_{01} = 0.63$, S.E. = 1.01, $t(df = 14) = 0.626$, $p = 0.542$) as rated by clients on the RRI.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-2.564080	0.286914	-8.937	14	<0.001
RR_RELAT, γ_{01}	0.633712	1.012885	0.626	14	0.542
For RR_BS slope, β_1					
INTRCPT2, γ_{10}	0.405922	0.684435	0.593	15	0.562

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-2.564080	0.076990	(0.042,0.142)
RR_RELAT, γ_{01}	0.633712	1.884594	(0.215,16.549)
For RR_BS slope, β_1			
INTRCPT2, γ_{10}	0.405922	1.500685	(0.349,6.457)

Strategy. There were not enough disclosures of strategy to conduct this analysis.

Working alliance. *Facts.* The dichotomous variable indicating whether or not a disclosure of facts occurred approached significance in predicting in predicting both the between-*sessions* working alliance (μ_{10} = -0.97, S.E. = 0.50, t(*df* = 15) = -1.984, *p* = 0.066) and the between-*clients* working alliance (μ_{01} = 0.74, S.E. = 0.42, t(*df* = 14) = 1.786, *p* = 0.096) as rated by clients on the WAI. There was a trend that the stronger the WAI score for a session, the less likely a disclosure of facts was to occur in that session. For every one-point increase in the WAI score, the odds of a therapist making a factual disclosure decreased by 62%. There was also a trend that the stronger the working alliance averaged across sessions for a client was, the more likely a factual disclosure was to occur. For every one-point increase in the WAI averaged across sessions for a client, there was a trend that the odds of a therapist making a disclosure of facts increased 2-fold.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-1.441894	0.209971	-6.867	14	<0.001
WAI_RELA, γ_{01}	0.741056	0.414915	1.786	14	0.096
For WAI_BS slope, β_1					
INTRCPT2, γ_{10}	-0.974177	0.491003	-1.984	15	0.066

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-1.441894	0.236479	(0.151,0.371)
WAI_RELA, γ_{01}	0.741056	2.098151	(0.862,5.109)
For WAI_BS slope, β_1			
INTRCPT2, γ_{10}	-0.974177	0.377503	(0.133,1.075)

Feelings. The dichotomous variable indicating whether or not a disclosure of feelings occurred was not significant in predicting either the between-*sessions* working alliance (μ_{10} = 0.33, S.E. = 0.56, t(*df* = 15) = 0.590, *p* = 0.564) or the between-*clients* working alliance (μ_{01} = 0.93, S.E. = 0.56, t(*df* = 14) = 1.667, *p* = 0.118) as rated by clients on the WAI.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-2.209681	0.254800	-8.672	14	<0.001
WAI_RELA, γ_{01}	0.934029	0.560347	1.667	14	0.118
For WAI_BS slope, β_1					
INTRCPT2, γ_{10}	0.328761	0.557227	0.590	15	0.564

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-2.209681	0.109736	(0.064,0.190)
WAI_RELA, γ_{01}	0.934029	2.544741	(0.765,8.465)
For WAI_BS slope, β_1			
INTRCPT2, γ_{10}	0.328761	1.389245	(0.423,4.557)

Insight. The dichotomous variable indicating whether or not a disclosure of insight occurred was not significant in predicting either the between-*sessions* working alliance (μ_{10} = 0.96, S.E. = 0.66, t(*df* = 15) = 1.461, *p* = 0.165) or the between-*clients* working alliance (μ_{01} = 0.39, S.E. = 0.59, t(*df* = 14) = 0.673, *p* = 0.512) as rated by clients on the WAI.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-2.599526	0.289790	-8.970	14	<0.001
WAI_RELA, γ_{01}	0.393535	0.584674	0.673	14	0.512
For WAI_BS slope, β_1					
INTRCPT2, γ_{10}	0.963411	0.659284	1.461	15	0.165

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-2.599526	0.074309	(0.040,0.138)
WAI_RELA, γ_{01}	0.393535	1.482210	(0.423,5.195)
For WAI_BS slope, β_1			
INTRCPT2, γ_{10}	0.963411	2.620619	(0.643,10.687)

Strategy. There were not enough disclosures of strategy to conduct this analysis.

Reassuring/challenging descriptor. ***Real relationship.*** *Reassuring.* The dichotomous variable indicating whether or not a reassuring disclosure occurred was not significant in predicting either the between-*sessions* real relationship (μ_{10} = -0.34, S.E. = 0.64, t(*df* = 15) = -0.527, *p* = 0.606) or the between-*clients* real relationship (μ_{01} = 0.65, S.E. = 1.02, t(*df* = 14) = 0.645, *p* = 0.530) as rated by clients on the RRI.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-2.204820	0.300215	-7.344	14	<0.001
RR_RELAT, γ_{01}	0.654492	1.015376	0.645	14	0.530
For RR_BS slope, β_1					
INTRCPT2, γ_{10}	-0.334990	0.635598	-0.527	15	0.606

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-2.204820	0.110270	(0.058,0.210)
RR_RELAT, γ_{01}	0.654492	1.924165	(0.218,16.987)
For RR_BS slope, β_1			
INTRCPT2, γ_{10}	-0.334990	0.715346	(0.185,2.773)

Challenging. The dichotomous variable indicating whether or not a challenging disclosure occurred was significant in predicting the between-*sessions* changes in the real relationship as rated by clients on the RRI. The stronger the RRI for a session, the more

likely a challenging disclosure was to occur (μ_{10} = 2.74, S.E. = 1.13, t(*df* = 15) = 2.434, *p* = 0.028). For every one-point increase in the Real Relationship Inventory score, the odds of a therapist making a challenging disclosure increased 15 times (155%). The same variable was not significant in predicting the between-*clients* real relationship (μ_{01} = -0.43, S.E. = 1.14, t(*df* = 14) = -0.379, *p* = 0.710).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-3.466986	0.339703	-10.206	14	<0.001
RR_RELAT, γ_{01}	-0.431707	1.138424	-0.379	14	0.710
For RR_BS slope, β_1					
INTRCPT2, γ_{10}	2.741151	1.125992	2.434	15	0.028

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-3.466986	0.031211	(0.015,0.065)
RR_RELAT, γ_{01}	-0.431707	0.649400	(0.056,7.465)
For RR_BS slope, β_1			
INTRCPT2, γ_{10}	2.741151	15.504828	(1.406,171.018)

Both. The dichotomous variable indicating whether or not a disclosure that was both reassuring and challenging occurred was not significant in predicting either the between-*sessions* real relationship (μ_{10} = 0.73, S.E. = 0.64, t(*df* = 15) = 1.143, *p* = 0.271) or the between-*clients* real relationship (μ_{01} = 1.02, S.E. = 0.96, t(*df* = 14) = 1.057, *p* = 0.308) as rated by clients on the RRI.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-2.117599	0.276442	-7.660	14	<0.001
RR_RELAT, γ_{01}	1.018732	0.963781	1.057	14	0.308
For RR_BS slope, β_1					
INTRCPT2, γ_{10}	0.728780	0.637331	1.143	15	0.271

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-2.117599	0.120320	(0.066,0.218)
RR_RELAT, γ_{01}	1.018732	2.769681	(0.350,21.890)
For RR_BS slope, β_1			
INTRCPT2, γ_{10}	0.728780	2.072550	(0.533,8.065)

Neither. The dichotomous variable indicating whether or not a disclosure that was neither reassuring nor challenging occurred was significant in predicting the between-*sessions* real relationship as rated by clients on the RRI. The stronger the RRI for a session, the less likely a neither disclosure was to occur in that session (μ_{10} = -1.37, S.E. = 0.52, t(*df* = 15) = -2.649, *p* = 0.018). For every one-point increase in the Real Relationship Inventory score, the odds of a therapist making a neither disclosure decreased by 75%. The same variable was not significant in predicting the between-*clients* real relationship (μ_{01} = 0.59, S.E. = 0.68, t(*df* = 14) = 0.862, *p* = 0.403).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-1.564858	0.196687	-7.956	14	<0.001
RR_RELAT, γ_{01}	0.590001	0.684438	0.862	14	0.403
For RR_BS slope, β_1					
INTRCPT2, γ_{10}	-1.372926	0.518311	-2.649	15	0.018

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-1.564858	0.209118	(0.137,0.319)
RR_RELAT, γ_{01}	0.590001	1.803990	(0.416,7.831)
For RR_BS slope, β_1			
INTRCPT2, γ_{10}	-1.372926	0.253364	(0.084,0.765)

Working alliance. *Reassuring.* The dichotomous variable indicating whether or not a reassuring disclosure occurred was not significant in predicting either the between-*sessions* working alliance (μ_{10} = 0.22, S.E. = 0.53, t(*df* = 15) = 0.425, *p* = 0.677) or the between-*clients* working alliance (μ_{01} = 0.03, S.E. = 0.60, t(*df* = 14) = 0.053, *p* = 0.959) as rated by clients on the WAI.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-2.172120	0.305706	-7.105	14	<0.001
WAI_RELA, γ_{01}	0.031743	0.604412	0.053	14	0.959
For WAI_BS slope, β_1					
INTRCPT2, γ_{10}	0.224219	0.528000	0.425	15	0.677

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-2.172120	0.113936	(0.059,0.220)
WAI_RELA, γ_{01}	0.031743	1.032252	(0.282,3.774)
For WAI_BS slope, β_1			
INTRCPT2, γ_{10}	0.224219	1.251345	(0.406,3.857)

Challenging. The dichotomous variable indicating whether or not a challenging disclosure occurred was not significant in predicting either the between-*sessions* working alliance (μ_{10} = -0.10, S.E. = 0.78, t(*df* = 15) = -0.123, *p* = 0.904) or the between-*clients* working alliance (μ_{01} = -0.01, S.E. = 0.60, t(*df* = 14) = -0.022, *p* = 0.938) as rated by clients on the WAI.

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-3.270450	0.313218	-10.441	14	<0.001
WAI_RELA, γ_{01}	-0.012987	0.595820	-0.022	14	0.983
For WAI_BS slope, β_1					
INTRCPT2, γ_{10}	-0.095675	0.777448	-0.123	15	0.904

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-3.270450	0.037989	(0.019,0.074)
WAI_RELA, γ_{01}	-0.012987	0.987097	(0.275,3.543)
For WAI_BS slope, β_1			
INTRCPT2, γ_{10}	-0.095675	0.908760	(0.173,4.768)

Both. The dichotomous variable indicating whether or not a disclosure that was both reassuring and challenging occurred approached significance in predicting the between-*clients* working alliance as rated by clients on the WAI. There was a trend that stronger the working alliance averaged across sessions for a client, the more likely a disclosure that was both reassuring and challenging was to occur (μ_{01} = 1.09, S.E. = 0.60, t(*df* = 14) = 1.808, *p* = 0.092). For every one-point increase in the WAI score, the odds of a therapist making a both disclosure increased nearly 3-fold (297%). The same variable was not significant in predicting the between-*sessions* working alliance (μ_{10} = 0.87, S.E. = 0.58, t(*df* = 15) = 1.496, *p* = 0.155).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-2.214497	0.268803	-8.238	14	<0.001
WAI_RELA, γ_{01}	1.087248	0.601230	1.808	14	0.092
For WAI_BS slope, β_1					
INTRCPT2, γ_{10}	0.871475	0.582553	1.496	15	0.155

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-2.214497	0.109208	(0.061,0.194)
WAI_RELA, γ_{01}	1.087248	2.966102	(0.817,10.771)
For WAI_BS slope, β_1			
INTRCPT2, γ_{10}	0.871475	2.390433	(0.690,8.277)

Neither. The dichotomous variable indicating whether or not a disclosure that was neither reassuring nor challenging occurred approached significance in predicting the between-*sessions* working alliance (μ_{10} = -0.99, S.E. = 0.50, t(*df* = 15) = -1.992, *p* = 0.065) as rated by clients on the WAI. There was a trend that the stronger the WAI score for a session, the less likely a disclosure that was neither reassuring nor challenging was to occur for that session. For every one-point increase in the WAI score for a session, the odds of a therapist making a neither disclosure decreased by 63%. The same variable was not significant in predicting the between-*clients* working alliance (μ_{01} = 0.69, S.E. = 0.42, t(*df* = 14) = 1.660, *p* = 0.119).

Fixed Effect	Coefficient	Standard error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTRCPT1, β_0					
INTRCPT2, γ_{00}	-1.534015	0.212914	-7.205	14	<0.001
WAI_RELA, γ_{01}	0.692330	0.417171	1.660	14	0.119
For WAI_BS slope, β_1					
INTRCPT2, γ_{10}	-0.992691	0.498219	-1.992	15	0.065

Fixed Effect	Coefficient	Odds Ratio	Confidence Interval
For INTRCPT1, β_0			
INTRCPT2, γ_{00}	-1.534015	0.215668	(0.137,0.341)
WAI_RELA, γ_{01}	0.692330	1.998367	(0.817,4.890)
For WAI_BS slope, β_1			
INTRCPT2, γ_{10}	-0.992691	0.370578	(0.128,1.072)

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