When to Disclose and to Whom? Examining Within- and Between-Client Moderators of Therapist Self Disclosure-Outcome Associations in Psychodynamic Psychotherapy

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Tal Alfi-Yogev[1], Ilanit Hasson-Ohayon [1], Gal Lazarus[1], Sharon Ziv-Beiman[2] and Dana Atzil-Slonim[1]

[1]Department of Psychology, Bar-Ilan University, Ramat-Gan, Israel

[2]School of Behavioral Sciences, The Academic College Tel-Aviv Yaffo, Tel Aviv-Yaffo, Israel

Correspondence concerning this article should be addressed to:
Tal Alfi-Yogev, Psychology Department, Bar-Ilan University, Ramat-Gan, Israel.
E-mail: talalfi@gmail.com. Phone: 972-52-6777090.

Abstract

Objective: While previous studies have indicated that therapists' self-disclosure (TSD) can have curative effects, the contextual variables that may moderate the link between TSD and treatment outcome have not been sufficiently explored. Using session-by-session psychotherapy data, we examined the extent to which within-client distress and between-clients emotion regulation difficulties moderated the associations between TSD and session outcomes. ***Method:*** The sample comprised 68 clients treated according to the principles of Psychodynamic Psychotherapy by 47 therapists in a university clinic. Emotion regulation difficulties were assessed at the beginning of treatment, and functioning and distress levels as well as symptoms were assessed at the beginning of each session. After each session, therapists completed a measure of frequency and centrality of their immediate and non- immediate self-disclosure interventions during the session. ***Results:*** At the within-client level, in sessions marked by high pre-session client distress, immediate TSD was associated with a better next session outcome. At the between-clients level, for clients who had low emotion regulation difficulties, immediate TSD was marginally associated with better outcomes. ***Conclusion***: These findings highlight the importance of considering within-client level as well as between-clients level variables when deciding upon self-disclosure.

Keywords: therapist self-disclosure, individual differences, within and between clients' variables, process-outcome research

When to Disclose and to Whom? Examining Within- and Between-Client Moderators of Therapists' Self Disclosure-Outcome Associations in Psychodynamic Psychotherapy

The ongoing debate on the usefulness of therapist self-disclosure (TSD) dates back to the early days of psychotherapy, with opposing arguments suggesting that it can either impede (e.g., Curtis, 1982; Freud, 1915) or support treatment (e.g., Bugental, 1965; Jourard, 1971). In recent years there has been a growing consensus that TSD can often serve as an important and powerful therapeutic intervention with curative effects when used judiciously (e.g., Audet, 2011; Henretty et al., 2014; Knox & Hill, 2016; Myers & Hayes, 2006; Ziv-Beiman et al, 2016).

TSD is defined as utterances that reveal personal information about the therapist (Hill & Knox, 2002). There are several typologies and classifications of this construct (for a review, see Henretty & Levitt, 2010 and Ziv-Beiman, 2013). One unifying and comprehensive distinction is between immediate and non-immediate TSD, which was first put forward by McCarthy and Betz (1978) and later adopted by many psychotherapy researchers (e.g., Audet, 2005, 2011; Henretty & Levitt, 2010; Hill & O'Brien, 1999; McCarthy Veach, 2011; Ziv-Beiman et al., 2016).

Immediate TSD refers to the expression of therapists' feelings, thoughts, and opinions toward their clients, the treatment, or the therapeutic relationship in the here and now (e.g. "in the past few sessions I have experienced you as more engaged"), whereas non-immediate TSD involves revealing information about therapists' personal life outside of treatment, such as beliefs, values, life events and past experiences (e.g. "I also struggle with weight loss and dealing with emotional eating is a constant challenge for me as well."). Theoretically, the two types of TSD differ in terms of their function. Immediate TSD may facilitate dyadic engagement in the therapeutic process, enable clients to experience their interpersonal impact, promote insight, help address process issues, and may invite clients to identify,

experience, and integrate dissociative components (Audet, 2011; Kaufman, 2016). In contrast, non-immediate TSD may increase client's self-acceptance and alleviate shame and self-criticism. It facilitates rapport, conveys the human fallibility of the therapist, models new perspectives and behaviors, and can equalize the therapeutic relationship (Audet, 2011). Because of their different functions in treatment, it has been suggested that immediate and non-immediate TSD may have different effects on treatment processes and outcomes (Henretty et al., 2014; Wachtel, 1993; Watkins & Schneider, 1989).

Many studies have shown that both immediate and non-immediate TSD are generally associated with positive treatment *processes* and with clients' favorable perception of their therapists (for a review, see Audet, 2011; Henretty et al., 2014). Key findings suggest that the most frequent processes after immediate TSD and immediacy events (defined as disclosures that relate specifically to the therapeutic relationship, and therefore are viewed as a special case of immediate TSD) were that the clients opened up, talked about underlying feelings, and negotiated and explored the therapeutic relationship with the therapist (Hill, et al., 2018). Studies on the impact of non-immediate TSD indicate that clients tend to experience their therapists as more attuned to their concerns and needs, feel more understood, form a stronger connection with their therapist in the early stages of treatment, and engage in a meaningful working relationship (Audet & Everall, 2010).

However, studies that have examined the effect of TSD on treatment *outcome* are inconclusive. Several studies (Beutler & Mitchell, 1981; Coady, 1991; Hill et al., 1988; Kelly & Rodriguez, 2007; Kushner et al., 1979; Williams & Chambless, 1990) reported no association between the frequency of TSD and session or treatment outcome as rated by clients, therapists, and external judges. One study found a negative association between the number of TSDs and the extent of clients' improvement (Braswell et al., 1985), but another

study reported a positive association between TSD and treatment outcome (Barrett & Berman, 2001).

Few studies have examined the differential impacts of immediate and non-immediate TSD on treatment outcomes, but these have also failed to show clear trends. In a recent naturalistic study, Levitt et al. (2016) examined TSD in the early sessions (3rd/4th session) of treatment as well as after a session near termination and their associations with clinical symptoms at that point. Among other classifications of TSD, they compared immediate TSD and non-immediate TSD but found no significant differences in the association between these two types and treatment outcomes. In contrast, Ziv-Beiman et al. (2016) reported that for highly symptomatic clients, only the use of immediate TSD resulted in greater symptomatic distress relief at the end of treatment. Given these inconsistent results further research is needed to determine whether these two types of TSD have a differential effect on treatment outcomes.

Another important facet of TSD studies is the perspective from which it has been assessed. Whereas early studies were based on observers' ratings of analog methods with non-client participants (e.g., Dowd & Boroto, 1982; McCarthy, 1979; Myers & Hayes, 2006), more recent studies are based on real clients' perspectives on TSD (e.g., Ain, 2008; Knox et al., 1997) or on observers' ratings (e.g., Pinto-Coelho et al., 2016). Little is known about therapists' perspective on TSD and its effect on treatment outcomes (Ain, 2011). Thus, it would be helpful to examine how therapists' view the extent to which they self-disclose and to examine its associations with outcomes.

These mixed findings are likely the result of several methodological shortcomings. TSD studies usually measure outcomes at the end of treatment (e.g., Barrett & Berman, 2001; Ziv-Beiman et al., 2016), which makes it difficult to assess the direct impact of specific interventions. Given the complexity of assessing the impact of any single statement on

measurable client change at treatment termination, this suggests that TSD should be measured in closer proximity to the outcome measure (Knox & Hill, 2003). Studies that have examined more proximal outcomes have been restricted to a limited number of sessions (e.g., twice; Levitt et al., 2016), reflecting the impact of TSD on phases within treatment rather than changes from session to session.

In addition, most studies have examined relatively small samples (e.g., Audet, 2011; Hill et al., 2014; Pinto-Coelho et al., 2016). Finally, hardly any TSD studies have taken moderators that can affect the association between TSD and outcomes into account. This underscores the need for research that overcomes these methodological constraints and addresses the moderating effects of clients' variables in the association between TSD and outcome (Gelso & Palma, 2011; Hill et al., 2018).

Recently, psychotherapy researchers have highlighted the importance of distinguishing between within-client (i.e., variables that represent differences between time points) and between-clients (i.e., variables that represent differences between individuals) variables that may moderate the association between specific process variables and treatment outcomes (e.g., Falkenström et al., 2013; Lorenzo-Luaces et al., 2014; Zilcha-Mano, 2017). Exploring both within- as well as between-clients moderators of the association between TSD and outcome may advance our understanding of when and with which clients it is beneficial to enact TSD.

One variable that has been found to moderate the association between TSD and treatment outcome is clients' distress levels. Kelly and Rodriguez (2007) reported that therapists tend to disclose more to clients with lower initial symptomatology. Ziv-Beiman et al. (2016) showed that the level of client symptomatic distress at the beginning of the treatment moderated the association between immediate TSD and treatment outcome. Specifically, highly symptomatic clients showed greater improvement when therapists used

immediate TSD. However, this study examined clients' distress levels as a moderator at the *between*-clients level, and their data did not allow for an examination of clients' distress levels as a possible moderator at the *within*-client level. An investigation of the patterns of change at the within-client level provides a more realistic description of the development of change processes over the course of treatment (Hayes et al., 2007; Lutz et al., 2013; Owen et al., 2015). This is particularly crucial when examining clients' distress levels since they tend to fluctuate and can change from session to session (Bar-Kalifa et al., 2016). Previous studies have demonstrated that the level of distress may have different effects on the relationship between process and outcome variables at the between- versus the within- client levels (e.g., Atzil-Slonim et al., 2015). This underscores the need to go beyond previous studies that have assessed distress level as a between-client moderator to also examine whether clients' session-level distress moderates the association between TSD and outcome at the within-client level.

Another possible moderator may be clients' emotion regulation abilities. According to theoretical views, clients' emotion regulation difficulties constitute another variable that should be taken into account when considering TSD (Henretty & Levitt, 2010). Numerous studies have highlighted the key role of emotion regulation difficulties in different psychopathologies (e.g., Joormann & Stanton, 2016), and many psychotherapy studies have documented the association between clients' abilities to regulate their emotions with treatment processes and outcomes (e.g., Fisher et al., 2016; Gratz et al., 2015). The theoretical and clinical literature recommends not to engage in TSD with clients with emotion regulation difficulties when the client's boundaries are blurry, in order to avoid over-stimulating the client (Goldstein, 1994) or enabling the client to use TSD as an excuse to act out aggressively with the therapist (Epstein, 1994). Studies have shown that TSD is best avoided with clients diagnosed with personality disorders and clients with weak ego-strength

or self-identity (Mathews, 1988; Simone et al., 1998), who are characterized by emotion regulation difficulties. In a recent study, Pinto-Coelho et al. (2018) recommended not to disclose to clients who have emotion regulation difficulties since knowing personal details about the therapist might constitute a threat to them. However, it should be mentioned that these recommendations are mainly based on surveys in which therapists were asked about their likelihood of self-disclosing with specific clients and the reason for their decision, and lack empirical evidence to support these guidelines. This again points to the need to explore emotion regulation abilities as a possible between-clients moderator of the association between TSD and outcomes.

The Current Study

In the current study we examined the extent to which within-client distress and between-clients emotion regulation difficulties moderated the associations between TSD and session outcomes while taking into account the distinction between immediate and non-immediate TSD. These effects were examined in a naturalistic clinical setting using session-by-session data.

Hypothesis 1: **Clients' distress levels as a within-client moderator of the association between TSD (immediate and non-immediate) and outcome:** We expected that the association between TSD and next session outcome would be moderated by clients' pre-session distress levels, such that for clients with high pre-session distress, TSD would be associated with a better next session outcome. This hypothesis is consistent with Ziv-Beiman et al. (2016), which reported this moderation at the between-clients level. We explored whether this moderation would differ for immediate vs. non-immediate TSD. We did not expect to find main effects for TSD on next session outcome, given the absence of clear trends in previous research as to the association between TSD and outcome, as mentioned above.

Hypothesis 2: **Clients' emotion regulation difficulties as a between-clients moderator of the association between TSD (immediate and non-immediate) and outcome**: We expected that the association between TSD and next session outcome would be moderated by clients' pre-treatment emotion regulation difficulties, such that for clients with low emotion regulation difficulties TSD would be associated with positive change, whereas for clients with high emotion regulation difficulties, TSD would be associated with negative change. This hypothesis is based on the literature suggesting that TSD is less appropriate for clients with emotion regulation difficulties (e.g., Pinto-Coelho et al., 2018). Again, we explored whether this moderation would differ for immediate vs. non-immediate TSD.

Method

Participants and Treatment

Clients

The sample was drawn from a broad pool of clients who received individual psychotherapy at a large university outpatient clinic between August 2016 and August 2017. Clients who met the following two criteria were selected from this large sample: (1) treatment duration of at least 6 sessions, and (2) completion of the treatment-level measure. Of the 115 clients who started treatment and agreed to participate in the study, 20 (17.39%) dropped out (decided one-sidedly to end treatment before the planned termination date) and 27 (23.48%) were excluded based on the above-mentioned criteria. In the end, 68 (59.13%) clients were included in the analyses. The clients were all over the age of 18 (Mage 37.09 years, SD 11.52, age range 21–67 years), and the majority were female (58.75%), 47.5% were single, 18.75% were divorced or widowed, and 33.75% were married or in a permanent relationship. Most clients had degrees in higher education (68.75%) and were employed (90%). The Mini International Neuropsychiatric Interview Version 5.0 (M.I.N.I.; Sheehan et al., 1998) was

used to establish an Axis I diagnosis (DSM-IV; American Psychiatric Association, 1994). The interview was conducted before the actual treatment began by intensively trained independent clinicians. All intake sessions were audiotaped, and a random 25% of the interviews were sampled and rated again by an independent clinician. The mean kappa value for the Axis I diagnosis was excellent (0.97). Of the total sample (excluding one client for whom the MINI was not available), 31.34% of the clients had a single diagnosis, 14.93% had two diagnoses, and 17.91% had three or more diagnoses. The most common diagnoses were comorbid anxiety and affective disorders (17.46%) and single anxiety disorder (17.46%), followed by single affective disorder (12.7%), other comorbid disorders (12.7%), and other diagnoses (4.76%). A sizable group of clients (32.05%) reported experiencing relationship concerns, academic/occupational stress, or other problems but did not meet criteria for an Axis I diagnosis.

Therapists and Treatment

The participating clients were assigned to therapists in an ecologically valid manner based on real-world issues such as therapist availability and caseload. A total of 47 therapists treated the clients. The therapists were in clinical training at different stages of their 2- to 5-year clinical training program: 28 therapists treated one client each (59.57%), 18 therapists treated two clients each (38.30%) and one therapist treated 4 clients (2.13%).

The therapists were blind to the study hypotheses. Each therapist received 1 hour of individual supervision and 4 hours of group supervision on a weekly basis. All treatment sessions were audiotaped for use in supervision with senior clinicians. The individual and group supervision focused heavily on the review of audiotaped case material.

Individual psychotherapy consisted of once-weekly sessions of primarily psychodynamic psychotherapy organized, aided, and informed (but not prescribed) by a short-term psychodynamic psychotherapy treatment model (Blagys & Hilsenroth, 2000;

Shedler, 2010). The key features of this model are as follows: (a) focus on affect and the experience and expression of emotions; (b) exploration of attempts to avoid distressing thoughts and feelings; (c) identification of recurring themes and patterns; (d) emphasis on past experiences; (e) focus on interpersonal experiences; (f) emphasis on the therapeutic relationship; and (g) exploration of wishes, dreams, or fantasies (Shedler, 2010). Individual treatment length was open-ended; however, given the constraints of the university-based outpatient community clinic, which operates on an academic schedule, treatment length was often limited to 9–12 months. The mean treatment length was 20.68 sessions (SD=7.16; range=6–41). A total of 1406 sessions were available for analysis.

Measures

Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004)

The DERS is a 36-item measure that assesses typical levels of emotion dysregulation across six separate domains: (a) non-acceptance of negative emotions, (b) inability to engage in goal-directed behaviors when experiencing negative emotions, (c) difficulty in controlling impulsive behaviors when experiencing negative emotions, (d) limited access to emotion regulation strategies perceived as effective, (e) lack of emotional awareness, and (f) lack of emotional clarity. Respondents rate each statement on a 5-point Likert scale ranging from 1 (almost never, 0–10%) to 5 (almost always, 91–100%). The DERS total scores range from 36 to 180. While there are no standardized clinical cutoffs for this measure, previous research indicated mean scores for non-patient adults to be roughly 60 (e.g., Fox et al., 2007), with clinical samples having higher mean scores ranging from approximately 80 to 127 (e.g., Fox et al., 2008; Gratz & Gunderson, 2006; Neacsiu et al., 2014). The DERS has been proven to be sensitive to changes over time (Gratz & Gunderson, 2006) and showed excellent internal consistency in our sample (α =.93).

Therapist Self-Disclosure Questionnaire (TSDQ; Ain, 2008)

The TSDQ assesses the frequency and the centrality of the therapist's self-disclosure during a session. In the current study, we used the therapist's version of the TSDQ (Ain, 2011) which is similar to the client's version (Ain, 2008). Two subsets of the TSDQ were included: immediate and non-immediate TSD. Each subset consisted of two items referring to the quantity and centrality of each type of TSD in the session. The therapists were given a short explanation of immediate TSD and non-immediate TSD and were asked to use the cursor to mark: (1) the frequency at which they used immediate/non-immediate TSD, and (2) the extent to which the immediate/non-immediate TSD was a central part of the session on a scale ranging from 1 (not at all) to 5 (very much). Ain (2008) reported a moderate-high internal consistency in the client's version of the TSDQ. In the current study, the within- and between-person reliabilities for each subscale were computed based on procedures described in Cranford et al. (2006) for estimating reliabilities for repeated within-person measures[1]. The reliabilities were moderate to high (immediate TSD- within = .93, between = .86; non-immediate TSD- within = .90, between = .73). The correlation between the (client mean-centered) immediate- and the non-immediate subscales was 0.20, indicating good distinctiveness.

Outcome Rating Scale (ORS; Miller et al., 2003)

The ORS is a four-item visual analog scale developed as a brief alternative to the OQ-45. Three of its items assess changes in areas of client functioning and distress that are widely considered to be valid indicators of progress in treatment: individual (or symptomatic) functioning, interpersonal relationships, and social role performance (work adjustment and quality of life). An additional item assesses overall functioning. The visual analog scale is anchored at one end by the word "low" and at the other end by the word "high," which are

[1] One coefficient represents the expected between-person reliability on one fixed session; it can be thought of as a proxy of the average session-specific alpha-coefficients across all sessions. The other coefficient assesses the precision of the measurement of systematic change of therapists over sessions. It represents the within-person reliability of session-to-session change on the scale.

converted into scores from 0 to 10 and then summed to a total score ranging from 0 to 40, with higher scores indicating better functioning. In the current study, the within- and between-person reliabilities for the scale were excellent (within = .96, between = .90).

The Hopkins Symptom Checklist-Short Form (HSCL-11; Lutz et al., 2006)

This 11-item self-report inventory assesses symptomatic distress and is a brief version of the SCL-90-R (Derogatis, 1977). The items are rated on a 4-point Likert scale ranging from 1 (not at all) to 4 (extremely). The mean of the 11 items represents the client's levels of global symptomatic distress during the preceding week. The score was highly correlated with the SCL-90-R's global severity index (r = 0.91) and has high internal consistency (α = .92; Lutz et al., 2006). In the current study, the within- and between-person reliabilities for the scale were high (within = .83, between = .92).

Procedure

The study procedures were part of the routine monitoring battery in the clinic. Clients were asked to provide written consent to participate in a voluntary study and were told that they could choose to terminate their participation in the study at any time without jeopardizing their treatment. The study was conducted after the approval of the university's ethical review board.

The DERS questionnaire was administered to clients as a part of the intake procedure (i.e., at pretreatment). The clients completed the session-level questionnaires electronically using computers located in the clinic rooms. The ORS and HSCL-11 scales were completed by the clients before each therapeutic session; the TSD scale was completed by therapists after each session.

Data Analytic Strategy

Because the data had a multilevel structure (session nested within clients[2]), we used multilevel models (MLM, using PROC MIXED; SAS Institute, 2003). These models allow for the estimation of two levels (a within-client level and a between-clients level) and accommodate non-balanced data (see Bolger & Laurenceau, 2013). At Level-1 of the model, predictors were client-mean-centered[3]. At Level-2 of the model, predictors were grand-mean-centered. Importantly, to obtain clients' levels of distress we reversed their ORS scores.

Testing Moderation Hypotheses

To test the extent to which the effects of immediate TSD and/or non-immediate TSD on clients' symptoms (reported at the beginning of the next session) were moderated by their session-level distress and/or by their pre-treatment emotion regulation difficulties (DERS scores), we ran the following MLM model: HSCL scores (session s+1) were predicted by the following variables: (a) therapists' reports of their immediate TSD, (b) therapists' reports of their non-immediate TSD, (c) clients' Distress, (d) clients' DERS, the level-1 interactions between (a) and (c), the level-1 interactions between (b) and (c), the cross-level interaction between (a) and (d), the cross-level interaction between (b) and (d), and the current session HSCL score.

The mixed level equation was:

$$HSCL_{(s+1)c} = (\gamma_{00} + u_{0c}) + (\gamma_{10} + u_{1c}) * \text{immediate } TSD_{sc} + (\gamma_{20} + u_{2c}) * \text{non-immediate } TSD_{sc} + (\gamma_{30}) * Distress_{sc} + (\gamma_{40}) * \text{immediate } TSD_{sc} * Distress_{sc} + (\gamma_{50}) * \text{non-immediate } TSD_{sc} * Distress_{sc} (\gamma_{60}) * DERS_{c} + (\gamma_{70}) * \text{immediate } TSD_{sc}$$

[2] We used two-level MLM (sessions nested within clients) and not three-level MLM (sessions nested within clients nested within therapists) since therapist-level did not explain significant variance, probably due to the limited number of clients per therapist.

[3] Our analyses used person-mean centering and not time detrending, following recent recommendations by several authors (e.g., Falkenström et al., 2017; Wang & Maxwell, 2015) who pointed out that controlling for time-trends may actually not be necessary in situations in which the process that unfolds over time (such as treatment) is what one actually wants to explain.

$$* \text{DERS}_c + (\gamma_{80}) * \text{non-immediate TSD}_{sc} * \text{DERS}_c + (\gamma_{90} + u_{9c}) * \text{HSCL}_{sc} + e_{sc}$$

where the HSCL score for client's *c* on session *s + 1* was predicted by the sample's intercept (γ_{00}), by client's *c* deviations from this intercept (u_{0c}), by the average (i.e., fixed) effects (γ_{10}-γ_{90}) of the predictors, by client's *c* deviations from the fixed effects (i.e., the random effects u_{1c} ,u_{2c}, and u_{9c}), and by a Level 1 residual term quantifying session's *s* deviation from these effects (i.e., the random effect at Level 1; e_{cs}). All session-level variables were initially[4] considered to be random at level two, and a first-order autoregressive structure was imposed on the within-client residual covariance matrix. Finally, random effects were initially allowed to correlate.

Results

Descriptive Statistics and Zero-Order Correlations

Table 1 presents the descriptive statistics (and inter-correlations) for the variables. Session level variables were averaged within clients.

Distress Level as a Within-Client Moderator of the Association Between TSD and Outcome

Preliminary results showed that immediate and non-immediate TSD did not predict changes in clients' session-level symptoms (i.e., there was no main effect for TSD). As predicted, (Hypothesis 1) clients' session-level distress moderated the association between TSD and clients' next-session symptoms, such that in sessions in which clients' distress levels were lower (relative to themselves) the association was not significant (-1 SD; b=0.00, SE=0.02, t=0.06, p=0.966), whereas in sessions in which clients' distress levels were higher (relative to themselves) the association was significant and negative (+1 SD; b=-0.05,

[4]Because there was no random variance in the non-immediate TSD predictor it was not considered random in the final model.

SE=0.02, t=-2.94, p=0.004). This moderating effect emerged solely for immediate TSD. No moderating effect was found for non-immediate TSD.

Emotion Regulation Difficulties as a Between-Client Moderator of the Association Between TSD and Outcome

Clients' pre-treatment emotion regulation difficulties only marginally moderated the association between immediate TSD and clients' next-session outcome, such that for clients with greater difficulties the association was not significant (+1 SD; b=0.00, SE=0.02, t=0.06, p=0.953), whereas for clients with lesser difficulties the association was significant and negative (-1 SD; b=-0.05, SE=0.02, t=-2.70, p=0.009).

The results of these analyses are presented in Table 2[5].

Discussion

The present study examined whether clients' distress at the within-client level and emotion regulation difficulties at the between-clients level moderated the association between immediate and non-immediate TSD and session outcome.

In line with the first hypothesis, the results indicated that clients' distress levels moderated the association between TSD and session outcome. Specifically, for sessions marked by high pre-session distress, immediate TSD was associated with a better next session outcome. This finding is consistent with Ziv-Beiman et al. (2016), who found that clients with high symptomatology benefited from immediate TSD at the between-client level. However, the current study extends previous work by showing this moderation at the within-client level. This finding also echoes the Knox & Hill (2003) supposition that when a client experiences distress, immediate TSD may be very helpful in bringing to light the interactional

[5]To allay the risk that the results might be due to nesting (of clients within therapists), we ran an "empty" multilevel model with only random intercepts for the therapist level while predicting clients' symptoms. Then, we used the residuals from this analysis as the outcome variable in the original model. The original findings were preserved, and the cross-level interaction between immediate TSD and emotion regulation difficulties (DERS) became significant (p=.041).

processes between client and therapist that also may be occurring with others in the client's life, and may be contributing to his/her distress. Previous results have shown that clients who experience high distress benefit from interventions that focus on here- and- now work in treatment, such as transference interpretations (Høglend et al., 2006; Kernberg et al., 2008) and interventions dealing with the therapeutic bond (Zilcha-Mano, 2017).

These findings may thus suggest that when clients come to a session when they are more vulnerable and experiencing high levels of distress, they may need an intervention that fosters reassurance and acceptance, as provided by immediate TSD. The opportunity to experience one's distress together with an emotionally present other who is more experienced in managing intense emotions may play a part in helping clients tolerate their painful emotions (Aron & Harris, 2014; Fosha, 2001; Winnicott, 1971). It is possible that therapists who used immediate TSD with their clients in sessions in which their clients' distress levels worsened, may have helped their clients to feel that they were less alone in their experience, which, in turn, helped them feel better.

The results indicated no moderation effect for non-immediate TSD. This null finding is consistent with Ziv-Beiman et al. (2016) who also did not find a moderation effect for non-immediate TSD on outcome. Numerous researchers have noted (e.g. Farber, 2006; Hill & Knox, 2002; Knox & Hill, 2003) that TSD about the therapists' personal lives, or insights and coping strategies may not have the same reassuring effect as immediate TSD. Note that the relatively limited use of non-immediate TSD in the current dataset (according to the therapists' self-reports) may have skewed the results. Future studies should examine these associations using other assessments of TSD such as objective raters or clients' perceptions.

With respect to the second hypothesis, clients' pre-treatment emotion regulation difficulties only marginally ($p = 0.051$) moderated the association between immediate TSD and these clients' next-session outcome, thus indicating that immediate TSD tended to be

beneficial for emotionally regulated clients. This trend is in line with theoretical views suggesting that TSD should be used more carefully with clients who have emotion regulation difficulties, since TSD can evoke intense emotions and blur the therapeutic boundaries (e.g., Pinto-Coelho et al., 2018). Immediate TSD is considered to be an intimate intervention and may be emotionally stimulating. Thus, although only a trend, in order to benefit from immediate TSD, clients may need a general ability to regulate their emotions. The results for non-immediate TSD showed that similar to the first hypothesis, clients' pre-treatment emotion regulation difficulties did not moderate the association between non-immediate TSD and session outcome.

Interestingly, these results suggest that immediate TSD has a different impact on outcome at the within- compared to the between-client level. While the results indicated a beneficial effect of immediate TSD on clients who experienced distress in a specific session, these interventions worked better with clients who were better able to regulate their emotions. These findings are consistent with previous studies showing that therapists' responses which may be helpful on a situational basis may be less helpful when addressing a client's stable variables (Zilcha-Mano, 2018). Thus, interventions that seem to work well when clients' distress is being experienced situationally may not necessarily be appropriate for individuals with a trait-like difficulty to regulate their emotions.

This study is constrained by several limitations. One is the reliance on self-report measures rather than objective assessments of TSD, especially in the case of trainee therapists. Though they were under intensive supervision, the reliance on trainee therapists may impede the generalizability of the findings to populations of more experienced clinicians (who may use non-immediate TSD more broadly). Novice therapists may be less aware of their non-immediate self-disclosures or tend not to report them, as there is still a taboo of sorts against disclosure in more classical psychodynamic schools of thought (which some

supervisors may still endorse). Future studies might consider utilizing a more heterogeneous sample of therapists, at different stages of their careers, as well as including data from multiple perspectives (i.e., client, therapist, and observers) to provide a more comprehensive view of TSD and its association with treatment outcomes. Exploring the discrepancies and similarities between these different perspectives would provide a fuller picture of the contribution of TSD to outcomes.

Second, this study was designed as a naturalistic field study of clients in psychodynamic psychotherapy, without a non-TSD control group. Although inferences can be made about the relationships among the variables based on the findings, no conclusions as to causality can be drawn and it is possible that other unmeasured variables might have influenced the results. Future studies could implement a more experimental design, for example by using randomized control trials in which therapists are instructed to use either immediate TSD, non-immediate TSD or to refrain from TSD altogether.

Third, the current study examined the association between TSD and clients' symptoms reported at the beginning of the next session. Though TSD was measured in closer proximity to the outcome measure compared to previous studies, and hence should be considered an improvement in methodology, future studies might consider measuring the impact using an in-session or a post-session measurement to draw more precise conclusions as to the direct impact of TSD on session outcome.

Within the context of these limitations, this study nevertheless extends the examination of the association between TSD and outcome in several ways. To the best of our knowledge, this is the first study to examine both within-client and between-client moderators of the association between TSD and therapeutic outcome. It is further strengthened by the consideration of both immediate and non-immediate TSD and by using session-by-session questionnaires completed by both the client and the therapist (although the

TSD scale was completed from the therapist's perspective, the outcome scales were completed from the client's perspective).

According to contemporary psychotherapy theories, TSD is an inseparable part of the therapeutic encounter, since therapists are always interacting with their clients in a way that reveals facets of themselves (Aron & Harris, 2014; Farber, 2006). The current findings support the growing consensus that when TSD is used judiciously, while taking into account both within-client and between-client variables, it can have curative effects (Farber, 2006; Hill et al., 2018; Knox & Hill, 2003; Ziv-Beiman et al., 2016). In so doing, these results contribute to the growing interest in tailoring psychotherapy interventions to the specific client at a specific time (e.g., DeRubeis et al., 2014; Zilcha-Mano, 2018).

The findings have several potential clinical implications. First, they suggest that when clients experience high levels of distress during a specific session, therapists might consider using immediate TSD, since this intervention may help their clients feel better and possibly less alone. Second, the findings suggest that immediate TSD may be more useful with emotionally regulated clients. It is advisable for therapists to aim to improve clients' emotion regulation before engaging in immediate TSD during treatment. However, this consideration should be viewed with caution since the moderating effect of emotion regulation only approached significance. Future research should focus on other within-client as well as between-client variables to further probe when and with which clients TSD is beneficial.

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Table 1. Descriptive statistics (and inter-correlations)

Variable[a]	1	2	3	4	5
1. Immediate TSD					
2. Non-immediate TSD	.40				
3. Distress	.12	.13			
4. DERS	-.04	-.15	.17		
5. HSCL	.03	-.15	.42	.42	
Mean	2.26	1.45	14.11	89.46	1.75
SD	0.69	0.42	7.60	22.22	0.50

Note. TSD = Therapist Self-Disclosure, DERS = Difficulties in Emotion Regulation Scale, HSCL = Hopkins Symptom Checklist-Short Form.
[a]Session level variables are aggregated across therapy.
[b] Distress = Reversed ORS (Outcome rating scale).

Table 2. Fixed Effects of the Models Predicting Symptom Change by TSD, Session-level (Distress) Moderators, and Person-level (DERS) Moderators.

Predictor	Estimate (*SE*)	95% CI[a]	*t* (*df*)
Intercept	1.740 (0.056)	[1.627, 1.852]	30.98 (66.4) ***
Immediate TSD	-0.025 (0.014)	[-0.053, 0.002]	-1.85 (50.9) †
Non-immediate TSD	0.011 (0.015)	[-0.019, 0.041]	0.75 (930)
Distress[b]	0.003 (0.002)	[-0.002, 0.007]	1.18 (592)
Immediate TSD X Distress	-0.006 (0.002)	[-0.011, -0.001]	-2.50 (1041) *
Non-immediate TSD X Distress	-0.001 (0.004)	[-0.008, 0.006]	-0.20 (1108)
DERS	0.010 (0.003)	[0.005, 0.015]	3.78 (66.5) ***
Immediate TSD X DERS	0.001 (0.001)	[0.000, 0.002]	2.00 (47.8) †
Non-immediate TSD X DERS	0.000 (0.001)	[-0.001, 0.001]	-0.11 (1070)
Lagged HSCL	0.359 (0.033)	[0.293, 0.426]	10.84 (60.9)

Note. TSD = Therapist Self-Disclosure, DERS = Difficulties in Emotion Regulation Scale, HSCL = Hopkins Symptom Checklist-Short Form.

[a] Confidence intervals (CIs) for fixed effects were based on two-tailed t tests with the Satterthwaite approximation method for computing degrees of freedom.

[b] Distress = Reversed ORS (Outcome rating scale)

†$p<.1$. *$p<.05$. **$p<.01$. ***$p<.001$.