Differentiating self-disclosure interventions from self-involving interventions based on the assessment of the short-term therapeutic effects: preliminary results

Fabio Monticelli,[1-3] Chiara Massullo,[4] Antonino Carcione,[2,11] Lucia Tombolini,[2,5] Flaminia Guerra,[3] Marianna Liotti,[6] Cecilia Monticelli,[1] Elena Gasperini,[7] Marianna Russo,[8] Samanta Novaretto,[9] Letizia La Vista,[10] Paola Mallozzi,[11] Claudio Imperatori,[3] Chiara Del Brutto,[12] Benedetto Farina[1-3]

[1]Janet Clinical Centre, Rome; [2]Scuola Italiana di Cognitivismo Clinico, Rome; [3]Department of Human Sciences, European University of Rome; [4]Department of Education, Roma Tre University; [5]Associazione per la Ricerca sulla Psicopatologia dell'Attaccamento e sullo Sviluppo, Rome; [6]Department of Dynamic and Clinical Psychology, Sapienza University of Rome; [7]Centre of Cognitive Psychotherapy, Ancona; [8]Clinical Center, Massafra, Taranto; [9]BeYou Lab Clinical Center, Turin; [10]Foundation Carlo Molo Onlus, Turin; [11]Third Centre of Cognitive Psychotherapy, Rome; [12]Bios Center, Osimo, Italy

ABSTRACT

The therapist's self-disclosure (TSD) interventions are considered beneficial and often used by psychotherapists. However, their use remains controversial for several reasons, including the use of broad definitions neglecting the distinction between the TSD and the therapist's self-involving (TSI) interventions. The TSD interventions involve the revelation of personal information to the patient, while the TSI implicates the direct expressions of the therapist's reaction to the patient's statements and behaviors within the session. To compare the immediate therapeutic effects of the TSD and TSI interventions, we conducted a study on 57 total interventions (*i.e.*, 35 TSI and 22 TSD, respectively) performed during 17 psychotherapy sessions in a sample of 6 patients, evaluating the effects of each intervention (TSD or TSI) based on two parameters: patient's cooperative attunement and patient's metacognitive functioning. Results show that, compared to the TSD, the TSI interventions were followed by a higher cooperative attitude and metacognitive functioning of the patients. The difference in the short-term effects of these two interventions suggests the usefulness of considering TSD and TSI distinctly to evaluate their psychotherapeutic effectiveness.

Key words: self-disclosure, self-involving, cooperation, metacognition, therapeutic alliance.

Correspondence: Chiara Del Brutto, Bios Center, via Ticino 20, 60027 Osimo, Italy.
E-mail: chiaradelbrutto@hotmail.it

Conflict of interest: the authors declare no potential conflict of interest.

Ethics approval and consent to participate: the research project was approved by the European University of Rome's ethics review board and conducted according to Helsinki Declaration standards.

Availability of data and materials: data are available upon request from the corresponding author.

Citation: Monticelli, F., Massullo, C., Carcione, A., Tombolini, L., Guerra, F., Liotti, M., Monticelli, C., Gasperini, E., Russo, M., Novaretto, S., La Vista, L., Mallozzi, P., Imperatori, C., Del Brutto, C., Farina, B., (2025). Differentiating self-disclosure interventions from self-involving interventions based on the assessment of the short-term therapeutic effects: preliminary results. *Research in Psychotherapy: Psychopathology, Process and Outcome, 28*(1), 800. doi: 10.4081/ripppo.2025.800

Received: 22 May 2024.
Accepted: 22 January 2025.

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Research in Psychotherapy:
Psychopathology, Process and Outcome 2025; 28:800
doi:10.4081/ripppo.2025.800

Introduction

Although the exact mechanisms of their functioning are still unclear, the therapist's self-disclosure (TSD) interventions are widely used by therapists and considered helpful (Edwards & Murdock, 1994; Mathews, 1989; Pope *et al.*, 1987). Many studies have shown the effectiveness of such interventions (Barrett & Berman, 2001; Henretty & Levitt, 2010; Hill & Knox, 2001; Knox *et al.*, 1997; Ziv-Beiman, 2013) and reported that the balanced use of the TSD validates or normalizes patient experience, increases cooperation, and, overall, improves therapeutic alliance (Andersen & Anderson, 1989; Anderson & Mandell, 1989; Berg-Cross, 1984; Curtis, 1981; Hanson, 2005; Hill & Knox, 2001; McCormic *et al.*, 2019; Miller & McNaught, 2018; Simonds & Spokes, 2017; Ziv-Beiman *et al.*, 2017). Such interventions have been reported to improve the therapeutic relationship since, after their use, the therapist is perceived as more actively involved, confident (Wells, 1994), authentic (Knox

et al., 1997), and participative (Hill & Knox, 2001). In addition, the TSDs seem to reduce patients' anxiety (McCarthy Veach, 2011), especially during moments of crisis or impasse; they foster the repair of alliance ruptures, thus promoting a more cooperative stance (Yalom, 2005) and a better therapeutic relationship (Farber & Hall, 2002; Norcross & Wampold, 2011).

Even if broad definitions of self-disclosure interventions are often used in the literature, such interventions have been previously differentiated between non-immediate/self-disclosing (*i.e.*, therapist's self-disclosure, TSDs) and immediate/self-involving (*i.e.*, therapist' self-involving, TSI) (Hill & Knox, 2001; McCarthy & Betz, 1978; McCarthy Veach, 2011; Ziv-Beiman *et al.*, 2017). The TSDs pertain to the therapists' revelation of personal information about themselves external to the therapeutic relationship (Danish *et al.*, 1980; Knox & Hill, 2003; Ziv-Beiman *et al.*, 2017). The TSIs are immediate statements regarding the therapists' communication of their feelings or reactions deriving from the patient's statements and behaviors and the quality of the therapeutic relationship (McCarthy & Betz, 1978; McCarthy Veach, 2011; Ziv-Beiman *et al.*, 2017). Immediacy (Hill & Knox, 2001) and meta-communication (Kiesler, 1988; Safran & Muran, 2000) interventions can, therefore, be considered as TSIs. The use of meta-communication represents a key element in direct reparation processes during crises or impasses because it encourages a joint reflection on what happens during the session and promotes affective regulation (Eubanks *et al.*, 2021).

Despite the potential benefits described above, the underlying mechanisms of the TSDs remain unclear. We believe that one of the crucial methodological aspects limiting the generalizability of studies regarding therapists' self-disclosures is the broad definition and conceptualization of such interventions. Even if the TSDs are often broadly defined as interventions in which therapists reveal personal information about themselves, some authors have already highlighted the importance of differentiating the TSD interventions from the TSI/immediacy ones (Hill & Knox, 2001; Ziv-Beiman *et al.*, 2017). According to previous data reporting different effects of these interventions, this distinction is considered to be of great importance (for a review see Henretty & Levitt, 2010).

Self-disclosure interventions can be distinguished by content, method, and purpose (Ziv-Beiman *et al.*, 2016; Monticelli *et al.*, 2022).

Some authors (Knox & Hill, 2003; Monticelli *et al.*, 2022) suggest a differentiation of self-disclosure based on the revealed content. These interventions can concern the disclosure of facts, feelings, thought processes or strategies.

Methodological issues regard the amount of time dedicated to the disclosure and how to start this kind of intervention. It is, in fact, preferable to use brief interventions. When they are too long, self-disclosure tends to shift the focus on the therapist at the patient's expense (Audet & Everall, 2010; Ziv-Beiman *et al.*, 2016). Regarding the way to start the intervention, therapists can self-disclose deliberately, involuntarily, or in response to the patient's own disclosure or direct demand (Zur *et al.*, 2009; Ziv-Beiman *et al.*, 2016; Berg *et al.*, 2020).

Self-disclosure interventions can also be distinguished according to their purpose. These interventions are indeed helpful for achieving different goals with different underlying motivations, such as exploratory purposes (Safran & Muran, 2000). That is what often occurs during impasses or ruptures (Hill *et al.*, 2014). The therapist can also use self-disclosure to encourage decentering, that is, to help patients develop new perspectives and ways to deal with their problems, fostering their metacognitive skills (Monticelli *et al.*, 2022). Therapists can also use them to normalize the patient's experience or to shift the focus to his needs (Monticelli *et al.*, 2022).

Self-disclosure interventions seem to favor the construction of a more cooperative relationship (Hill & Knox, 2009). Patients respond more positively to therapists who use self-disclosure interventions in a balanced way than to therapists who do not formulate interventions of this type (Henretty & Levitt, 2010; Johnsen & Ding, 2021). Myers and Hayes (2006) argue that self-disclosure fosters the patient's perception of the therapist as warm, authentic, and trustworthy (Hill & Knox, 2002); this reduces their anxiety (McCarthy Veach, 2011) and shame, and promotes patients' disclosures (Simond & Spokes, 2017).

Instead, the term self-involving denotes interventions in which the therapist communicates his or her mental states regarding the therapeutic relationship (Hill & Knox, 2002). The concept of self-involving interventions is close to the notion of immediacy. This term mainly designates interventions in which the therapist communicates his or her feelings toward the patient or the therapeutic relationship (Hill & Knox, 2002). Self-involving interventions are also similar to the concept of disciplined personal involvement and, more specifically, contingent personal responsiveness that is used in the cognitive behavioral analysis system of psychotherapy (*i.e.*, the CBASP model). Within this model, therapists tend to use contingent personal responsiveness to give patients feedback about the impact of their behaviors toward the therapist. These types of interventions are used to increase his/her insight (Vivian & Salwen, 2013).

According to some authors, the decision to use self-disclosure or self-involving interventions should be made according to the patient's diagnosis, gravity of symptoms, state of therapeutic alliance, phase of therapy, and patient's needs (Hill & Knox, 2002; Bara, 2018; Johnsen & Ding, 2021; Monticelli *et al*., 2022; Datta-Barua & Hauser, 2023; Alfi-Yogev *et al.*, 2023).

The present study aimed to evaluate short-term effects of the TSD and TSI interventions on two factors considered essential for a good psychotherapy outcome: the patient's cooperative attunement and metacognitive functioning (Colle *et al.*, 2020; Fonagy *et al.*, 2021; Laska, *et al.*, 2014; Liotti & Gilbert, 2011b; Monticelli *et al.*, 2022; Talia *et al.*, 2019).

Methods

Participants

Patients

Six patients, four women and two men aged between 18 and 54 years [age (M±SD)=30.67±13.37] participated in the study. They were randomly recruited from private practice clinics in Italy from October 2016 to June 2017. As regards clinical characteristics, diagnoses (including comorbidities) were different and involved mood, anxiety, and personality disorders (*i.e.*, borderline, dependent, and avoidant personality disorders). The patients were all adults. The study was performed according to Helsinki Declaration standards, and ethical approval was provided by the European University of Rome's ethics review board. Each diagnosis was attributed according to the criteria of the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5; American Psychiatric Association, 2013) (see Table 1 for more information).

Psychotherapists

Four therapists participated in the study. They were all women of equal professional seniority (ten years of clinical experience) operating in private practice clinics. All psychotherapists were supervised on a bimonthly basis.

Measures

Cooperation and metacognitive attitude have been assessed for each psychotherapeutic session using the Assessing Interpersonal Motivations in Transcripts (AIMIT; Fassone *et al.*, 2016; Fassone *et al.*, 2012; Liotti & Monticelli, 2008) and Metacognition Assessment Scale (MAS; Carcione *et al.*, 2010; Semerari *et al.*, 2003), respectively.

Assessing Interpersonal Motivations in Transcripts (AIMIT)

Based on Liotti's theory (Liotti *et al.*, 2017; Liotti & Gilbert, 2011a), the AIMIT method is used to evaluate the activation of seven interpersonal motivational systems (IMSs) in the transcripts of psychotherapy sessions. The seven IMSs assessed through AIMIT are: i) attachment (request for help and support), ii) caregiving (offering of assistance and reassurance), iii) ranking (determining one's dominance or submission regarding others), iv) sexuality (*i.e.*, attempts to try to establish a romantic relationship and/or at obtaining erotic experiences), v) cooperation (endeavors aimed at pursuing a shared goal), vi) play, and vii) affiliation. According to the aims of the present study, we considered only the activation of patient cooperation. Examples of criteria for the activation of cooperative motivation are: i) joint exploration of common interest topics, experiences, or material; ii) empathic expressions; iii) extension or confirmation of interlocutor's statements; iv) speaker synthesizing what previously said by the other interlocutor and commenting on it under a new perspective; v) introducing a new topic that is relevant for the therapeutic goals (Liotti & Monticelli, 2008). Accordingly, patients' cooperation could be detected when they share salient material, feelings, reflections, working hypotheses, introduce new topics or develop therapist's contribution, or when focused on internal therapeutic relationship dynamics.

To be assessed using the AIMIT method, psychotherapy transcripts have been divided into small segments (*i.e.*, coding units), representing the patient's locution and the therapist's reply, or vice versa. A single coding unit might contain one or more IMSs identified through linguistic criteria. IMSs are further distinguished into the following categories: "Rel" (concerning emotions and motivational activations directly regarding the other speaker), "Nar" (inferred through the speaker's narration of interactions with others, external to the therapeutic relationship), and "non-Nar, non-Rel," which is attributed when the patient or the therapist provides general definitions (*i.e.*, semantic definitions referring to generic self-representations). In the present study, we have considered only the "Rel" category and the "non-Nar, non-Rel" one.

Previous studies reported that the AIMIT has good inter- and intra-rater reliability and content validity (Fassone *et al.*, 2016; Fassone *et al.*, 2012).

Metacognition Assessment Scale (MAS)

The MAS scale allows the description of the patient's metacognitive profile, evaluating the individual functions during the therapeutic process. We evaluated four sub-functions: i) monitoring, ii) integration, iii) differentiation, and iv) decentration. Monitoring refers to the ability to recognize and describe thoughts and emotions that are part of one's mental state, recognize their relations, and explain the causes underlying one's behavior (*i.e.*, relation among variables). Integration is the ability to keep a unified vision of the self, regardless of the flow and alternation of different mental states (even contradictory ones) in the consciousness. Differentiation refers to the capacity to distinguish different types of mental representations (fantasies, beliefs, dreams, hypotheses) and to distinguish mental representations from reality, that is, being aware of their subjective and hypothetical nature. Decentration is the ability to describe others' mental functioning by formulating hypotheses independent of one's own mental perspective and involvement in the relationship.

A trained rater assigned a score for each subscale on a 5-point Likert scale ranging from 1 = "poor skill in the subscale" to 5 = "excellent skill in the subscale," assessing how much the function pertaining to each subscale is used spontaneously and appropriately by the speaker. In the present study, we considered the total metacognition score. Thus, locations with higher scores are defined as possessing a higher metacognitive quality.

Raters

Transcripts were analyzed by two certified AIMIT raters and by two other certified MAS coders, blind to study purposes. Seven judges identified the TSD and TSI interventions and further classified them based on their content (*e.g.*, facts, emotions, insights, and techniques).

Self-disclosure and self-involving interventions

Therapist's self-disclosure (TSD)

Knox and Hill (2003) described the TSD as an intervention in which the therapist discloses personal information to the

Table 1. Patients' data.

Patient	Age	Gender	Diagnosis
1	24	F	Borderline personality disorder, avoidant personality disorder, major depressive disorder, anxious traits
2	18	F	Borderline personality disorder
3	54	M	Bipolar disorder Type 1
4	20	M	Social anxiety disorder
5	36	F	Panic disorder, depressive disorder NOS
6	30	F	Borderline personality disorder

patient. In line with Hill and O'Brien (1999), we considered four types of TSD: i) disclosure of facts, ii) of feelings, iii) of insights, and iv) of strategies. Examples of TSD interventions are reported in Table 2.

Therapist's self-involving (TSI)

We considered the TSI interventions those direct communications of the therapist's emotions originating from the patient's statements and behaviors, as well as from the processes regarding the therapeutic relationship (McCarthy & Betz, 1978). In other words, we considered TSIs those communications regarding the therapist's mental state originating from what is happening in the here and now of the therapeutic relationship (*e.g.*, "I noticed that since I started talking about your father, you began to move your leg nervously") or in the previous sessions with the patient (*e.g.*, "I thought back to what happened in the last session, and continuing to talk about what we left pending seems important to me"). Examples of TSI interventions are reported in Table 3.

Procedure

Sessions and interventions

The sessions examined concern six therapist-patient dyads. Each session was transcribed *verbatim* to be analyzed by certified raters. In the present study, we included only sessions into which at least one TSD and/or TSI has been performed. Thus, we analyzed a total of 17 sessions reporting at least 1 intervention of TSD or TSI (*i.e.*, 57 total interventions). Sessions range from the 3rd to the 13th psychotherapeutic meeting. The number of analyzed sessions per patient was variable. Regarding interventions, the total analyzed interventions per patient went from 1 to 21 (*i.e.*, 1, 3, 5, 11, 16, 21, respectively).

AIMIT and MAS ratings

Sessions' transcripts were: i) codified with the AIMIT method (Liotti & Monticelli, 2008); ii) coded with the MAS (Carcione *et al.*, 2010; Semerari *et al.*, 2003) to evaluate the profile of each patient's metacognitive functioning; iii) subsequently evaluated by seven clinicians (one man and six women, with years of experience varying between 5 and 30) previously trained to identify and differentiate the TSD from TSI interventions.

Since cooperation and metacognitive functioning constitute indicators of clinical usefulness, scores on these two variables measured prior to and following the TSD or TSI interventions were compared. In other words, the total cooperative mark for each patient in the 10 locutions preceding the TSD or TSI intervention was compared with the total one of the subsequent 10 locutions after the same intervention. Similarly, the total score of the subscales evaluating the metacognitive functioning in the 10 locutions preceding the TSD or TSI intervention was compared with the total of the subsequent 10 locutions after the same intervention.

Both AIMIT and MAS coding procedures have been performed by two raters, respectively, and carried out as follows: i) listening to each psychotherapy recording, ii) analysis of *verbatim* therapy transcripts. Regarding this last step of the coding procedure, it should be noted that transcripts have been divided into therapist and patient locutions, respectively. Thus, raters were asked to search for locutions matching linguistic criteria to detect metacognition and activation of the cooperative system.

Statistical analyses

For statistical analyses, we considered the whole 57 interventions, 35 for the TSIs and 22 for the TSDs, respectively. As previously suggested for pre-test and post-test control group designs (Morris, 2008), univariate analyses of covariance (ANCOVAs) have been performed. Specifically, the first ANCOVA was performed by considering metacognition post-intervention values as the dependent variable, metacognition pre-intervention ones as the covariate, and the intervention type (*i.e.*, TSD or TSI) as the between-groups factor. In the second ANCOVA, we considered cooperation post-intervention values as the dependent variable, cooperation pre-intervention ones as the covariate, and the intervention type (*i.e.*, TSD or TSI) as the between-groups factor. The effect size has been computed as d_{ppc2} (Morris, 2008; equation n. 8). All statistical analyses have been carried out using IBM SPSS Statistics software, version 18.0.

Table 2. Examples of TSD interventions.

Disclosure of facts	"I graduated from (…) University"
Disclosure of feelings	"I too am embittered by colliding with the slowness of justice"
Disclosure of insights	"I think it was irrational on my part to have expected in that situation that others understand my needs without having expressed them"
Disclosure of strategies	"When I drive in traffic, I systematically apply the strategy of forgiveness in order not to get angry"

Table 3. Examples of TSI interventions.

Self-involving of facts	"I tried very hard not to take a protective attitude towards you"
Self-involving of emotions	"When you attack yourself like this, I feel bitter"
Self-involving of insights	"I believe that during our session, you couldn't have expressed your emotions differently"
Self-involving of strategies	"I think we could try an imagery exercise"

Results

ANCOVA's results are reported in Table 4. As reported, controlling for pre-levels, post-intervention levels of metacognition were greater after the TSI interventions as compared to the TSD ones (metacognition post = TSI: 9.23±6.82 [M±SD] *vs.* TSD: 4.36±4.86 [M±SD]; $F_{post}(1;54)=13.837$; p<.001; d_{ppc2}=.92). Similarly, controlling for pre-levels, post-intervention levels of cooperation were greater after the TSI interventions as compared to the TSD ones (Cooperation post = SI: 2.80±1.69 [M±SD] *vs.* TSD: 1.41±1.59 [M±SD]; $F_{post}(1;54)=9.789$; *p*=.003; d_{ppc2}=.887).

Discussion

The main purpose of the current research was to evaluate the short-term effects of two types of interventions, the TSD and TSI, on the level of cooperation (as indicator of interpersonal attunement) and metacognitive functioning of the patients, as well as to investigate the potential differences between the two interventions on these dimensions.

Our results highlight that, compared to the TSD interventions, TSI ones are followed by higher patient metacognitive functioning and cooperative attunement. Therefore, compared to the TSD, TSI interventions seem to have different and more powerful effects on both cooperation and metacognition, which are both correlated to therapeutic effectiveness (Carcione *et al.*, 2019; Maillard *et al.*, 2017; Laska *et al.*, 2014).

The cooperative attunement between therapist and patient constitutes the basis of a solid therapeutic alliance (Liotti & Monticelli, 2014; Monticelli & Liotti, 2021). Furthermore, many empirical contributions have shown that therapeutic alliance is one of the most important predictors of the treatment outcome (Horvath *et al.*, 2011; Horvath & Symonds, 1991; Martin *et al.*, 2000; Norcross & Wampold, 2011), as well as a crucial variable for a better understanding of the factors that lead to therapeutic change (Flückiger *et al.*, 2018). Coherently, studies have reported that a weak therapeutic alliance correlates with patients' dropouts (Martin *et al.*, 2000; Samstag *et al.*, 1998; Samstag *et al.*, 2008).

Similarly, the patient's metacognitive functioning is closely associated with a successful treatment outcome (Carcione *et al.*, 2019; Maillard *et al.*, 2017). Therefore, fostering patients' self-observation skills, as well as their ability to decenter and reflect on their own and others' minds, represents the implicit objective of any psychotherapy (Laska *et al.*, 2014), especially in the case of personality disorders (Carcione *et al.*, 2021; Fonagy, 1991; Semerari *et al.*, 2014).

According to the data of the present study suggesting that the TSI interventions could be more useful than the TSD ones to increase patients' cooperation and metacognitive functioning, it is possible to argue that these two parameters could represent important information sources for therapists to consider in order to better orient their interventions and improve their responsivity to the patient. Indeed, appropriate responsivity represents the essence of optimal clinical practice, allowing expert clinicians to intervene properly and differently in apparently similar situations through the continuous evaluation of the patient's needs (Stiles *et al.*, 1998; Stiles & Horvath, 2017).

In this study, we have chosen the patient's levels of cooperation and metacognition as outcomes according to what was suggested by Stiles (2021) regarding the need for research on process-related evaluative measures (which could be assessed in several moments in the course of the therapy) aimed at understanding the role of the various elements promoting a good therapeutic process. The author (Stiles, 2021) highlighted the need for research more focused on the therapeutic processes, particularly regarding the immediate effects of the therapist's interventions. Considering these effects could improve our understanding of the sequelae that lead to therapeutic change and build theoretical explanations contributing to the therapist's responsivity improvement. Indeed, according to Stiles and Horvath (2017), therapists are effective when appropriately responsive because they offer a personalized treatment according to patients' needs and changes over time.

As already mentioned, the debate about TSDs is still ongoing; however, there seems to be a substantial convergence in considering the TSD interventions as a resource that should not be neglected or avoided (Eagle, 2011; Farber, 2006; Henretty & Levitt, 2010; Knox & Hill, 2003; Pinto-Coelho *et al.*, 2016). Nonetheless, this kind of intervention should be used respecting some important general rules of application (Audet & Everall, 2010). Although patients appear to respond more positively to therapists who use the TSDs rather than to therapists who do not (Dowd & Boroto, 1982; Fox *et al.*, 1984; Henretty & Levitt, 2010; Peca-Baker & Friedlander, 1989), if such interventions are not carefully mastered and performed according to specific conditions (*e.g.*, by formulating the intervention in a deliberate manner and, especially, by maintaining the focus on the patient's needs with the aim to promote an increased therapist responsivity to them), they can be hazardous. Furthermore, many authors point out that the inappropriate use of TSDs and the therapist's excessive self-referentiality can damage the therapeutic alliance (Ackerman & Hilsenroth, 2003; Bara, 2018; Henretty & Levitt, 2010; Hill & Knox, 2001; Knox & Hill, 2018; Pinto-Coelho *et al.*, 2016). When inappropriately used, the TSDs can represent a setting violation (Barnett, 2011), which is particularly problematic when such interventions shift the focus to the therapist at the patient's expense (Hill & Knox, 2001), favoring the risk of further violations by the patient (Audet, 2011) or contaminating the transference (Edwards & Murdock, 1994; Geller & Farber, 1997; Simon, 1990). Accordingly, carefully evaluating benefits and risks is always necessary before carrying out these interventions.

It is important to note that a cooperative attitude within the

Table 4. ANCOVA statistics between groups.

	TSI interventions (N=35)	TSD interventions (N=22)	Test statistics	p	d_{ppc2}
Metacognition Pre (M±SD)	6.34±4.58	6.14±5.63	$F_{post(1;54)}=13.837$	<.001	.92
Metacognition Post (M±SD)	9.23±6.82	4.36±4.86			
Cooperation Pre (M±S)	2.11±1.45	2.18±1.87	$F_{post(1;54)}=9.789$	.003	.887
Cooperation Post (M±SD)	2.80±1.69	1.41±1.59			

TSI, therapist's self-involving; TSD, therapist's self-disclosure; M, mean; SD, standard deviation.

therapeutic relationship and the patient's level of metacognitive functioning are two closely intertwined aspects. Liotti and Gilbert (2011a) consider cooperation as the system on which the improvement of metacognitive functions is mainly based. On the other hand, the ability to understand the other's mind (one of the main metacognitive functions) favors a cooperative interpersonal attunement between therapist and patient (George & Solomon, 2008) in the shared process toward the therapeutic goals. These hypotheses are confirmed by the results of previous research, which found that the patient's cooperative system is the only motivational system that correlates in a significant way with the patient's metacognitive functions (Farina *et al.*, under submission; Monticelli *et al.*, 2018).

In the present study, the greatest strength lies in the fact that, unlike most of the literature on the topic, we made an evaluation of the short-term effects of self-disclosure and self-involving interventions, moment by moment, within the therapeutic alliance. Several limitations should be considered. First, in statistical analyses, we did not consider the effect of the number of sessions and interventions for each subject. Indeed, there is variability in the number of sessions and interventions per patient. Second, we considered a limited sample of patients with different diagnoses, and we did not control for this potentially confounding variable. Taken together, these aspects limit the generalizability of our results, and our conclusions should be considered with caution and as preliminary. Future studies are needed to better understand TSI- *vs.* TSD-related dynamics in therapeutic processes and their capacity to foster cooperation and metacognitive functions.

Conclusions

The definition of TSDs includes different kinds of interventions. The current research found that, compared to the TSD interventions, the TSI ones are followed by higher patients' cooperative attitudes and metacognitive functions. Improving cooperation and metacognitive functioning is associated with psychotherapy effectiveness (Laska *et al.*, 2014), especially with patients with personality disorders (Carcione *et al.*, 2021; Carcione *et al.*, 2019; Dimaggio *et al.*, 2013; Fonagy, 1991).

Taken together, these results might suggest the importance of distinguishing between different forms of self-disclosure interventions (*i.e.*, TSD and TSI) because they are related to different short-term effects.

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