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The impact of mentalization training on the reflective function of novice therapists: A randomized controlled trial

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Abstract

This study examined whether training can increase the reflective function (RF) of novice therapists about patients with Borderline Personality Disorder (BPD). A total of 48 students in clinical psychology were randomly assigned to mentalization training or didactic training. Their RF regarding patients was assessed with the Therapist Mental Activity Scale (TMAS; Normandin, Ensink, & Maheux, 2012). The RF of trainees assigned to the mentalization training improved significantly, while participants who received traditional didactic training actually became significantly less reflective. These findings show that brief mentalization training can help beginner therapists develop their mentalization capacities with challenging patients.

Keywords: mentalization; reflective function; personality disorders; psychotherapist training/supervision/development; psychoanalytic/psychodynamic therapy

Little is known about the mental processes involved in psychotherapy, especially those that facilitate psychological understanding of patients (Karlsson & Kermott, 2006; Roth & Fonagy, 1996). Findings regarding other possible contributors to the capacity to understand patients, such as the personality of the therapist, supervision, as well as personal psychotherapy (Rønnestad & Ladany, 2006; Weissman et al., 2006) have been inconclusive (Orlinsky, Norcross, Rønnestad, & Wiseman, 2005; Rønnestad & Ladany, 2006). There is a consensus that training and experience are important for the development of clinical abilities, but the nature of the training required remains disputed (Rønnestad & Ladany, 2006). More recently psychotherapy researchers have become interested in mentalization in the context of psychotherapy. The capacity of therapists to be aware of mental states in themselves and their patients, to envision and mentalize about the emotional reactions and life experiences of patients, is considered an important basis for therapeutic techniques and clinical efficiency (Bateman & Fonagy, 2004; Fonagy & Shaver, 1999; Jones, 2000; Normandin & Ensink, 2007). Few if any psychology or psychiatry programs currently include

training that has the explicit goal of developing the mentalization capacities of students and there are no empirical data regarding the efficacy of training to develop reflective mentalization in therapists. The aim of the present study was to evaluate whether a brief training can help novice therapists to become more reflective about challenging patients with Borderline Personality Disorder (BPD).

Choi-Kain and Gunderson (2008) propose that the activity of psychotherapy and therapeutic listening involves mentalization with the therapist working to consciously and deliberately imagine the patient's mental states, while also being attuned to the patient in more unconscious and intuitive ways. In addition, Fonagy and Shaver (1999) highlight the importance of being aware of the patient's mental states in order to differentiate internal experience from reality, and be able to challenge the patient's assumptions that the two are the same. Therapeutic contexts are increasingly conceptualized as attachment relationships that can evoke highly charged emotional interactions (Karlsson & Kermott, 2006), a further reason why the capacity to understand interpersonal reactions is particularly important. It is considered important for therapists to use the totality of their

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reactions, thoughts and feelings in clinical work in order to get to a better understanding of patients (Betan & Westen, 2009; Carsky & Yeomans, 2012; Hayes & Gelso, 2001; Kernberg, 1993; Luyten et al., 2012). As Markowitz and Milrod (2011) observe, therapists who are aware and attempt to explore and understand their own reactions, their patients' feelings and mental states during psychotherapy (notably negative ones) are more likely to form positive therapeutic relationships and alliances. Together this suggests there is reason to expect that mentalization is potentially an important clinical ability. However, until recently a lack of validated instruments for assessing this capacity has hampered research in this area.

One tradition of research on therapists' mental activity has its roots in the investigation of countertransference (Normandin & Bouchard, 1993; Rosenberger & Hayes, 2002). This has now been largely succeeded by the contemporary mentalization perspective. The Therapist Mental Activities Scale (TMAS; Normandin, Ensink, & Maheux, 2012), a revised version of the Countertransference Rating System (CRS; Normandin, 1991; Normandin & Bouchard, 1993) was developed as a tool to investigate the mental processes of therapists when listening to and thinking about patients. Considering the important similarities between Normandin's (1991) model of therapist mental activity including reflective mental activity and Fonagy's model of mentalization and reflective function, the aim of the revision was to make the TMAS fully compatible with Fonagy's model given that the latter has the advantage of being applicable across a wide variety of contexts. TMA is defined as the active processes of transforming and integrating cognitive and affective contents with the aim of understanding patients usually in the context of therapist-patient interactions (Normandin, 1991; Dubé & Normandin, 2007). Normandin (1991) identifies three main modes, namely Reflective, Rational and Reactive mental activity, that may be used sequentially or in parallel, during the process of listening or thinking about patients, and which are all considered as important for the therapist's clinical understanding and interventions. In the Rational-objective mode, the therapist uses theoretical knowledge and a hypothetico-deductive perspective. In this mode, the therapist may consider that the patient meets the diagnostic criteria for BPD, has problems with emotion-dysregulation, shows identity diffusion and has limited understanding of themselves and others. In the Reactive mode, cognitions about the patient are influenced by the therapist's emotional reactions. In this mode the therapist might become irritated with a patient who tries to impress and please the

therapist but who is un-empathic and devaluing towards his partner. Without further mentalization, reactivity could increase the risk of the therapist becoming critical towards the patient. The reactive mode can be considered a potentially high-risk, high-gain mode given that the therapists' emotional reactions can lead to a one-sided view, but if further examined can provide access to information that may be valuable for developing a better understanding of patients. At a conceptual level the Reactive mode shares a number of the features of what social cognitive neuroscientists have termed *reflexivity* (or the X-System), and which is distinguished from *reflectivity* (or the C-System) (Lieberman, 2003). *Reflexivity* is linked to impulsivity and is considered to have developed in order to make quick judgments in interpersonal contexts where speed and efficiency of social cognition are of priority and where emotional reactions based on past experienced provide invaluable information (Lieberman, 2003). However, the downside of the speed of the *reflexivity* or X-system is that the potential for error is also increased, as is the case with the Reactive mode.

In the Reflective mode therapists try to imagine and understand the emotions and mental states underlying patients' symptoms, reactions and interactions and actively use their own interpersonal and affective reactions to the patient to develop a unique comprehension of the patient's internal world (Normandin & Ensink, 2007). For example, in the reflective mode, the therapist imagines why a female patient struggles to tolerate the idea that she has expressed a triumphant smile when she insisted on having access to her file. The therapist imagines what it could be like to be caught having a sadistic pleasure at controlling someone, but at the same time feeling that it is reprehensible and fearing that she will be seen as mad or bad. The therapist then uses this understanding to empathically resolve an impasse in the therapy and the patient gains further understanding and acceptance of a part of herself she previously considered reprehensible. Reflective mental activity as identified by Normandin (1991) overlaps with the concept of reflective function and mentalization described by Fonagy and Target (1996) but refers to reflective function used by therapists in clinical contexts specifically. In summary, therapists draw on their objective observations, and theoretical and empirical knowledge in the rational mode, while the reactive mode is characterized by intense emotional reactions that the therapist is often unaware of (Dubé & Normandin, 2007), while the reflective mode involves an active mentalization process.

The notion of reflective function (RF) was introduced by Fonagy, Steele, Steel, Moran, and Higgitt (1991) and brings together in developmental psychology

regarding the development of children's social cognition the theory of mind and metacognition and integrates it with psychoanalytic models as well as cognitive neuroscience. Reflective function refers to the domain of interpersonal skills used to understand oneself and others as internally motivated psychological beings (Fonagy & Target, 2002). It involves the consideration of both cognitive and affective aspects of one's own and others' mental states and may be conscious and deliberate as well as unconscious and automatic (Choi-Kain & Gunderson, 2008). Reflective function has been shown to be an important determinant of the quality of mother-infant interaction, especially the capacity of mothers to relate to their infants as psychological beings and understand their behaviors as internally motivated (Seligman & Harrison, 2012; Slade, 2005, 2009). There is evidence that it is in the context of attachment relationships that children in turn develop emotional understanding and reflective function (Steele, Steele, Croft, & Fonagy, 1999). Although RF becomes a relatively stable personal characteristic in adulthood, there is evidence that it can be changed through psychotherapy where patients are specifically challenged to develop more integrated and stable representations of themselves and others, especially in the context of affectively charged interpersonal interactions (Clarkin & Levy, 2006). RF is considered important for the quality of interpersonal relationships and adaptive function and there is evidence that low RF is a general risk factor for psychopathology (Choi-Kain & Gunderson, 2008; Fonagy & Target, 2002; Karlsson & Kermott, 2006). While the level of RF acquired in developmental contexts has important implications for many domains of personal and interpersonal functioning, it does not automatically transfer to all contexts, and new and challenging contexts such as dealing with trauma and being an adequate mother for a temperamentally difficult child, for example, require additional work for this skill to be transferred. In addition, other factors such as personality, motivation and cognitive styles, might influence individual differences in RF potential, even for individuals who have had similar opportunities to develop these skills, and have comparable intellectual capacities.

At a conceptual level, reflective function overlaps in part with other psychological constructs such as psychological mindedness (which is deliberate and more self-centered), mindfulness (which is centered on the self), affect consciousness (which is deliberate and affective) and empathy (only affective and other-centered) (Choi-Kain & Gunderson, 2008). Constructs such as insight, emotional intelligence, rationality and imagination also have some similarities with the concept of mentalization (Choi-Kain &

Gunderson, 2008; Jones, 2000). RF is also compatible with the social-cognition framework (Sharp, Fonagy, & Goodyear, 2008), with the latter identifying additional tasks involved in the process of decoding and encoding reactions in the interpersonal domain. Critics of the concept of RF have questioned the originality of the construct, but its strength can be argued to be that it builds on the commonalities between approaches, and presents a way of operationalizing and measuring mentalization for research purposes that has been very useful for carrying forward research in this broad area at a time when research using many related constructs has reached an impasse. Ideally in the future we should aim to develop a more nuanced understanding of the interconnections between different aspects of mentalization and social cognition, and their unique contributions to the quality of interpersonal interactions especially in the context of psychologically challenging situations, and consider the implications for psychotherapy.

Some authors have proposed that graduate students can be taught to develop a better understanding of patients' volatile emotional reactions within a structured program with the explicit aim of facilitating the use of RF (Fonagy & Shaver, 1999; Fonagy & Target, 2002). Markowitz and Milrod (2011) pointed out that if clinical training is too focused on theory and actions, therapists may miss the important step of experiencing, recognizing and using their emotional reactions to understand and help patients. They propose that without appropriate training, attempting reflective listening can make therapists anxious and result in them feeling deskilled. Current training programs may thus leave novice therapists less cognizant of the role of mentalization in all psychotherapies (Markowitz & Milrod, 2011). In addition, recent research indicates that adults find it surprisingly difficult to understand and predict the reactions of others in emotionally challenging situations, especially when they have not experienced the situation (Van Boven & Loewenstein, 2005). Patients with particular pathologies such as borderline personality organizations are known to be difficult to understand and may have had life experiences that may be very different to those of the majority of psychology and psychiatry students. They may also experience affects and interpersonal interactions in a very different way. Additional training may thus be required for therapists to be able to extend and apply existing mentalization skills in the service of understanding such patients. Most prospective therapists in psychology programs have been self-selected and may also have been subject to a number of other selection procedures. They are unlikely to have gross deficits

in mentalization, and the majority probably have solid to good RF. They should thus be able to access their potential to understand difficult patients relatively quickly in the context of a specific training program that sets mentalization as a targeted goal, through specific feedback and guided practice.

Few if any psychology, psychiatry or psychotherapy training programs currently include training aimed at developing mentalization abilities in novice therapists. The objective of the present study was to test whether a brief experiential mentalization training program, designed to improve therapist's RF about patients, would be effective in helping novice therapists develop these capacities. We hypothesized that (1) mentalization training would produce a small but significant increase in therapists' reflective function regarding patients compared to didactic training and that (2) didactic training would improve rational mental activity involving participants' diagnostic abilities and capacities to formulate treatment plans. We did not anticipate that either training would produce changes in the reactive mental activity of beginner therapists.

Methods

Participants

The participants were 48 French-Canadian psychology students, 40 women and eight men, in their final year of undergraduate training in psychology or their first year of graduate training in clinical psychology, at a university in Québec, Canada. Participants ranged in age from 23 to 50 years ($M=26.50$) and none had previous clinical experience with patients. All gave written informed consent to participate.

Study Design and Procedure

An experimental protocol with random assignment to two different training conditions was used; mentalization training (*experimental* group) and didactic training (*control* group receiving training-as-usual). For every participant allocated to the didactic training, two participants were assigned to the mentalization training. Of the 48 participants who completed the Time 1 evaluation, 30 were in the mentalization training group and 18 in the didactic training group. **Participants in both groups received weekly 90-minute training sessions over 20 weeks, for a total of 30 hours.**

In order to assess whether the two trainings were associated with changes in mentalization about patient material, we assessed participants' reflective, rational and reactive mental activity at three different times; 1 week pre-training, mid-training

(week following the tenth session) and post-training (1 week after the last session). Mentalization was assessed with the TMA protocol using seven video vignettes of patients with borderline personality disorder talking about themselves and their relationships with their parents. Participants watch the vignettes on their own in a consulting room, and were instructed to assume that they will be working with the patient in the future and to stop the video and record their thoughts and spontaneous reactions to the clinical vignettes, including diagnostic impressions, personal reactions evoked by the material, and implications for intervention. Their responses were videotaped, transcribed and then rated using the TMAS and accompanying coding manual. The TMAS has been used in a number of previous studies and has been demonstrated to be a reliable method for measuring TMAs (Dubé & Normandin, 2007; Lecours, Bouchard, & Normandin, 1995; Normandin & Bouchard, 1993). To avoid the possibility of a training effect, new sets of vignettes were used at the mid-training assessment and the post-training assessment.

Training

All participants attended the same 2-hour presentation introducing the therapists' mental activity model (Normandin, 1991), including descriptions and examples of reflective, reactive and rational modes of mental activity in relation to patient material. Theoretical seminars and practice using clinical vignettes were used in both training groups following a training manual that outlined the activities and goals of each session.

The didactic training group was led by a clinical professor who used the pedagogic approach commonly used for teaching post-graduate clinical psychology. The objective of the didactic training was to increase understanding of symptoms and behaviors in terms of psychopathology (according to the DSM-IV), diagnostic issues, etiological models and possible therapeutic interventions. Students were encouraged to elaborate hypotheses about symptoms and elaborate treatment plans and interventions using their knowledge of psychopathology and psychotherapy. As is customary in this approach, students were not explicitly encouraged to share their more private thoughts and reactions to the patient material.

The mentalization training group was taught by a clinical professor specialized in the development of mentalization abilities. **The mentalization training provided in the present study consisted of encouraging and training students to make effective use of their personal and affective reactions to the patient in order to gain a more nuanced and unique compre-**

hension of the past and present experiences of the patient. In the first phase of the program, students learned to recognize and differentiate their reactions as Reflective, Rational, or Reactive. Through feedback, they learned to identify reactions that distracted from their understanding of the patient, affected their neutrality, blocked them from further understanding or propelled them to act out, and distinguish them from those that provide useful additional data that could be elaborated in the service of understanding the patient. In the second phase of the program, they were encouraged to explore their reactions that could contribute usefully to understanding the patient. They were encouraged to name their reactions, describe them and elaborate a reflective understanding of the patient using this inter-subjective understanding. In this sense we consider the training as experiential. The objective was to train participants to make effective use of interpersonal and subjective perceptions regarding the patient and integrate this with rational deductive understanding based on objective observations about the patient. The teaching methods included didactic material focusing and the concepts of mentalization and reflective function including examples, as well as modeling and practice with clinical vignettes and feedback.

Outcome Measure: Therapist Mental Activity Scale (TMAS)

The TMAS (Normandin et al., 2012) was developed for assessing three modes of mental activity used by therapists, namely Reflective, Reactive, and Rational mental activity, using a 5-point scale (0: absent; 1: rudimentary/basic; 2: average; 3: excellent level; 4: exceptional/high level). A manual provides clear descriptions and criteria for distinguishing the different types of mental activity, as well as different levels of mental activity of each type. TMAS was initially developed to be used as part of the TMA protocol to rate responses to a standard set of clinical vignettes, although it can also be used with other clinical material. Responses to each vignette are analyzed to identify reflective, reactive and rational mental activity and the level of each is determined using the descriptions provided in the coding manual. These scores are summed to obtain a total score for each type of mental activity.

In brief, Reflective mental activity is coded when there is evidence that the respondent actively uses his reactions regarding the patient to understand the patient, or actively tries to imagine and understand the experience of the patient and integrate this to develop a unique understanding of the internal experiences of the patient. The TMAS evaluation

procedure tests the capacity to apply this mentalization skill and use affective reactions and reflect on them to produce an understanding of the patient's unique psychological experience and mental processes. Reactive mental activity is coded when there is evidence that the therapist reacts emotionally, and makes a judgment based on their affective reactions with little self-awareness. Rational mental activity is coded when objective observations, formulation of hypotheses and diagnostic impressions as well as elaboration of standard interventions based on a rational comprehension of the clinical material are present.

The TMAS (Normandin et al., 2012), previously called the Countertransference Rating Scale (CRS: Normandin, 1991; Normandin & Bouchard, 1993), has been used in a number of previous studies and has been demonstrated to be a reliable and valid measure of therapists' mental activity (Dubé & Normandin, 2007; Lecours et al., 1995; Normandin, 1991; Normandin & Bouchard, 1993). The verbal reactions of participants to the clinical vignettes were videotaped and transcripts were coded by two trained graduate students using the TMAS and accompanying coding manual. Inter-rater reliability was assessed using 23 randomly selected protocols (20% of the protocols). One-way random intra-class correlation coefficients (ICCs: Bartko, 1966; Shrout & Fleiss, 1979) were .73 for rational mental activity, .76 for reactive mental activity, and .75 for reflective mental activity, and are considered high using conventional criteria (Landis & Koch, 1977). Table I presents examples of the different TMAS.

Results

Preliminary Analysis

As part of the preliminary analyses we compared the characteristics of the non-completers in order to identify the best strategy to follow with regard to including or excluding their data in further data analyses. Of the 48 participants at Time 1, 26 participants completed the mentalization training, and 15 completed the didactic training. Four participants did not complete the mid-training evaluation and three did not complete the post-training evaluation due to competing academic and family commitments. The final sample consisted of 34 women and seven men. Completers and non-completers did not differ in terms of gender or age, TMA scores at T1 and T2 and training groups. However, T3 non-completers had higher mean rational TMA scores at T1 ($T(1) = 2.29$, $p = .027$), a difference that on closer examination was due to one participant in the didactic group who had a high rational TMA

Table I. Examples of therapist's mental activity

TMA	Sample	Score	Justifications
Reflective	"I have a bizarre feeling, I don't really understand. Now, he talks about his father and I can see why he doesn't like him."	1.0	The participant <i>blocked an emergent</i> awareness of the patient's experience and moved to another superficial exploration. We can see here that the " <i>blocked emergence</i> " is only different from a <i>reactive</i> activity on the basis of the level of awareness of the participant's reactions.
Reflective	"I was wondering how he felt about it, the request for a consultation was made by the father . . . and a house where everything had to be at the right place. I imagine that he must have felt incredibly rejected from that world where he doesn't behave properly; he has no "right" place in the house. He must have experienced it as a big rejection".	2.5	There is an <i>immersion</i> in the patient's internal experience though not really elaborated and no exploration of any other experience. It is not quite a 3, as for this we would need a deepening exploration of the patient's or therapist's experience of the here and now, or the patient's past experiences with others.
Reflective	"I sort of have palpitations in my stomach; I think it is edginess. I'd be really afraid of the reactions the patient might have. I think I would not allow myself to move for fear of her attacking me. I think I would say nothing at the moment, to let her... In the beginning, I didn't have any real feelings towards her, and now I am beginning to dislike her and find her quite intolerable. And I have this impression: it's exactly what she wants; she doesn't want me to like her. She succeeds, in a way, to look evil."	4.0	There is a full cycle of reflectivity in the sense that the participant first <i>contained an emergent</i> experience of fear with full acknowledgment of the intensity of the feelings. The participant then <i>immersed</i> in that experience and was able to imagine the motivation behind the patient trying to behave like she was evil. This understanding has then been formulated into a <i>complementary intervention</i> .
Reflective	"It is strange, when J. was talking about his mother; I was feeling very bad, very anxious. It was an intense feeling and I was having the need to fly away, to finish quickly this video. I think I was afraid to be too close to this patient. I also feel that the situation is strange, awkward. I think it is very difficult for Justin to be in relation with anyone, especially with his mother. I get the impression he might want the relation desperately, but he seems so afraid at the same time."	4.0	There is a full cycle of reflectivity, beginning with a <i>contained emergence</i> . This could have easily been <i>blocked</i> considering the intensity and strangeness of the feelings. However the participant moved to an <i>immersion</i> into the patient's experience of his mother and the therapist. A <i>concordant interpretation</i> is formulated.
Rational	"I notice that the patient is moving on his chair, his is looking around, maybe these are signs of stress."	1.0	There is an observation based on objective clues.
Rational	"I would keep in mind: vandalism, impulsivity, drug abuse. It looks like a borderline personality disorder. But at the same time, maybe some narcissistic features. He is talking about a strong feeling of emptiness. I don't know, that's what I'm thinking about."	2.0	Pure theoretical hypotheses.
Rational	"There are a lot of contradictions in what S. is saying. He looks nervous, moving his leg. Maybe it is a defensive behavior. A protection against anger, or dissatisfaction, possibly due to the fact that his father wasn't present in his life."	3.0	After observing contradictions in the discourse as well as his physical behavior in the session, the participant offers a simple, but not really elaborated theory.
Rational	"There is a strong identification with his father. I also understand that there is a modeling process going on with his father. But the patient rejects the bad parts of the father. We see a strong splitting of the bad parts, with idealization of the father figure. This idealization allows the patient to protect himself from the self-perception of being a bad person himself. That's my comprehension of this patient's dynamic."	4.0	There is a full explanation of the dynamic of the patient offered without any exploration of the patient's subjective experience.
Reactive	"I feel like laughing when I am watching him. I don't know."	1.0	We don't know what is hidden behind the laugh To be rated as <i>blocked emergence</i> , we should have seen a minimum effort to identify an emotion.
Reactive	"Oh my gosh, he's the victim of all this, victim of his mother. He is so tiny in his chair, I find. I feel like . . . I want to protect him. He is so insecure and vulnerable, I would say".	2.0	The participant over-dramatizes and identifies with the patient.
Reactive	"Poor mother. I feel like there is nothing to do with J. He's so sick. I feel like he is too troubled. If I was his mother, I would be so desperate, so sad and depressed to have a son like J.... I really don't know how I could help him. I am not sure he is a good candidate for psychotherapy."	2.5	There is a marked loss of emotional distance at the beginning but with some attempts to regain control at the end even though the participant's association reveals emotional contamination.
Reactive	"He is saying that his mother is a madwoman and I totally agree. Such a bad mother!"	3.0	There is a clear loss of emotional distance.

Table I. (Continued)

TMA	Sample	Score	Justifications
Reactive	"I am excited by this kind of patient, I like how he challenges his boss... those big bank managers need to be brought down from their pedestals."	4.0	The participant seems to be overly identified with the aggressive part of the patient

score at T1 (3.0 compared to the mean of 2.3 and a difference of one standard deviation from the mean of the non-completers). When this participant was excluded from the preliminary analyses, the difference was no longer significant ($T(1) = -.25$, $p = .802$). This participant was not considered an outlier since his rational score was not extreme (not more than two standard deviations from the mean of non-completers) and his score was not significantly different from the mean of the completer group. Data of all participants, including non-completers, were thus used in subsequent analyses.

As part of the preliminary analyses we also examined the participants' baseline scores of TMA at the beginning of the training. The results showed that novice therapists begin at a rudimentary level of reflective TMA of .970 ($SD = .561$), while they show an average level of rational TMA of 1721 ($SD = .543$) and a low to average level of reactive TMA of 1443 ($SD = .706$). Basically, novice therapists start their training with a relatively low level of reflectivity while the levels of rationality and reactivity are satisfactory for one and tolerable for the other.

Intercorrelation Matrix

As expected, there was a significant negative correlation of moderate strength between the rational and the reactive scales ($-.50$, $p = .000$); and the rational and the reflective scales were also significantly correlated ($.39$, $p = .006$). The correlation between reactive and reflective TMA did not reach significance ($-.27$, $p = .06$).

Group Comparisons

In order to measure the impact of the two training programs on Reflective, Rational and Reactive mental activity, three Independent Multilevel Linear Mixed Model analyses were performed (Brown & Prescott, 1999) where TMA was treated as a random effect, training type was a fixed effect and time was a repeated measure. Mixed Model analysis was used because of its advantages over Repeated Measures in General Linear Models (GLM) and Manova in that it treats missing data and missing-data patterns (using the Maximum Likelihood Ratio instead of being based on the Standard Error as in GLM), and therefore data are reported in terms of adjusted

means. The Multilevel Linear Mixed Model also enables the specification of random effects and has more flexibility in modeling the error covariance structure. Data of all 48 participants who completed the T1 evaluation were used in the subsequent analyses. The significance level (alpha) of the second and the third Mixed Model analyses were adjusted to take account of the fact that a number of analyses were conducted using the same subjects. Contrast analyses were performed to determine the simple effects of training group and time within each level combination. These tests are based on the linearly independent pairwise comparisons of the estimated marginal means. Mixed Model analyses automatically adjust the means of simple effect tests for multiple comparisons.

Reflective mental activity. The first Mixed Model analysis, assessing the impact of the two training programs on the therapist's reflective mental activity, revealed a significant Group \times Time interaction effect ($F(2, 127) = 8.041$; $p = .001$, $\eta_p^2 = .084$) indicating that training type had an impact on the therapist's capacity to use Reflective mental activity over time. Tests of simple effects contrasting both training groups in each phase showed that there was no significant difference between the two training groups at T1 (mean difference = .194; $F(1, 127) = 1.077$; $p = .301$, $\eta_p^2 = .008$), but there was a significant difference between these two groups at T2 (mean difference = .629; $F(1, 127) = 10.304$; $p = .002$, $\eta_p^2 = .075$) and at T3 (mean difference = 1.136; $F(1, 127) = 31.326$; $p = .000$, $\eta_p^2 = .198$). The T2 and T3 effect sizes indicate that the effect of training was moderate at T2 and large at T3. Further tests of simple effects contrasting phases within each training group showed that trainees who were in the mentalization group became significantly more reflective from Time 1 to Time 3 ($F(2, 127) = 15.143$; $p = .000$), while participants in the didactic group became significantly less reflective ($F(2, 127) = 3.166$; $p = .046$) (see Figure 1a). The results of further pairwise comparisons showed that participants in the mentalization training significantly increased their reflectiveness from Time 1 to Time 2 (mean change = .805; $F(2, 127) = 15.143$, $p = .000$), and that there was no further significant change from Time 2 to Time 3. This suggests that improvements in

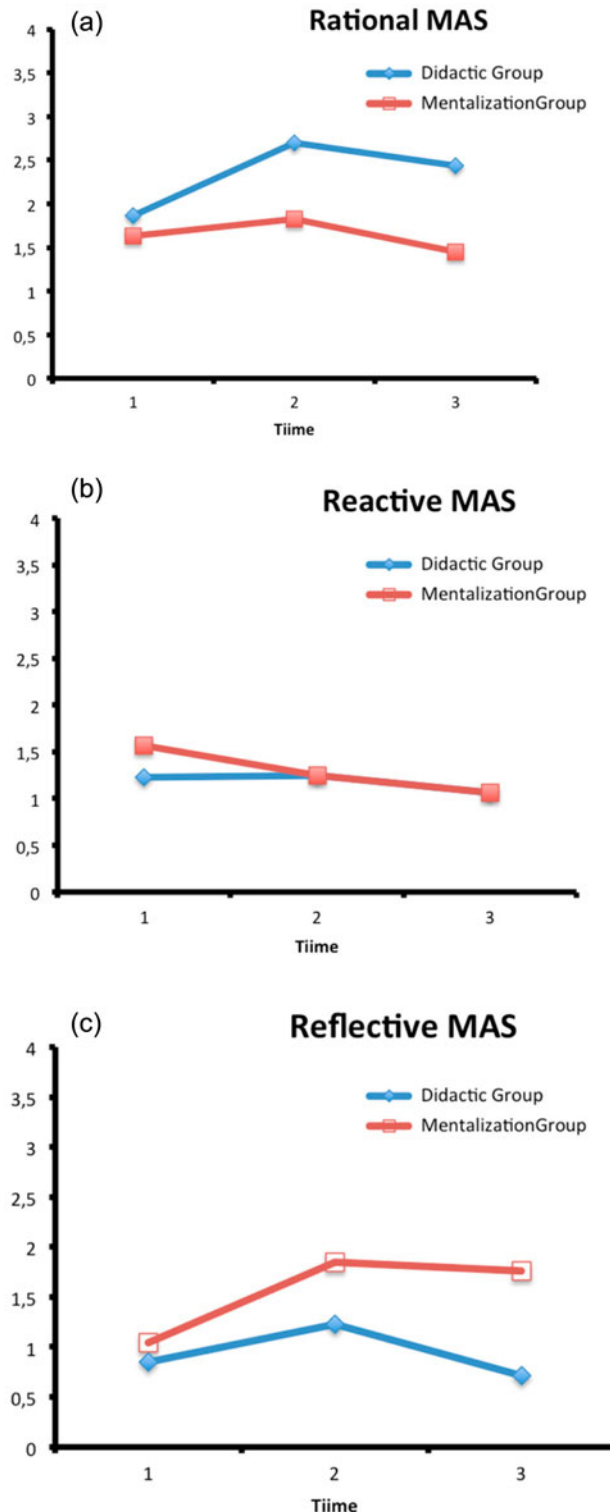


Figure 1. Impact of brief mentalization and didactic trainings on therapists' Rational, Reactive and Reflective mental activity (T1: pre-training; T2: mid-training; T3: post-training).

reflectiveness are produced during the first half of the mentalization training, with this gain being maintained over time. As expected, the group who received the didactic training did not show any

significant changes in reflectiveness between Time 1 and Time 2, but contrary to expectation actually showed a significant decrease in reflectiveness from Time 2 to Time 3 (mean change = $-.552$; $F(2, 127) = 3.166$, $p = .015$).

Rational mental activity. Results of the second Multilevel Linear Mixed Model analysis to investigate the impact of the two training programs on Rational mental activity showed a significant Group \times Time interaction effect ($F(2, 127) = 9.499$; $p = .000$, $\eta_p^2 = .090$). A test of simple effects contrasting both training groups in each phase showed that there was no significant difference between the two training groups at T1 (mean difference = 0.231 ; $F(1, 127) = 2.339$; $p = .129$, $\eta_p^2 = .018$), but there was a significant between group difference at T2 (mean difference = $.848$; $F(1, 127) = 28.555$; $p = .000$, $\eta_p^2 = .184$) and T3 (mean difference = $.949$; $F(1, 127) = 33.425$; $p = .000$, $\eta_p^2 = .208$), confirming that the two training types had different impacts on participants' rational mental activity over time. The effect of training was large at T2. Tests of simple effects contrasting phases within each training group showed that the didactic training produced significant increases in the rational mental activity of participants ($F(2, 127) = 11.610$; $p = .000$), while the rational mental activity of the participants of the mentalization training decreased significantly over time ($F(2, 127) = 3.983$; $p = .021$) (see Figure 1b). Pairwise comparisons showed a significant increase of rational scores in the didactic training group from Time 1 to Time 2 (mean change = $.822$; $F(2, 127) = 11.610$; $p = .000$), but no significant change from Time 2 to Time 3. This indicates that the improvement in rational mental activity is produced mainly during the first stage of the didactic training and is stable over time. The mentalization group did not show any significant changes in rational mental activity between Time 1 and Time 2, but there was a significant decrease in their use of rational mental activity during the second part of the training from Time 2 to Time 3 (mean change = $.389$; $F(2, 127) = 3.98$; $p = .006$).

Reactive mental activity. The results of the third Multilevel Linear Mixed Model analysis investigating the impact of the two training programs on the therapist Reactive mental activity did not reveal any significant interaction effect ($F(2, 127) = 8.77$; $p = .420$) (see Figure 1c), showing that the two types of training did not differ in their impact on reactiveness.

Discussion

This study addressed the important question of whether brief mentalization training can stimulate future therapists to become more reflective regarding patients with BPD. On the basis of prior theorizing (Fonagy & Target, 2002; Karlsson & Kermott, 2006), we focused on therapists' RF as an important clinical ability. We hypothesized that in the context of a specific training program that sets mentalization as a targeted goal (Fonagy & Target, 2002; Jones, 2000) therapists would be able to extend their existing RF potential to more challenging contexts and develop at least a good basic understanding of patients with BPD relatively quickly. This hypothesis was confirmed as our findings indicate that participants who took part in the mentalization training were able to significantly improve their capacity to be reflective about patients with BPD, whereas the group that received the didactic training actually became less reflective over time. As would be expected the participants in the didactic group significantly increased their capacity to understand the behavior of patients in terms of psychopathology, what we refer to as rational TMA. Reactive mental activity did not change in either group.

The findings of our study show that in both groups, participants had a relatively low level of reflective TMA prior to training (T1), indicating that novice therapists would struggle to understand patients with BPD, and suggesting that there is a need for specific training targeting the development of these capacities. This finding corroborates Fonagy's observation that it takes a specific effort and motivation to extend existing RF skills from one domain to others even in people who have high RF regarding their own attachment relationship (Fonagy & Adshear, 2012). We surmise that it is initially challenging for therapists to imagine and mentalize effectively regarding patients with BPD who may have had very different life experiences, and whose interpersonal and affective experiences may also be difficult to imagine. It is also possible that the mentalization training makes therapists more aware of their own cognitive styles and develops their abilities to use other mentalization skills that they don't tend to use naturally. The mentalization training produced an increase of nearly one point (from 1.2 to 2) on the 5-point scale used to assess therapists' RF. In practical terms this represents an increase from a rudimentary understanding to a good basic understanding, which seems both a realistic and a desirable goal. Furthermore, no increase in RF was observed in the didactic group, and in fact they actually showed a significant decrease in RF. This indicates that unless RF is

specifically targeted and a specific effort is made to develop this ability, it does not develop spontaneously. This is consistent with Fonagy's developmental theory of mentalization, which suggests that RF is learned in interpersonal contexts that stimulate and actively support the development of mentalization (Fonagy & Target, 2002). Our findings suggest that training such as that used in the present study is effective in kick-starting the development of therapists' RF regarding patients who are difficult to understand. This has important implications for training clinicians as it indicates that a brief training can effectively increase the mentalization abilities of future therapists in the service of understanding patients with BPD. This is particularly interesting considering that mentalization is seen by many authors as an essential ability for therapists to understand emotions, mental states and object relations underlying patient's symptoms and psychopathology (Fonagy & Shaver, 1999; Fonagy & Target, 2002; Jones, 2000). Therapist RF is likely to be important for facilitating insight, a factor that has been demonstrated to be important for therapeutic change (Johansson *et al.*, 2010). Considering the evidence that a brief experiential mentalization training can help future therapists develop a good basic capacity to think about and understand the reactions of BPD patients, it would seem that the inclusion of a brief experiential training in psychotherapy training curricula can provide important potential benefits. Moreover, our findings show that a therapist's RF improves in a short time and that the benefits are maintained at least over a period of 10 weeks. Further research is needed to investigate whether these benefits would be spontaneously maintained over a longer time, or whether brief refresher courses would be needed to maintain these improvements.

With regard to rational TMA, the findings indicate that the trainees in our sample were functioning at a good level at the outset, and were able to identify symptoms and elaborate basic clinical hypotheses. This was not unexpected given that all had completed undergraduate psychology courses focused on psychopathology and diagnostics. The didactic training produced further significant improvements in this capacity while no change in rational TMA was observed in the group that received the mentalization training. In brief, this shows that participants develop further skills in the area targeted by the training. However, there was a further unexpected finding in that reflective TMA actually decreased in the group who participated in the didactic training. It is important to consider what this might be saying about the unintended effects and messages our traditional training may actually be transmitting. It

is possible that our current didactic training which focuses exclusively on developing a rational comprehension of psychopathology sends the message, albeit unintentionally, that the rational mode is sufficient for understanding patients, and that other modes of mentalizing are less appropriate or valued. It may also be that cognitive resources are relatively finite and that it is challenging to maintain two modes of mentalizing that make competing demands on these resources. The rational mode is also relatively easy to master and gives a sense of competence and does not require the considerable additional effort required to make sense of affective reactions of and about patients and trying to understand their internal worlds. As Markowitz and Milrod (2011) argue, if clinical training is too focused on theory and actions, the therapists may miss the important step of recognizing and connecting with the patient's emotions and internal experience. Our findings suggest that there is reason to be concerned that the largely theoretical training of most current clinical psychology curriculums (Rønnestad & Ladany, 2006) might develop rational thinking to the exclusion of other types of mentalization that might be important in therapeutic work, and moreover might actually interfere or even inhibit the development of therapists' RF. Theoretical training is evidently needed for trainees to develop their knowledge in psychopathology and treatment (Lambert & Ogles, 2004; Orlinsky, Botermans, & Rønnestad, 2001), but our findings suggest that it may be important to consider supplementing the present theoretical curriculum with an experiential mentalization training, like the one used in this study, in order to be able to connect with patients' emotions and internal experience in a meaningful way.

With regard to reactive TMA, our novice therapists had relatively low levels of reactivity at the outset. Neither of the trainings specifically targeted reactivity and neither produced changes in this domain. Beginner therapists may inhibit reactivity out of concern that it may be inappropriate (Normandin & Bouchard, 1993). However reactivity is considered as potentially useful for understanding patients if properly dosed and neither too much nor too little is considered ideal. Learning to use reactivity can be considered an important skill, but probably more appropriately taught at a later stage. It is possible that therapists could benefit from recognizing their own cognitive style with respect to reactivity and that therapists with very rational cognitive styles, for instance, could benefit from developing a reactive mode, whereas therapists who tend to be reactive might need to be particularly aware of this.

Clinical Implications and Contributions

The findings of the present study provide promising evidence suggesting that it is relatively easy for novice therapists to make a small but significant improvement in their RF and capacity to understand patients with BPD if they are given access to training designed to facilitate these capacities. The brief mentalization training improved therapist's capacities to be aware of their affective reactions toward the patient, differentiate them from their own affective reactions, and use them to gain a better understanding of the patient's internal world. Previous studies have suggested that mentalization capacities are associated with establishing a good working alliance and help to develop an understanding of the unique and specific difficulties of challenging patients with borderline personality disorder (Carsky & Yeomans, 2012; Fonagy & Target, 2002; Jones, 2000; Karlsson & Kermott, 2006; Markowitz & Milrod, 2011).

It is known from previous studies that didactic and theoretical training improves rational knowledge about psychopathology and treatment techniques (Weissman et al., 2006) and our findings provide further support for this. Individual and group supervision has also been demonstrated to be useful for trainees to manage their anxiety and countertransference (Orlinsky et al., 2001). In addition, the findings of our study focus on another important set of skills, the mentalization (RF) capacities, which are considered important for therapists to improve their understanding of patients with BPD, and show that these skills can be effectively developed using a brief experiential mentalization training. There is empirical evidence that a patient's RF is positively correlated with good therapy outcomes (Bernbach, 2002; Bouchard et al., 2008; Fonagy & Target, 1996; Karlsson & Kermott, 2006; Levy et al., 2006; Meehan, Levy, Reynoso, Hill, & Clarkin, 2009). As some authors have hypothesized (Fonagy & Target, 2002; Jones, 2000; Normandin & Ensink, 2007), therapists' mentalization capacities and reflective function may be important skills involved in the therapeutic process that contribute to patients' structural change, especially in patients suffering from severe borderline personality disorder. The next step is to demonstrate that therapists' RF as measured by the TMA is in fact associated with clinical proficiency, and improves psychotherapy outcome.

Limitations

This study offers a new perspective regarding the effectiveness of a brief mentalization training for increasing RF of novice therapists regarding patients

with BPD. Now that it has been established that this type of training can produce measurable improvements in the capacity of students to develop a psychological understanding of the experience and internal worlds of challenging patients, the next step is to conduct research to examine the implications for patients and psychotherapy outcome. It is important to determine whether benefits produced by this brief training are maintained over time and whether the gains in RF demonstrated in our study can be shown to transfer to actual therapy contexts to facilitate insight and change.

A cynical observer might wonder whether the changes observed on our measures of RF were simply a result of trainees learning to give the desired response without any real changes in their actual RF skill and awareness. Considering that RF is a skill (more like playing the piano) rather than something that can be memorized it would seem unlikely that the improvement observed would be simply a case of respondents producing what they expect is required, just as RF in the adult attachment interview would be difficult to fake even if respondents were given a training about what good RF is. While it is theoretically possible that some participants have learned to apply a kind of algorithm that would be difficult to distinguish from the real thing, it seems more likely that respondents learnt how to transfer their existing RF capacities to a new domain, and also become more self-aware of their mentalization styles and therefore active in complementing it. The mentalization training offered in the study seems to be a potentially cost-effective way of kick-starting therapists' RF regarding patients with BPD, but supervision is likely to be necessary to achieve further increases in RF regarding patients with BPD. It is likely that therapists' RF regarding patients is likely to be limited by their intrinsic level of RF, but this needs further examination.

Given the challenges and pitfalls of assessing therapists' mental activity by using their actual interventions and patients, the use of the TMA experimental paradigm using video vignettes of patients is an efficient way of assessing therapist RF. Previous studies using this paradigm have shown that these vignettes can be used as an effective trigger of mental activity in participants and activate their affects and representations regarding the patient (Dubé & Normandin, 2007; Lecours *et al.*, 1995; Normandin & Bouchard, 1993), and this can be used to reliably assess and investigate RF and mental activity of therapists. The TMAS protocol resembles an "in vivo" therapy situation in that respondents are challenged, like in actual therapy situations, to articulate their immediate responses to patients talking about their

experiences. However, the TMAS protocol has the advantage of providing fuller access to the therapists' mentalization process than if we had access only to the actual interventions, without information about the affective and mental process underlying and determining these interventions. Because the same set of patient vignettes is used as stimuli for all respondents, the TMAS enables us to investigate mentalization capacities, their determinants and implications without introducing variance as would have been the case if therapists were allocated different patients so that the degree of difficulty of understanding them, as well as the reactions that they might evoke in therapists, would be difficult to control.

It is reasonable to assume that therapist RF is one of the cornerstones of good psychotherapy practice, but at this stage empirical proof linking RF to the quality of interventions and therapy outcome is still lacking. Ideally a future study needs to test the model that therapist RF is the mediator through which training, supervision and experience impact on the therapeutic alliance, patient insight and psychotherapy outcome.

Conclusion

This study demonstrated that a brief training targeting mentalization capacities can produce a significant improvement in the RF of novice therapists regarding patients with BPD. This research addressed an important gap in our knowledge regarding training of future therapists and draws attention to the potential gains that can be achieved using a more experiential training to increase therapists' RF regarding patients. Furthermore, these findings suggest that training using only a rational approach might in fact produce the undesirable outcome of inhibiting the use of RF regarding patients with the implication that they may be less inclined to think interpersonally and use their affective reactions to understand the affects and internal worlds of patients. While experiential training might not be the only avenue for developing RF regarding borderline patients, the effectiveness of this brief training for increasing RF of future therapists regarding difficult patients is noteworthy and suggests it should be considered as a promising training to be included in clinical curriculums.

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References

- Bartko, J. J. (1966). The intraclass correlation coefficient as a measure of reliability. *Psychological Reports*, 19(1), 3–11. doi:10.2466/pr0.1966.19.1.3
- Bateman, A. W., & Fonagy, P. (2004). Mentalization-based treatment of BPD. *Journal of Personality Disorders*, 18(1), 36–51. doi:10.1521/pedi.18.1.36.32772
- Bernbach, E. (2002). Reflective functioning and the therapeutic relationship: Understanding change in brief relational therapy. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 62(9-B).
- Betan, E. J., & Westen, D. (2009). Countertransference and personality pathology: Development and clinical application of the countertransference questionnaire. In R. A. Levy and J. S. Ablon (Eds.), *Handbook of evidence-based psychodynamic psychotherapy: Bridging the gap between science and practice* (pp. 179–198). New York: Humana Press.
- Bouchard, M.-A., Target, M., Lecours, S., Fonagy, P., Tremblay, L.-M., Schachter, A., et al. (2008). Mentalization in adult attachment narratives: Reflective functioning, mental states, and affect elaboration compared. *Psychoanalytic Psychology*, 25(1), 47–66. doi:10.1037/0736-9735.25.1.47
- Brown, H., & Prescott, R. (1999). *Applied mixed models in medicine*. New York: John Wiley and Sons.
- Carsky, M., & Yeomans, F. (2012). Overwhelming patients and overwhelmed therapists. *Psychodynamic Psychiatry*, 40(1), 75–90. doi:10.1521/pdps.2012.40.1.75
- Choi-Kain, L. W., & Gunderson, J. G. (2008). Mentalization: ontogeny, assessment, and application in the treatment of borderline personality disorder. *American Journal of Psychiatry*, 165(9), 1127–1135. doi:10.1176/appi.ajp.2008.07081360
- Clarkin, J. F., & Levy, K. N. (2006). Psychotherapy for patients with borderline personality disorder: Focusing on the mechanisms of change. *Journal of Clinical Psychology*, 62, 405–410.
- Dubé, J. E., & Normandin, L. (2007). Mental activity and referential activity of beginning therapists: a construct validity study of the Countertransference Rating System (CRS). *American Journal of Psychotherapy*, 61(4), 351–374.
- Fonagy, P., & Adshead, G. (2012). How mentalization changes the mind. *Advances in Psychiatric Treatment*, 18(5), 353–362. doi:10.1192/apt.bp.108.005876
- Fonagy, P., & Shaver, J.C.P.R. (1999). Psychoanalytic theory from the viewpoint of attachment theory and research. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 595–624). New York: Guilford.
- Fonagy, P., & Target, M. (1996). Playing with reality: I. Theory of mind and the normal development of psychic reality. *International Journal of Psychoanalysis*, 77(2), 217–233.
- Fonagy, P., & Target, M. (2002). Early intervention and the development of self-regulation. *Psychoanalytic Inquiry*, 22(3), 307–335. doi:10.1080/07351692209348990
- Fonagy, P., Steele, H., Moran, G., Steele, M., & Higgitt, A. (1991). The capacity for understanding mental states: The reflective self in parent and child and its significance for security of attachment. *Infant Mental Health Journal*, 13, 200–217.
- Hayes, J. A., & Gelso, C. J. (2001). Clinical implications of research on countertransference: Science informing practice. *Journal of Clinical Psychology*, 57(8), 1041–1051. doi:10.1002/jclp.1072
- Johansson, P., Høglend, P., Ulberg, R., Amlø, S., Marble, A., Bøgdal, K.-P., ... Heyerdahl, O. (2010). The mediating role of insight for long-term improvements in psychodynamic therapy. *Journal of Consulting and Clinical Psychology*, 78(3), 438–448. doi:10.1037/a0019245
- Jones, E. E. (2000). *Therapeutic action. A guide to psychoanalytic therapy*. Northvale, NJ: Aronson.
- Karlsson, R., & Kermott, A. (2006). Reflective-functioning during the process in brief psychotherapies. *Psychotherapy*, 43(1), 65–84. doi:10.1037/0033-3204.43.1.65
- Kernberg, O. F. (1993). Convergences and divergences in contemporary psychoanalytic technique. *International Journal of Psycho-Analysis*, 74, 659–673.
- Lambert, M. J., & Ogles, B. M. (2004). The efficacy and effectiveness of psychotherapy. In M. J. Lambert (Ed.), *Bergin & Garfield's handbook of psychotherapy and behavior change* (5th ed., pp. 139–193). New York: Wiley.
- Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33(1), 159–174. doi:10.2307/2529310
- Lecours, S., Bouchard, M.-A., & Normandin, L. (1995). Countertransference as the therapist's mental activity: Experience and gender differences among psychoanalytically oriented psychologists. *Psychoanalytic Psychology*, 12(2), 259–279. doi:10.1037/h0079634
- Levy, K. N., Clarkin, J. F., Yeomans, F. E., Scott, L. N., Wasserman, R. H., & Kernberg, O. F. (2006). The mechanisms of change in the treatment of borderline personality disorder with transference focused psychotherapy. *Journal of Clinical Psychology*, 62(4), 481–501. doi:10.1002/jclp.20239
- Lieberman, M. D. (2003). Reflective and reflexive judgement processes: A social neuroscience approach. In J. P. Forgas, K. R. Williams, & W. Von Hippel (Eds.), *Social judgements: Implicit and explicit processes* (pp. 44–67). New York: Cambridge University Press.
- Luyten, P., Blatt, S. J., Mayes, L. C., Levy, R. A., Ablon, J. S., & Kächele, H. (2012). Process and outcome in psychoanalytic psychotherapy research: The Need for a (relatively) new paradigm. In R. Levy, J. Ablon & H. Kächele (Eds.), *Handbook of evidence-based psychodynamic psychotherapy bridging the gap between science and practice* (2nd ed., pp. 345–359). New York: Springer.
- Markowitz, J. C., & Milrod, B. L. (2011). The importance of responding to negative affect in psychotherapies. *American Journal of Psychiatry*, 168(2), 124–128. doi:10.1176/appi.ajp.2010.10040636
- Meehan, K. B., Levy, K. N., Reynoso, J. S., Hill, L. L., & Clarkin, J. F. (2009). Measuring reflective function with a multidimensional rating scale: Comparison with scoring reflective function on the AAI. *Journal of the American Psychoanalytic Association*, 57, 208–213. doi:10.1177/00030651090570011008
- Normandin, L. (1991). *La réflexivité dans le contre-transfert comme élément constitutif du travail et de l'espace thérapeutique*. Thèse inédite, Université de Montréal, Québec, Canada.
- Normandin, L., & Bouchard, M.-A. (1993). The effects of theoretical orientation and experience on rational, reactive, and reflective countertransference. *Psychotherapy Research*, 3(2), 77–94. doi:10.1080/10503309312331333689
- Normandin, L., & Ensink, K. (2007). La GAC 1: grille d'analyse du contre-transfert dans le traitement des troubles graves de la personnalité. *Santé mentale au Québec*, 32(1), 57–74. doi:10.7202/016509ar
- Normandin, L., Ensink, K., & Maheux, J. (2012). *Therapist's Mental Activity Scale (TMAS): A revision of the Countertransference Rating Scale (CRS)*. Unpublished manuscript, Université Laval, Québec, Canada.

- Orlinsky, D. E., Botermans, J. F., & Rønnestad, M. H. (2001). Towards an empirically grounded model of psychotherapy training: Four thousand therapists rate influences on their development. *Australian Psychologist*, 36(2), 139–148. doi:10.1080/00050060108259646
- Orlinsky, D. E., Norcross, J. C., Rønnestad, M. H., & Wiseman, H. (2005). Outcomes and impacts of the psychotherapists' own psychotherapy: A research review. In J. D. Geller, J. C. Norcross, & D. E. Orlinsky (Eds.), *The psychotherapist's own psychotherapy: Patient and clinician perspectives* (pp. 214–230). New York: Oxford University Press.
- Rønnestad, M. H., & Ladany, N. (2006). The impact of psychotherapy training: Introduction to the special section. *Psychotherapy Research*, 16(3), 261–267. doi:10.1080/10503300600612241
- Rosenberger, E. W., & Hayes, J. A. (2002). Origins, consequences, and management of countertransference: A case study. *Journal of Counseling Psychology*, 49(2), 221–232. doi:10.1037/0022-0167.49.2.221
- Roth, A., & Fonagy, P. (1996). *What works for whom? A critical review of psychotherapy research*. New York: Guilford.
- Seligman, S., & Harrison, A. (2012). Infancy research, infant mental health, and adult psychotherapy: Mutual influences. *Infant Mental Health Journal*, 33(4), 339–349. doi:10.1002/imhj.21330
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations – uses in assessing rater reliability. *Psychological Bulletin*, 86(2), 420–428. doi:10.1037/0033-2909.86.2.420
- Slade, A. (2005). Parental reflective functioning: An introduction. *Attachment & Human Development*, 7(3), 269–281. doi:10.1080/14616730500245906
- Slade, A. (2009). Mentalizing the unmentalizable: Parenting children on the spectrum. *Journal of Infant, Child, and Adolescent Psychotherapy*, 8(1), 7–21.
- Sharp, C., Fonagy, P., & Goodyear, L. (Eds.), (2008). *Social cognition and developmental psychopathology* (pp. 29–59). Oxford: Oxford University Press.
- Steele, H., Steele, M., Croft, C., & Fonagy, P. (1999). Infant-mother attachment at one year predicts childrens' understanding of mixed emotions at 6 years. *Social Development*, 8, 161–178.
- Van Boven, L., & Loewenstein, G. (2005). Empathy gaps in emotional perspective taking. In B. F. Malle & S. D. Hodges (Eds.), *Other minds: How humans bridge the divide between self and others*. New York: Guilford.
- Weissman, M. M., Verdelli, H., Gameroff, M. J., Bledsoe, S. E., Betts, K., Mufson, L., et al. (2006). National survey of psychotherapy training in psychiatry, psychology, and social work. *Archives of General Psychiatry*, 63(8), 925–934.