An Exploration of Reflective Functioning During Reflective Supervision Sessions

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Abstract

The capacity for reflective functioning, also known as mentalization, is the ability to think about the mental states of the self and others. Clinical supervision attempts to instill the psychologist in training with the skills required to mentalize (Bartlett, 1983; Guest & Beutler, 1988; Holloway, 1987; Worthington, 1984). The capacity for mentalization has been found to be important for a clinician's own psychological development, as well as for the success of their clinical work in psychotherapy (Bleiberg et al., 1997; Diamond et al., 2003). However, there is a limited understanding of the role that clinical supervision plays in the transmission of mentalization. This study sought to understand how mentalization is taught, elicited, and encouraged by supervisors during reflective supervision sessions, a type of group supervision that specifically aims to improve the mentalization of its supervisees. Using a mixed-methods, naturalistic approach, this study aimed to determine whether trainee mentalization improves through the course of training as evidenced by what is said during supervision, as well as understanding which supervisory techniques most effectively promote reflective functioning in trainees. Findings of the study indicate an expected significant link between length of time spent in training at GABI and the change in a trainee's reflective functioning, controlling for the number of trainees in the supervision group. It was found that trainees demonstrated greater reflective functioning after a question aiming to elicit mentalization for trainees was asked, and after a supervisor modeled mentalization for the trainee. Themes related to the transmission of reflective functioning from supervisor to clinical trainee are identified and described. Implications and limitations of these results for future implementations of reflective supervision are discussed.

Chapter 1

Introduction

Psychotherapy supervision is an essential element of the clinical and personal development of psychologists in training (Bartlett, 1983; Guest & Beutler, 1988; Holloway, 1987; Worthington, 1984.) Clinical supervision intends to endow the psychologist in training with the skills required to be psychologically minded, as well as those required for successful therapeutic practice (Bleiberg et al., 1997; Diamond et al., 2003). Literature conveys that mentalization, or the ability to reflect on the mental states of the self and others, is an essential therapeutic skill, and has been shown to play a pivotal role in the psychotherapy process (Bleiberg et al., 1997; Diamond et al., 2003). However, there is a dearth in research looking at how the capacity for mentalization is transmitted in clinical supervision.

Reflective supervision is a type of clinical supervision that has become the recommended supervision modality for interventions aimed at helping children 0-3 (Eggbeer et al., 2010; Emde, 2009; Gilkerson & Shahmoon-Shanok, 2000; Fenichel, 1992; Heffron & Murch, 2010; Virmani & Ontai, 2010; Virmani et al., 2013; Weigand, 2007). The core goal of reflective supervision is to improve the capacities for mentalization of clinicians in training, yet whether or not this specific type of supervision increases the mentalization of the trainees has not been researched (Virmani & Ontai, 2010). Further, the supervisory techniques that are used to promote RF in reflective supervision have not been clearly defined.

The current study sought to address the absence of research and literature on how psychologists in training learn to reflect on the mental states of themselves and their patients.

Specifically, it looked to answer whether the mentalization of clinical trainees improves via reflective supervision. The study also investigated the supervisory techniques that arise during reflective supervision sessions, and how these various techniques impact RF in trainees. The study explored mentalization in the reflective supervision sessions that occurred as part of the Group Attachment-Based Intervention.

Chapter II

Review of the Literature

Reflective-functioning

Reflective-functioning (RF) refers to the "capacity to perceive and interpret behavior in terms of intentional mental states, to imagine what others are thinking and feeling." (Busch, 2008, p. xv). RF was first reported on the basis of Adult Attachment Interviews administered to first-time mothers, showing how high RF responses were linked to secure infant-mother attachment (Fonagy et al, 1991). Subsequently, RF came to be applied to other narrative material, including prominently the Parent Development Interview or PDI (Slade et al., 2005). RF is the operationalized form of the mentalization construct, and is defined as (1) an awareness of the nature of mental states in the self and others; (2) the mutual influences at work between mental states and behavior; (3) the necessity of a developmental perspective; and (4) the need to be sensitive to the current context (Fonagy et al., 1998).

Fonagy et al. (2002) theorize that mentalization results from the child's internalization of his/her caretaker's capacity to represent the child's mental states accurately, and to mirror the child's affective states in ways that are contingent but dissimilar, so as to distinguish the child's mental state from the parent's while also conveying that the parent understands the child's mental state. This simultaneously helps the child feel understood by the caregiver, while also exposing them to a more complex level of representation of their experiences (Fonagy et al., 2002). This invites the child to adopt or reach for a fuller sense of what their feelings or thoughts mean, or what behavior in the other (parent) can be expected when a child feels or thinks in a given way. This exploration of the mental states of others through mirroring helps children learn

to label their own internal experiences (Bleiberg et al., 1997). The caregiver's representation should be dissimilar yet similar; should elevate the child's representation but also retain a sameness (Fonagy & Target, 1996). The parent's mind acts as a scaffolding (Vygostsky, 1996), moving the child's representation a step further. Furthermore, these interactions with minds that are more sophisticated in terms of their representations of mental states allows the child to begin their development of a psychological self (Fonagy & Target, 2003; Fonagy & Target, 2006). Fonagy et al. (2002) understand RF as a skill that evolves through contexts of different emotions and interactions with others, rather than as a firm trait. Furthermore, it is conceptualized not as a single, developed capacity, but as a multi-faceted skill that varies depending on the context and tasks thought to be required to meet the demands of the moment.

Reflective-functioning as Multi-Dimensional Construct

According to Fonagy et al. (2002), RF has a self-reflective component, which refers to the subject's ability to mentalize about their own emotions and behaviors, and an interpersonal component, which refers to the subject's ability to mentalize about the emotions and behaviors of others, and about their interactions with others. Together, these related but distinct constructs enable the individual to discriminate inner and external realities, and differentiate intrapersonal emotional and mental states from interpersonal communications.

As identified by Allen (2006), there also exist implicit and explicit dimensions of mentalization. Implicit mentalization refers to the more automatic, procedural aspects of an individual's ability to imagine his own and others' mental states. Allen (2006) provides conversational turn-taking as an example of the individual's instinctual ability to hold the mind of their conversation partner in their mind. Explicit mentalization, in contrast, is the deliberate

and conscious use of mentalization. Explicit mentalization occurs during psychotherapy, for example, when the therapist works deliberately to understand the mental states of the patient while also encouraging the patient to focus on their own mental states.

Allen (2006) also describes a third dimension of the mentalization construct concerning the content of the mentalizing activity as either cognitively or affectively focused. This dimension also is relevant to the process of mentalizing, which optimally includes the integration of cognitive insight and reason with emotions.

In a study investigating RF in mothers with drug use disorders, Suchman et al. (2010) found through a factor analysis that self-focused RF and child-focused RF were distinct constructs, and each type of RF was found to have different maternal behavioral correlates. Specifically, Suchman showed that the higher a mother's self-focused RF, the more likely they were to socially engage with their child, ensure their child's safety, increase opportunities for interaction, affectionately play with their child, and communicate more about the task being taught in developmentally-appropriate ways. Surprisingly, a mother's ability to reflected on their child's mental states (child-focused RF) was not associated with sensitive maternal responding via contingent responses to child's explorations, efforts to learns, vocalizations, smiles, bids for comfort, or alertness (Suchman et al, 2010).

Similarly, Gullestad and Willberg (2012) looked at changes in RF along the dimensions detailed above in a case study of a patient with BPD. It was found that the patient is better able to reflect on her own mental states better than the mental states of others, and that both in the content and process of her mentalizing, she is better able to mentalize about cognitions than she is able to mentalize about affects.

Reflective-functioning as a Mechanism of Change

RF has been identified as a key mechanism of change in psychodynamic psychotherapies (Yeomans et al., 2008). Much of the work looking at the importance of RF as a mechanism of change in therapy studies a group for whom the capacity for RF is particularly compromised: patients with borderline personality disorder (BPD). Individuals with BPD are thought to either "shut down or hypermentalize" on the thoughts and feelings of others, which can serve to defend against experiences of developmental trauma such as abuse and neglect (Yeomans et al., 2008).

In an object relations model of BPD, relationships are thought to be made up of a simplistic, extreme representation of the self and a simplistic, extreme representation of the other. These representations are joined together by a distinct affect (Yeomans, et al., 2008). These extreme and one-dimensional understandings of the self and others are often inconsistent with one another, and cause severe difficulties for the BPD patient with relationships, identity diffusion, and affect modulation. The fragmented experience of the self and others leaves the patient vulnerable to extreme and incomplete perceptions and intense affect. This results in distortions and misrepresentations of the self and others, with the one-dimensional nature of the representations contributing to affect dysregulation (Yeomans, et al., 2008). Theories of treatment for BPD from a psychodynamic perspective tend to focus on the use of the therapeutic transference to encourage RF by helping the identification of the patient's experience versus that of the therapist.

The achievement of mentalization is understood to be an essential mechanism of change, whereby integration between the various representations leads to a more complex understanding of the self and others. In Transference-Focused Psychotherapy, this is achieved by first helping the patient to see interpersonal transactions as constructions rather than veridical images of the

self and other. The anxieties that make it hard for the patient to integrate are then explored, which are usually centered around fears that aggressive affect expression will destroy idealized representations or that the experience and expression of libidinal affect will result in mistreatment (Yeomans et al., 2008). The treatment frame is constructed so that the patient is not reentered into the cycle of affective reactions from others that are usually activated. Through clarification, confrontation of contradictions, and interpretation of self and other representations, the patient becomes increasingly able to mentalize.

In Mentalization-Based Treatment (MBT), a central therapeutic task for the therapist is to gently show curiosity about the thoughts and feelings of the patient, non-judgement, and a modeling of comfort in the position of not yet knowing what may be motivating the other (Bateman & Fonagy, 2010). Throughout the intervention, the MBT therapist pays attention to the moment-to-moment changes in the mental state of the patient, and by offering validating remarks and seeking clarifications, the patient is helped to become more-and-more comfortable sharing her or his thoughts and feelings. While improvements in symptoms and life work outcomes have been reported as a putative result of MBT, documentation of precisely which therapeutic interventions lead to patient improvements have not yet been the focus of empirical investigation (Bateman & Fonagy, 2016).

Research on Reflective-functioning in the Therapeutic Context

In the same way that the development of one's capacity for RF depends on their interaction with the caregiver, there are fluctuations in the level of RF within the therapeutic relationship that depend on the particular therapist-patient relationship. It has been found that the therapist's own ability to be reflective is a key element in the dyad's capacity for RF

(Bateman & Fonagy, 2004; Fonagy, 1999; Fonagy et al., 2002).

In a study evaluating RF in clinicians working with patients with BPD in Transference-Focused Psychotherapy, Diamond et al. (2003) found that a therapist's capacity for RF can vary from patient to patient, in a study in which RF was evaluated using the Patient-Therapist Adult Attachment Interview. In Fonagy and Target (1999), the importance of the therapist's ability to mentalize is emphasized, noting that it allows the therapist to think about the patient's mental states so that they can verbalize those states, make distinctions between different feelings, and help patients manage anxiety-provoking moments. Diamond et al. (2003) found that the therapist, much like a primary caregiver, gives rise to mentalization in the patient through both similar and dissimilar mirroring of the patient, suggesting that there is a transmission of RF in the therapeutic setting. Diamond et al.'s (2003) results indicated, however, that the therapist's RF had to be one level above that of the patient in order for the patient's RF to improve.

In a study comparing the effectiveness of a mentalization-based treatment for patients with borderline personality disorder (BPD) in a partial hospitalization treatment program to a routine general psychiatric treatment, Bateman and Fonagy (1999) found that patients in the mentalization-based treatment group showed a decrease in depressive symptoms, suicidal acts and self-mutilation, improved social functioning, and a reduction in time spent in inpatient hospitalization. Furthermore, at a three-month follow-up assessment, it was found that patients in the mentalization-focused treatment group were better able to maintain their progress and showed continue improvement, while patients in the other group were found to have made only limited changes during this time.

Bernbach (2001) further substantiated the importance of mentalization in the therapeutic

context. Examining the RF in good and poor outcome groups of patients participating in a thirty-session outpatient Brief Relational Psychotherapy treatment, she found that RF scores increased significantly in the good outcome group, while they displayed little change in the poor outcome group. The results of this study indicate that changes in RF are possible within a thirty-session psychotherapy treatment, and that improved RF is associated with better psychotherapy outcome.

More recently, a study by Levy et al. (2006) demonstrated the ability of patients with BPD to improve their RF after participating in outpatient Transference-Focused Psychotherapy for three years, while those enrolled in Dialectical-Behavioral Therapy or a modified psychodynamic supportive psychotherapy did not improve their RF scores.

In a study assessing changes in RF in 44 patients with BPD, most of whom were receiving psychodynamic therapy in a residential hospital setting, Vermote et al. (2010) did not find that the RF of patients increased by the end of treatment or at follow-up. The authors propose that these findings that are discrepant with previous research can be explained by the containing nature of the hospital environment, which likely provided safety and perhaps inflated patient RF levels at the beginning of treatment. It is proposed that as time went on and the patient's attachment systems were activated, their RF levels decreased, which is consistent with previous findings on the activation of the attachment system and the mentalization system (Luyten et al., 2009).

Bateman and Fonagy (2004), aiming to understand the process by which a therapist can foster an increased capacity for RF in a patient, identify the types of questions that incite mentalization. For instance, "Why is the patient saying this now? Why is the patient behaving like this? What might I have done that explains the patient's state? Why am I feeling as I do

now? What has happened recently in the therapy or in our relationship that may justify the current state? (p. 41)." This focus on the therapist's understanding of his/her behavior and on the patient's mental states allows the therapist to make connections between external and internal events. These connections might otherwise go without being understood by the patient, or might be experienced as overwhelming (Bateman & Fonagy, 2004). This mentalizing stance in the therapist is believed to support the development of RF in the therapeutic process.

In contrast to the predominant findings reviewed above, Karlsson and Kermott (2006) conducted a study where changes in patient RF during brief interpersonal psychotherapy (IPT), cognitive-behavioral therapy (CBT), and psychodynamic psychotherapy (BPDT). For the initial part of this study, data was used from archival records of a NIMH-sponsored randomized clinical trial called the Treatment of Depression Collaborative Research Program (TDCRP). Results found the overall level of RF decreased significantly during the course of all treatments. A follow-up study used archival data from BPDT treatments, and found that RF was stable over time within the sample (Karlsson & Kermott, 2006). These results are surprising given that BPDT specifically targets increasing the patient's mentalization ability (Jones, 2000). The results have been explained as being the result of largely supportive psychotherapies, as well as the brief nature of the therapies (Fonagy et al., 2002; Jones, 2000).

Major Theories of Clinical Supervision

At its most basic level, the goal of clinical supervision is to help students gain the knowledge and skills that are required for delivering effective clinical interventions (Rock, 1997). As outlined by Goodyear and Bradley (1983), there are five predominant models bearing theories of supervision and supervisory methods for helping trainees learn the necessary skills.

They will be reviewed in terms of their relationship to promoting the development of mentalization in trainees.

The social learning approach to supervision understands trainee's problems with executing effective psychotherapy as being rooted in a lack of knowledge and skill, and thus, this type of supervision is understood as a type of education (Hosford & Barmann, 1983). Supervision in the social learning approach includes reinforcement, desensitization, role-playing, and self-observation. This model is unlikely to have much of an effect on trainee mentalization, at least partially because it is not a goal of the supervision and the relationship between supervisor and trainee is not explored (Goodyear & Bradley, 1983).

The cognitive development model of supervision contends that a person's perceptions of others usually become more complex over time, and that at the same time, there is also a decreased ability to integrate contradictory aspects of a person (Blocher, 1983). A clinician is therefore believed to have exceptional cognitive functioning, which allows them to process, integrate, and synthesize great amounts of clinical information to arrive at a psychological conceptualization, all the while being able to be empathic to the patient. The learning process occurs through the following theories of behavior change: nature of the relationship among trainees and supervisor; communication between trainee and supervisor; social influence; cognitive change; modeling or social learning; conditioning (Goodyear & Bradley, 1983).

The client-centered approach as detailed by Patterson (1974), the supervision sessions are based on the same theoretical principles as client-center psychotherapy. In client-centered psychotherapy, sessions are patient guided as the therapist listens and abstains from asking questions, with the goal that the therapeutic relationship defined by respect, empathy, and

authenticity will help the patient explore their inner experience. Likewise, in the supervision, the trainee guides the content and sequence of the session, while the supervisor listens and aids the exploration of the trainee's relationship and their patient (Patterson, 1974). However, the goal of the supervision is enhancement of patient progress, not on the trainee's psychology or ability to reflect (Ranawat, 2008).

Finally, the most well-defined and documented modality of supervision with roots in psychodynamic is the Working Alliance model (Bordin, 1980). As Grinberg (1970) lamented, there had long been an absence of literature about psychodynamic supervision, aside from the understanding that the trainee's own analysis is crucial to their abilities as an analyst. However, Bordin (1983) was able to build on the working alliance principles of psychotherapy to develop a model of supervision. The model posits that just like the relationship between patient and therapist is posited to have the most powerful impact on a patient's ability to change in psychotherapy, the relationship between the supervisor and the trainee is the most important mechanism of influence for the supervisee's therapy with their patient. Bordin defined eight goals of the supervision: mastery of skills, increased awareness of process issues, increased understanding of clients, increased awareness of one's self and one's impact on process, deepening one's understanding of concepts and theory, maintaining competent standards of service, and overcoming intellectual obstacles to learning (Bordin, 1980). As evident from the model's training goals, central to this type of supervision is the ability for the both the supervisor and trainee to understand the mental states of themselves and their patients. Thus, this type of supervision promotes mentalization in the trainee (Ranawat, 2008).

Group Supervision

Group supervision is widely used in clinical training, as well as in later professional development (Lenihan & Kirk, 1992). Lewis et al. (1988) found that 23 percent of nearly 500 psychologists were currently involved in peer group supervision, and that 24 percent had been involved in peer group supervision in the past. There has been far less research looking at group supervision than dyadic supervision (Akhurst & Kelly, 2006).

There are four major types of group supervision (Akhurst & Kelly, 2006). In peer group supervision, all participants are of equal status, and the group mainly serves to help clinicians stay abreast of important developments in the field, and to protect against the circularity of learning that can occur when practicing in isolation. There are three types of group supervision where a supervisor of a more senior level of expertise presides: individual supervision within a group, participative group supervision, and cooperative group supervision (Akhurst & Kelly, 2006). In all three of these types of group supervision, the supervisor is responsible for the education, support, and management of the supervisees, in addition to using the group process in some productive way. In individual supervision within a group, the supervisor takes turns supervising each member in turn, and the other members of the group do not contribute to the discussion (Inskipp, 1996). In participative group supervision, group members are invited to contribute to the supervision discussion. In cooperative group supervision, group members become progressively involved in the supervision of each other.

Anxiety is considered a prominent aspect of the clinician's experience in group supervision (Christensen & Kline, 2001). A qualitative analysis of supervisee's experience of anxiety in group supervision found that the perceived utility of anxiety changes through the course of the supervision sessions. It was found that at the beginning of their involvement, supervisees tend to interpret their participation anxiety as limiting their involvement in the group

(Christensen & Kline, 2001). After a sense of trust developed and supervisees became more familiar with the group, supervisees experienced the anxiety as instrumental in their gaining of insight related to their relationships with other clinicians and significant others, an increased understanding of therapeutic skills, and an overall improvement in their interpersonal interactions (Christensen & Kline, 2001).

Social Facilitation Theory

Social psychologists have long been interested in the effect that the mere presentation of others has on one's performance. An extensive body of research has demonstrated that on simple tasks that have been well-learned, particularly where the dominant response is the correct one, performance improves in the presence of others. On the other hand, when the dominant response is not the correct one and the tasks are complex or have not been learned, the presence of others negatively affects performance (Guerin, 1993).

This phenomenon has been studied between supervisors and their employees. A series of studies by Aiello and colleagues researched the impact of supervisor monitoring via computers on employee performance (Aiello & Kolb, 1995; Aiello & Shao, 1993; Aiello & Svec, 1993). These studies showed that when employees believed they were being electronically monitored, performance for skilled employees or employees executing simple tasks were improved. However, the performance of unskilled employees or employees executing complex tasks were impaired. Of note, monitoring was continuous, and the work sessions were very brief (Brewer & Ridgeway, 1998).

Another study by Larson and Callahan (1990) investigated the social facilitation effect in work performance, but the work periods were longer than the ones described above, and the

supervisor monitoring was not continuous. Rather, supervisors checked employee output every 20 minutes. Under these conditions, no productivity effects were found when monitored participants were compared with nonmonitored controls.

There are different theories aiming to explain the phenomenon of social facilitation. The first of these to be proposed was activation theory, put forth by Robert Zajonc in 1956. Zajonc proposed that the presence of others is a source of arousal, and increased arousal helps on well-learned tasks and hurts performance on not well-learned tasks. High levels of energy, referred to Zajonc as "drive," are produced by arousal are beneficial during easier tasks, but are detrimental on difficult tasks (Zajonc, 1965). There are several other activation theories that followed Zajonc's which also attribute social facilitation to an arousal response.

Another set of theories of social facilitation argues that evaluation apprehension, the fear of being evaluated by others, is the source. This theory was proposed by Henchy and Glass (1968), who showed in a research study that students who felt they were being evaluated had more dominant responses than those who were completing the task alone or with non-evaluative observers (Strauss, 2002). Social orientation theory states that individual differences in the way that people orient themselves towards social situations predict whether monitoring will produce facilitation or impairment in performance.

Attention theories argue that social facilitation effects are the result of finite attentional resources that are taxed when in the presence of others. Within the umbrella category of attention theories are distraction-conflict theory, overload hypothesis, feedback-loop model, and the capacity model.

The distraction-conflict theory suggests that performance is predicated based on the

number of distractions in one's environment (Strauss, 2002). On simple or well-learned tasks, some distraction can cause an attentional-conflict, which increases motivation and increases one's drive, resulting in better performance. However, for complex or not well-learned tasks, an increased drive does not result from the distraction-conflict, and therefore the distractions cause a decrease in performance.

The overload hypothesis also proposes that distractions cause the social facilitation effect, but that the effect is caused by a cognitive overload that occurs. On simple tasks, performance is increased because performers focus their attention on the distracters and are not overwhelmed because of the simple nature of the task they are performing. On difficult tasks, however, the individual is overwhelmed by the excess of stimuli in their working memories because they focus both on the distracters and on the new, complex task at hand (Strauss, 2002).

The feedback-loop model argues that people focus their attention on themselves when they think they are being watched. When focused on themselves, people become aware of the differences between their anticipated and their actual behaviors. By this account, people do better when they are being watched simply because they are more aware of their behavior, regardless of familiarity or difficulty of the task (Strauss, 2002).

The capacity model suggests that the differences in performance between simple and complex tasks can be understood as a result of different information processing requirements. Simple, well-known tasks require only automatic information processing, which does not require short-term memory, and this makes it so that the presence of others is the only content being stored in the short-term memory during that time. On the other hand, difficult tasks require controlled information processing, which relies on the short-term memory. Because the short-

term memory is being used for both the task and the processing of the audience, performance is hampered (Strauss, 2002).

Research on Reflective-functioning in Clinical Supervision

The capacity for RF in both the therapist and patient has been found to be a significant factor in psychotherapy outcome (Diamond et al., 1999; Koenigsburg et al., 2000). The literature reflects that increasing RF, and constructs similar to it, such as psychological mindedness, is a key objective in the training of clinical trainees via clinical supervision (Bleiberg et al., 1997; Diamond et al., 2003). RF is conceptualized as a skill which can evolve through various influences, and as Levy et al. (2006) demonstrated with a population of patients with BPD, it is possible for the individual to improve their RF (Fonagy et al., 1998). The focus on mental states, including thoughts, feelings, beliefs, desires, and intentions has consistently been a part of psychodynamic clinical work, but rarely has there been systematic research on the topic of the transmission of RF in supervision of trainees in a clinical model.

Ensink et al. (2013), in response to the dearth of research assessing RF in clinical psychology students, found that a brief training in mentalization helped novice therapists increase their ability to mentalize about patients with BPD, which was measured using the Therapist Mental Activity Scale (TMAS: Normandin et al., 2012). In Ranawat (2008), RF is scored for trainees participating in individual supervision sessions across several different theoretical orientations of psychotherapy. The dissertation details the various limitations that may have affected the study's findings, which did suggest that RF did not improve through the course of training with a supervisor. However, the modalities of supervision, coming from supervisors trained in psychoanalytic, interpersonal, eclectic, and relational traditions of

psychotherapy, did not explicitly target enhancement of RF.

In another study, changes in the RF of clinical trainees during Reflective Practicum Groups, described as a group intended for clinical psychology students to process anxieties related to leaving the academic psychology setting and entering the professional world, was examined. Mentalization was measured at three time points using Pennebaker's Linguistic Inquiry of Language (Freda et al., 2015). The study found that there was a significant increase in the number of mentalizing words used at each time point by the clinical trainee.

Reflective Supervision

Reflective supervision, a form of clinical supervision in which the promotion of reflective functioning is its core tenet, was first documented in psychodynamically informed clinical work in the early 1990s (Fenichel 1992; Shamoon-Shanok et al. 1995). As defined by Fenichel (1992) in one of the first publications to discuss this type of supervision, reflective supervision is defined by three elements: regularity, collaboration, and reflection. Regularity refers to the consistent and scheduled nature of the supervision practice. Collaboration refers to the diffusion of the power dynamic that typically exists between the supervisor and clinicians, so that there is an honest, safe, and symmetrical partnership between the two, as opposed to evaluation and correction driven models of supervision. The reflection component involves the nurturing of RF, by helping clinicians see how their own and other's behaviors are linked to mental states.

Reflective supervision has since become the recommended modality of clinical supervision for intervention programs that serve children ages zero to three and their families (Eggbeer et al., 2010; Emde, 2009; Gilkerson & Shahmoon-Shanok, 2000; Heffron & Murch, 2010; Virmani & Ontai, 2010; Virmani et al, 2013; Weigand, 2007). In the context of reflective

supervision in parent-child work, reflective functioning entails that the trainee hold in mind their own inner experience, the experience of the infant or child, and the experience of the parent. It has been suggested that the reason why a supervision practice that focuses on reflective functioning is so important for parent-child work is that it is particularly likely to activate early, preconscious memories in the clinician that require process in order to make sense of the intense, primitive material (O'Rourke, 2011).

Heffron (2005) emphasizes that reflective supervision can be understood as a pause or marker in the week, stating that in family work, there is often a limited amount of time that can be dedicated to reflection because of the demanding nature of the work. She states that the role of the supervisor in reflective supervision is to listen, help the trainee reflect through guided exploration, and help formulate plans for future clinical directions. Reflective supervision intends to help clinicians become more aware of the emotions that come up for them during challenging clinical work. The goal of cultivating this ability to reflect is believed to have a positive impact on the therapist's clinical work (Parlakian, 2001; Heffron, 2005).

Few studies have investigated whether reflective supervision is effective at promoting RF in clinicians. In one study, the impact of reflective supervision on professionals who provide childcare was evaluated, finding that caregivers receiving reflective supervision increased in their insightfulness more than those receiving a didactic style of supervision (Virmani & Ontai, 2010).

Based on this theoretical framework, the reflective supervision that GABI© trainees participate in is designed to foster RF, with the aim of helping them not only understand the parent and child in increasingly complex and sophisticated ways, but also with the intent that

they promote RF in the parent and child as well.

The Group Attachment-Based Intervention

The Group Attachment-Based Intervention (GABI©) is a parent-child intervention for infants and children 0 to 3 years of age that are at high-risk for abuse, maltreatment, and neglect (Murphy et al, 2015; Steele et al, 2018). GABI© is a trauma- and attachment- informed intervention, and is designed for socially isolated and marginalized parents and their children (Steele et al., 2018). The intervention aims to improve caregiving relationships by promoting secure attachment in the parent-child dyad. Working also from a trauma-informed perspective, GABI© is designed specifically to help parents both currently experiencing or presenting with histories of adverse experiences, including physical abuse, sexual abuse, neglect, multiple foster care placements, incarceration, parental substance abuse, and domestic and community violence (Steele et al., 2018).

GABI© is a 90-minute, twice-weekly intervention that begins with the parents and children playing together, followed by parent-only groups and child-only groups (Steele, Murphy, Steele, 2010). The core principles of GABI© are known as the REARING concepts: reflective-functioning, emotional attunement, affect regulation, reticence, intergenerational transmission of trauma, nurturance, and group format (Steele, Murphy, Steele, 2010; Steele et al., 2018).

GABI© targets both the parent and child's reflective capacities as a means to helping them come to terms with their experiences. Studies have indicated that higher incidences of RF are related to better adult-treatment outcomes (Bateman & Fonagy 2003; Diamond et al. 2003; Fonagy et al. 1996). Additionally, Steele and Steele (2008) found that children with parents with

higher RF scores had better mental health outcomes across childhood into adolescence.

GABI© Reflective Supervision

The GABI© model incorporates the use of group reflective supervision as the modality of clinical supervision. Central to the reflective supervision practice is the collaboration among clinicians, who gather perspectives and information about the children and their parents garnered through differing experiences with them (Murphy, Steele, & Steele, 2013). The group context is essential, allowing the clinicians of various levels of experience integrate their various understandings of the families to arrive at a sense of shared meaning. In reflective supervision, clinicians are encouraged to put themselves in the shoes of the parents and children in order to understand and use their reactions to the individuals in an effective way. Reflecting on the minds of the parents and children begets more insight into where further exploration would be helpful (Murphy et al., 2013).

Speech Turns

Turn-taking is the most basic form of organization for conversation, where participants take turn to speak (Drew, 2010). Turn-taking as the organization of conversation was first studied as part of the development of conversation analysis by Harvey Sacks in the 1960s. The conversation analysis model of turn-taking is broken down into three components: the turn-taking component, the turn-allocation component, and the rules (Sacks, Schegloff, Jefferson, 1974). The turn-taking component refers to the content of the utterance, and is comprised of various type of Turn-Construction Units (TCUs). The turn-allocation of the utterance refers to the techniques used to select the next speaker, which can either be selected by the current

speaker or can be self-selected by the next speaker. The rules component of turn-taking work to minimize gaps between speakers and to reduce overlap.

Overlap in turn-taking can either be competitive or cooperative (Goldberg, 1990). Goldberg states that interruptions can be power interruptions, where the wish of the speaker (to be heard) are impeded by the listener. Goldberg defines two types of power interruptions: process control interruptions and content control interruptions. Process control interruptions are less threatening and attempt to change the topic of discussion by asking questions and making requests, ultimately returning the speech turn to the original speaker. Content control interruptions use assertions and statements that are unrelated to the content being discussed, and do not ultimately return the speech turn to the original speaker.

Interruptions can also be rapport interruptions, where the interruption is ultimately cooperative and aims to collaborate with the speaker in order to gain a mutual wish of understanding. The distinction between these two types can be made on assessment of the degree to which the goals of the speaker are impeded.

Timing is also a cue that is related to turn-taking, letting the listener know that they have the turn to speak or produce an utterance. Timing depends on the context, and is informed by vocal patterns such as pitch, that are subjective within the particular conversation (Cowley, 1998).

Turn-taking has been explored in various types of psychology research. Vocal congruence is the tendency of adults to match the timing of their speech with their conversation partner (Jaffe & Feldstein, 1970). Vocal congruence has been linked with psychological differentiation, social desirability, enjoyment of degree of social contact, and ratings of warmth (Feldstein & Welkowitz, 1978; Natale, 1975; Welkowitz & Kuc, 1973). Researchers have

looked at the relationship between degree of coordination to quality of relatedness in adults, with various theories about the optimal level of adult coordination. Chapple (1970) found that high coordination between adults is the ideal for adult relatedness, while Gottman (1979) regarded a high level of coordination as an indicator of communicative distress. Later on, a midrange model wherein both high and low levels of coordination are positively and negatively experienced was proposed (Warner et al., 1992).

Beatrice Beebe and Joseph Jaffe have extensively studied rhythmic coordination between mother and infant in relation to developmental outcomes (Beebe et al., 2010, 2013; Jaffe et al., 2010). Consistent with Winnicott's "good enough mother," one of the researchers' main findings has been that a mid-range coordination between mother and infant is optimal because it leaves room for the child to develop flexibility, variability, and playfulness. Very high or low coordination, on the other hand, indicates vigilance and inhibition between the mother and child (Jaffe et al., 2001).

Speech Acts

There has been a sizable amount of research looking at therapeutic processes via the speech actions of the therapist and patient (Peräkylä et al., 2008). Speech act theory is a subfield of pragmatics that looks at how words not only carry information but also carry out actions. The theory was first written about by philosopher J.L. Austin in *How to Do Things With Words,* and went on to be developed by philosopher J.R. Searle. As defined by Searle, speech acts are defined as the assertive, commissive, directive, declaratory, and expressive illocutionary points (Venderkeven & Kubo, 2002).

Researchers of psychotherapy process have studied speech acts to understand the therapeutic process. Conversation analysis has been applied to psychotherapy research by many, with the intention of elucidating the second-by-second unfolding of therapy sessions in order to clarify the interactional patterns and practices by which psychotherapy occurs (Perkalya et al., 2008). The earliest work of this kind was produced through collaboration between anthropologists, linguists, and psychiatrists in the 1950s. Pittenger, Hockett, and Danehy (1961) published a book looking at the first five minutes of psychiatric interviews, utterance-by-utterance. Others after this have continued to apply conversation analysis to understand the implicit, multilayered actions that are performed through utterances (Labov & Fanshel, 1977; Scheflen, 1973; Ferrara, 1994).

Another method that is used to describe psychotherapeutic processes is called the verbal response mod analysis (VRM) (Stiles, 1979). In VRM, the researcher codes and counts the therapist and patient's actions in a therapy session, coming up with codes to describe the speech act (Stiles, 1979). Its purpose is to describe dyadic verbal communication comprehensively and quantitatively. This coding scheme makes distinctions between different types of utterances, such as "question," "reflection," and "interpretation." This system has been used to describe differences between types of therapeutic intervention, such as "explorative" and "prescriptive" (Stiles, 1979).

Chapter III

Statement of the Problem

The literature above identifies the development of RF as a skill that may be taught, elicited, and encouraged in the patient by speech acts of the therapist (Bateman & Fonagy, 2004; Diamond et al., 2003; Yeomans et al., 2008). Although speech acts in psychotherapy sessions have been studied substantially, there is a paucity of research exploring these speech acts, particularly those intended to foster mentalization in trainee psychologists (Ensink et al., 2013; Freda et al., 2015).

Reflective supervision is a type of clinical supervision that is indicated for use in interventions targeting children ages zero to three and their families (Eggbeer et al., 2010; Emde, 2009; Gilkerson & Shahmoon-Shanok, 2000; Heffron & Murch, 2010; Virmani & Ontai, 2010; Virmani et al., 2013; Weigand, 2007). Although the enhancement of RF in clinical trainees is primary objective of reflective supervision, little research has been done to establish whether it does, in fact, increase RF for its trainees.

Given the parallels between the therapeutic and supervisory processes, it seems likely that RF would be central to the interactions between supervisor and trainee. Therefore, it seems likely that trainee RF would increase through the course of training, provided that the supervisor demonstrates a high level of RF, and supports the growth of RF in the trainees. Furthermore, it is of interest to understand *how* RF is transmitted from supervisor to trainee, and whether there are distinctive supervisory speech acts that are associated with increases in trainee RF.

To address these research questions, a mixed-methods approach will be taken, including

quantitative and qualitative methods. The study will involve the use of quantitative methods to address whether RF increases throughout the training year, and whether particular supervisory techniques are more effective than others at increasing trainee RF.

Hypothesis A.1 predicts that a high proportion of speech turns taken by the supervisor will be scored moderate-to-high in terms of RF (>50%). It is also predicted that the overall RF score for each session will be moderate-to-high for at least 50% of the sessions. Because the supervisor is likely to use other types of supervisory techniques that do not warrant mentalization (e.g. didactic interventions), only those speech turns where mentalization would be expected are being analyzed as part of this research question.

Second, the research will look at changes in RF, both at the level of the supervisor's mentalization and at the level of the individual trainee. Hypothesis B.1 predicts that there will be a change in the reflective quality of the supervisor's speech turns from reflective supervision sessions that take place earlier in the training year (first 8 weeks) to late (last 8 weeks) in the training year. It is hypothesized that there will be higher total RF scores given to supervisors participating in later sessions than in earlier sessions. It is thought that this is likely because the supervisor will titrate (lower) their levels of mentalization to be closer to those of the trainees early in their training, with higher-level supervisor RF comments being likely later in the year, when the supervisor has greater confidence in the trainees. In other words, as trainees progress in their training they should become more reflective (see Hypothesis B.2 below), and the supervisors will speak with a higher reflective quality to continue scaffolding the trainees' learning.

Hypothesis B.2: There will be changes in the RF of individual trainees from the

beginning of the training year to the end of the training year. It is thought that individual trainee RF will increase from the beginning of their participation in reflective supervision sessions to the end of their participation in reflective supervision sessions.

Hypotheses C.1 and C.2 concern an investigation of how RF is transmitted from supervisor to trainee through the use of different supervisory techniques. Hypothesis C.1 postulates that when a supervisor asks a question intended to elicit mentalization from the trainees or models mentalization, the response of the trainee who speaks next will have an RF score that is significantly different from 3.5 (a typical miscellaneous low score). It is predicted that when the supervisor asks a non-prompting question, makes a descriptive remark, provides a didactic intervention, or contextualizes the subject of discussion, the trainee speech turn that immediately follows will not have an RF that is significantly different from 3.5.

Hypothesis C.2 proposes that there is a linear relationship between a supervisor's level of RF in a speech turn and the level of RF demonstrated in the trainee's response immediately following.

Chapter IV

Method

Participants

The participants in this study are students enrolled in either social work, clinical, counseling, or school psychology doctoral programs, completing their clinical practicum at the Group Attachment-Based Intervention (GABI©) at the Rose F. Kennedy Center for Children's Evaluation and Rehabilitation at the Albert Einstein School of Medicine. Trainees participated in reflective supervision sessions for one-hour per day that GABI© was held, two to three days per week, with at least one of two clinical supervisors present. All participants agreed to participate at the beginning of their externship by signing a consent form notifying them that the reflective supervision sessions would be filmed and analyzed to better understand the supervisory process. There are two clinical supervisors, one who is a PhD, and one who is a LCSW.

Video footage from the 2012-2013, 2013-2014, 2014-2015, and 2015-2016 training years are being used in this study. Videos of the reflective supervision sessions were filmed by Master's-level members of the Center for Attachment Research at the New School for Social Research. Research assistants at the Center for Attachment Researched transcribed the dialogue from 10 full reflective supervision session videos to be used for analysis. The sessions to be transcribed were chosen to reflect a range of different training years, and to have a balanced number of sessions from earlier in the training year (September through November) and later in the training year (April through June).

Measures

RF will be scored using the Reflective-functioning Manual (Fonagy et al., 1998). An example of a scored session can be found in Appendix C. The Reflective-functioning Manual has been used in many empirical studies to score RF in non-AAI materials (Bernbach, 2001; Bernbach et al, 2000; Ensink et al., 2013; Farber, 1989; Karlsson & Kermott, 2006; Middleby-Clements, 2002; Ranawat, 2008). Full reflective supervision sessions and excerpts of sessions were transcribed for coding of RF and other supervisory techniques. Ten full one-hour reflective supervision were scored. See Appendix A for scoring guidelines.

Inter-Rater Reliability

RF was scored by two coders, one of whom was this author, who were trained at the New School for Social Research by Dr. Howard Steele, and then passed a post-training reliability test including 15 Adult Attachment Interviews. The first author obtained a high level of agreement (ICC average) > .90 with the archival previously validated scores of these 15 interviews. The two coders independently scored each speech turn of the same six reflective supervision sessions, which is equal to 60% of the total sessions scored. Reliability between coders was established using the intraclass correlation coefficient (ICC average). Inter-rater reliability between the two coders was established ($\alpha = .77$). After that, this writer coded RF and the other constructs identified as generic supervisory approaches independently.

Scoring Supervision Sessions for RF

While the Reflective-functioning Manual (Fonagy et al., 1998) has been applied to a range of clinical materials beyond the AAI, for this study, the manual was adapted for use with reflective supervision sessions. Detailed scoring guidelines can be found in Appendix A. The same categories of RF that are detailed in the Reflective-functioning Manual were applicable to

the supervision session text. These categories are generally broken down into the following groups: awareness of the nature of mental states, the explicit effort to tease out mental states underlying behavior, recognizing developmental aspects of mental states, and mental states in relation to the interviewer. The lattermost category was adapted for use in supervision by revising the object of mentalization from the "interviewer" to the "trainee or supervisor."

Each speech turn taken by a supervisor was scored for RF if the content contained mentalizing language. If the content did not contain mentalizing language yet mentalization was warranted, a low RF score (RF = 3) was assigned to the supervisor for each speech turn. Additionally, supervisors were also scored for the type of intervention technique they applied during the speech turn. If RF was present in the speech turn, then the supervisor was deemed to have "modeled RF" for the trainee. Modeling could be the only intervention provided by the supervisor for that speech turn, or there could additionally have been other types of interventions used, which are detailed below.

Each trainee speech turn was scored for RF, regardless of what was said in the speech turn before it. If the content of the trainee speech turn does not contain mentalization, does not warrant mentalization, and is simply describing something bearing no reference to mental states, the trainee was given a score of "3." The rationale for this is that a trainee in the context of a reflective supervision should be expected to be reflecting, or attempting to reflect, for a majority of the time. It was thought that if a trainee is not mentalizing, this should still be understood within the context of a supervision session where reflection is the goal. It was not expected that anyone be engaging in high levels of mentalization all of the time, and therefore it was expected that trainees would have a few speech turns scored as "3s" in each session. See Table 2 in Appendix B for examples of each RF score as manifested in the supervision sessions.

Scoring Supervisor's Intervention

This study is looking at the supervisor's frequency and quality of modeling of RF, as well as the supervisor's use of other supervisory interventions. In order to look at the supervisor's level of RF, each of the supervisor's speech turns that are identified as containing mentalizing content will be scored for RF. To investigate *how* the supervisor encourages mentalization in the trainees, the supervisor's intervention will be identified as one or more of the following: modeling RF, prompting RF, non-RF prompting question, didactic, and contextualizing. These interventions were identified through the use of thematic analysis qualitative analytic method (Braun & Clarke, 2006). See Table 1 for descriptions and examples of each type of intervention.

Scoring Individual Trainees' RF Over Time

To look at changes in the quality of the reflective supervision sessions from the beginning of the training year to the end of the training year, reflective supervision sessions from the first six weeks and last six weeks of the training year were transcribed and scored for RF in both supervisors and trainees. In addition to scoring these transcripts for RF, changes in RF in the individual trainees were also scored. Drawing from video footage filmed of GABI reflective supervision sessions from 2012-2016, there are 35 trainees whom RF can be scored for at two time points during their training cycle, with a range of four months to 18 months in between Time 1 and Time 2. Trainees were scored for RF based on a minimum of four speech turns. Some of the trainees will be scored based on the transcripts used for the full-session analysis. For those trainees who are not sufficiently captured by these sessions, partial reflective supervision sessions will be transcribed. These partial reflective supervision transcripts will be specifically transcribed to capture all of the trainee's speech turns for that session. A final score

for that trainee's RF during that session will be calculated. Scoring guidelines for arriving at trainee RF scores for full supervision sessions are provided in Appendix A.

Insert Table 1 about here

Table 1 provides descriptions and examples of each type of supervisor intervention that was coded for in this study.

Insert Table 2 about here

Table 2 shows examples taken from the supervision text used in this study that demonstrate the range of RF scores, from -1 to 9.

Chapter V

Results

This study intended to investigate whether a particular type of clinical supervision called "reflective supervision" increases the capacity for mentalization in trainee clinicians, as well as assessing the factors that are related to this transmission. The results that are presented below are arranged according to specific hypotheses regarding trainee data, supervisor data, and combined supervisor and trainee data.

Study I Results

Hypothesis A

Hypothesis A predicted that a high proportion (50%) of speech turns taken by the supervisor would be scored moderate-to-high in terms of RF, and that a high proportion of the supervisor's overall RF score for each session would be moderate-to-high for at least 50% of the sessions. Because the supervisor used other types of supervisory techniques that do not warrant mentalization (e.g. didactic intervention), only those speech turns where mentalization would be expected were analyzed as part of this research question. It was found that in exactly 50% of the sessions analyzed, the supervisor spoke with a moderate to high level of RF 50% of the time. This means that an RF score of five or above was assigned to at least half of the supervisor's speech turns in five out of the 10 sessions analyzed. For 90% of the sessions, the supervisor's overall RF score was given a rating of 5 or greater. Exact percentages can be found in Table 3.

Insert Table 3 About Here

Table 3 shows the percentage of supervisor speech turns for each session that were greater than or equal to an RF score of 5. Based on the table, one can see that for 50% of sessions, at least 50% of the supervisor's speech turns demonstrated an RF score of 5 or greater. It also shows the final RF score that was assigned to the supervisor for the session as a whole. The supervisor was given a final of RF score of 5 or greater for 90% of the sessions.

Hypotheses B.1 and B.2 Hypotheses B.1 and B.2 are concerned with changes that can be observed in supervisor and trainee RF scores from the beginning of the year to later in the year. Hypothesis B.1: There will be a change in the reflective quality of the supervisor's speech turns from reflective supervision sessions that take place earlier in the training year (first 8 weeks) to late (last 8 weeks) in the training year. It was hypothesized that there will be higher total levels of RF given to supervisors participating in later sessions than in earlier sessions. This was predicted with the idea that the supervisor is likely to titrate the level of mentalization they exhibit to be closer to those of the trainees. With the belief that as the trainees progress in their training and become more reflective, it was thought that the supervisors will speak with a higher reflective quality to continue scaffolding the trainees' learning.

This hypothesis was evaluated by conducting a paired samples t-test. The final RF scores demonstrated by supervisors at the beginning of the training year were compared with the final RF scores demonstrated by supervisors at the end of the training year. There was not a significant difference in supervisor RF scores earlier in the year (M = 5.40 , SD = 1.19) versus later in the year (M = 6.20, SD = 1.15) ; paired-sample $t(4) = -.93$, $p = .41$.

Hypothesis B.2 predicted that the RF scores of trainees would improve from the beginning of the training year to the end of the training year. This change was thought to be

likely given that the goal of reflective supervision is to encourage mentalization in clinicians.

To evaluate this hypothesis, a partial correlation was conducted, controlling for length of time between sessions for which scores are being compared. A partial correlation analysis revealed no significant correlation between the two timepoints (r (31) = .14 , p = .44)

A bivariate correlation was conducted that looked at the relationship between the trainee RF change score (the difference between the RF score at Time 1 and the RF score at Time 2) and the number of trainees who were present during the supervision at Time 1 and Time 2. The results revealed there was a trending positive correlation between the RF change score and the number of trainees present at Time 1 (r (36) =.29, p = .08), and a trending positive correlation between the RF change score and the number of trainees present at Time 2 (r (35) =.32, p = .07). A partial correlation was run between the RF change score and the length of time between Time 1 and Time 2, controlling for group size. There was also an expected positive correlation between RF change score and length of time between Time 1 and Time 2 (r (30) =.29, p = .05).

Insert Table 4 about here

Table 4 reveals a normal distribution of RF scores for trainees at both Time 1 and Time 2, with the mode being a score of 5 for both timepoints, and the mean hovering around a score of 5.

Hypotheses C1 and C2

Hypothesis C.1 predicted that when a supervisor asked a question intended to elicit mentalization from the trainees or models mentalization, the response of the trainee who speaks in the following speech turn will have an RF score that is significantly greater than 3.5. This score was chosen for comparison because a score of 3.5 indicates higher than low miscellaneous RF, yet is not quite moderate RF. It is predicted that when the supervisor asks a non-prompting question, makes a descriptive remark, provides a didactic intervention, or contextualizes the subject of discussion, the trainee speech turn that immediately follows will not have an RF that is significantly higher than 3.5.

To address this question, a one-sample t-test was conducted. The mean trainee response to each type of supervisory intervention was tested against a low RF score (3.5). It was found that after a supervisor asked a prompting question, the response of the trainee who spoke immediately after was significantly greater than 3.5 ($M = 4.20$, $SD = 1.66$); $t(64) = 3.4$, $p = .001$. After a supervisor modeled mentalization, trainee's response immediately following was also greater than 3.5 ($M = 3.7$, $SD = 1.13$); $t(116) = 2.56$, $p = .012$).

It was found that after the supervisor asked a question that did not aim to elicit mentalization from the trainee, the trainee's response in the following speech turn was not significantly greater than an RF score of 3.5 ($M = 3.4$, $SD = 1.0$); $t(34) = .51$, $p = .61$). Similarly, after a supervisor made a descriptive remark in a speech turn, the trainee speech turn immediately following was not significantly greater than an RF score of 3.5 ($M = 3.54$, $SD = 1.25$); $t(84) = .30$, $p = .76$). There were not enough instances of didactic interventions nor contextualizing interventions to permit a comparison analysis.

It is important to note that for this research question, only speech turns containing a single intervention were used, and speech turns with multiple interventions were not. The

rationale was that if multiple interventions were used, it would not be possible to make an attribution about how each unique intervention was related to the trainee's response.

Hypothesis C.2 proposed that there would be a linear relationship between a supervisor's level of RF in a speech turn and the level of RF demonstrated in the trainee's response immediately following. A bivariate correlation was conducted to test this hypothesis, and it was found that that the level of RF modeled by the supervisor was not significantly correlated with the trainee's response immediately following the supervisor's speech turn ($r(117) = .02$, $p = .83$).

Insert Table 5 About Here

Table 5. In this table, the frequencies for each type of supervisor intervention for each of the 10 reflective supervision sessions is displayed.

Chapter VI: Discussion

The aim of this study was to explore mentalization in the reflective supervision that is part of the GABI© intervention. As one of the first studies looking at mentalization in reflective supervision (Virmani & Ontai, 2010), it intended to understand whether supervisors demonstrate high levels of mentalization during the supervision sessions, and to investigate techniques that might promote mentalization in trainee psychologists. It sought to understand what these techniques are, and whether they encourage reflection in trainees. The study also aimed to investigate whether trainee mentalization increases throughout the course of their training year at GABI©. A discussion of the findings for the individual hypotheses in this study is presented below.

Hypothesis A

Hypothesis A predicted that a high proportion of speech turns taken by the supervisor will be scored moderate-to-high in terms of RF and that a high proportion of the supervisor's overall RF score for each session would be moderate-to-high for at least half of the sessions. It was found that in exactly half of the sessions analyzed, the supervisor spoke with a moderate to high level of RF for at least half of the supervisor speech turns in the session. For the vast majority of the sessions, the supervisor's overall level of mentalization was moderate-to-high. These results make sense given that reflective supervision models intends to encourage clinicians to think about how their own and other's behaviors are linked to mental states (Fenichel, 1992). The results provide descriptive information about the supervisors who run these particular supervision sessions, and also provide support for the idea that mentalization, as measured by the reflective-functioning scale (Fonagy et al., 1998), can be captured in reflective supervision sessions.

Hypotheses B1 and B2

Hypothesis B1 aimed to understand whether a supervisor's RF score increases from the beginning of the training year to the end of the training year. This was predicted based on developmental theories of mentalization in children. Mirroring is thought to be the mechanism by which children feel understood by their caregiver, and also by which their representations of mental states become elevated via the caregiver's more sophisticated representation (Bleiberg et al., 1997; Fonagy & Target, 2003; Fonagy & Target, 2006; Fonagy et al., 2002). Theories of mirroring propose a mid-range model, where the caregiver's representation should be slightly different, but not be *too* dissimilar from the child's, in order for the child's representations to be altered (Fonagy & Target, 1996). It was predicted that supervisors would have lower levels of mentalization earlier in the year because they might lower the sophistication of their representations to better match those of the trainees, whom presumably would have lower levels of mentalization at the beginning of the year.

There was no significant difference found between supervisor RF scores at the beginning of the year versus later in the year. However, the sample size of supervisor final scores was too small for sufficient power. When comparing the mean RF scores for the beginning of the year and the end of the year, there was a sizable difference, and it seems possible that with greater power that this difference would have been significant (early in the year: M = 5.40 , SD = 1.19; later in the year: M = 6.20, SD = 1.15). It should also be noted that for this portion of the analysis, the constituent trainees participating in the supervision varied across the sessions. Therefore, the supervisor was responding to different trainees in each session, and therefore the supervisors were not necessarily titrating their levels of mentalization to meet the needs of the same trainees in each session.

These results also make sense in the context of the findings of Hypothesis B.2. It was expected that there would be a significant increase in trainee RF from the beginning of the training year to the end of the training year. There was not a significant increase in RF, which might explain the results of Hypothesis B.1: if there was not a significant change in RF score, then there would be no need for the supervisor's to titrate their mentalization.

However, the amount that a trainee's score changed from the beginning of the training year until the end of the training year was related, almost at a significant level, to the number of trainees who were present during the group supervision sessions. The more trainees who were present, the greater the change in RF. This finding can be understood within the framework of social facilitation theory. Applied here, social facilitation theory would argue that having more individuals in the room who are listening, observing, and perhaps evaluating one's performance might increase one's motivation to perform well. This motivation and ability to be more reflective in the presence of others would be considered possible only if the trainee already were experienced and skilled at mentalizing.

The increased motivation to perform well might be the result of several different mechanisms. Increased arousal in the presence of others would drive better performance granted the individual already has the ability to mentalize (Zajonc, 1965). From another perspective, the trainees would be able to mentalize better with more people present because they focus their attention more diligently on the task of mentalizing as a result of trying to direct their attention away from the other group members watching (Strauss, 2002). This effect could also be explained as a result of the trainees being more aware of their performance when they feel that they are being watched, and therefore striving to mentalize more skillfully (Strauss, 2002).

The amount of change in a trainee's RF was also connected, as expected, to the length of time they had experienced training at GABI©. The more time spent training at GABI©, the bigger the improvement in their ability to mentalize. Time spent training at GABI© includes providing the intervention to children and parents, participating in reflective supervision, and milieu effects of being at the center with other trainees and staff clinicians. This helps explain why there was not a significant increase in trainee mentalization from the beginning of the year to the end of the year. It seems likely that some trainees, particularly the ones who only had two or three months between the two RF measurement points, had not experienced enough training to have a positive effect on their mentalizing ability.

Hypotheses C.1 and C.2

The results of Hypothesis C.1 found that when supervisors ask questions which encourage a trainee reflect, or when the supervisor models mentalization for the trainees, the trainee's response was higher than when the supervisor asked a question that did not demand reflection or made a statement that did not contain mentalization. These results are supported by the literature by Bateman and Fonagy (2004) which argue that a mentalizing stance is promoted by asking questions that aim to connect external and internal events. These are the types of questions which were considered "prompting" questions in this study, and it is reassuring that these questions do seem to effectively elicit reflection from trainees.

Results reflected that trainees responded to a supervisor's modeling of mentalization with statements that were more reflective than what is considered to be a low-moderate RF score. This is consistent with research looking at the effects of a therapist's mentalization on their patient's ability to mentalize. The research has found that a therapist's ability to mentalize is a key determinant on the patient's capacity for RF (Bateman & Fonagy, 2004; Fonagy, 1999;

Fonagy et al., 2002). Taken together, these results indicate that trainees mentalize better when their environment asks them to mentalize, either directly through questions or indirectly through modeling.

Supervisors looking to encourage mentalization in their trainees should focus on the following guidelines. Supervisor's should focus on modeling mentalizing for their trainee clinicians as they think and talk about their own mental states, and as they think and talk about the mental states of patients and trainees. This entails adopting a non-judgmental stance where the supervisor is curious about the internal experiences of the patient and clinician. The supervisor needs to be comfortable existing in the position of not yet knowing what a patient or clinician is thinking or feeling, while attempting to connect potential internal mental states with observable behaviors. While being prepared to guess about these internal and external links, the supervisor must be at ease with the idea that they do not fully know what is motivating the behaviors of the other.

In addition to modeling a mentalizing stance, supervisors can ask trainees questions which guide them towards their own sense of uncertainty about links between mental states and behaviors. Questions such as "Why is the patient saying this now? Why is the patient behaving like this? What has happened recently in therapy or in our relationship that may justify the current state?" all orient the clinician towards a stance where they can think creatively about behaviors in terms of the mental states underlying them. As demonstrated in this study, clinicians are more likely to adopt this stance aiming to link internal and external events when they are asked questions which leave them poised to be curious.

Limitations and Future Directions

The purpose of this study was to look at whether mentalization increases through the course of training as demonstrated in reflective supervision sessions, as well as an exploration of the supervisory techniques which are used to encourage mentalization during these sessions. There is a paucity of research in this area, and therefore this was largely an exploratory study that aims to set in motion future research.

One limitation was the number of supervision sessions that were studied. Meaningful comparisons between sessions that occurred early in the year versus later in the year could not be made because of the number of full sessions that were available. It might be more reasonable in the future to transcribe and score smaller segments of the supervision sessions as opposed to the full sessions as a way of conserving labor.

The video footage of supervision sessions that were used for this study were collected over several years for a pragmatic clinical trial looking at the effectiveness of GABI©. The data was then retroactively repurposed for this study. Demographic data had not been collected from all trainees as part of the research protocol, and variables such as stage of training and primary theoretical orientation of training could not be used as covariates. This data will be important to collect in future studies to better understand the factors contributing to differences in trainee mentalization. Similarly, there was no data available regarding how often trainees were attending supervision per week. Given that this data was collected over five years, it is likely that there was some variation in how often supervision was attended. Length of time between RF measurement points could also be standardized, since findings indicated a trend that the longer the subjects were in training, the more their RF score changed between the two time

points. Future research should be sure to standardize the length of time between measurement points.

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Table 1.

Supervisor Intervention	**Description**	**Example**
Modeling RF	Supervisor mentalizes in front of the trainees. Can be modeled at any level (-1 through 9 scores on RF).	"I think that's something we're really going to have to watch because she looks as if she doesn't have any particular idea of what to possibly play with her child. It's just like "well she's fine! She's over there playing and to a certain extent that's true, do you know what I mean, it's like ok, mom's sitting on a park bench and the kids are playing. I mean moms are not always crawling around on the playground with their kids, but I think that there's not, you don't see the child returning for any emotional refueling, she's just on her own playing. I don't think you would, and tell me if I'm wrong, necessarily know who her mom was?"
Prompting RF	Supervisor's speech turn asks a question aimed at eliciting RF in trainee(s); usually a "what"	"Mom went back with him right? into the group? She was frustrated with him or how was she?" "Do you have any thoughts about what happened

	question (Bateman & Fonagy, 2010)	in today's group?" "What do you make of it?" "I see a grimace. What are you thinking on the inside?"
Non-Prompting Question	Supervisor's speech turn asks a question not aimed at eliciting RF in trainee(s). A non-prompting question is a defined as a question that does not explicitly seem to request reflection from the object of the question.	"Which families have you spent time with?" "What was her mother's name?" "Was she late for the session?"
Didactic	Supervisor's speech turn includes content which is aimed at instructing the trainees. For instance, supervisor makes a recommendation on how to handle a given situation, or teaches the trainees about attachment.	"I think you want to ask yourself sometimes like why is she asking this question, because stating a fact to her like, 'Oh, but he would know your face too' doesn't really matter because her experience is that he only knows her voice. I guess what I would urge you to do in this work is like, you don't have to be like—you don't have to know the answers, you just have to kind of question why they might be asking the questions."

Contextualizing	Supervisor contributes background information about patient	"When she was younger there was a psychotic break that she describes. She doesn't describe it that way, she had gotten pregnant back to back, like years in a row. Starting at 15, and would get abortions after each pregnancy. She said she was using abortion as a type of birth control at that age and that she was promiscuous and looking for love in the wrong places and trying to fill up this need in her, and she feels very guilty about having had abortions at that time. She got into a violent relationship later on in her 20s and kind of describes decompensating at that point when, um, she was in the violent relationship. Mom views baby Brian now and she speaks of dad a little bit, I don't know if she spoke of his dad to you?"
Descriptive statement	Supervisor's speech turn makes a descriptive, observational statement that makes no reference to mental states.	"I should just chime in that we did video feedback with Becca, and we spent pretty much the whole time talking about what we're talking about now."

Table 2.

RF Score	**Example from Reflective Supervision Sessions**
-1	"William's Syndrome—I didn't know about it, but, and, I have a similar story, not William's, but, you know my brother is sick. And you know, for, they can't, I—I missed you, I—I—I—came into myself, and they—they had to go out and stop and say stop, like stop, and listen to the now."
1	"I don't know how to explain it, like it's just kind of that feeling. I don't know how to explain it. It's just like a feeling I get sometimes that's more like, sit with them, and go slowly. You just, I don't know, I don't know how to explain it."
3	"I think it's wonderful, I mean it's great to spend time with these babies, it's wonderful."
5	"I also think, what I saw today, she tries very hard -- because I was with Charles mostly, so she's trying to keep up this look she has sometimes, like this look with the eyes, like the angry look, and then I see her when she looks when Charles looks at her like that but then he moves and then she comes out a smile like she wants to keep that look but he goes but then comes then she smiles because I think she also enjoys seeing what Charles does."
7	"And Rachel was like, "Oh, I want a popsicle, I want a popsicle" and her mom was like, "Okay, I'll buy you a popsicle," and was actually like excited to do this for Rachel and then realized she couldn't bring it into the car service that was coming and she was like, "Oh, I'm sorry, Rachel, l we can't bring it in the car," you know like, like a tough spot to be in as a mom, you just had to say like sorry I told you could have this and now you can't. And the guy was sort of like pushing her at first, like was like very unassertive and was like a little bit flustered by him, and then she like turned to him and was like "What don't you understand?!" Not even to Rachel, but to the street vendor."

9	"I was just thinking about the playful thing, and how to be playful with adults too because I was struggling with it in the moment when he was talking about the guitars and how much they cost. And I was getting tired and bored and then I was like – cost- and then I was like, there's the value, because he's putting a money value on it and then he mentions something emotional and I was like –emotional value- and I was like, but I was like trying to play with ideas. Like I was consciously trying to be like, okay how can I play with these ideas?

Table 3.

Session Number	**Early v. Late in Training Year**	**Supervisor(s) final RF score for session**	**% of speech turns with RF =/> 5**
1	Early	7.5	.55
2	Late	5.5	.54
3	Late	5	.36
4	Early	5	.17
5	Late	6	.39
6	Early	5	.40
7	Early	4.5	.43
8	Late	6.5	.64
9	Late	8	.70
10	Early	5	.57

Table 4.

Frequencies of Trainee RF Scores at Time 1 and Time 2

RF Score	Time 1	Time 2
2	1	1
3	6	5
3.5	1	2
4	4	5
4.5	4	4
5	10	11
5.5	3	4
6	6	1
6.5	1	0
7	1	2
8	1	0
	N = 38	N = 35

Table 5

Frequencies of Supervisor Interventions

Session	Modeling	Prompting Question	Non-Prompting Question	Didactic	Contextualizing	Descriptive
1	24	10	1	6	5	4
2	20	10	11	3	5	11
3	14	4	6	1	3	7
4	13	4	2	5	6	15
5	41	8	5	2	1	17
6	20	4	5	2	8	3
7	9	3	2	0	1	7
8	14	4	0	1	0	4
9	10	9	3	4	1	12
10	12	4	4	2	1	21

Appendix A

Reflective Supervision Reflective-functioning Scoring Guidelines

Supervisor:

For each speech turn,

- Identify whether she is modeling RF ('M'), prompting RF ('P'), and/or asks a non-RF prompting question, ('NP'), is providing a description not intended to model RF or elicit RF, denoted with a [1], provides contextualizing information about the parent/child, denoted with a [2], and or if she is being didactic, denoted with a [3].
- A [1] is only assigned if no other code can be assigned. For instance, one would not code a speech turn as having both modeling and a descriptive remark in it.

Trainee:

For each speech turn,

- Score RF (-1 to 9) for every trainee speech turn
- If speech turn is descriptive, and mentalization is not warranted, assign a score of 3

For computation of final RF score for trainees:

- Include scores 5 or over in response to non-prompting question (i.e. do not count scores <5 that are in response to modeling or non-prompting)
- Include any score from -1 to 9 after prompting question or modeling
- After only [1], [2], or [3] (without modeling or prompting), only score for RF if 5 or >. Can still assign a [1] or [R]

Additional Non-RF Codes

Descriptive: only given in the absence of RF, not in addition to. Given to either supervisor or trainee.

Contextualizing: to be given to supervisor when background information about parent or child is provided.

Didactic: to be given to supervisor when she is didactic; given to supervisor only

Non-prompting question: to be given to either a trainee or supervisor when a non-prompting question is asked.