COMPARING THERAPIST RESPONSIVITY TO RESISTANCE MARKERS IN COGNITIVE-BEHAVIOURAL THERAPY AND MOTIVATIONAL INTERVIEWING INTEGRATED WITH COGNITIVE-BEHAVIOURAL THERAPY FOR GENERALIZED ANXIETY

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A DISSERTATION SUBMITTED TO THE FACULTY OF GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

GRADUATE PROGRAM IN PSYCHOLOGY

YORK UNIVERSITY

TORONTO, ONTARIO

April 2020

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Abstract

While therapist supportive, rather than directive, strategies have been particularly indicated during client resistance, little systematic research has examined how therapists responsively navigate resistance (Aviram et al., 2016; Westra & Norouzian, 2018). In the context of Cognitive-Behavioural Therapy (CBT) for Generalized Anxiety Disorder (GAD; Westra et al., 2016), the present study examined (1) the degree to which therapist management of resistance differs between therapists trained in CBT integrated with Motivational Interviewing (MI-CBT; i.e., training centered on the responsive management of resistance) and therapists trained in CBT-alone, and (2) the impact of specific therapist behaviours differentiating therapy groups during resistance on client worry outcomes immediately posttreatment and 1-year posttreatment. An adapted version of the Client Resistance Code (Chamberlain et al., 1984; Westra et al., 2009) was used to identify episodes of client resistance to therapist direction, and specific moments of disagreement were rated for therapist behaviour (i.e., degree of interpersonal affiliation, control and hostility) using the Structural Analysis of Social Behavior (Benjamin, 1974). Therapists trained in MI integrated with CBT were found to exhibit significantly more affiliative and fewer hostile behaviours during disagreement episodes compared to those trained in CBT-alone. Increased therapist affiliation during disagreement episodes was also found to mediate client 1year posttreatment outcomes, such that increased therapist affiliation as facilitated by MI-CBT vs. CBT-alone was associated with improved outcomes. Increased therapist hostility also mediated 1-year outcomes, demonstrating increased therapist hostility as facilitated by CBTalone vs. MI-CBT was associated with poorer outcomes at 1-year posttreatment. This study highlights the value of training therapists in the responsive detection and management of client resistance, as well as the systematic integration of relational models, such as MI, with more action-oriented treatment approaches. Findings have significant capacity to improve clinical decision-making and therapist effectiveness, thereby improving the efficacy of CBT for GAD.

Dedication

To my mother, Edén, whose unwavering belief in me, humility, and astute awareness of the world around her shaped my love of others and interest in psychology. Sin su apoyo y amor no estuviera donde estoy. To my father, John, whose curious spirit, support and commitment taught me the value of resilience and hard work. To Maire, whose dedication to her career and motherhood has provided a true exemplar of female leadership. To Pau, to whom I owe the pursuit of my 'passion,' whose devotion to learning never ceases to amaze me, and who, together with Maire, has supported this journey in immeasurable ways. And to my husband, Michael, whose mind and love has always inspired me to think bigger and aim higher. This is your success, too.

Acknowledgments

To my graduate supervisor and mentor, Dr. Henny Westra, whose unparalleled guidance, support, and dedication has encouraged my growth as a person, clinician and researcher. Words cannot describe how sincerely grateful I am to you for believing in me. Thank you for encouraging me to think outside of the box, to take risks, and most importantly, to develop a voice I am proud to say is mine. Your creativity, innovative lens, and dedication to integrating research and practice are true inspirations. You have instilled in me a belief that cultivating agency in one's life is not only recommended but required. You have provided me with a solid foundation in psychology and a nuanced understanding of the complexities of human experience. You have taught me the importance of process and the wisdom in resistance. I can only hope to continue to expand on all that you have imparted in my career as a psychologist.

I would also like to extend my heartfelt gratitude to my clinical mentor, Dr. Jane Dalton. Your compassion, tentativeness, and experiential approach in supervision and practice have shaped me in more ways than I will ever be able to express. Thank you for 'seeing' me and believing in me when I have not believed in myself. You inspire me to think critically and creatively, and encourage self-reflection and growth as core parts of becoming better at what we do. Thank you for your unwavering authenticity, constant support, and guidance. I look forward to following closely in your footsteps.

I wish to sincerely thank my committee members, Drs. Karen Fergus and Alberta Pos. You have encouraged me to think independently, shaped my understanding of empathy, the importance of case formulation, and my confidence in psychotherapy integration. From the very beginnings of this program to the very end, your guidance, insights, and support have been invaluable. Thank you for exemplifying what it means to be true scientist-practitioners. My

deepest appreciation also goes to Dr. Ken Critchfield. I have long admired your work and your profound understanding of psychotherapy process and the human experience. You have encouraged me to trust my intuition as a clinician and researcher, and for that I am beyond grateful. It is such a privilege to learn from you and have you as part of my committee.

I wish to thank Alice Coyne for all of her statistical knowledge, insights and commitment to this project. Thank you for your creativity in helping design the analyses, for seeing the value in non-normally distributed data, and for your remarkable patience and support throughout this process. Along with Alice, I also wish to thank Brien Goodwin and Niki Norouzian for their assistance in, and dedication to, coding hours of psychotherapy sessions. Without you, this project would not have been possible.

I would like to thank the faculty at York University who consistently advocate for their students, underscore the importance of psychotherapy process and the humanistic approach, and who guide students in their development as scientist-practitioners. Through this program, I have made life-long colleagues and friends, whose accomplishments and support have inspired and encouraged me along the way. A special thank you to my lab mates Melissa, Adi and Angela. You have cultivated in me patience for the process and have been exemplars of balance, fortitude and skill. You have each made this process more enjoyable just by being you.

Finally, my heartfelt gratitude goes to my family and friends (i.e., my collection of wonderful humans), whose support has never gone unnoticed. Thank you for the check-ins, calls and emails – for your unceasing belief, empathy and understanding as I have pursued my passion through the completion of this degree. A special thank you to my Aunt Vicki and Paulette Bourgeois, for each instilling in me a love of education and creativity. I have appreciated the unconditional love and support each of you has provided. I could not have done this without you.

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Comparing Therapist Responsivity to Resistance Markers in Cognitive-Behavioural Therapy and Motivational Interviewing Integrated with Cognitive-Behavioural Therapy for Generalized Anxiety

Within the context of psychotherapy, client resistance has been increasingly identified as an important phenomenon capable of significantly and negatively impacting the process and outcome of therapy (e.g., Beutler, Goodrich, Fisher, & Williams, 1999; Beutler, Harwood, Michelson, Song, & Holman, 2011; Constantino, Westra, Antony, & Coyne, 2017; Miller & Rollnick, 2002; Westra, 2012; Westra, Aviram, Kertes, Ahmed, & Connors, 2009). Client resistance, or opposition to the direction set by the therapist, has been deemed one of the most difficult and challenging facets of the psychotherapeutic exchange for therapists to navigate (Binder & Strupp, 1997; Chamberlain, Patterson, Reid, Kavanagh, & Forgatch, 1984; Hara, Westra, Constantino, & Antony, 2015; Westra et al., 2009). Indeed, research has consistently demonstrated that as early as the first session of psychotherapy, the presence of client resistance is associated with reduced subsequent engagement in therapy (e.g., homework compliance), poorer proximal and distal treatment outcomes, and higher rates of premature termination (Aviram & Westra, 2011; Beutler, Rocco, Moleiro, & Talebi, 2001; Gomes-Schwartz, 1978; Jungbluth & Shirk, 2009; Miller & Rollnick, 1991; Piper et al., 1999; Westra, 2012). Although it is relatively rare compared to moments of therapeutic collaboration, client resistance, with its roots embedded in a client's ambivalence regarding change, has been considered a significant barrier to treatment efficacy and a key clinical marker warranting further investigation and increased clinical attention (Aviram, Westra, Constantino, & Antony, 2016; Beutler, Clarkin, & Bongar, 2000; Binder & Strupp, 1997; Constantino et al., 2017; Westra & Norouzian, 2018).

In an effort to better understand how resistance arises and develops, studies have revealed that directive therapeutic approaches tend to elicit greater resistance than supportive styles (e.g., Aspland, Llewelyn, Hardy, Barkham, & Stiles, 2008; Leahy, 2001; Moyers & Martin, 2006; Sanderson & Bruce, 2007; Patterson & Chamberlain, 1994; Westra, 2012). For example, in more action-oriented treatments such as Cognitive-Behavioural Therapy (CBT), significantly higher rates of resistance have been observed compared to more supportive approaches (Aviram & Westra, 2011; Constantino et al., 2017; Westra, Constantino, & Antony, 2016). Researchers have posited that due to its technical focus, which often includes increased therapist direction during moments of client resistance, CBT can pull for increased resistance from clients who are ambivalent about change (e.g., Leahy, 2001; Sanderson & Bruce, 2007). In other words, clients who, given their stage of change and other related psychological factors (Engle & Arkowitz, 2006), simultaneously experience feelings of wanting and fearing change (O'Hare, 1996; Westra, 2012). Supportive therapeutic styles, on the contrary, have been consistently found to attenuate client resistance and promote greater collaboration between client and therapist (e.g., Bischoff & Tracey, 1995; Moyers & Martin, 2006; Patterson & Chamberlain, 1994). As such, supportive rather than directive strategies have been suggested during therapist experience of client resistance, and models of effectively identifying and responding to resistance are emerging. One such model is Motivational Interviewing (MI), which is a client-centered approach predicated on the effective management of resistance and change ambivalence, as well as the importance of therapist attunement, or responsivity, to moment-to-moment client motivational markers (Miller & Rollnick, 2002, 2013; Westra, 2012).

Despite recommendations that therapists use more supportive strategies (i.e., increased therapist responsivity; Stiles, Honos-Webb, & Surko, 1998) during instances of client resistance,

research examining how therapists actually responsively *navigate* resistance remains very much needed. That is, while there have been several studies to examine the landscape of resistance and the conditions within which it arises (e.g., client ambivalence about change, mistimed increased therapist direction vs. support, etc.), relatively little is known about what specific behaviours therapists use to navigate this difficult interpersonal phenomenon once it is present (e.g., Aspland et al., 2008; Castonguay, Goldfried, Wiser, Raue, & Hayes, 1996; Ribeiro et al., 2014). Given the detrimental effects of resistance on client engagement and outcomes, together with research suggesting that certain approaches tend to promote greater resistance than others, a better and more fine-grained understanding of how therapists navigate resistance might hold merit in improving the process of psychotherapy and corresponding client outcomes (Aviram et al., 2016; Aviram & Westra, 2011; Hara et al., 2015; Westra et al., 2016). Moreover, gaining a more refined perspective of what therapists do (or fail to do) during moments of resistance may be one way of improving training efforts by elucidating how to effectively respond to resistance once it occurs, and decrease the amount of time spent in this interpersonally difficult, and frequently toxic, process (Jungbluth & Shirk, 2009; Miller & Rollnick, 1991).

This study of how therapists responsively navigate resistance specifically explores whether receiving explicit training in an approach predicated on the responsive management of resistance improves client outcomes (i.e., Motivational Interviewing; Miller & Rollnick, 1991). To better orient to the current study, a brief summary of Generalized Anxiety Disorder (GAD) will first be presented. This will be followed by a review of the literature on the concept of resistance, together with a discussion of the development of resistance and its relationship with therapy outcomes. Therapist qualities, specifically therapist responsivity (Stiles, Honos-Webb, & Surko, 1998), conceptualized to be important for the successful navigation of resistance, and key

moments in psychotherapy will be considered. A presentation of research relating client resistance to therapist directive versus supportive behaviour follows. Finally, relevant interpersonal process-outcome literature related to the primary methodology used in the current study to measure how therapists navigate resistance (i.e., the Structural Analysis of Social Behavior or SASB; Benjamin, 1974) will be discussed.

Generalized Anxiety Disorder

This study examined resistance within treatment for Generalized Anxiety Disorder. Generalized Anxiety Disorder (GAD) is pervasive, affecting approximately 9% of Canadians aged 15 or older (Pelletier, O'Donnell, McRae, & Grenier, 2017). GAD is characterized by excessive, uncontrollable and chronic worry about a number of life events and activities, in addition to a host of related physical and somatic symptoms (e.g., muscle tension, insomnia, restlessness, etc.; American Psychiatric Association, 2013). Considered the most common anxiety disorder within primary care settings, GAD is highly comorbid with other mental health disorders and is related to significant impairment and disability among those affected (American Psychiatric Association, 2013; Szkodny, Watterson, Williams, Lavorato, & Patten, 2017). Individuals with GAD uniquely differ from those with non-pathological anxiety due to the degree of impairment they experience in functioning, which typically spans disability, high distress, difficulty completing tasks, and significant reductions in energy as a result of excessive worry (American Psychiatric Association, 2013).

GAD has also been found to be a challenging disorder to treat given the pervasiveness of individuals' symptoms and the presence of resistance towards treatment due to positive beliefs concerning the value of worry (e.g., Szkodny, Newman, & Goldfried, 2014). In fact, among the anxiety disorders, it is considered least responsive to front-line interventions, such as CBT

(described in further detail below; Hunot, Churchill, Teixeira, & Silva de Lima, 2007; Newman, Castonguay, Borkovec, Fisher, & Nordberg, 2008). Importantly, much of what is considered resistance to treatment in GAD may be a reflection of ambivalence about change (Engle & Arkowitz, 2006; Westra, 2014). That is, although individuals with GAD consider their worry excessive and problematic, again, they often hold simultaneous *positive* beliefs about worry (e.g., worry is motivating), and as such, are particularly ambivalent about the prospect of relinquishing it (Borkovec & Roemer, 1995; Westra, 2014). This makes GAD especially difficult to treat from a classically directive and action-oriented approach, such as CBT, where positive beliefs (i.e., ambivalence) about worry are often challenged or seen as a barrier to effective treatment (Westra, 2012). Indeed, research suggests that approaching client ambivalence using supportive, rather than directive, approaches can be critical in reducing resistance to treatment and related to significant improvements in treatment efficacy (e.g., Aviram et al., 2016; Button, 2019; Constantino et al., 2017; Westra, Constantino, & Antony, 2016).

What is Resistance?

Despite a significant history of disparate, and at times contradictory, conceptualizations of the phenomenon across major schools of psychotherapy, the notion of client resistance has maintained a presence within psychotherapy research and practice as an important process variable, or 'client communication,' associated with significant treatment outcomes (Bischoff & Tracey, 1995; Orlinsky, Grawe, & Parks, 1994; Westra, 2012). Although historically often considered an intrapsychic process or client characteristic, recent theories of psychotherapy conceptualize the presence of resistance as reflecting a lack of collaboration between the client and therapist (Blatt & Erlich, 1982; Brehm & Brehm, 1981; Miller & Rollnick, 2002; Rogers, 1961; Schuller, Crits-Christoph, & Connolly, 1991). In other words, rather than being a static

client characteristic, client resistance may be considered a reflection of an interpersonal process gone awry, or a *product* of the therapeutic relationship (Westra, 2012). Chamberlain and colleagues (1984) parsimoniously define the phenomenon of client resistance as any behaviour that opposes, blocks, diverts, or impedes the direction set by the therapist. Implicit in this definition of resistance is the notion that resistance is an interactive process defined by both the *therapist's direction*, which may take the form of asking a question, reflecting a client's experience to them, or offering a suggestion, and the *client's response* to that direction.

Resistance may thus fluctuate on a moment-to-moment basis throughout the course of a therapy session depending on the emerging therapy context, and both the client and therapist may contribute to its presence in a pattern of mutual responsiveness (Binder & Strupp, 1997; Stiles, 2009).

The construct of resistance can also be conceptualized as representing strains or ruptures in the therapeutic alliance (Watson & McMullen, 2005). Specifically, work by Safran and Muran (1996) on 'alliance ruptures' appears to represent a very similar phenomenon to resistance. Safran and Muran (2000) outline two types of alliance ruptures, including confrontation and withdrawal ruptures, each of which have been found to differentially impact therapeutic progress and client and therapist experiences (Coutinho, Ribeiro, Hill, & Safran, 2011). Confrontation ruptures are described as occurring when the client directly communicates resentment, anger or dissatisfaction with the therapist or process of therapy, while withdrawal ruptures are thought to occur when the client withdraws or becomes partially disengaged from the therapist, their own emotional experience or the process of therapy (Eubanks-Carter, Muran, & Safran, 2010; Safran & Muran, 1996, 2000). Manifestations of both types of ruptures occur during moments of resistance, as it can be argued that confronting, or withdrawing from, the therapist may be

instances in which the client is going against or opposing the direction set by the therapist. Like during resistance, ruptures in the alliance can represent deteriorations in the therapeutic bond, which when left unacknowledged or improperly managed by the therapist have been found to significantly negatively impact treatment outcomes (Aspland et al., 2008; Binder & Strupp, 1997; Coutinho et al., 2011; Rhodes, Hill, Thompson, & Elliott, 1994; Safran & Muran, 1996).

The Development of Resistance

Research in recent years substantiates this more interpersonal or relational interpretation of resistance (e.g., Beutler, Moleiro, & Talebi, 2001; Moyers & Rollnick, 2002; Westra, 2012; Rollnick & Miller, 1995). That is, resistance has been considered as arising from a combination of a client's ambivalence about change (i.e., the degree of internal conflict about change) and a therapist's response to that ambivalence (Miller & Rollnick, 2002; Moyers & Rollnick, 2002). Clearly, much of what is often considered noncompliance or resistance in psychotherapy may represent a client's ambivalence about change (Engle & Arkowitz, 2006). For instance, although clients with GAD view their worry as excessive or problematic (i.e., something they would like to change), they often simultaneously believe that their worry is motivating or helpful (e.g., 'worry prevents negative outcomes' or 'worry is motivating;' Borkovec, Hazlett-Stevens, & Diaz, 1999; Borkovec & Roemer, 1995). If the therapist sides only with the part of the client that is ready to change, without acknowledging or exploring the part of the client that finds worry helpful, this may conceivably lead clients to being more resistant toward the therapist or the treatment (Borkovec & Roemer, 1999; Westra, 2012). Pushing a client toward change when the client has clearly communicated an inability or unwillingness to do so can often lead the therapist and client to 'act-out' the client's ambivalence rather than working productively through it (Westra & Norouzian, 2018). In fact, prolonged episodes of resistance in therapy have

been found to occur when a therapist continues to advise, direct, or make suggestions to a client when they have expressed a reluctance to, or are not ready for, change (Westra, 2012).

Studies examining the differential impact of directive versus supportive styles of therapy on client resistance have consistently found increased therapist direction, particularly in the context of client noncompliance or ambivalence, leads to greater resistance than does providing therapist support (Arkowitz & Westra, 2004; Bischoff & Tracey, 1995; Burns & Auerbach, 1996; Moyers & Martin, 2006; Patterson & Chamberlain, 1994). For example, in an early study examining the immediate impact of therapist behaviour on client noncompliance, Patterson and Forgatch (1985) found that therapist 'teaching and confronting' behaviours led to increased resistance, while therapist 'facilitating and supporting' behaviours led to increased cooperation between the client and therapist. Miller, Benefield, and Tonigan (1993) corroborated these findings when they explored the impact that receiving feedback regarding alcohol use in a directive versus supportive style had on a group of individuals with drinking problems. Individuals who received directive feedback were observed to be increasingly defensive and to have poorer treatment outcomes compared to those receiving the same, but supportive, feedback.

Another study explored the relationship between clients' trait reactance, therapist directiveness and psychotherapy for alcoholism, finding that therapist directiveness (e.g., confrontation, interpretation and introduction of topics) negatively impacted clients presenting with medium or high levels of trait reactance and was associated with increased drinking (i.e., poorer treatment outcomes) among reactant clients (Karno & Longabaugh, 2005). Taken together, these studies underscore the interpersonal nature of resistance, and it arising from a combination of client and therapist behaviour. Moreover, they unanimously demonstrate how resistance is more likely to arise within specific *contexts*, namely during moments of increased

therapist direction and client ambivalence around change (Beutler et al., 2002, 2011; Ilgen, McKellar, Moos, & Finney, 2006).

Noncompliance in CBT

Given that directive therapeutic approaches have been found to elicit greater resistance than supportive styles (e.g., Constantino et al., 2017; Moyers & Martin, 2006; Patterson & Chamberlain, 1994), it is not surprising that resistance has been found to be especially salient within the context of more action-oriented treatments, such as CBT, where therapist direction is often indicated to help clients comply with specific CBT strategies (Castonguay et al., 1996; Westra, 2002). Among clients who are particularly ambivalent about change, resistance may emerge in the form of homework noncompliance, arguments with the therapist or a reluctance to take an active role in sessions (Newman, 2002). In addition to homework noncompliance, Newman (1994) outlines several forms that resistance may take in CBT, including in-session avoidance, repeated use of 'I don't know,' misinterpretation of the therapist's comments, high level of expressed emotion toward the therapist, and oppositional behaviour to what was agreed upon in therapy.

While CBT is broadly regarded as a gold-standard treatment for anxiety (e.g., Chambless et al., 1996; DiMauro, Domingues, Fernandez, & Tolin, 2013), treatment non-response is a reality CBT clinicians often face. Meta-analyses demonstrate that approximately 50% of individuals receiving CBT treatment for anxiety fail to benefit from treatment (Hunot et al., 2007; Westen & Morrison, 2001). In recent years, researchers have begun to identify client ambivalence or 'resistance to treatment' as an important factor contributing to the lack of response to CBT (Antony, Roth Ledley, & Heimberg, 2005; Kennard, Ginsburg, Feeny, Sweeney, & Zakurski, 2005; Leahy, 2001; Sanderson & Bruce, 2007; Szkodny et al., 2014;

Westra, 2012). Surveys of expert CBT practitioners have revealed that noncompliance with key aspects of treatment, such as homework, occurs more often in therapy than not (Helbig & Fehm, 2004; Kazantzis, Lampropoulos, & Deane, 2005; Westra, 2012). Other CBT experts identify 'lack of engagement in behavioural experiments' and 'noncompliance' to be the most common reasons for insufficient response to CBT (Sanderson & Bruce, 2007). Some argue that resistance is a major contributing factor to the 'effectiveness gap' between research and practice (Amodeo et al., 2011; McAleavey, Castonguay & Goldfried, 2014). In a recent survey evaluating psychotherapists' clinical experiences conducting CBT for GAD, client resistance to the directiveness of treatment, together with an inability to work independently between sessions, were identified as significant barriers to the efficacy of the treatment (Szkodny, Newman & Goldfried, 2014). Since clearly a need to improve treatment response and outcomes in CBT exists, one way of doing so may be to address the commonly cited 'problem' of client ambivalence and resistance.

Research consistently shows that resistance to the direction set by the therapist is a strong predictor of treatment outcome and engagement with the process of psychotherapy (Aviram & Westra, 2011; Beutler et al., 2011; Constantino et al., 2017; Jungbluth & Shirk, 2009).

Irrespective of the therapeutic modality, active involvement of clients with the process of therapy has been identified as among the most important contributors to therapeutic outcome (Orlinsky, Grawe, & Parks, 1994; Tyron & Winograd, 2001). Indeed, upon consolidating a large body of literature examining the association between various process variables and outcome, Orlinsky and colleagues (2004) state that, "the strongest evidence linking process to outcome concerns the therapeutic bond or alliance..." (Orlinsky, Ronnestad, & Willutski, 2004, p. 323). An earlier review conducted by Orlinksy and colleagues (1994) examined specific aspects of the therapy

process, finding client engagement to be significantly associated with positive treatment outcomes in 65% of 54 studies reviewed. Client cooperation, as opposed to resistance, was also found to account for positive outcomes in 69% of the studies examined. This again suggests that client and therapist cooperation is critical in facilitating the achievement of positive outcomes in psychotherapy (Button, Westra, Hara, & Aviram, 2015) and validates the detrimental impact of disengagement, and resistance, on treatment outcomes (e.g., Binder & Strupp, 1997; Constantino et al., 2017; Gomes-Schwartz, 1978; Miller & Rollnick, 1991). Next, I will elaborate and detail the relationship between resistance and treatment outcomes.

Resistance and Treatment Outcomes

Research reliably demonstrates that effective psychotherapy is associated with the relative *absence* of resistance (e.g., Beutler, Moleiro, & Talebi, 2002; Constantino et al., 2017; Westra, 2012). Early studies in the area of client resistance and treatment outcomes emerged from explorations of therapist strategies for facilitating in-session involvement, client readiness for change, the therapeutic alliance, and improving client attendance and preventing dropout (e.g., Beutler et al., 2011; Diamond, Liddle, Hogue & Dakof, 1999; Gomes-Schwartz, 1978; Jungbluth & Shirk, 2009; Miller & Rollnick, 1991; Nock & Kazdin, 2005; Piper et al., 1999; Strupp, 1980). Collectively, these studies elucidated the importance of resistance, despite its rarity relative to therapeutic cooperation, and its toxic relationship on client outcomes and engagement in psychotherapy. Consistently across studies, higher levels of resistance were repeatedly found to be associated with reduced client engagement in psychotherapy (i.e., reduced homework compliance; Aviram & Westra, 2011; Hara et al., 2015) poorer treatment outcomes and premature dropout (e.g., Beutler et al., 2011; Constantino et al., 2017; Jungbluth & Shirk, 2009; Westra et al., 2016).

Recent work has also highlighted the link between resistance and reductions in client outcome expectations (Ahmed, Westra, & Constantino, 2012; Mamedova, Westra, Constantino, Shekarak Ghashghaei, & Antony, 2019), suggesting that resistance can be demoralizing and can have a direct impact on lowering both client and therapist expectations for treatment.

Interestingly, in Mamedova and colleagues' (2019) study, reductions in client (but not therapist) outcome expectations following resistance were found to negatively impact actual treatment outcomes in the context of CBT for GAD. This indicates that resistance can reduce a client's hopefulness about treatment, which in turn, can significantly negatively impact their treatment response. Resistance also is consistently and negatively related to many other important processes in psychotherapy, such as the therapeutic alliance (Safran & Muran, 1996) and the achievement of therapeutic goals (Beutler, Clarkin, & Bongar, 2000; Beutler, Goodrich, Fisher, & Williams, 1999).

In one of the most comprehensive reviews to date exploring the predictive capacity of resistance, client resistance was found to be negatively correlated with treatment outcomes in 82% of the studies reviewed (Beutler et al., 2001). The presence of resistance has also been associated with important proximal outcomes, such as lower client ratings of the therapeutic alliance compared to sessions rated as high in the alliance (Watson & McMullen, 2005) and lower client post session ratings of therapist empathy (Hara, Westra, Constantino, & Antony, 2016). Resistance has also been related to important distal treatment outcomes, such as the retention of diagnoses and early termination of treatment (e.g., Constantino et al., 2017; Jungbluth & Shirk, 2009). For example, in their study examining CBT for adolescents with depression, Jungbluth and Shirk (2009) found that although relatively infrequent compared to moments of cooperation, higher levels of resistance not only predicted the total number of

sessions completed by clients but also accounted for 33% of the variance in subsequent CBT task involvement. Work by Aviram & Westra (2011) examining CBT for GAD similarly observed that higher levels of resistance, as early as the first session of psychotherapy, accounted for 36% of the variance in treatment outcome. Early resistance in this study was also related to poorer treatment outcomes up to 1-year posttreatment. In keeping with findings by Jungbluth & Shirk (2009) and Aviram and Westra (2011), Hara and colleagues (2016a) similarly noted the presence of resistance to be associated with poorer engagement in subsequent therapy sessions, as measured by reduced homework compliance, and in another study, with notable reductions in client post session ratings of the therapeutic alliance (Hara et al., 2016b).

More recently, a follow-up study to a randomized control trial (RCT) by Westra and colleagues (2016) comparing the efficacy of CBT versus MI integrated with CBT (i.e., MI-CBT) for the treatment of severe GAD found resistance to mediate the comparative treatment effect, with 76% of MI-CBT's superior influence on posttreatment outcomes accounted for by fewer midtreatment resistance episodes (Constantino et al., 2017). Lower levels of resistance in MI-CBT at midtreatment were also found to fully account for group differences in treatment outcomes at clients' 1-year follow-up. The authors conclude that resistance is an important clinical marker, requiring increased clinical and research focus. Moreover, their study also provides support for the systematic integration of a more supportive approach, such as MI, with CBT as a means of improving treatment outcomes, specifically in the context of GAD.

Clearly, resistance is an important clinical phenomenon and process marker in psychotherapy, whose presence warrants clinical attention given the potent effects it is capable of exerting on client outcomes, even in small doses (Aviram & Westra, 2011; Constantino et al., 2017; Hara et al., 2015, 2016a; Jungbluth & Shirk, 2009; Westra & Norouzian, 2018).

Researchers also posit that it is not necessary for resistance to be frequent for it to be detrimental to psychotherapy process, and have characterized it as a major obstacle to effective treatment (Binder & Strupp, 1997). Not only is it considered a rare and potentially nuanced major obstacle, it has also been postulated as incredibly difficult for therapists to identify and manage (Hara et al., 2015; Henry, Schacht, & Strupp, 1990). As such, researchers have emphasized the ability to detect and effectively manage resistance as a *key clinical skill* (Burns & Auerbach, 1996; Constantino, Boswell, Bernecker, & Castonguay, 2013; Moyers & Rollnick, 2002; Safran, Muran, Samstag, & Stevens, 2001; Westra & Norouzian, 2018).

Further, given that alliance ruptures, like resistance, can lead to further deteriorations in the therapeutic relationship if left unacknowledged or unmanaged, the importance of effectively identifying and responding to resistance when it occurs is critical to improving psychotherapy outcomes and client experiences in psychotherapy (Aspland et al., 2008; Binder & Strupp, 1997; Coutinho, Ribeiro, Hill, & Safran, 2011; Rhodes et al., 1994; Safran & Muran, 1996). Implicit in being able to effectively navigate resistance is the ability to reflect on the emerging context that gives rise to the phenomenon, which includes both the therapist and client contributing to the phenomenon through a pattern of mutual responsiveness (Stiles et al., 1998). The term therapist 'responsiveness' or 'responsivity' has been extensively used in the literature to denote the mutual influence of client, therapist, and process characteristics, which collectively have been found to contribute to therapeutic outcomes (Stiles et al., 1998).

Therapist Responsivity

The concept of therapist responsivity has been well documented in the psychotherapy process literature, and is often described as "therapist behaviour that is influenced by emerging context" (Kramer & Stiles, 2015, p. 277). Championed by Stiles and colleagues (1998),

responsiveness is predicated on the notion that human interaction, including psychotherapy, is systematically responsive. That is, it is capable of being influenced by a number of client, therapist, and contextual characteristics, which fluctuate on a moment-to-moment basis throughout an interaction (Stiles et al., 1998). In everyday exchanges, individuals typically answer each other's questions, stay on related topics, and utilize cues from their immediate surroundings to signal turns of talk, shifts in foci, and/or changes in tone or pace (e.g., Elliott et al., 1994).

In the context of psychotherapy, more specifically, Stiles and colleagues (1998) consider both content and process emerging as treatment unfolds. They suggest that therapist responsiveness may take several distinct forms, including paying careful attention to treatment selection, planning interventions based on a client's presentation or baseline characteristics, timing the delivery of specific interventions based on a client's emotional experiencing, and/or adjusting one's vocal tone or posture based on a client's immediate expression (Stiles, 2009). Therapist responsiveness involves closely attending to the client to determine areas to explore as well as being sensitive to client 'requirements,' which can depend on client needs and resources (Stiles et al., 1998). For instance, in a study examining interpersonal-psychodynamic therapy for individuals with anxiety and depression, Elliott and colleagues (1994) found that therapists tended to adjust the wording of their interpretations in response to clients' reactions. This included pausing before providing an interpretation as a means of supporting the client if they were observed to have difficulty tolerating emotions associated with the interpretation. Therapist responsiveness, then, may be conceptualized as being comprised of a therapist's fluid and tacit awareness of context-specific process markers, including client responses and shifts in behaviour and affect, and also includes an openness and willingness to responsively shift their own behaviour as a result of this emerging context.

Increased therapist responsiveness (e.g., such as therapists being respectful and warm toward clients, using reflections, attending to clients' experiences, refraining from criticism, using eye contact, concerned expressions, and head nods, etc.) has also been reliably associated with positive therapeutic outcomes, such as the development of the therapeutic alliance and to patient-perceived empathy, which is an important element of the therapeutic alliance (Ackerman & Hilsenroth, 2001; Sexton, Littauer, Sexton, & Tømmeras, 2005; Watson, 2002). Therapist responsiveness is also conceivably conducive to client progress throughout the course of treatment (Elkin et al., 2014). For example, in an effort to examine whether therapist responsiveness early in therapy relates to early patient engagement in the context of CBT and interpersonal psychotherapy (IPT) for depression, Elkin and colleagues (2014) developed the Therapist Responsiveness Scale using therapy videotapes collected in the Treatment of Depression Collaborative Research Program (TDCRP; Elkin, 1994), a multi-site collaborative study of CBT and IPT. Authors defined therapist responsivity as, "the degree to which the therapist is attentive to the patient; is acknowledging and attempting to understand the patient's current concerns; is clearly interested in and responding to the patient's communication, both in terms of content and feelings; and is caring, affirming, and respectful towards the patient" (p. 53).

In their study, Elkin and colleagues (2014) outlined four factors they thought represented therapist responsiveness, these included: 'Attentiveness' (e.g., making eye contact, focusing on the patient, using minimal encouragers), 'Early empathic responding' (e.g., making effort to understand the client's perspective, making inferences related to unexpressed content,

responding to expressed emotion), 'Negative therapist behaviour' (e.g., being critical toward the patient, disrupting the flow of the session, making invalidating comments) and 'Positive therapeutic atmosphere' (e.g., being caring and compassionate, showing an appropriate level of emotionality and intensity, compatible discourse, respectful). Positive therapeutic atmosphere and a global item of therapist responsiveness were found to predict clients' positive perceptions of the therapeutic relationship as well as clients' retention in treatment. Negative therapist behaviour, specifically, was found to predict early termination of therapy. This study suggests that therapist behaviours that reflect responsiveness (demonstrating care, context-specific attunement to a client's emotions and needs, compassion and respect) are related to the initial development of the therapeutic alliance. Further, this study points to the relationship between negative therapist behaviours and deleterious client outcomes, such as premature termination of therapy.

Importantly, substantial overlap exists between the concept of therapeutic responsiveness and other important clinical skills, such as empathic attunement and expressed therapeutic presence (Colosimo & Pos, 2015). That is, a responsive therapist is also empathic and present. Empathic attunement has been defined as a therapist's ability to actively remain attuned to client communications and the unfolding of process on a moment-to-moment basis (Bohart, Elliott, Greenberg, & Watson, 2002). In order to respond to the emerging context of psychotherapy responsively, it is critical that a therapist listen attentively and attempt to understand a client's experience, stories, difficulties and styles of processing from the client's eyes and to adopt their frame of reference (Elliott, Watson, Goldman, & Greenberg, 2003; Rogers, 1980). This 'perspective taking' involves therapist-attuned responsivity, to both the cognitive and affective

processes implicit in the client's experience in psychotherapy (Elliott, Bohart, Watson, Greenberg, 2011; Moyers & Miller, 2013).

It may also be argued that therapeutic presence, which Colosimo and Pos (2015) define as "therapists' manifestation of *being present* during therapeutic encounters" (p. 100), also involves therapist full responsivity to the ways in which their own process may act as an 'access route' for achieving contact with a client's 'objective reality' (Bradford, 2007; Colosimo & Pos, 2015). In other words, being a responsive therapist may require an ongoing expression of therapeutic presence, which involves cultivating contact with the self, environment and others on a moment-to-moment basis. Colosimo and Pos (2015) note several 'modes' that therapeutic presence may take, including 'being here,' 'being now,' 'being open' and 'being with-and-for the client.' These modes conceivably involve the therapist being actively *responsive* to what is occurring within their own bodies, to what the client embodies, and what is occurring in the therapy room (Colosimo & Pos, 2015).

Accordingly, empathic attunement may be considered a *prerequisite* to therapist responsivity or presence, or part in parcel to the unfolding of appropriate therapist responsiveness. These terms, however, may be differentiated in the following important way: 1) therapeutic presence may be represented as a 'primary process' that is necessary, but not sufficient, for therapists to successfully express empathy (i.e., presence allows the therapist to ground themselves in their own perceptual system facilitating perception of the client; Colosimo & Pos, 2015; Pos, Geller, & Oghene, 2011), 2) empathic attunement may reflect an ongoing finegrained process that occurs on a moment-to-moment basis within a session (Pos, Greenberg, & Elliott, 2007), and 3) responsivity may be conceptualized as occurring on a larger time scale, inclusive of therapist behaviours and choices that are based on a therapist's understanding and

ongoing formulation of the client's needs and deficits (Stiles et al., 1998). Therapist responsivity thusly encapsulates empathic attunement and presence, but also involves the therapist's appropriate timing of statements, specific delivery of intervention or techniques, and the selection of strategies based on a client's formulation (Stiles et al., 1998).

Key 'Markers' in Psychotherapy

Psychotherapy process researchers increasingly underscore the importance of context-responsivity (i.e., markers) in psychotherapy (e.g., Constantino et al., 2013; Pos et al., 2007; Stiles, 2009; Westra & Norouzian, 2018). Moreover, researchers posit that not all moments in psychotherapy are of equal significance or clinically meaningful (Greenberg, 1986). Importantly, although certain clinical markers have developed within specific marker-guided therapeutic approaches, such as Emotion-Focused Therapy (EFT), implicit in the concept of marker-guided interventions is an emphasis on context-responsivity. In other words, marker-guided interventions or approaches share recognition of the importance of continually observing and appropriately responding to context-specific shifts in client experience.

Within the context of EFT, in-session client markers are conceptualized as signalling the client's readiness to engage in particular clinical interventions that are intended to facilitate the process of psychotherapy (e.g., Greenberg, 2015; Greenberg, Rice, & Elliott, 1993). For instance, clients are thought to enter problematic emotional processing states, which they signal entering by using specific statements and behaviours (e.g., 'unclear felt sense,' 'conflict splits,' 'problematic reactions'; Pos et al., 2007). In the spirit of responsively navigating these moments and helping the client process their problematic emotional state(s), EFT therapists attend to client markers and intervene in specific ways (e.g., through the use of specific interventions and techniques). As soon as an EFT therapist identifies that a client marker (i.e., an affective

processing problem) is activated (Greenberg et al., 1993), the therapist is able to focus treatment and facilitate client engagement with the process of therapy (Pos et al., 2007).

Angus and Greenberg (2011) similarly identify narrative markers of problematic meaning in their work examining client narrative in effective EFT. Upon appropriate identification of these narrative markers, therapists use specific interventions to facilitate narrative integration and reconstruction. Examples of narrative markers include 'untold stories' (i.e., client reexperiencing of an important emotional memory), 'unique outcome stories' (i.e., stories that challenge underlying negative expectations and assumptions), and 'unexpected outcome stories' (i.e., personal story about a surprising/unexpected outcome), among others. Each narrative marker is associated with appropriate therapist responses, such as promoting clients' experiences of positive difference and change, inviting client disclosure via evocative reflections, and heightening specific client experiences. Ribeiro and colleagues (2014) identify cycling between emerging narrative novelty (i.e., 'innovative moments') and problematic dominant self-narrative (i.e., 'return to the problem') as an important clinical marker of client ambivalence. Facilitating integration between discrepant parts of the self when such markers of ambivalence are present is thought to lead to therapeutic progress and new self-organization (Elliott et al., 1994; Greenberg & Watson, 2006). Related to this, Safran and Muran (1996) identify ruptures in the alliance as interpersonal markers providing the therapist with a unique opportunity to explore core client processes that maintain interpersonal schema. In other words, Safran and Muran view alliance ruptures as critical points in therapy for exploration. Within their rupture and repair research program, therapists are encouraged to be attuned to signals of alliance ruptures and to facilitate rupture exploration by directing the patient's attention to it, exploring thoughts, feelings and

expectations associated with the rupture, providing empathy and accepting responsibility for the rupture (Safran & Muran, 1996).

In an attempt to consolidate empirical markers of frequently occurring themes in the psychotherapy process and evidenced-based strategies for responding to such themes, Constantino and colleagues (2013) have proposed a model of context-responsive psychotherapy integration. Implicit in this approach is a transdiagnostic 'if-then' psychotherapy framework, which involves developing and testing therapist responsiveness modules (i.e., designed specifically to address psychotherapy process themes or scenarios) in response to common markers in the therapy process. These markers include client characteristics (characterized by interpersonal, intrapsychic and biological factors) and treatment processes that commonly occur across various forms of psychotherapy and to which therapists should be appropriately responsive (Constantino et al., 2013). Constantino and colleagues (2013) have proposed the following context-responsive markers, which occur commonly in all forms of psychotherapy: 1) 'change ambivalence,' thought to reflect uncertainty about change, low client motivation, or conflict between a desire to change and stay the same, 2) 'low outcome expectations,' reflecting limited belief in the treatment, and 3) 'alliance ruptures,' indicating negative shifts in the clienttherapist bond. In their paper, the authors outline the relationship between each of these common factors and negative psychotherapy process and outcomes, as well as the importance of therapist responsiveness in effectively navigating each.

Goodwin and colleagues (2018) have extended Constantino and colleagues' (2013) context-responsive psychotherapy integration framework to also examine clinician multicultural competence. They conceptualize multicultural competence as an ongoing process, requiring continual 'meta-responsiveness' to moment-to-moment cultural influences on the process of

therapy. In their work, they reframe therapist multicultural competence not as a stable characteristic but a fluid sense of appropriate attunement. Specific cultural processes are conceptualized as indicating 'if-then' markers to which a therapist should be culturally humble, open to the client's cultural identities, and willing to make adjustments that tailor to a client's cultural worldview. The authors demonstrate how discrepancies between a client's cultural background and the therapist's treatment approach can lead to common clinical processes (e.g., missed sessions, alliance ruptures, resistance) that require responsivity, typically away from rigid model adherence.

Collectively, the above studies point to important process markers in psychotherapy, requiring therapist sensitivity, flexibility, and openness to emerging context (Stiles et al., 1998). As Strupp and Binder (1984) argue, it is difficult, if not impossible, to separate therapeutic technique from the context of the interpersonal relationship, and management of this relationship may itself be considered a 'technical cornerstone.' The notion of marker-guided interventions, then, suggests that not all moments of psychotherapy are equal, and that what a therapist *does*, or *fails to do*, in the presence of context-specific moments may be critical to treatment process and outcomes. Given that research examining the relationship between therapist techniques and treatment outcomes has failed to substantiate the use of specific therapist techniques in contributing robustly to outcomes (e.g., Constantino, 2012; Duncan, Miller, Wampold, & Hubble, 2010), the examination of key moments in psychotherapy that point to important aspects of treatment effectiveness is increasingly recommended (Constantino et al., 2013; Stiles et al., 1998).

Importantly, these clinical markers may also be conceptualized as representing important moments in which the process of psychotherapy experiences an important shift or breakdown

that is similar to the construct of resistance. For example, when the client has withdrawn from the therapist, communicates a lack of engagement with the treatment, or states particular sentiments contrary to the direction of the therapy, these all may be considered moments reflecting lack of client engagement with the therapy process. If left unattended, these can lead to resistance or further negative process (Westra, 2012). Not surprisingly, therapist responsivity has been particularly indicated during such moments, as is their curious, flexible and humble awareness of the moment-to-moment unfolding of process, influenced by client and contextual factors during these moments (Constantino et al., 2013; Goodwin et al., 2018; Stiles, 2009).

Moreover, therapist responsivity has been identified as specifically important during moments of resistance. Binder and Strupp (1997) identify a generic skill critical to managing the presence of negative process in psychotherapy, involving Schön's (1987) concept of 'reflection in action.' This skill involves the ability to observe process as one is participating in it and being able to improvise effective strategies while one is in the process of acting. Conceivably, this skill is a necessary prerequisite for appropriate therapist responsivity, and may be particularly important for the successful navigation of resistance.

Therapist Responsivity and Resistance

A number of studies point to the presence of critical or significantly harmful moments in psychotherapy capable of disrupting client improvement or the process of psychotherapy, even in small amounts (e.g., Elliott, 1983; Rand, 1979; Standal & Corsini, 1959; Stiles et al., 1998). That is, even infrequent negative process can be problematic (e.g., Henry et al., 1990). Moreover, researchers observe that clients tend to remember disagreements with their therapists as 'important events,' even if they are infrequent (Viklund, Holmqvist, & Nelson, 2010). Similarly, client resistance fluctuates within therapy sessions depending on therapist direction and the

timing of particular interventions (Miller & Rollnick, 2002). Indeed, a collection of studies on interpersonal process in psychotherapy point to the disruptive impact of therapist directiveness (e.g., rigidly adhering to techniques, persisting with a particular agenda, failing to explore a client's experience) when a client has expressed concern or opposed the direction set by the therapist (Aspland et al., 2008; Aviram et al., 2016; Castonguay et al., 1996). The following studies each elucidate the relationship between increased therapist direction and the presence of client resistance, as well as argue for how therapist support and responsivity attenuates client resistance, leading to more fruitful therapeutic process.

In early work examining an observed relationship between CBT techniques and treatment outcomes in a sample of patients with depression, Castonguay and colleagues (1996) found that therapists tend to increase adherence to cognitive rationales and techniques (e.g., convincing the client about the CBT intervention, persuading the client despite opposition, stressing their own thoughts about the client's problems) during moments of resistance. This pattern of therapist response was found to be especially salient during moments of client hostility toward the therapist, or opposition toward the therapy, and to worsen alliance tensions and interfere with therapeutic change. In contrast, in sessions rated by clients as high in the therapeutic alliance, and despite moments of disagreement, therapists were found to focus more on the client's beliefs and emotional experience. Notably, responding like this did not result in lower alliance ratings. Following further quantitative and content analyses, this study noted that it was not the prescribed techniques that were detrimental or interfering with change per se, but rather, their rigid implementation in particular contexts, such as those in which there were strains in the alliance.

Aspland and colleagues (2008) remind us that to responsively navigate ruptures in the therapeutic alliance, therapists should shift from directive to supportive behaviours. In a qualitative study examining alliance rupture and repair in CBT, these authors found that ruptures occur more often when therapists persist with the application of a technique despite client concerns. Moreover, during increased client disengagement (i.e., resistance), therapists were found to become more persuasive, defensive, and less overtly validating, with this therapist pattern to client resistance perpetuating ruptures in the therapeutic alliance. Successful rupture resolution only occurred when therapists adjusted their behaviours to encourage clients to engage in the process of therapy by being more collaborative, by exploring and validating clients' experiences and by focusing on concerns important to the client. Consistent with recommendations by other prominent process researchers (Constantino et al., 2013; Newman, 2002; Rhodes et al., 1994; Watson & Greenberg, 2000; Westra & Norouzian, 2018), Aspland and colleagues (2008) conclude that therapists should be increasingly responsive and empathic upon noticing an alliance rupture, and use reflection and non-defensive exploration to encourage client expression.

The value of therapist responsivity in the context of client resistance was also highlighted by Elkin and colleagues (2014) in their exploratory analyses examining CBT and IPT for clients with depression. Upon examining whether therapist in-session responsive behaviours differ based on clients' level of resistance, Elkin and colleagues found that a positive therapeutic atmosphere, conceptualized in their study as a constituent factor of therapist responsiveness, significantly predicted client positive contribution to the therapy alliance. This was only the case, however, for clients rated resistant to treatment. The authors conclude that a positive therapeutic atmosphere, including therapist responsive attunement, might help mitigate clients' negative

attitudes toward the therapist or treatment. These authors also corroborate recommendations for therapists to become increasingly attuned and responsive to client resistant behaviour and concerns, even early in therapy (Elkin et al., 2014).

Further empirical support for the relationship between client resistance and therapist behaviour is provided by Ribeiro and colleagues (2014) in their examination of therapist responses during client ambivalence in poor outcome cases of narrative therapy. As outlined previously, resistance often arises in the context of directive, rather than supportive, management of client ambivalence about change (Westra, 2012). Using the *Therapeutic Collaboration Coding* System (Ribeiro et al., 2014), Ribeiro and colleagues supported this clinical assumption by demonstrating that therapeutic challenge, as opposed to support, most frequently precedes and follows client ambivalence. Further, these authors observed that the client more likely invalidates the therapist's intervention when that therapist responds to client ambivalence by challenging the client, which then contributes to breakdowns in therapeutic collaboration. In contrast, when the therapist responds to the client's ambivalence using a supportive strategy, the client more likely validates the therapist's intervention and collaborates with the therapist. Similar to the above mentioned conclusions about the importance of responsive, supportive management of resistance, these authors conclude that responding to client ambivalence with challenge or increasing direction can contribute to increased client ambivalence/resistance and feelings of being misunderstood.

In one of the only experimental studies examining client resistance and therapist confrontational behaviour, Francis and colleagues (2005) randomly assigned therapists to interview the *same actor* embodying a client either high or low in resistance to quitting smoking. Therapists in the high-resistance condition were increasingly confrontational, asked fewer open-

ended questions intended to understand the client's perspective, and offered significantly less praise and encouragement. Notably, therapists used more confrontational statements when the therapist and client's agendas were at cross-purposes. Therapists in the high-resistance condition also used blaming statements more frequently and expressed less empathy (e.g., "hollow-empathy" p. 1180) compared to therapists in the low-resistance condition. This study experimentally demonstrated how potentially directive, and unsupportive, clinical behaviour can be during moments of client resistance. It also highlights the interactive nature of resistance and the need for context-sensitivity to moment-to-moment changes in a client's expressions.

Aviram and colleagues (2016) also provide compelling support for the importance of therapist context-responsivity during moments of resistance in the context of CBT for GAD. In this study, context-responsivity was measured by examining whether differences in therapist style (e.g., more supportive and less directive behaviour) during moments of client disagreement, or resistance, related to the level of resistance in a session following, as well as posttreatment worry reduction. They also explored whether MI principles differentially impact treatment outcomes by comparing variations in therapist MI adherence in the presence of disagreement to therapist general MI adherence during randomly selected moments of therapy. The authors found that clients who had CBT therapists untrained in MI, yet naturally displayed higher levels of empathy, evocation, collaboration, and autonomy-preservation in the context of disagreement, showed significantly lower levels of subsequent resistance in the following sessions, in addition to reported lower levels of worry at the end of treatment. Moreover, they also found that variations in ratings of therapists' MI adherence related to outcomes *only* within the context of disagreement. That is, therapists' general MI adherence was not related to outcome. The authors concluded that, "doing the right thing (e.g., empathy, support of client autonomy), at the right

time, seems to be significantly more potent than doing that same thing at any given time" (Aviram et al., 2016, p. 70). This study strongly supports the context-responsivity hypothesis, and emphasizes the need for appropriate responsivity to resistance markers. It also highlights the utility of attending to emerging contextual markers of disengagement and resistance to shift into a supportive, flexible and autonomy granting therapeutic stance.

In a recent qualitative study conducted by Morrison and colleagues (2017), the authors explored clients' experiences of resistance while receiving either CBT-alone or MI integrated with CBT for GAD (Westra et al., 2016). The authors conducted interpersonal process recall (IPR) interviews on five clients who displayed early in-session change ambivalence from each treatment. Using grounded theory and consensual qualitative research strategies, the authors analyzed the IPR transcripts and found notable distinctions between MI-CBT versus CBT clients' discussion of their therapy processes and disclosures. Specifically, although clients in both groups reflected on how they respond to what they believed their therapist thought or expected of them, CBT clients reflected more about the specific CBT agenda or 'map' and the importance of adhering to the map and not thwarting the CBT therapist's track. CBT clients also more readily identified their own action or inaction as *separate* from the therapist, and as more preoccupied with doing the treatment as intended. The authors described CBT patients to be thus more focused on 'compliance' compared to MI-CBT clients.

The experiences described by CBT clients in this study were in contrast to the MI-CBT clients. MI-CBT clients appeared to more readily describe close interpersonal connection with their therapist, and MI-consistent experiences, such as the therapist promoting a sense of joining, and their being given permission to discuss anything (even if this was counter to their therapist's expectations). The authors conceptualized that specifically during moments of ambivalence, MI-

CBT clients engendered narratives of 'connection' and being granted autonomy by their therapists to "go against the expected script" (Morrison et al., 2017, p. 1531). These results are consistent with findings by Kertes and colleagues (2011), who demonstrated through the analysis of post therapy interviews that clients who received MI prior to CBT more actively engaged in CBT and experienced their CBT therapists as increasingly collaborative compared to clients who did not receive prior MI. Marcus and colleagues (2011) similarly observed that clients discussed therapist empathy, therapist provision of safety, and freedom to explore in their accounts of receiving MI. Consistent with Constantino and colleagues' (2013) 'if-then' model of psychotherapy, Morrison and colleagues (2017) concluded that their findings support the cultivation of a context-responsive approach to psychotherapy, involving appropriate therapist responsivity to markers of ambivalence or resistance. Moreover, this study highlights that switching to a more client-centered, autonomy-supportive style, when markers of client ambivalence are present is important as a means of maintaining connection between client and therapist.

In summary, the abovementioned studies underscore the importance of therapists engaging in a more supportive, rather than directive, therapeutic style during moments of relational dissonance, or resistance, in psychotherapy. Moreover, these studies highlight the interactive nature of psychotherapy, with client resistance highly responding to clinician style (Miller & Rollnick, 2002; Stiles et al., 1998). In other words, irrespective of the therapeutic modality, therapist responsivity yields significant dividends by attenuating the harmful impact of resistance on client process and treatment outcomes. Further, cultivating a client-centered relational stance, such as MI, during such moments appears to facilitate the effective management of resistance and improve client process and treatment outcomes (Aviram et al., 2016; Constantino et al.,

2017; Morrison et al., 2017; Westra et al., 2016; Westra & Norouzian, 2018). When a client has communicated ambivalence or opposition, therapist use of a directive therapeutic approach may leave the therapist capable of conveying a message to the client that their perceptions are invalid, which may taint the successful flow of psychotherapy (Burns & Auerbach, 1996; Westra, 2012). I now proceed to detail one such supportive approach to resistance, Motivational Interviewing (MI), in greater detail.

Motivational Interviewing

Originally developed by Miller and Rollnick (1991) as an alternative to traditional approaches for treating individuals struggling with addictive behaviours, Motivational Interviewing (MI) is founded in the origins of Carl Rogers' (1956) client-centered therapy, which advocates for empathic understanding of a client's internal frame of reference and a therapist's use of core facilitative conditions of empathy, unconditional positive regard, and therapist genuineness (Rogers, 1957). Specifically, MI is predicated on enhancing clients' intrinsic motivation for change and treatment, and resolving ambivalence around change (Miller & Rollnick, 2002). This approach begins with the assumption and honouring of a client's personal autonomy, that is, with the belief that individuals are free to make their own choices, and that this power cannot be appropriated by another (e.g., a therapist; Miller & Rollnick, 2009). From this perspective, resistance to change is not viewed as a problem or obstacle to be overcome in treatment, and ambivalence about change is considered a normal and expected response to the prospect of change. As such, MI is based on helping clients explore and resolve their ambivalence about change by drawing on inherent motivational processes within the client that enable the process of change (Miller & Rollnick, 2002, 2009; Westra, 2012). Implicit in this approach is also the belief that a client's ambivalence about, and motivation for, change can

fluctuate throughout the course of therapy. The importance of appropriate responsiveness in the presence of resistance and client ambivalence is thusly required, and therapist attunement to this variability is believed to be a critical ingredient for evoking change in the client and the process of effective psychotherapy (Westra, 2012).

Importantly, MI is fundamentally a 'way of being' with clients and does not force change (Westra, 2012; Westra & Norouzian, 2018). Rather, it is accepted that change may be incongruent with a client's readiness in any given moment, and a client's resistance is conceptualized as an important client communication signaling they are not on board, to which a therapist is required to be responsive (Miller & Rollnick, 2002). Therapist actions are considered means through which a client's particular view and the process of change are communicated, and the occurrence of resistance is seen as a valued source of information and opportunity for therapist empathy and acceptance (Westra, 2012). In other words, when resistance arises, it is considered a marker for the therapist to respond differently, to empathically explore the client's feelings, and to shift into a supportive therapeutic stance by 'rolling with resistance' (Miller & Rollnick, 2002).

The shift to a more supportive, rather than directive, stance involves the cultivation of MI 'spirit,' which includes empathic reflections, drawing out the client's sentiments about change, collaboration between the client and therapist, and preserving client autonomy (Miller & Rollnick, 2002; Westra, 2012). At all times, and especially during moments of client ambivalence or resistance, the therapist avoids arguing for change but rather views the client as the primary source for uncovering the answers and motivation for change (Arkowitz, 2002; Engle & Arkowitz, 2006; Miller & Rollnick, 2002; Westra, 2012). That is, clients are considered to already possess all they need to resolve their ambivalence and successfully approach change

(Westra, 2012). Resistance is only problematic if and when the resistant responses increase in intensity or frequency throughout the session and goes unmanaged or undetected by the therapist (Westra & Norouzian, 2018). As such, the therapist must continually attend to and successfully navigate moments of resistance *as they occur* in order to reduce the negative impact they may have on treatment outcomes (Miller & Rollnick, 2002).

Clearly, therapist responsivity is an important cornerstone for effective psychotherapy, and especially critical during moments of client resistance. While research has recognized the importance of therapist responsivity and flexibility (e.g., increased acceptance and support) during moments of resistance, little is known about how therapists responsively navigate these moments of resistance on a context-specific basis. Moreover, while previous studies have examined differential effects of general counselling style on the management of resistance (e.g., Aspland et al., 2008; Aviram & Westra, 2011; Miller, Benefield, & Tonigan, 1993; Patterson & Forgatch, 1985, etc.), less is known about the impact of particular therapist responses and behaviours as *they occur* during resistance on client outcomes and the therapeutic process.

Only one study to date has examined therapist responsivity to client resistant responses and behaviours as they occur during therapy sessions in the context of a directive therapeutic approach (Aviram et al., 2016). This study provided fodder for the context responsivity hypothesis and demonstrated the impact of therapists' shifting their behaviour during moments of resistance to more supportive versus directive stances, which were captured by higher scores of MI spirit (e.g., evocation, preserving client autonomy, empathy etc.). While this study was promising in providing support for the differential effect of increasingly client centered behaviours during resistance, what therapists are specifically *doing* in those moments (e.g., specific therapist behaviours) remains largely unknown. In other words, how a therapist

effectively *communicates* their shift to a more empathic stance, how they go about preserving a client's autonomy or evoking a client's perspective during these interpersonally difficult moments of resistance remains an understudied area in psychotherapy research.

Further, given that differences between therapists has been shown to matter in terms of resistance responding, the current study seeks to address the aforementioned gap in the literature by exploring whether *systematically training* therapists to identify and effectively navigate resistance yields dividends in terms of resistance management. The present study aims to do so by using a more refined lens of examining interpersonal process known as the Structural Analysis of Social Behavior (SASB; Benjamin, 1974). This system specifically quantifies therapist behaviours during moments of resistance (e.g., control, hostility, affiliation) and has been defined by researchers as, "[permitting] extremely fine-grained analysis of virtually any interpersonal event..." (Henry, Schacht, & Strupp, 1986). This system is further explicated below.

Structural Analysis of Social Behavior (SASB)

Developed by Benjamin (1974), the Structural Analysis of Social Behavior is a circumplex model of interpersonal behaviour, which utilizes an observational coding scheme to capture insession therapist-client interpersonal process. This tool has been used to explore a wide range of interpersonal behaviours (Benjamin, 1974; Constantino, 2000) as it categorizes interpersonal behaviours based on two underlying, intersecting dimensions of affiliation and interdependence. Studies examining interpersonal process in psychotherapy using the SASB have been conducted in the context of experiential, interpersonal, and psychodynamic psychotherapies (Coady & Marziali, 1994; Henry, Schacht, & Strupp, 1986, 1990). Importantly, these studies have consistently underscored the relationship between poor psychotherapeutic outcomes and the

presence of negative interpersonal processes (e.g., lower levels of client disclosure, higher levels of interpersonal hostility, higher levels of therapist control and disaffiliation), as compared to good outcomes and strong alliance cases (Coady & Marziali, 1994; Henry, Schacht, & Strupp, 1986, 1990; Jorgensen, Hougaard, Rosenbaum, Valbak, & Rehfeld, 2000; Najavits & Strupp, 1994; Tasca & McMullen, 1992; Wong & Pos, 2014). In general, good outcome cases have been characterized by the SASB as containing significantly more therapist affiliative behaviours, and greater self-disclosure and friendly autonomy displayed by clients (e.g., Henry et al., 1986, 1990; Tasca & McMullen, 1992).

SASB Interpersonal Process Studies

In one of the earliest studies to utilize the SASB method to examine therapist interpersonal process variables in the context of time-limited dynamic psychotherapy, Henry, Schacht and Strupp (1986) compared four therapists, each of whom saw a good and poor outcome case. Using 15-minute excerpts from the third session of therapy, the authors found that in good outcome cases, therapists used more affiliative and autonomy granting behaviours, such as 'helping and protecting' and 'affirming and understanding' and significantly lower levels of hostile behaviours, such as 'belittling and blaming.' Clients in these good outcome cases were also observed to engage in more friendly autonomy (i.e., 'disclosing and expressing') and less hostile behaviours. In contrast, therapists in poor outcome cases were found to display more hostile control and to provide less autonomy to clients. In poor outcome dyads, clients were also found to display more hostile and less affiliative behaviours (e.g., 'walling off and avoiding'). The authors of this study concluded that the same therapist, despite using similar techniques with similar patients, might exhibit significantly different interpersonal behaviours in low change

versus high change cases. This study also illustrated the value in fine-grained analysis, such as the SASB, in highlighting variable interpersonal process between therapist and client.

These patterns of therapist and client interpersonal process behaviours were also observed by Najavits and Strupp (1994) in their study examining specific behaviours associated with 'more effective' versus 'less effective' therapists in time-limited dynamic psychotherapy. The authors defined therapist effectiveness by clients' outcome scores and their length of stay in treatment. Effective therapists were found to engage in significantly more affiliative behaviours, such as 'affirming and understanding' and 'helping and protecting,' as opposed to less effective therapists. Effective therapists were also found to display fewer hostile behaviours, such as 'ignoring and neglecting,' 'attacking and rejecting' and 'belittling and blaming.' These authors concluded that, "basic capacities of human relating – warmth, affiliation, and minimum of attack and blame – may be at the center of effective psychotherapeutic intervention" (Najavits & Strupp, 1994, p. 121). In light of their findings, Najavits and Strupp (1994) also recommended for future research to examine how training might affect therapist skill, and by extension, therapist interpersonal behaviours during various moments of the psychotherapeutic exchange. Several studies utilizing SASB methodology have replicated such findings, including Coady (1991), Henry and colleagues (1990), and Jorgensen and colleagues (2000).

Therapist and client behaviours, as measured by the SASB, have also been investigated within the context of the working alliance. For example, Coady and Marziali (1994) examined therapist and client behaviours that were associated with good and poor alliance in individual time-limited psychodynamic psychotherapy. Researchers found that therapist 'watching and controlling' behaviours and client 'walling off and avoiding' and 'asserting and separating' behaviours were associated with poor alliance scores at various points in treatment.

More recently, Wong and Pos (2014) examined the concurrent effect of pre-therapy and insession interpersonal processes on alliance building in the first session of experiential psychotherapy for depression. The authors used the SASB to evaluate the relationship between in-session interpersonal processes and the alliance. Findings revealed that clients who disclosed more during the first session of therapy also reported higher alliances. Moreover, client disclosure was found to be the only independent predictor of the alliance, accounting for a unique 14% of the variance in session one alliance scores. Although results showed that therapists engaged in affiliative and nurturing behaviours in both the high and low alliance groups, higher rates of therapist affiliative behaviours, such as 'loving and approaching' were associated with higher alliances. In contrast, higher rates of client 'asserting and separating' behaviours were negatively related to the alliance. The authors noted that their findings highlight the importance of establishing a warm, genuine interpersonal environment in the first moments of therapy, as well as the ways in which a client's assertion and separation, although not directly hostile, might communicate that they are pulling away from the therapist interpersonally.

SASB in CBT

While most studies to use the SASB to examine interpersonal process have been within the context of psychodynamic and experiential psychotherapies (e.g., Najavits and Strupp, 1994; Wong & Pos, 2014), researchers have concluded that relationship variables are of strong relevance in understanding CBT outcomes (e.g., Castonguay et al., 1996; Keijsers, Schaap, & Hoogduin, & Lammers, 2000). Moreover, there is empirical evidence to suggest that lower levels of interpersonal hostility and higher levels of affiliative behaviours may characterize good versus poor outcome cases in CBT as well. However, interpersonal process in CBT has been traditionally considered to be indirectly related to outcome by facilitating client compliance with

CBT techniques, and has not been emphasized as being directly related to treatment outcomes (Critchfield, Henry, Castonguay, & Borkovec, 2007).

In attempts to replicate work conducted in psychodynamic-interpersonal treatments outlining the relationship between interpersonal process and outcome, Critchfield and colleagues (2007) used the SASB to examine three variants of CBT for GAD. The three variants of CBT were comprised of good outcome cases, poor outcome cases, and good outcome cases that had declined at follow-up. Although in line with the authors' predictions that clients with poor outcomes would experience and/or engage in more hostile behaviours than good outcome cases, few dyads displaying relatively high levels of interpersonal hostility were found in the two poor outcome groups. Follow-up analyses comparing the good outcome group with the two poor outcome groups also suggested greater hostility in poorer outcome groups, however, findings were equivocal and underpowered. Interpersonal process variables overall were not found to be strong predictors of outcome in this study. The authors concluded that the primary finding in the study was that significant interpersonal process differences were observed between the three variants of CBT (i.e., greater hostility found in poor outcome dyads, although rare). They also postulated that the restricted range of interpersonal hostility in their sample may have contributed to the absence of more significant findings.

In one of the few other studies to examine SASB within the context of CBT, Ahmed, Westra and Constantino (2012) examined client and therapist moment-to-moment interpersonal process between two groups of clients who were equivalent in their outcome expectations at baseline, but differed in their outcome expectations at the end of their first session of therapy. Therapy segments reflecting client resistance and cooperation were systematically sampled and coded using the SASB. Therapist and client behaviours were assessed independently and

together (i.e., interpersonal complementarity). Findings revealed that during moments of resistance, increased levels of client separation and hostility were present in the low outcome expectations group in comparison to those who went on to have high expectations (i.e., high expectations group). In other words, during these moments there was much greater evidence of relational conflict and instability. Moreover, during moments of cooperation, therapists of clients with low outcome expectations were found to exhibit less affirming and understanding, and more controlling behaviours. The authors concluded that maintaining positive client beliefs in treatment might depend, in part, on the therapist's ability to cultivate a warm and harmonious environment, within which the client can freely oppose the therapist/therapy and can more effectively raise and process their disagreements. Overall, this study highlights the relationship between interpersonal process and early client outcome expectations.

Taken together, these studies highlight SASB's efficacy in capturing interpersonal process and important therapy outcomes and processes. In general, SASB interpersonal process studies, conducted primarily within the context of experiential and psychodynamic therapies, consistently demonstrate the link between therapist and client affiliative behaviours (e.g., friendly autonomy, disclosing and expressing, etc.) and good treatment outcomes, and higher levels of interpersonal hostility (e.g., increased therapist control, lower levels of client disclosure and higher disaffiliation) with poorer treatment outcomes (e.g., Henry et al., 1986; Tasca & McMullen, 1992). Similar to studies delineating the relationship between resistance and therapist supportive behaviours (e.g., Aspland et al., 2008; Aviram et al., 2016), these studies also highlight the impact of therapist-client affiliation versus hostility in influencing important process outcomes, such as the therapeutic alliance and client outcome expectations (e.g., Ahmed et al., 2012; Wong & Pos, 2014). Importantly, most of the studies to date using the SASB have measured

interpersonal process in psychodynamic or experiential therapies, which directly emphasize the therapeutic relationship. Given that significantly less is known about interpersonal process within the context of CBT, the current study aimed to compare interpersonal process using the SASB, specifically during key moments of resistance, in traditional CBT and MI-enhanced CBT.

Summary and Aims

As previously discussed, resistance represents a key clinical phenomenon in psychotherapy that is capable of significantly negatively impacting subsequent psychotherapy processes and outcomes (e.g., Aviram & Westra, 2012; Beutler et al., 2011; Constantino et al., 2017; Jungbluth & Shirk, 2009). This phenomenon has been deemed a major obstacle to effective psychotherapy, given its capacity to thwart collaboration between a client and therapist and contribution to the deterioration of important therapeutic processes, such as the therapeutic alliance and client expectations for therapy (Gilbert & Leahy, 2007; Mamedova et al., 2019; Safran, 1998). Studies have reliably demonstrated that directive therapeutic approaches tend to elicit greater resistance than supportive styles, and cultivating a more supportive stance specifically during moments of client opposition has been found to reduce resistance and promote cooperation (e.g., Aspland et al., 2018; Aviram et al., 2016; Miller et al., 1993; Patterson & Forgatch, 1985).

Despite recommendations for therapists to switch to a more supportive stance when markers of client ambivalence or resistance are present, therapists have been found to increase their adherence to cognitive rationales and strategies (i.e., to increase their directiveness) during moments of resistance (e.g., Aspland et al., 2008; Castonguay et al., 1996; Zickgraf et al., 2015). This has been found to be particularly salient within the context of CBT, where therapists are often trained to view resistance as a barrier to effective treatment (Beck, 1995; Garland & Scott, 2007; Goldfried, 1982; Kazantzis & Shinkfield, 2007). Moreover, although resistance has been

Leahy, 2007; Leahy, 2001), and studies have shown that integrating client-centered approaches that are predicated on the effective management of resistance can significantly reduce the presence of the phenomenon (e.g., Westra et al., 2016), therapist management of resistance within CBT remains an understudied phenomenon (Aviram et al., 2016). Further, no known study to date has directly compared therapist management of moments of resistance in CBT with the systematic integration of MI into CBT. Given the growing body of research delineating the importance of context responsivity to common factors in psychotherapy (e.g., Constantino et al., 2013; Stiles et al., 1998; Westra & Norouzian, 2018), there is empirical reason to suspect that examining therapist responsivity to moments of resistance might elucidate inhibiting and hindering behaviours in the navigation of this important phenomenon. Further, and more generally, there is a paucity of research investigating context-responsivity in relation to key markers, and process research more generally, within the context of CBT.

Given that resistance emerged to be a key difference between the two groups in the Constantino and colleagues (2017) study, which made a significant difference in treatment outcomes, the present study also aimed to understand therapist behaviour between groups during resistance further. That is, it aimed to use a different, and potentially more refined lens of studying interpersonal behaviour (the SASB; Benjamin, 1974), which precisely measures therapist behaviours (e.g., control, hostility, affiliation), while simultaneously capturing core aspects of MI style (e.g., autonomy-support, evocation, remaining non-judgmental). That is, the SASB was selected to examine granular differences in psychotherapy process between the two therapy groups precisely during moments of resistance. Second, the present study aimed to examine the relationship between specific therapist behaviours identified during resistance and

client outcomes. That is, do more specific therapist behaviours that might differentiate therapy groups in response to resistance *also* differentiate client outcomes?

The Current Study

The present study sought to examine therapist responsivity during identified moments of interpersonal resistance (e.g., moments in which the client disagreed with or opposed the direction set by the therapist) in the context of a recently completed RCT examining the integration of MI with CBT, and CBT-alone, for high severity GAD (Westra et al., 2016). Given that it was of particular interest to examine differences in therapist management of resistance between treatment groups, an observational coding system of interpersonal resistance was used to identify moments containing clear client resistance, as indicated by client responses and behaviours to the direction set by the therapist (Manual for Rating Interpersonal Resistance; Westra, Aviram, Kertes, Ahmed, & Connors, 2009). In the current study, moments of *clear* disagreement between the client and therapist were selected for analysis, given that clear, unequivocal opposition to the direction of the therapist has been shown to be reliably associated with treatment outcomes, and a form of resistance that may be clearly identified (Aviram & Westra, 2011; Hara et al., 2015, 2016a). Moreover, these disagreement episodes were sampled from the early phase of treatment (sessions 2 to 6). Sessions from this phase of treatment were selected given that the coding of one early treatment session has been found to provide adequate information on which to base predictions of outcome (Aviram & Westra, 2011; Hara et al., 2015; Westra & Arkowitz, 2010), and resistance levels have been shown to be highly correlated over time in therapy (e.g., early resistance with midtreatment resistance; Button et al., 2015). Therapist responsivity during these disagreement episodes was measured by using the SASB coding system (Benjamin, 1974). This tool categorizes interpersonal behaviours based on two

underlying, intersecting dimensions of affiliation and interdependence. Note that therapists were also nested within treatment group, and as such, each treatment group represented a different group of therapists. Based on previous research, then, it was hypothesized that:

Hypothesis 1 (H1): During disagreement episodes, CBT-alone therapists would exhibit fewer affiliative behaviours, more attempts to control, and greater amounts of interpersonal hostility compared to therapists in the MI-CBT group, who received explicit training in the MI management of resistance. Accordingly, MI-CBT therapists were expected to engage in significantly higher levels of affiliative interpersonal behaviours (i.e., greater empathy and support), and fewer hostile behaviours (i.e., controlling and directing) at these times.

Hypothesis 2 (H2): It was expected that the specific therapist behaviours differentiating therapy groups during disagreement episodes would also be associated with client outcomes. In particular, more affiliation during disagreement would be associated with *lower* ratings of posttreatment worry immediately posttreatment and at 1-year posttreatment, as assessed by the *Penn State Worry Questionnaire* completed by clients at both time points (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990).

Method

Data for the present study were derived from a larger Randomized Controlled Trial (RCT) investigating an integrated treatment of MI and CBT with CBT-alone for severe GAD (Westra et al., 2016; described in further detail below). Methods pertaining to the larger RCT will first be described, followed by specific methods and procedures pertaining to the present study. In the current study, a total of 30 therapist-client dyads (total N = 60) were selected from each of the two treatment groups in the larger trial. A local Institutional Ethics Review Board for research

involving human participants approved all measures and procedures in the larger RCT. Informed consent was obtained for all study procedures at the time of initial study intake.

Participants

Clients. Clients in the larger RCT were recruited from community advertisements in the Greater Toronto Area targeting individuals who worry excessively. Following a telephone screen, which emphasized the criteria for GAD as assessed by a Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990) score of 68 or higher (out of a possible 80), individuals were invited to complete a Structured Clinical Interview for Diagnosis IV (SCID-IV; First, Spitzer, Gibbon, & Williams, 1996). This interview was administered by senior clinical psychology graduate students who were trained to criterion in the administration of the SCID-IV. A random sample of 25% of the audio-recorded interviews were double coded to determine interrater reliability, yielding an overall kappa of .87 for all diagnoses, and .95 for GAD. Given the high frequency of comorbidity across psychiatric disorders, clients whose symptoms met criteria for GAD and other comorbid disorders, such as depression, were also considered eligible for the study provided that GAD was their principal diagnosis based on level of impairment (Stein, 2001; Wittchen, Zhao, Kessler, & Eaton, 1994). Clients were not screened for the presence of, or for previously diagnosed, Personality Disorders or Axis-II Disorders (American Psychiatric Association, 2013). As such, individuals with Personality Disorders were not excluded from participating in the RCT, permitted their worry level met study criteria and they did not meet any exclusion criteria (described below).

Exclusion criteria for the RCT included the following: substance dependence within the past 6-months, a neurological problem, major cognitive impairment, learning disability, significant current suicidal ideation, history of a psychotic or bipolar mood disorder, and below

criterion proficiency in English language. Additionally, clients were required to be between 16 and 65 years of age and to refrain from receiving any concurrent psychotherapy during the acute treatment phase of the study or from taking benzodiazepine medications for at least 2-months prior to study enrolment. Those clients who were concurrently using antidepressant medications were required to be on a stable dose at study entry (i.e., at least 3-months) and to remain on that dosage throughout the study. If clients had recently discontinued an antidepressant medication, they were required to be off of the medication for at least 3-months. Individuals who were not taking psychotropic medications were required to remain unmedicated for the duration of their treatment.

Therapists. In the larger RCT, there were a total of 13 therapists in the CBT-alone group (12 doctoral candidates in clinical psychology and one postdoctoral psychologist), and eight therapists in the MI-CBT group (seven doctoral candidates in clinical psychology and one postdoctoral psychologist). Therapists were trained in and delivered either MI-CBT or CBT-alone, and they self-selected into treatment condition to control for allegiance effects. Therapists in the CBT-alone group were required to have no formal training in MI. All therapists were female, despite having no recruitment restrictions regarding gender. Therapists in the CBT-alone group saw between 1 and 7 cases each (median of 5), and MI-CBT therapists saw between 3 and 14 cases each (median of 5).

Therapist Training. Therapists in both groups participated in a 4-day workshop, consisting of readings, discussion and role-play. All therapists also had at least one practice treatment case with intensive feedback and video supervision prior to seeing study cases. An expert in MI and CBT, Dr. Henny Westra, conducted training and case supervision for the MI-CBT therapists, and an expert in CBT, Dr. Martin Antony, together with a postdoctoral fellow

specializing in CBT, conducted CBT training for both groups and supervised the CBT-alone therapists. That is, supervisors only supervised therapists within their treatment group assignment (MI-CBT or CBT-alone). Therapist competence in both groups was based on supervisor assessment following repeated video review of therapy sessions and supervisor completion of relevant treatment competence measures during therapist practice cases. In the CBT-alone group, all therapists saw one practice case and were deemed competent. Given the complexity of integrating MI with CBT, together with the lack of prior exposure to MI, MI-CBT therapists saw between 1 and 2 practice cases, and only 8 of the 14 therapists being trained in the modality were deemed competent to deliver the treatment. Therapists received weekly supervision consisting of video session review and weekly individual supervision meetings.

Treatment

Individuals in both treatment groups received 15 weekly, 1-hour individual sessions, as well as two 1-hour booster sessions at 1- and 3-months posttreatment, which were designed to reinforce skills and strategies learned in the active phase of treatment. In the MI-CBT group, individuals received up to 4 initial sessions of MI alone, followed by 11 sessions of MI integrated with CBT.

CBT. Treatment was adapted from several evidence-based protocols (e.g., Craske & Barlow, 2006; Zinbarg, Craske, & Barlow, 2006), and emphasized psychoeducation around anxiety and worry, progressive muscle relaxation, self-monitoring, cognitive restructuring (with an emphasis on probability overestimation and catastrophic thinking), and one or more behavioural intervention strategies (i.e., behavioural experiments, imaginal exposure to feared outcomes, reduction of worry behaviours). Therapists used a session-by-session manual developed for the RCT (Westra et al., 2016) to implement treatment in a specific order, starting

with progressive muscle relaxation, followed by cognitive restructuring and behavioural strategies. Depending on the needs and responsiveness of clients to each component of treatment, the length of time spent on each was flexible and left to the judgment of the therapist. Sleep strategies were drawn from the work of Carney & Edinger (2011) and incorporated into the treatment as needed. In order to establish consistency in the management of homework non-compliance, procedures for CBT-consistent management of homework noncompliance were extracted from the literature and made explicit (e.g., Beck, 2005; Kazantzis & Shinkfield, 2007; Tompkins, 2004; Waters & Craske, 2005). These included the integration of strategies for preventing homework noncompliance, such as working collaboratively to develop homework assignments, anticipating obstacles and working with clients to problem-solve identified obstacles. This also included responding to noncompliance in a CBT-consistent manner, which included validating the difficulty associated with completing homework, understanding the reasons for noncompliance, and psychoeducation regarding the importance of homework completion. Relapse prevention was discussed and a relapse plan was developed at session 14.

MI-CBT. Principles and methods germane to MI, such as expressing empathy and rolling with resistance, established by Miller and Rollnick (2002) were adapted to the treatment of anxiety (Westra, 2012). This adaptation was used as the foundation of the present MI-CBT treatment, which describes MI alone as well as the ways in which it may be integrated with more action-oriented treatments, such as CBT. The first four sessions of this treatment consisted of MI alone and involved therapists providing a rationale for treatment that included explaining that the first four sessions of the treatment would be 'exploratory' in nature and focused on discussing the client's sentiments about change and preparing for change, followed by 11 sessions dedicated to discussing more 'practical' strategies to achieve change. Thus, the first four initial sessions of

MI were dedicated to the exploration of client feelings and their ambivalence about change (e.g., reducing worry or related problems such as perfectionism and avoidance). Therapists refrained from using any change-oriented strategies during these first four sessions. Instead, the spirit of MI (e.g., support for client autonomy, collaboration, empathy and evocation) and principles of MI (expressing empathy, developing discrepancy, supporting self-efficacy and rolling with resistance) were emphasized in order to help clients resolve any ambivalence about change before the more 'active' phase of treatment.

During the MI-CBT phase of treatment, the effective identification of, and responsivity to, context-specific in-session markers of client ambivalence and resistance was emphasized in addition to the delivery of the aforementioned CBT components each week (e.g., progressive muscle relaxation, self-monitoring, cognitive strategies etc.). Therapists integrated MI with CBT in two major ways: (1) therapists could switch back to MI (supportive exploration of ambivalence) when markers of ambivalence or resistance were present, in other words, they could step back from using active-oriented strategies if the client communicated an inability or disinterest in doing so at that instance; and (2) the MI spirit was used as a foundational platform throughout the delivery of CBT.

Treatment Outcome Measure

Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990). The PSWQ is an extensively used 16-item measure assessing trait worry, serving as the primary outcome measure for the larger RCT. Items are rated on 5-point likert scale, with total scores ranging from 16 to 80, and higher scores reflecting greater worry. In the RCT, clients completed the PSWQ at baseline, immediately following every CBT session, posttreatment, and at all follow-up assessments. The PSWQ possesses high temporal stability and internal consistency,

with studies demonstrating a Cronbach's α of .93 for all anxiety disorders, and .86 for GAD specifically (Brown, Antony, & Barlow, 1992; Meyer et al., 1990). This measure has also been shown to have good convergent and discriminant validity, as reflected by its ability to differentiate individuals with GAD from those with other anxiety disorders (Brown et al., 1992). The average Cronbach's α for the current study was .62 at baseline, and ranged from .96 to .97 at posttreatment and follow-up assessments. Notably, the baseline alpha level was likely negatively influenced by the restriction of range on the PSWQ at baseline. Given that only individuals with high severity GAD (as assessed by a score of 68 or higher out of 80 on the PSWQ) were included in the sample, the measure did not have its typical level of variability.

Sample Selection Measures

Three measures were included for the purpose of sample selection from the larger trial data set: *Therapist* ratings of resistance (Visual Analogue Scale (VAS) ratings), *observer* ratings of resistance using the *Manual for Rating Interpersonal Resistance* (Client Resistance Code; Chamberlain et al., 1984; Westra et al., 2009) and the *Motivational Interviewing Skill Code Version 1.1* (Hagen Glynn & Moyers, 2009). Specific sample selection procedures are described later under 'Procedures.'

Therapist Ratings of Resistance. Given the paucity of published measures evaluating therapist-rated resistance, a measure was constructed by Westra and colleagues (2016) for the RCT. Therapists completed a set of three Visual Analogue Scales (VASs) where they were required to rate clients on the following three dimensions: Passive-Active, Defensive-Receptive and Rigid-Flexible. Therapists completed these VASs at the end of every session and did so by drawing a mark on a ruler ranging from 1 to 100 that they considered best reflected the client's

interpersonal behaviour during the session. A rating near 1 would indicate client passivity, defensiveness, or rigidity and a rating of 100 indicated client receptiveness and flexibility.

Motivational Interviewing Skill Code Version 1.1 (MISC 1.1; Hagen Glynn & Moyers, 2009). This coding system involves coding client change language aurally, typically without the use of transcript or video. Client utterances in response to target behaviours that may be categorized as Change Talk (CT; client speech that reflects movement toward the target and expresses agreement with or arguments for change) or Counter-Change Talk (CCT; client language that indicates movement away from the target and reflects arguments against change or objections to change) are coded, whereas neutral client language and therapist language are not. This measure has been shown to have strong predictive validity in the area of substance abuse (Amrhein, Miller, Yahne, Palmer, & Fulcher, 2003), predicting positive behavioural outcomes (e.g., greater drug abstinence at one year posttreatment), as well as with client commitment language, particularly at the end of MI sessions (Button, 2019; Button & Westra, 2013; Sijercic, Button, Westra, & Hara, 2016; Poulin, Button, Westra, Constantino, & Antony, 2018). Clients' language for and against change has also been independently linked to outcomes over and above baseline symptom severity (Button, 2019; Moyers et al., 2007; Poulin et al., 2018).

Manual for Rating Interpersonal Resistance (Westra, Aviram, Kertes, Ahmed, & Connors, 2009). An adapted version of the *Client Resistance Code* (CRC; Chamberlain et al., 1984) was used to measure instances of resistant disagreement in the current study (refer to Appendix A for a description of the adapted manual; Westra et al., 2009). The CRC is a process-based coding system, applicable to various treatment modalities and not specific to one particular therapeutic approach. Within this system, resistance is defined as any behaviour that opposes, blocks, diverts or impedes the direction set by the therapist. According to this system, resistance

is thought to reflect a client's moment-to-moment engagement with the *process* of therapy, rather than a static client characteristic. In other words, content is secondary, and it must be clear from the *interpersonal context* within which both the therapist and client are embedded that the intention of the client is to disagree or go against the therapist's direction (rather than relying exclusively on the content of client statements). A total of 11 categories of resistant behaviour (i.e., challenging, disagreeing, expressing hopelessness, blaming, defending others or self, pushing client's own agenda, side tracking, not responding, not answering, and disqualifying) comprise the CRC. This system has been demonstrated to have good construct and predictive validity (Chamberlain et al., 1984; Patterson & Forgatch, 1985), in addition to face and content validity (Bischoff & Tracey, 1995). Higher levels of resistance within the therapeutic encounter have been linked to poorer treatment outcomes and client retention (Chamberlain et al., 1984; Jungbluth and Shirk, 2009).

While the central definition of resistance was retained in the adapted version of the CRC, the coding was altered in important ways enhance reliability and validity (Westra et al., 2009). The first adaptation involved collapsing the 11 aforementioned subcategories of the CRC to form a single resistance code. This was done given that the presence or absence of resistance in general was of greater interest (i.e., the total frequency of 1s, 2s, 3s) than a particular type of resistance as defined by the CRC. Additionally, given that attaining reliability on a single code is more likely than on multiple codes, using a global definition of resistance aids in helping to achieve reliability among coders in identifying complex and highly nuanced processes such as resistance.

Secondly, rather than using transcripts of sessions and segmenting them into turns-of-talk units, videotapes of sessions were segmented into 30-second time bins and used for coding rather

than transcripts. The length of the time bins was selected given that 30-seconds is long enough to capture the construct of interest (i.e., resistance), and short enough to ensure valid coding.

Moreover, coding directly from the videotape allows coders to prioritize identifying the gestalt construct of resistance using both verbal and non-verbal cues (e.g., body language, facial expressions, eye movements, etc.) of the phenomenon, which can be overlooked when coding from transcripts. This adaptation of the original CRC has been well supported in its predictive validity (Aviram & Westra, 2011; Constantino et al., 2017; Hara et al., 2015, 2016a; Westa et al., 2016; Zickgraf et al., 2015).

Process Coding

Structural Analysis of Social Behavior System (SASB; Benjamin, 1974). The SASB was used as the primary instrument to gauge behaviour by both parties during disagreement episodes. The SASB is a circumplex-based observational coding system, which is based on two underlying intersecting dimensions of affiliation and interdependence (refer to Figure 1 for a depiction of the SASB model). This system has been used to explore a range of interpersonal behaviours and relationships and consists of three surfaces, which each represent one of three potential behavioural foci: 1) Focus on Self, 2) Focus on Other, and 3) Introject Focus (Benjamin, 1974). Surface 1 encompasses behaviours that are focused on the other (i.e., transitive actions that are to, for, or about another person). Within the context of psychotherapy, these behaviours typically represent the therapist acting toward the client (i.e., the other). Examples of behaviours coded on this surface might include affirming, protecting, controlling, blaming or ignoring the other (Benjamin, 1974; See Figure 1). Surface 2 is comprised of behaviours that are focused on the self in relation to the other (i.e., intransitive reactions to perceptions of what is going to be done to, for, or about the self in relation to another). These behaviours may be conceptualized within the

therapeutic context as those expressed by the client toward the therapist, including separating, disclosing, trusting, submitting, sulking etc. (Benjamin, 1974; See Figure 1). Surface 3 represents actions or behaviours that are directed toward the self (Introject). Given that the focus of the present study was on examining interpersonal, rather than intrapsychic, processes between dyads during episodes of resistance, only Surfaces 1 and 2 were examined. Moreover, during the therapeutic encounter the therapist is typically focused on the other (i.e., the client; Surface 1) and the client is primarily focused on themselves (i.e., Surface 2).

Each SASB surface consists of two interacting dimensions, characterized by a horizontal dimension representing the degree of affiliation (ranging from friendliness, to love, to attack and recoil) and a vertical dimension, which represents the degree of interdependence (ranging from enmeshment to differentiation). Each surface is divided by the aforementioned axes into eight possible clusters of behaviour, which each represent unique combinations of affiliation and interdependence. For instance, on Surface 1 (i.e., typically representative of the therapist acting toward the client) the upper right quadrant, 1-2 'Affirming & Understanding' reflects behaviours that represent a moderate degree of affiliation (i.e., warmth) and a moderate degree of interdependence (i.e., autonomy granting). This is in contrast to the upper left quadrant, 1-8 'Ignoring & Neglecting,' which reflects behaviours that represent moderate degrees of disaffiliative (i.e., hostile) behaviour and autonomy granting behaviour. Factor, circumplex, dimensional and autocorrelation analyses have all substantiated the structural fidelity of the SASB circumplex model (Benjamin, 1974; Benjamin, Rothweiler, & Critchfield, 2006; Pincus, Gurtman, & Ruiz, 1998), and this system has been effectively used to study various facets of psychotherapy dyads (e.g., Constantino, 2000; Wong & Pos, 2014).

Procedure

Resistance Coding Training & Reliability. Each 30-second time-bin in a session received a code on a 4-point scale, ranging from 0 to 3 (see Appendix A). These ratings reflected the quality of expressed resistance. A code of zero indicates the absence of resistance, or client cooperation. A code of '1' reflects minimal or qualified resistance, and may be coded in process (e.g., 'polite' or gentle responses in which the client is sending a mixed underlying interpersonal message of opposition along with a simultaneous desire to collaborate or maintain connection with the therapist) or in content (e.g., "The progressive muscle relaxation helps, but does not fix my problem"). Although the client is opposing the therapist or expressing concern, the context within which a code of '1' is given is generally one of cooperation. A code of '2' indicates clear and unequivocal resistance in process (e.g., interrupting the therapist in order to disagree, ignoring, not responding) or in content (e.g., unequivocally expressed doubts of oppositions such as "This strategy does not work for me" or "I hate completing thought records"). Importantly, a code of '2' may be differentiated from a '1' in that the client clearly expresses opposition to the therapist without any attempts to soften the disagreement, or to preserve or acknowledge the therapist's stance. Finally, a code of '3' reflects hostile or confrontational resistance, either in process (e.g., client responses that are clearly overly firm) or in content (e.g., "You've got your work cut out for you with me!"). A code of '3' may be distinguished from a '2' in that the client is deliberately disregarding the therapist, which is often displayed via the client's sarcastic or dismissive tone, or through non-verbal behaviours such as eye-rolling and dismissive gestures. A code of '3' may also be given if the client makes attempts to criticize or undermine the therapist, and is often directed at the therapist on a personal level (e.g., belittling the therapist, questioning the therapist's competence etc.).

For the purposes of the present study, the rate of clear, unequivocal resistance (a code of '2') and hostile resistance (a code of '3') in observer coder ratings were exclusively examined. Clear and hostile forms of resistance have been found to account for the highest variance in the prediction of treatment outcomes (Aviram et al., 2011). Throughout the coding process, each time bin could receive a code of '0,' '1,' '2,' or '3,' and only those time bins receiving a code of '2' (clear resistance) and/or '3' (hostile resistance) were considered in the present study. In order to control for session length, the rate of clear and hostile resistance was calculated by dividing the number of 30-second time bins containing a code of '2' and/or '3' by the total number of time bins in the session.

Three graduate students in clinical psychology (two doctoral, and one Master's level), and one PhD psychologist coded all selected sessions in the current study for resistance. Two of the four coders were involved in adapting the CRC for use with CBT for GAD, and were trained to criterion over the course of one year. The remaining two coders were trained to criterion over a period of 10-months. Coding training involved reading the *Manual for Rating Interpersonal Resistance* (Westra et al., 2009) and participating in a 2-day workshop, which involved coding publicly available therapy sessions and session videotapes from a previous RCT of CBT for GAD (Westra, Arkowitz, & Dozois, 2009). Coders were then required to independently code new practice sessions and to meet weekly to discuss coding discrepancies until adequate interrater reliability scores were achieved, as assessed by 85% observed agreement. Throughout the coding process, coders were blind to clients' outcome status. Reliability was continuously examined throughout the coding process to reduce the possibility of coder drift. Twenty-five percent of all tapes were double coded to calculate interrater reliability. Weighted kappa coefficients were calculated for each pair of coders and ranged from .70 to .98, with a mean of

.85, reflecting good to excellent agreement (Fleiss, 1981).

SASB Coding Training & Reliability. Consistent with the SASB coding procedure outlined by Benjamin and Cushing's (2000) coding manual, each of the selected disagreement episodes in the current study were transcribed and segmented into thought units before being SASB coded. A thought unit was defined as any therapist or client utterance that expressed a complete thought. Thought units were permitted to vary in length and ranged from a single word utterance, such as "okay," to multiple sentences. Coders used both the transcript and the corresponding audio recording to code each disagreement episode. First, coders were required to establish the focus of each thought unit by determining whether the speaker was acting toward the other (Surface 1) or toward the self (Surface 2). Second, the degree of affiliation and interdependence was determined. This required coders to rate affiliation according to the degree of friendliness versus hostility represented in the utterance, and interdependence based on a continuum of autonomy granting versus control (if focus is on other; Surface 1) or on autonomy taking versus submission (if focus is on self; Surface 2). The third step involved coders assigning the cluster code on the appropriate surface (see Figure 1 and 2). A final clinical test was required, which involved reviewing the description of items of the selected cluster code to ensure that the final code appropriately captured the intended meaning of the interpersonal message by the speaker. If the final clinical test determined that the selected cluster code did not represent the spirit of the interaction, coding steps one through three were repeated in order to determine a more suitable code. Each thought unit was typically given a single SASB cluster code, with the exception of 'complex codes,' which were assigned by coders to a single thought unit when the interaction simultaneously contained two interpersonal behaviours. For example, when a client

simultaneously attempted to ignore and control the therapist (Benjamin & Cushing, 2000; Constantino, 2000).

A team of four graduate student coders (three doctoral and one Master's Level) used audio recordings and corresponding transcripts to code the selected disagreement episodes. These coders received extensive training in SASB coding over the period of 10-months and attended a 2-day workshop led by an expert instructor trained to criterion in the use of the SASB. This workshop involved didactic presentations and in-vivo coding and discussion of transcripts and videos. Following this, trainees and the instructor met via teleconference for bi-weekly 2-hour coding meetings over the course of 4-months. Interrater reliability was routinely examined. Training was considered complete when all four SASB coders in the present study met standards for competence in SASB coding, as assessed by a weighted Kappa of .80 or greater. Coding for the current study was completed in pairs, who were required to achieve consensus for each thought unit. A total of 12 disagreement episodes (i.e., 20% of the present sample) were randomly selected, and 100 units from each episode were independently double coded by coders to determine reliability. If the episode was shorter than 100 units, all the units in the disagreement episode were coded. An equal number of episodes per treatment group were selected (i.e., 6 CBT-alone episodes and 6 MI-CBT episodes), and attempts were made to double code at least one disagreement episode per therapist-client dvad, when possible. The weighted Kappa indicated moderate to substantial agreement, ranging from .60 to .97 (M = .80). This is consistent with other SASB studies, which utilize an ICC of .60 or higher as the cutoff (e.g., Muran, Safran, Eubanks, & Gorman, 2018). Three of the four trained SASB coders coded all of the material for the current study to ensure that the fourth coder, and primary investigator of the

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¹ A total of 6 out of 8 MI-CBT therapist-client dyads (i.e., different therapist and client) and 6 out of 13 CBT-alone dyads were double coded using the SASB for interrater reliability.

present study, remained impartial to the coding. Coders were kept blind to treatment group and treatment outcomes.

Sample Selection

A total of 13 CBT therapists, 8 MI-CBT therapists, and 30 clients from each of the two treatment groups (N = 60 therapist-client dyads) were represented in the present study from the parent RCT. In both groups, each therapist was represented (i.e., each therapist had at least one client in the subsample) during subsample selection. Given that CBT sessions contained greater levels of the phenomenon of interest (resistance), CBT sessions were reviewed and sampled first in the current study.

CBT. CBT sessions in which resistant disagreement was present were first identified using a combination of therapists' VAS ratings and resistance coding. Specific disagreement episodes were selected following this process (described in greater detail below). Session 1 was excluded from consideration because it is typically not a working phase session but an introductory one. Sessions 2 through 6 were examined to constrain the selected sessions across all participants to the same period (early working phase).

For the CBT sample selection, therapists' VAS ratings of client defensiveness for these early sessions were first examined, and those in which therapists had rated their clients as highly defensive were selected. Therapist ratings on these VASs were converted into numerical scores, and the sessions that were rated as highest on client defensiveness were selected for resistance coding. Specifically, sessions that were rated as 60 (out of 100) or lower on client defensiveness were selected (i.e., scores ranged from low (client was highly defensive) to high (client was increasingly cooperative)). However, given previous research demonstrating that trained observer ratings of resistance are predictive of client outcomes, while therapist ratings of

resistance are not (Hara et al., 2015), it was not advisable to rely on therapist ratings alone. Thus, four advanced undergraduate coders who were trained to criterion in the effective identification of resistance selected the early session they considered to have the highest level of observed resistance. Dyads containing no instances of resistant disagreement were not included. That is, of all individuals, only those presenting a sufficient level of resistance were included. A total of 17 sessions were selected using therapists' VAS ratings of client defensiveness. An additional 13 potential sessions containing the highest level of observed resistance were selected based on the resistance coding procedure. Dyads containing no instances of resistant disagreement were not included. In other words, of the 43 individuals who completed the CBT-alone treatment, only those presenting a sufficient level of resistance were included in the final CBT sample in the current study (n = 30).

MI-CBT. MI-CBT sample selection involved identifying an equivalent number of therapist-client dyads (n = 30) as the CBT-alone group containing the phenomenon of interest – resistance. Given that MI therapists received explicit training in MI, and strategies to minimize or roll with resistance were made explicit, the measures of resistance were not effective in detecting the presence of resistant disagreement since there was a paucity of sessions containing resistance. Thus, alternative steps were taken to locate sessions, which might contain disagreement. Here, the first step in the MI-CBT sample selection was to identify sessions containing a high level of counter-change talk (i.e., arguments against change) using the MISC

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² Given that coding is highly labour-intensive and time-consuming, and the purpose of the present study was to examine differential effects of training therapists in MI-CBT, disagreement episodes for the CBT-alone group were randomly selected from already selected disagreement episodes used in Aviram et al.'s (2016) study derived from the Westra et al. (2016) RCT. MI-CBT episodes in the present study were subsequently selected and coded using the *Manual for Rating Interpersonal Resistance* (Westra et al., 2009) and the *SASB* (Benjamin, 1974). Deliberate attempts were made to match disagreement episode length and quality, as closely as possible, using the *MISC 1.1* (Hagen Glynn & Moyers, 2009). Disagreement episodes (*N* = 60) were randomly distributed by treatment group across coders.

1.1 coding system (Hagen Glynn & Moyers, 2009). This selection procedure was predicated on the notion that a higher level of client CCT (8% or higher of CCT in a given 50-minute session) could potentially yield instances of the phenomenon of interest (resistant disagreement; Sijercic et al., 2016). Thus, therapist-client dyads with the highest level of CCT were first selected for review for the presence of disagreement. Again, two senior graduate coders trained in the identification of resistance reviewed the sessions and selected the session they considered to have the highest level of resistant disagreement. If the session did not have any resistance in it, but high CCT ratings, this session was excluded and the subsequent session for that high CCT client was reviewed. Of the 42 individuals who completed the MI-CBT treatment, only those presenting a sufficient level of resistance were included in the final MI-CBT sample in the current study (n = 30).

Disagreement Episode Identification. Within the sessions identified for resistance, disagreement 'episodes' were identified by the resistance coders. These episodes began with an instance of clear disagreement with the therapist's direction, input or suggestions (e.g., client statements that could be paraphrased as "I do not agree with you"). Disagreement episode length was defined as commencing with the first instance of client disagreement and ending once the client and therapist had shifted to a different topic. Importantly, the conclusion of a disagreement episode was not determined by whether the client and therapist had successfully resolved the disagreement, but rather, by when the therapist or client had changed the topic.

Given that these disagreement episodes were to be coded using SASB methodology, it was important to ensure that the length of a disagreement episode was sufficient to allow for valid coding using the SASB. Thus, disagreement episodes that were less than 1 minute in length were not included in the final sample that was coded. Further, given that the number of disagreement

episodes per session varied, ranging from one to five episodes (M = 2.23, SD = 1.04) in the CBT-alone group, together with the complex nature of the present SASB coding, *one* disagreement episode was randomly selected per therapist-client session in the present sample. Finally, given that the episodes from the CBT group were generally longer than those in MI-CBT, an attempt was made to match the two groups for episode length, to the extent possible. Here, an equal number of disagreement episodes (25%) across the two groups fell into the following four time categories: 1 to 3 minutes, 4 to 8 minutes, 9 to 13 minutes and over 15 minutes in length.

Units of Analysis. Each selected disagreement episode (for both the CBT and MI-CBT groups) was coded using the SASB. The relative frequency (percent of total thought units) of each therapist and client behaviour functioned as the primary unit of analysis. Accordingly, each SASB cluster code for a given participant was totaled and then divided by the total number of thought units for that individual (either client or therapist) to control for verbosity (e.g., total number of therapist 1-2 'Affirming & Understanding' within a disagreement episode, divided by the *total* number of therapist SASB codes within that episode). Each component of a complex code was counted separately in the calculation of these indices.

Results

Sample Characteristics

Therapist characteristics are presented in Table 1. There were a total of 21 therapists in the current study (MI-CBT n = 8, CBT-alone n = 13), ranging in age from 26 to 34 years. Given that therapists' self-selected into treatment group, most therapists in the MI-CBT group identified their primary orientation as Client Centered and Integrative, with the majority of CBT therapists identifying theirs as Cognitive-Behavioural.

Client characteristics (N = 60) are presented in Table 2. The majority of clients in both groups were Caucasian, generally well educated and unmedicated. Ages ranged from 18 to 63-years-old, with a very large proportion of clients presenting with a high level of diagnostic comorbidity, including other anxiety (e.g., Social Anxiety Disorder, Panic Disorder) and depressive (e.g., Major Depressive Disorder, Dysthymia) disorders. Clients were not found to significantly differ on any demographic variables.

Preliminary Analyses

Weighted SASB scores. Therapist behaviours as measured by the SASB (i.e., therapist degree of affiliation and autonomy) were calculated based on an established scoring system in the SASB manual (Benjamin & Cushing, 2000; see Figure 1). A weighted affiliation score was calculated to represent the amount of affiliation/friendliness in the therapist's communication during each disagreement episode. This score ranges from hostile (lower affiliation score) to friendly (higher affiliation score) based on the level of affiliation present within each code and is weighted geometrically (see Table 3). The following equation was used to calculate the weights for each of the cluster codes and to obtain an overall weighted affiliation score for therapists in the current study: (1-1 'Freeing & Forgetting' * 0)+(1-2 'Affirming & Understanding' * 4.5)+(1-3 'Loving & Approaching' * 7.8)+(1-4 'Nurturing & Protecting' * 4.5)+(1-5 'Watching & Controlling' * 0)+(1-6 'Belittling & Blaming' * -4.5)+(1-7 'Attacking & Rejecting' * -7.8)+(1-8 'Ignoring & Neglecting' * -4.5). For example, on Surface 1, a code of 1-3 'Loving and Approaching' indicated the maximum affiliation and was weighted '7.8' when calculating the weighted affiliation score, whereas a code of 1-5 'Watching and Controlling' had no affiliation weight and was weighted a '0' in computing the score. An episode with a higher instance of therapist behaviour codes that were proximally closer to a 1-3 'Loving & Approaching' on the

SASB circumplex (i.e., 1-2 'Affirming & Understanding' or 1-4 'Nurturing & Protecting' codes) would have produced a *higher* weighted affiliation score for a particular therapist overall, whereas an episode consisting of more therapist codes representing control or hostility (i.e., 1-5 'Watching & Controlling', 1-6 'Belittling & Blaming', 1-8 'Ignoring & Neglecting') would have a *lower* weighted affiliation score overall. The total of the weighted scores were then divided by the total number of cluster codes (8) to achieve one overall weighted score for the therapist's degree of affiliation for that disagreement episode. For complex codes, each code was weighted separately in the equations.

The same process was followed to calculate a therapist's degree of autonomy taking or granting in their communication during the disagreement episodes (see Figure 1). The equation used to calculate a therapist's weighted autonomy score was: (1-1 'Freeing & Forgetting' * 7.8) +(1-2 'Affirming & Understanding' * 4.5)+(1-3 'Loving & Approaching' * 0)+(1-4 'Nurturing & Protecting' * -4.5)+(1-5 'Watching & Controlling' * -7.8)+(1-6 'Belittling & Blaming' * -4.5)+(1-7 'Attacking & Rejecting' * 0)+ (1-8 'Ignoring & Neglecting' * 4.5) That is, a code of 1-1 'Freeing and Forgetting' indicated the maximum autonomy granting and was weighted '7.8' when computing the weighted autonomy score, whereas a code of 1-3 'Loving and Approaching' had no autonomy granting or control and received a weight of '0' while computing the score. Here, episodes with high weighted autonomy scores were those that had high instances of therapist autonomy granting behaviours (i.e., codes proximally closer to a 1-1 'Freeing & Forgetting'), and therapists with *lower* weighted autonomy scores overall (including negative total scores) were those with higher instances of therapist behaviours that were autonomy taking or controlling, such as 1-4 'Nurturing & Protecting,' 1-5 'Watching & Controlling,' and 1-6 'Belittling & Blaming' (see Table 3).

Given that the present study was also interested in examining the presence and amount of therapist hostility during disagreement episodes, and the SASB manual does not outline a weighted score for hostility, therapist hostility in the current study was computed as the total number of codes reflecting therapist hostility. That is, while affiliation and autonomy weighted scores according to the SASB manual represent summary scores of interpersonal control/separateness/submissiveness and overall warmth of therapists in relation to their clients (i.e., continuous variables which weight each cluster code in the SASB circumplex based on how close or far the code is in relation to other codes), the present study was interested in the presence and frequency of particular cluster codes representing clear hostility (i.e., specifically therapist codes of 1-6 'Belittling and Blaming,' 1-7 'Attacking and Rejecting,' and 1-8 'Ignoring and Neglecting'; see Figure 1). In other words, it was of interest to evaluate whether instances of therapist hostility (rather than the *general* degree of friendliness vs. hostility) were related to client outcomes. Therapist hostility was thus conceptualized to represent the number of units within each disagreement episode in which a therapist displayed any hostile behaviour (i.e., SASB cluster codes of 1-6 'Belittling & Blaming,' 1-7 'Attacking & Rejecting,' or 1-8 'Ignoring & Neglecting').

Assessing Normality. Table 3 includes the means and standard deviations for all variables in the present study. The skewness and kurtosis of each of the predictor and outcome measures was calculated to determine the extent of their deviation from normality. No outliers were identified within the dataset. Thus, all 60 cases were included in the analyses. The primary outcome measure (PSWQ) was normally distributed at all three time points in the current study, including at baseline, immediately posttreatment and 1-year posttreatment (i.e., -2 < skewness < 2, -7 < kurtosis < 7; Cohen, Cohen, West, & Aiken, 2003). The therapist weighted autonomy

variable was also found to be normally distributed and well within normal limits (skewness = .15, kurtosis = -.74). Therapist weighted affiliation violated assumptions of normality (skewness = -3.15, kurtosis = 12.45), conceivably due to the rarity of therapist hostility and much higher frequency of affiliative behaviours within the context of psychotherapy. Given this violation, therapist weighted affiliation scores were transformed. This involved raising therapist weighted affiliation scores first to lower powers (e.g., 2nd, 3rd, 4th) and ultimately to the fifth power as a means of normalizing this variable's distribution. At each raised power, skewness and kurtosis were tested until deemed to be within an acceptable range (transformed weighted affiliation skewness = -1.94, kurtosis = 4.02). Following transformation, therapist weighted affiliation scores were divided by 100 so as to work with more acceptable units in the analyses. Therapist affiliation scores were nearly perfectly correlated before and after this variable's transformations (rs > .9). Finally, given therapist hostility was computed and analyzed as a count variable, this variable was fit to a Poisson distribution in MPlus v.8 instead of a Normal distribution (i.e., a Poisson regression was conducted), given that count variables are typically not normally distributed (Cohen et al., 2003; Muthén & Muthén, 2017).

Therapist Effects. Although no therapist effects on the outcome variables were observed in the larger RCT (i.e., the ICC was .0016; Westra et al., 2016), the degree to which therapists varied on specific SASB behaviours during disagreement episodes was of particular interest in the present study. Moreover, given that clients were nested within therapists, therapist effects for each SASB dimension of interest (affiliation, autonomy) were calculated prior to conducting primary analyses. Therapists were found to account for 25% (ICC = .25) of variability in the therapist weighted affiliation variable (i.e., how affiliative therapists were toward their clients during disagreement), and 32% (ICC = .32) of the variability in the therapist weighted autonomy

variable. Given that the calculation of ICCs for count data is complex, and the best method for doing so is still debated (e.g., Austin, Stryhn, Leckie, & Merlo, 2017), therapist hostility was treated as a continuous variable in order to estimate its ICC. Using this method, therapists accounted for 13% of the variability in hostility (ICC = .13). The impact of therapist effects on all outcome variables (including therapist behaviours as assessed by the SASB) in the present study were thus controlled for in all analyses by using the 'Type is Complex' setting in MPlus v.8 (Muthén & Muthén, 2017). This setting adjusts the standard errors to account for nesting.

Length of Disagreement Episodes. The average length and range of the disagreement episodes was also computed and compared between the MI-CBT and CBT-alone groups in the present study (see Table 3). Disagreement episodes in the CBT-alone group (M = 9.60 minutes, SD = 7.93, Range = 29) were notably longer than in the MI-CBT group (M = 4.90 minutes, SD = 3.84, Range = 15) and this difference was found to be statistically significant (t(58) = 2.92, p = 0.005). As such, disagreement length, along with baseline worry (baseline PSWQ), was controlled for in all analyses.

Intercorrelations of Measures

Intercorrelations between measures in the current study are presented in Table 4. As expected, therapist weighted affiliation was significantly negatively correlated with therapist hostility (r = -.63, p < .010), indicating that the more a therapist demonstrated affiliative behaviours during disagreement, the less hostile they were and vice versa. Therapist weighted affiliation was also significantly negatively correlated with client outcomes at 1-year posttreatment (r = -.39, p = .002). That is, higher levels of therapist affiliation during disagreement were associated with improved client outcomes (i.e., lower PSWQ scores) at 1-year posttreatment, but not immediately posttreatment (r = -.11, p = .384). Notably, therapist

hostility was significantly positively correlated with disagreement episode length (r = .36, p = .005), and *approached* a significant negative correlation with client outcomes at 1-year posttreatment (r = .24, p = .061). In other words, higher levels of therapist hostility during a disagreement episode were related to an increase in the length of the episode, and approached a trend toward poorer client outcomes at 1-year posttreatment. Finally, client PSWQ outcomes at posttreatment were significantly positively correlated with PSWQ outcomes at 1-year posttreatment (r = .61, p < .010), indicating that lower PSWQ scores at posttreatment were associated with lower scores (i.e., better outcomes) at 1-year posttreatment.

Proportion of Therapist SASB Codes. Table 5 presents the relative proportion of all therapist SASB cluster codes by treatment group during disagreement episodes. It is important to note that these values are purely descriptive and were not computed using the weighted affiliation and autonomy scores, but rather, as count variables to depict the total percentage of time a therapist spent during any given disagreement episode engaging in each particular behaviour (i.e., total number of a particular cluster code divided by the total number of therapist codes in the disagreement episode; Surface 1 and 2). In both the CBT and MI-CBT groups, therapists spent the majority of time displaying affiliative behaviours, such as 1-2 ('Affirming & Understanding;' CBT-alone M = 35%, SD = 15%; MI-CBT M = 44%, SD = 19%) and 1-4 ('Nurturing & Protecting;' CBT-alone M = 55%, SD = 17%; MI-CBT M = 51%, SD = 17%), with MI-CBT therapists exhibiting slightly higher amounts of 1-2 'Affirming & Understanding' behaviours and lower amounts of 1-4 'Nurturing & Protecting' behaviours than CBT-alone

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³ Intercorrelations involving the therapist hostility variable should be interpreted cautiously. Conducting a correlation between a count variable (i.e., therapist hostility) and a continuous variable (e.g., weighted therapist affiliation, autonomy, PSWQ variables, etc.) mischaracterizes the relationship between these variables given that 1) Pearson correlations treat count variables as continuous variables when computing the relationship, and 2) do not account for therapist nesting.

therapists. Therapists (from both groups) rarely engaged in hostile (i.e., 1-6 'Belittling & Blaming,' 1-8 'Ignoring & Neglecting') or controlling behaviours (i.e., 1-5 'Watching & Controlling') during disagreement episodes, however, CBT-alone therapists appeared to engage in these behaviours more frequently than MI-CBT therapists when these behaviours did occur (i.e., 1-5 'Watching & Controlling;' CBT-alone M = 2%, SD = 3%; MI-CBT M = 1%, SD = 2%; 1-8 'Ignoring & Neglecting' CBT-alone = 1%, SD = 3%; MI-CBT = 0%, SD = 0%). Raw (count) frequencies of the presence of therapist hostile behaviours can be used to elucidate the discrepancy between treatment groups further (see Table 6). In particular, 9 of 13 CBT-alone therapists were found to exhibit at least one hostile behaviour during disagreement episodes, with these therapists often engaging in more than one hostile behaviour per episode (refer to Table 6). This is in comparison to the MI-CBT group, in which only 1 out of 8 therapists exhibited any hostility (i.e., in the form of a 1-6 'Belittling & Blaming' code twice within one episode). Notably, no MI-CBT therapist exhibited a 1-8 'Ignoring & Neglecting' code within any of the disagreement episodes.

Primary Analyses

Path analysis models were used to conduct primary analyses. As previously stated, the 'Type is complex' setting in MPlus v.8 was used in all models to adjust the standard errors to account for any impact that the nesting of clients within therapists might have on the associations of interest (Muthén & Muthén, 2017). More specifically, to test the primary hypotheses, mediational models were fit (one for each mediator variable) in which the 'a' path represented the effect of treatment group on specific therapist behaviours (as measured by the SASB), the 'b' path represented the relationship between specific therapist behaviours and client outcomes (PSWQ), and the 'c'' path reflected the direct effect of treatment on outcome, controlling for the

mediator (therapist behaviours as measured by the SASB). The significance of the indirect effect (i.e., a*b) of treatment group on outcomes via therapist behaviours (mediators) was assessed using the delta method, which is standard in MPlus (Muthén & Muthén, 2017). Overall model fit was assessed using Kline's (2015) recommended fit indices and cut-offs. Close fit to the data was determined based on the following criteria: models with a non-significant χ^2 statistic, root mean square error of approximation (RMSEA) values of < .08, standardized root mean residual (SRMR) values of < .10, and a comparative fit index (CFI) of > .90. Standardized regression coefficients are presented for significant 'a', 'b', and 'c' paths as estimates of effect size. Effect sizes for significant indirect effects were computed as the ratio of the indirect effect to the total effect, which provides the percentage of the total effect of the independent variable (treatment) on outcome (PSWQ) that is transmitted through the mediator (therapist behaviour as captured by the SASB; Hayes, 2013). Results are presented below according to the six aforementioned mediational models fit to the data (i.e., one for each of the two outcome variables (client posttreatment and 1-year posttreatment PSWQ scores) and mediator variable (therapist weighted affiliation, therapist hostility, and therapist weighted autonomy)). As noted previously, the hypotheses tested included:

Hypothesis 1 (H1): CBT-alone therapists were expected to exhibit fewer affiliative behaviours, more attempts to control (i.e., less autonomy), and greater amounts of interpersonal hostility during disagreement episodes compared to therapists in the MI-CBT group.

Hypothesis 2 (H2): Greater therapist affiliation during disagreement was also expected to be associated with *lower* ratings of posttreatment worry (PSWQ) immediately posttreatment and at 1-year posttreatment, while higher levels of hostility and control (less autonomy) during

disagreement were expected to be associated with poorer treatment outcomes at both time points (i.e., *higher* posttreatment worry).

Therapist Affiliation. The model examining therapist weighted affiliation as a mediator of the treatment effect on posttreatment worry was a good fit to the data (χ^2 [1] = .11, df = 1, p = .739; RMSEA = .00; CFI = 1.00; SRMR = .01). Similarly, the model examining therapist weighted affiliation as a mediator of the treatment effect on 1-year posttreatment worry (see Figure 2) was a good fit to the data (χ^2 [1] = .11, df = 1, p = .739; RMSEA = .00; CFI = 1.00; SRMR = .01). Consistent with the first hypothesis, treatment group was a significant predictor of therapist affiliation ('a' path), while controlling for disagreement length (see Table 7). That is, therapists in the MI-CBT group were found to be significantly more affiliative during disagreement (2.82 units more affiliative) than those in the CBT-alone group (β = 2.82, SE = 1.05, p = .007). The standardized effect (i.e., effect size) of treatment group on therapist affiliation, while controlling for disagreement length, was .41, suggesting a moderate effect of treatment on therapist affiliative behaviours during disagreement. Treatment group (i.e., belonging to CBT-alone or MI-CBT) accounted for approximately 16% of the total variance in therapist affiliation during disagreement (R^2 = .157).

Partially consistent with our second hypothesis, greater therapist affiliation was significantly related to lower worry at 1-year posttreatment, but was unrelated to worry immediately posttreatment (i.e., the 'b' paths; see Table 8). Specifically, for every one-unit increase in therapist affiliation there was a -1.53 point *decrease* in PSWQ at 1-year follow up, controlling for treatment group, disagreement length, and worry at baseline (β = -1.53, SE = .59, p = .010). However, as noted, greater therapist affiliation was unrelated to posttreatment worry immediately posttreatment (β = -0.62, SE = .89, p = .481). The standardized effect (i.e., effect

size) of therapist affiliation on 1-year posttreatment outcomes (PSWQ), while controlling for disagreement length, treatment group, and baseline PSWQ was -.30, suggesting a small to moderate effect size. Therapist affiliation during disagreement accounted for approximately 9% of the total variance in client outcomes at one-year posttreatment ($R^2 = .09$).

Additionally, the indirect effect of treatment group on 1-year PSWQ through therapist affiliation was significant (Indirect effect 'ab' 1-year PSWQ; $\beta = -4.31$, SE = 1.73, p = .013), whereas the indirect effect of treatment group on posttreatment worry immediately posttreatment through therapist affiliation was not significant (Indirect effect 'ab' posttreatment PSWQ; $\beta = -1.76$, SE = 2.26, p = .435; see Table 11). It is also worth noting that the direct effect of treatment on 1-year PSWQ remained significant ('c'' path; $\beta = -8.61$, SE = 2.63, p = .001) even when accounting for the mediator (therapist affiliation), suggesting partial mediation (refer to Figure 2). In other words, therapist degree of affiliation during disagreement episodes was found to partially mediate the relationship between treatment group (i.e., receiving either MI-CBT or CBT-alone training) and client outcomes at 1-year posttreatment. Given that the total effect (of treatment group on 1-year posttreatment outcomes) was larger than the indirect effect (through therapist affiliation), and the total and indirect effects had the same sign (i.e., 'consistent mediation'), the effect size can be represented as the ratio of the indirect effect to the total effect (Hayes, 2013). In this case, 34% of the additive effect of MI-CBT vs. CBT-alone on 1-year PSWQ was transmitted through therapist affiliation during disagreement episodes. In sum, as expected, therapists who received training in MI-CBT vs. CBT-alone responded to disagreement episodes with greater affiliation, which, in turn, was associated with lower worry at 1-year posttreatment.

Therapist Hostility. Given that therapist hostility was a count variable, the standard SEM fit indices were not available. To explore the relationship between treatment group, therapist hostility during disagreement episodes, and client PSWQ outcomes, a second mediational model was fit using therapist hostility as the mediator (see Figure 3). Consistent with hypothesis 1, therapists belonging to the MI-CBT group exhibited significantly fewer hostile behaviours during disagreement episodes compared to CBT-alone therapists (β = -2.28, SE = .99, p = .022), controlling for disagreement length (see Table 7). Represented as a rate ratio, CBT-alone therapists had 10.91 times the risk of displaying an additional instance of hostility during a given disagreement episode compared to MI-CBT therapists.

In keeping with hypothesis 2, therapist hostility was also found to be a significant predictor of 1-year posttreatment worry ('b' path; see Table 9). Here, for every additional instance of therapist hostility, there was a 2.39 point *increase* in PSWQ at 1-year posttreatment, while controlling for treatment group, disagreement length, and baseline PSWQ scores (β = 2.39, SE = .57, p < .001). Similar to overall therapist affiliation, therapist hostility was unrelated to PSWQ scores immediately posttreatment (β = 1.51, SE = .86, p = .077).

Given that therapist hostility was a count variable in the present study, and PSWQ outcomes were continuous variables, it would not be valid to compute an indirect effect because the 'a' and 'b' paths of the mediation model would be in different metrics. Thus, mediation was assessed using the Baron and Kenny method for this mediator variable (Baron & Kenny, 1986). Although the Baron and Kenny (1986) method has well-documented limitations (see Hayes, 2013), in this situation, it represented the best available option for testing mediation given that it

⁴ Standardized coefficients are unavailable in Mplus for count mediator or predictor variables. Thus, only unstandardized coefficients are reported for the association between therapist hostility and worry outcomes.

does not require the direct computation of an indirect effect but rather *infers* mediation on the basis of fulfilling the required steps (see Figure 3). Specifically, these included: (1) that the predictor variable (treatment group) is significantly related to the outcome variable (PSWQ; i.e., path 'c'; p < .001), (2) that the predictor variable is significantly related to the mediator (i.e., therapist hostility; path 'a', p = .022), (3) that the mediator is significantly related to outcome (i.e., path 'b', p < .001), and (4) the effect of the predictor (treatment group) on outcome (PSWQ), while controlling for the mediator (therapist hostility), was non-significant (path 'c''), indicating full mediation, or significant, indicating partial mediation. Using this method, therapist hostility was found to partially mediate the effect of treatment group on 1-year posttreatment worry. In other words, three of the four Baron and Kenny (1986) steps were met (steps 1, 2, & 3), inferring partial mediation. Thus, similar to therapist affiliation, receiving training in MI-CBT compared to CBT-alone was related to a substantially reduced likelihood of demonstrating hostile behaviours during disagreements, which in turn, was significantly associated with better 1-year posttreatment worry scores.

Therapist Autonomy. Most fit indices for the model examining therapist autonomy as a mediator of the treatment effect on 1-year posttreatment worry suggested good fit to the data $(\chi^2[1] = 1.47, df = 1, p = .226; CFI = .96; SRMR = .04)$, though one suggested somewhat poor fit (RMSEA = .09). Thus, this model was considered to be an adequate fit to the data overall. Similarly, the model examining therapist autonomy as a mediator of the treatment effect on worry immediately posttreatment was also an adequate fit (although less so) to the data $(\chi^2[1] = 1.47, df = 1, p = .226; SRMR = .04)$, with two indices suggesting poor fit (RMSEA = .09; CFI = .82).

Counter to expectations, controlling for disagreement length, therapists did not significantly differ in the amount of autonomy granting or taking (i.e., therapist weighted autonomy variable) exerted during disagreemeement episodes (β = .23, SE = .13, p = .071; see Table 7) based on the treatment group to which they belonged. Therapist degree of autonomy granting or taking (control) during disagreement episodes was also not found to be a significant predictor of client worry at posttreatment (β = .69, SE = 5.44, p = .899) or at 1-year posttreatment (β = -3.16, SE = 5.58, p = .571), controlling for disagreement length, treatment condition, and baseline worry levels. Given these findings, unsurprisingly, both the indirect effect of treatment on posttreatment worry ('c'' path posttreatment; β = .16, SE = 1.24, p = .901) and 1-year posttreatment worry ('c'' path 1-year posttreatment; β = -.71, SE = 1.24, p = .567), through autonomy, were not significant.

Discussion

The results of the present study demonstrated that therapists who were trained in MI-CBT versus CBT-alone exhibited significantly more affiliative behaviours during disagreement compared to CBT-alone therapists, and this increased therapist affiliation mediated the relationship between treatment group and outcomes. That is, receiving training in MI integrated with CBT increased therapist use of affiliative behaviours during disagreement, which in turn, related to better 1-year posttreatment outcomes. Therapists in the CBT-alone group were also found to exhibit significantly more hostile behaviours during disagreement episodes compared to MI-CBT therapists. In fact, being in the CBT-alone group (or not receiving MI training) was associated with an over 10 times greater risk of demonstrating *any* hostile behaviour toward a client during disagreement. Therapist hostility was also found to mediate the relationship between treatment group and client outcomes, suggesting that increased therapist hostility was

associated with significantly worse client outcomes at 1-year posttreatment. Contrary to expectations, therapist autonomy did not significantly differ between treatment groups and was unrelated to client outcomes at both time points.

Overall, this study provides support for resistance as a key process marker in psychotherapy, and notably extends the current literature by elucidating the impact of training in MI on specific therapist behaviours that have the potential to benefit or hamper CBT outcomes (Westra & Norouzian, 2018). In the following discussion, I will elaborate on these major points by first discussing the findings that therapists who were trained in MI-CBT were increasingly affiliative during disagreement compared to CBT-alone therapists, and elaborate on the relationship between increased therapist affiliation and treatment outcomes. I will then focus on the presence of increased therapist hostility during disagreement, specifically among CBT-alone therapists, and posit reasons for the robust ability of hostility to also mediate the relationship between treatment group and client outcomes. This will be followed by a discussion of interpersonal attachment and agency in GAD, and the relative importance of viewing disagreement in psychotherapy as a key opportunity, or 'interpersonal window.' Next, I will consider why interpersonal behaviours during disagreement exerted an influence on 1-year posttreatment outcomes but not immediately posttreatment. Finally, I will discuss clinical and training implications and end with a discussion of this study's strengths, limitations and future research directions.

MI Enhances Therapist Affiliation at Key Moments

MI is defined by its collaborative, goal oriented style of communication, its particular emphasis on client language of change, and the therapist's ability to flexibly move between supportive and directive responses based on client readiness for change (Miller & Rollnick,

2013; Westra, 2012; Westra & Aviram, 2013). In the present study, therapists who were trained in MI-CBT exhibited significantly *more* affiliative responses during disagreement episodes than CBT-alone therapists. In other words, when a client disagreed with the direction set by the therapist, irrespective of the topic that inspired the disagreement, MI-CBT therapists were found to consistently engage in more affiliative responses than CBT-alone therapists. In the present study, this involved MI-CBT therapists engaging in significantly more 1-2 'Affirming & Understanding' behaviours (44% of the time during disagreement) than CBT-alone therapists (35% of the time during disagreement). Moreover, while MI-CBT therapists were found to engage in 1-4 'Nurturing & Protecting' behaviours (51%) slightly less frequently than CBTalone therapists (55%), given that the affiliation variable was weighted and included the overall presence of therapist hostile and friendly codes within a given episode, it is permissible to conclude that MI-CBT therapists engaged in significantly more behaviours coded on the right side (i.e., affiliative side) of the SASB model (see Figure 1) during disagreement compared to CBT-alone therapists. This difference may be interpreted as a function of the training therapists received in MI. Indeed, belonging to the MI-CBT or CBT-alone group accounted for approximately 16% of the total variance in therapist affiliation during disagreeement ($R^2 = .157$).

Notably, the present study also demonstrated that training therapists in MI (and their embodying the MI spirit and techniques) significantly improved client CBT outcomes at 1-year posttreatment, and draws an important link between the presence of therapist affiliative behaviours during disagreement and client outcomes. Broadly, this finding is consistent with a large body of literature underscoring the association between core facilitative conditions in psychotherapy, such as the therapeutic relationship, and treatment outcomes (e.g., Norcross, 2002; Orlinsky et al., 2004; Rogers, 1961). For example, research on the therapeutic relationship

has demonstrated correlations as high as .29 between the therapeutic relationship and treatment outcome, significantly greater than the association between any specific therapeutic intervention and outcome (Hardy, Cahill, & Barkham, 2007; Norcross, 2002). Moreover, psychotherapy research has consistently underscored the importance of establishing and maintaining a positive therapeutic relationship as a "necessary context for therapeutic change to take place" (Binder & Strupp, 1997, p. 124; Horvath & Greenberg, 1994; Strupp, 1962).

In the present study, cultivating a supportive therapeutic stance in relation to a client's disagreement conceivably involved prioritizing the therapeutic relationship, *precisely in that moment*. That is, it involved inviting elaboration of the client's disagreement and validating the client's assertiveness. Using greater affiliation and fewer (if at all) controlling or hostile responses (left or disaffiliative side of the SASB model; see Figure 1), allowed therapists trained in MI to explicitly prioritize the therapeutic relationship at these times of potential impasse, which in turn, appears to have impacted the relative benefit clients received from treatment at the 1-year mark. This is unsurprising given that therapist empathic attunement has been found to relate to several positive therapeutic outcomes, including positively enhancing client expectations for change and their motivation and engagement in treatment (Hara et al., 2016a; Westra, 2004), heightening personal agency and sustaining clients' self-reflection (Bandura, 2006), and empowering clients to disclose specific, emotionally salient stories to the therapist (Angus & Hardtke, 2006).

The present findings also converge with previous studies that have underscored the importance of cultivating a client-centered, relational stance during resistance (e.g., Aviram et al., 2016; Button et al., 2015; Constantino et al., 2017; Hara et al., 2015; Westra et al., 2016) and importantly extend these findings by detailing the *specific types* of responses (i.e., increasingly

affiliative responses and fewer hostile responses) in which a therapist might engage during resistance. In so doing, this study offers a unique window into understanding some of the mechanisms by which MI, integrated with CBT, might exert its powerful effect in helping clients with GAD sustain their gains up to 1-year posttreatment. For instance, results of the larger RCT from which data for the present study was derived found MI-CBT clients to demonstrate greater rates of improvement over the course of follow-up (6-month and 1-year) compared to CBT-alone clients (Westra et al., 2016). In this RCT, although CBT-alone clients also retained their gains, MI-CBT clients *continued* to improve after treatment ended. Moreover, clients in the MI-CBT group of the RCT exhibited significantly *less* resistance compared to CBT-alone clients, and resistance was found to mediate treatment outcomes (i.e., to significantly relate to less worry in MI-CBT clients at follow-up; Coyne et al., 2018). The present study extends such conclusions by offering an additional, and perhaps increasingly precise reason for continued improvement in the MI-CBT group at one year – namely, greater use of therapist affiliative responses during resistance.

Notably, findings of the present study also converge with those of qualitative and quantitative studies that have emphasized the use of increased therapist affiliation, or doing more of the 'right thing,' in the context of relational discord within the therapeutic alliance (Aviram et al., 2016; Beutler et al., 2011; Burns & Nolen-Hoeksema, 1992; Hardy et al., 2007; Leahy, 2001; Safran & Muran, 1996). For example, the present study aligns with findings by Wong and Pos (2014) in their work investigating short-term experiential psychotherapy for depression. Using the SASB to examine in-session interpersonal process, therapist 1-3 'Loving & Approaching' behaviours were found to differentiate high alliance from low alliance groups. High alliance groups were also characterized by increased client disclosing and less client asserting and

separating. The authors underscored the importance of establishing a genuine, warm environment from the beginning of the therapeutic relationship, and the importance of paying attention to subtle, yet important markers of alliance ruptures. Although assessing specific client responses to therapist behaviours was beyond the scope of the present study, the benefits of increased therapist affiliation during disagreement, and of paying particular attention to subtle markers of alliance tensions (i.e., resistance), may have been demonstrated via improved treatment outcomes (i.e., significantly less worry) for clients whose therapists were more affiliative during disagreement in the present study.

The present findings also align with findings from a recent study by Muran and colleagues (2018) evaluating the impact of an alliance-focused training (AFT) protocol based on clienttherapist interpersonal behaviour in a 30-session protocol of CBT for outpatients with Axis I and II disorders. This protocol involved developing therapist skills with regard to interpersonal sensitivity and emotion regulation, and focuses on experiential, interpersonal processes in psychotherapy. Similarly to the present finding of increased therapist affiliation among therapists trained in MI, Muran and colleagues (2018) found decreases in therapist blaming (including criticism) and directing, and *increases* in therapist affirmation and expressiveness (i.e., therapist facilitated and validated patients' assertiveness or vulnerable expression), among therapists trained in this protocol. Client behaviours (e.g., patient expressing) were found to positively relate to treatment outcome, while therapist directiveness was found to negatively relate to change in session impact. Muran and colleagues (2018) concluded that novice CBT therapists can be trained to improve their interpersonal processes with patients, conceivably by receiving training in attunement to psychotherapy process markers and collaborative exploration (Safran & Muran, 2000). These conclusions are in line with the present findings, suggesting that training

therapists in a client centered, relational approach predicated on the observation and management of key moments (i.e., resistance) can yield major dividends in improving client outcomes.

Moreover, similarly to the AFT protocol, the present study supports the integration of relational training with CBT as a means of navigating difficult moments in psychotherapy that are consistently and reliably related to treatment outcomes (Arkowitz & Westra, 2004; Constantino et al., 2017; Federici, Rowa, & Antony, 2010; Muran et al., 2018; Safran & Muran, 1996; Westra, 2012; Westra et al., 2016; Zickgraf et al., 2015)

Importantly, the benefits of fostering a more supportive and less directive relational style during moments of resistance was demonstrated by Aviram and colleagues (2016) in their study examining therapist use of theoretically indicated MI skills (e.g., empathy, collaboration, evocation, autonomy) during moments of disagreement in CBT-alone. Variations in therapist adherence to MI during disagreement were compared with random moments within the same therapy session, and researchers found that therapists who displayed higher levels of the MI relational conditions in the context of disagreement had significantly lower levels of subsequent resistance and posttreatment worry. Interestingly, while therapist MI adherence in the context of disagreement was related to outcomes, variations in therapist general MI adherence were not. The present study supports these findings by showing that being increasingly affiliative (i.e., more MI-like) at particular times within the therapeutic encounter (i.e., during moments of interpersonal tension or resistance) has important impacts on client outcomes. Notably, the current study extends work by Aviram and colleagues (2016) by outlining specific therapist behaviours (i.e., affiliative and hostile behaviours) that occur during resistance that are capable of differentiating MI-CBT and CBT-alone groups further.

Therapist Hostility During Disagreement

In the present study, CBT-alone therapists were found to exhibit significantly more hostile behaviours during disagreement episodes in comparison to MI-CBT therapists, and this increase in hostility mediated client outcomes at 1-year posttreatment. Therapist hostility during disagreement episodes was specifically evidenced by more frequent use of SASB codes of 1-8 'Ignoring & Neglecting' and 1-6 'Belittling & Blaming' among CBT-alone therapists. In fact, 9 of the 13 CBT therapists were found to exhibit at least one hostile behaviour during disagreement episodes, with these therapists tending to engage in more than one hostile behaviour per episode (see Table 6). This is in comparison to the MI-CBT therapists, in which hostility occurred rarely, if at all, and typically not more than once if present.

Interestingly, in the current study there was a significant correlation between disagreement episode length and therapist hostility. That is, longer disagreement episodes were highly and significantly correlated with therapist hostility. Thus, it appears that client resistance may 'grow' in response to negative interpersonal behaviour from the therapist (i.e., by inappropriately managing resistance; Castonguay et al., 1997; Miller & Rollnick, 2002). The present study converges with previous studies showing that resistance tends to occur repeatedly over the course of psychotherapy (e.g., early resistance with midtreatment resistance; Button et al., 2015), particularly when left unacknowledged or inappropriately managed by the therapist (Aspland et al., 2008; Aviram & Westra, 2011; Westra, 2012). This is consistent with research showing that therapists may increase direction and further contribute to the presence of negative interpersonal process (Beutler et al., 2002; Castonguay et al., 1996; Ribeiro et al., 2014; Westra, 2012). For example, in a recent study by Ribeiro and colleagues (2014) examining therapeutic collaboration in episodes in which a poor-outcome client in narrative therapy expressed ambivalence, the

authors noted that, particularly in the context of interpersonal alliance tensions, trying to convince clients to change may lead to a further hardening of the client's ambivalence and feelings of 'stuckness' (Ribeiro et al., 2014, p. 356). This interpretation offers one possible explanation for the correlation observed in the current study between disagreement episode length and therapist hostility. That is, therapists who were untrained in how to effectively identify and manage resistance (CBT-alone therapists) may have responded to interpersonal tensions (i.e., client disagreement) by becoming increasingly directive, and more often hostile, which led to prolonged disagreement episode lengths.

Overall, the present study aligns favourably with decades of research describing resistance in psychotherapy as one of the most difficult processes to manage, and work noting therapists' ability to navigate resistance as "greatly overestimated" (Beutler et al., 2002, 2011; Binder & Strupp, 1997, p. 123; Henry et al., 1990). Authors investigating 'negative process' in psychotherapy contend that *all humans*, including therapists, have difficulty navigating negative interpersonal processes (e.g., Binder & Strupp, 1997; Fremont & Anderson, 1988; Henry & Strupp, 1994; Strupp, 1980). There is no doubt that responding to a challenging interpersonal bid with increased warmth and friendliness is difficult, and this was particularly evident in the current study with CBT-alone therapists tending to respond to disagreement with greater hostility than MI-CBT therapists. Indeed, studies have found clinicians to have negative personal reactions to provocative patients (e.g., Strupp & Williams, 1960) and to be most 'annoyed' by patients who engage in behaviours of which therapists' disapprove, including demanding, negativistic, and hostile behaviour (Fremont & Anderson, 1988). Others have found the presence of resistance in therapy to significantly derail therapists (Aspland et al., 2008; Castonguay et al., 1996; McAleavey et al., 2014; Zickgraf et al., 2015), suggesting that the presence of resistance

may naturally 'pull' therapists to engage in behaviours within which they would not typically engage during moments of cooperation. For instance, in a study by Zickgraf and colleagues (2015) examining therapist adherence to a CBT protocol for Panic Disorder, researchers found that the higher the patient's resistance, the less adherent the therapist was to the treatment protocol, and the more the therapist 'resorted to' interventions outside of the CBT model. These authors concluded that the management of challenging interpersonal behaviour should be integrated into treatment manuals, and recommended the incorporation of MI into treatment modules to help clinicians navigate this disorienting process.

The present study also supports research demonstrating that negative process need *not* occur frequently to have detrimental effects on client outcomes (Binder & Strupp, 1997; Strupp, 1993, "Vanderbilt II" project). For example, Henry and colleagues (1990) contended:

"Whereas the absence of a negative interpersonal process may not be sufficient for therapeutic change, the presence of even relatively low levels of negative therapist behavior may be sufficient to prevent change. To promote change... therapists' behavior should rather consistently disconfirm patients' negative self-expectations" (Henry, Schacht, & Strupp, 1990, p. 773).

In the current study, disagreement episodes occurred in only 9.60 out of 50 minutes (18% of the session) on average in the CBT-alone group, and only 4.90 out of 50 minutes (8% of the session) in the MI-CBT group. Nonetheless, therapist behaviours during these episodes were found to uniquely and substantively relate to client *1-year* posttreatment outcomes. This is consistent with previous studies noting that despite the tendency for resistance to occur rarely (e.g., in 13% to 20% of all 30-second time bins in any given therapy session; Aviram et al., 2016; Button et al.,

2015; Hara et al., 2015; Zickgraf et al., 2015), it has the capacity to robustly predict subsequent engagement and treatment outcomes (e.g., Aviram & Westra, 2011; Hara et al., 2015;

Constantino et al., 2017, Jungbluth & Shirk, 2009). Early psychotherapy studies using the SASB also noted the rarity of therapist hostility in comparison to cooperation, as well as the relationship between poor outcome cases, greater therapist hostile control and less friendly autonomy compared to good outcome cases (Critchfield et al., 2007; Henry, Schacht, & Strupp, 1986). In line with such findings, therapist hostility in the current study was found to occur less than 2% of the time within the CBT-alone group (and even less in the MI-CBT group). And despite therapists' tendencies in *both* groups to spend the majority of their time engaging in affiliative behaviours during disagreement (and far less time engaging in hostile behaviours), this study suggests that therapist hostility, specifically in the context of disagreement and even in very small amounts, is capable of differentiating treatment groups (i.e., MI-CBT vs. CBT-alone) and adversely impacting client outcomes.

Why were CBT therapists more hostile? Therapists belonging to the CBT-alone group in the present study were 10.91 times more likely to display hostile behaviour during disagreement compared to therapists trained in MI. As discussed above, one major reason for this finding may be that MI training significantly improves clinicians' abilities to detect and manage resistance, thereby improving outcomes in CBT (Westra & Norouzian, 2018). Additionally, however, it is important to also consider the ways in which the conceptualization of disagreement or client ambivalence within CBT might have influenced therapist behaviour further. That is, although CBT underscores the importance of empathy and collaboration during the change process (Gilbert & Leahy, 2007), opposition to the direction set by the therapist is often considered an 'obstacle' to effective treatment (Beck, 1995; Garland & Scott, 2007; Goldfried, 1982; Kazantzis

& Shinkfield, 2007). Moreover, rather than viewing resistance as a natural response to the change process (Miller & Rollnick, 2013; Westra, 2012), and responding to it with increased curiosity and warmth, client opposition within CBT might be highly susceptible to eliciting therapist behaviours (e.g., convincing, challenging, persuading, etc.) intended to *overcome* the obstacle. To the extent that resistance is conceptualized as posing a threat to the efficacy of the treatment, CBT therapists are often trained to 'challenge' resistance, with the ultimate goal of eradicating it. In fact, research has shown that clinicians are often encouraged to persist with the standard application of cognitive-behavioural techniques during moments of client non-compliance, such as challenging irrational beliefs and cognitive distortions (Burns, 1989; Ellis, 1985; Leahy, 2001; Stevens, Muran, & Safran, 2003).

Raue and Goldfried (1994) note that when clients are resistant to engage in particular tasks, like homework, it is the therapists' role in CBT to convince the client of the importance of the task, to provide a clear rationale, and to strategize with the client on how best to overcome this 'problem.' With this conceptualization of resistance in CBT as a barrier to effective intervention, it is understandable, given their training in how to conceptualize resistance, that CBT therapists in the current study engaged in behaviours that were considered hostile and/or less affiliative when faced with client opposition. Indeed, this pattern is particularly evident in transcribed segments of disagreement episodes in the present study, where it is apparent that the CBT therapist either directly challenges the client's opposition (i.e., in a form akin to a 1-6 code of 'Belittling & Blaming') or ignores the client's opposition, hesitancy or discomfort and proceeds with their agenda (i.e., in the form of a 1-8 'Ignoring & Neglecting'). These therapist responses may have been either (or both) a function of the conceptualization of resistance in CBT as an 'obstacle' or an unwitting human response to opposition, as outlined above (e.g., Binder &

Strupp, 1997; Raue & Goldfried, 1994). Consider the following illustration of an incident of therapist hostility in the CBT-alone group in the present study:

Client (C): [Re: Completing PMR exercise] And so I...I'm having real time issues.

Something is wrong with my perception of time or managing time. It's a problem...

Therapist (T): Right well...time is a really relative thing too [1-8 'Ignoring & Neglecting' – ignoring client's concern]. I mean sometimes something as fast as taking...taking vitamins in the morning which takes one minute... [1-6 'Belittling & Blaming,' therapist tries to persuade client to complete the task, despite their objection]

C: Yeah.

C: Yeah.

T: ...seems like it's going to take up a ton of time but really when you think about...when you actually bring it down to the basics...that takes one minute to do. It's very quick. [1-6 'Belittling & Blaming']

T: I mean relaxation can seem like it's going to take forever to do the full sixteen groups, to do everything...it usually takes about twenty to twenty-five minutes. So that seems like a really long time... 'how am I going to fit that in?' But if you think it over you have how many minutes in a day? [T laughs; T continues to push agenda via psychoeducation] Twenty...twenty-five minutes ends up not seeming as long.

C: This has been an issue with my life...just rushing, rushing, rushing and not seeing the end of it kind of... and our [home] renovation doesn't make it any simpler [Client reasserts disagreement; resistance]

Here, rather than taking a step back and exploring the client's discomfort with the task or "perceptions of time," the therapist increases their direction, thereby communicating a disinterest in the client's experience and a rigid focus on the importance of completing the task (with which the client's resistance is 'interfering'). As illustrated by the above excerpt, continuing to be directive, and even hostile, in the context of disagreement is counterproductive. In fact, by failing to identify opposition as a natural process of change and approaching it with increased support, therapists in the present study likely prolonged the time spent disagreeing with their clients and contributed to poorer client treatment outcomes at 1-year follow-up (Castonguay et al., 1996; Miller & Rollnick, 2013).

In sum, the present findings suggest that continuing to proceed with a directive approach in the context of interpersonal resistance in CBT is less than optimal, particularly given its ability to contribute to poorer treatment outcomes (e.g., Aspland et al., 2008; Ribeiro et al., 2014). The present findings encourage clinicians and researchers alike to re-conceptualize resistance as arising from the mismanagement of client ambivalence and resistance, rather than an obstacle or 'barrier' to overcome (e.g., Garland & Scott, 2007; Kazantzis & Shinkfield, 2007). This may involve cultivating a flexible approach in CBT, whereby the therapist is attuned to particular moments of client disengagement, and becomes increasingly comfortable with abandoning directive strategies and replacing them with increased warmth, curiosity, and understanding during moments of resistance. This recommendation is consistent with studies highlighting the ways in which adopting relational skills, like those offered by MI, into CBT, can improve treatment outcomes (e.g., Burns & Nolen-Hoeksema, 1992; Constantino et al., 2017; Federici et al., 2010; Flynn, 2011; Miller, Taylor, & West, 1980; Westra et al. 2016; Zickgraf et al., 2015).

Therapist Autonomy During Disagreement

Contrary to expectations, the degree to which therapists granted their clients autonomy or were controlling during disagreement was not found to differentiate MI-CBT and CBT-alone groups, or to contribute to client outcomes in the present study. This is somewhat surprising given the theoretically espoused role of MI in enhancing client autonomy (Miller & Rollnick, 2013; Westra et al., 2016; Westra & Aviram, 2013) and several studies demonstrating the use of increased direction, or control, by therapists during resistance (e.g., Aspland et al., 2008; Castonguay et al., 1996). One possible explanation for the lack of findings related to therapist autonomy in the present study may have been due to an inability of the SASB instrument to pick up nuances in therapist autonomy beyond affiliation and hostility. In other words, there may not have been enough variance in codes considered high or low in therapist autonomy to differentiate treatment groups or client outcomes. Specifically, therapist behaviour scores occurring during disagreement episodes were weighted to compute an overall autonomy score based on how close or far therapist behaviours were from the top and bottom poles of the SASB model (i.e., 1-1 'Freeing & Forgetting' and 1-5 'Watching & Controlling;' see Figure 1). Consistent with previous studies (e.g., Ahmed et al., 2012), therapists in both groups were found to spend the majority of their time engaging in affiliative behaviours such as 1-2 'Affirming & Understanding' (considered more autonomy granting) and 1-4 'Nurturing & Protecting' (more autonomy taking). This may have obscured the difference in therapist autonomy between groups, and the possibly unique effect of this variable on outcomes.

It is also possible that specific behaviours that might have 'loaded' onto the autonomy variable in the present study might have been *subsumed* by the affiliation and the hostility variables. For example, many of the therapist behaviours that might have been considered

appropriate 'autonomy granting' (e.g., greater use of 1-2 'Affirming & Understanding' when a client opposed) might have been captured by the affiliation variable (i.e., a high weighted affiliation score), and codes considered controlling or 'autonomy taking' might have been explicitly captured via the hostility variable (e.g., greater use of therapist 1-8 'Ignoring & Neglecting'), as a lower weighted affiliation score and/or a higher hostility score. In other words, therapist behaviours that might have loaded higher or lower on autonomy might have already been accounted for by the other two primary variables in the study (therapist affiliation and hostility).

Disagreement Within the Context of Client Early Attachment and Agency

According to Bowlby's central hypotheses in his classic works on interpersonal attachment, variations in the attachment quality between child and caregiver form the foundation for later differences in personality (Bowlby, 1973; Sroufe, 2005). Research consistently demonstrates that when attachment is organized sub-optimally (e.g., a child lacks trust in the reliable protection of a caregiver, subsequently engages in impoverished exploration and develops less adaptive emotion regulation strategies), the child's socialization context becomes compromised and their risk of developing psychopathology is significantly heightened (Cicchetti, 2006; Kochanska & Kim, 2012). According to Bowlby's theoretical framework, attachment processes are foundational to understanding anxiety, and GAD in particular (Bowlby, 1973; Cassidy, Lichtenstein-Phelps, Sibrava, Thomas, & Borkovec, 2009). For instance, insecure attachment style has been identified as a potential risk factor for the development of GAD (Newman, Llera, Erickson, Przeworski, & Castonguay, 2013), with individuals with GAD often reporting attachment histories marked by their emotional needs being overlooked or neglected by caregivers (Newman et al., 2013). Worry severity in children (Brown & Whiteside, 2008), as

well as GAD symptoms in adolescence and adulthood (Muris, Meesters, Merckelbach, & Paulette, 2000), has also been linked with rejection during childhood and perceived parental alienation (Brown & Whiteside, 2008; Cassidy et al., 2009; Hale, Engels, & Meeus, 2006).

Interestingly, individuals with GAD have also been found to report greater parental overprotection (Nordahl, Wells, Olsson, & Bjerkeset, 2010), the presence of harsh parental discipline, rules and expectations during childhood (Shanahan, Copeland, Costello, & Angold, 2008), less maternal love, and/or more maternal role reversal/enmeshment (Cassidy et al., 2009). Newman and colleagues (2013) posit that parental overprotection coupled with harsh discipline may contribute to a decrease in the child's sense of autonomy by conveying a message that the child is unable to function on their own without the caregiver. This in turn may lead a child to believe they are ill equipped to cope with negative life events and contribute to a persistent anticipation of all possible negative consequences as a means of being emotionally prepared for uncertainty (Newman et al., 2013). With this context in mind, it is not inconceivable to consider that a client with GAD might deliberately avoid self-assertion and consistently defer to the expertise of others as a means of preventing negative consequences. In fact, researchers have noted that a common interpersonal style in individuals with GAD is to anticipate the needs of others while being excessively accommodating and dismissive of personal needs (e.g., Newman, Jacobson, & Castonguay, 2014; Newman et al., 2013; Westra & Arkowitz, 2010).

Research has also shown that worry among those with GAD is often linked to fears related to social evaluation and interpersonal relationships (e.g., worrying about meeting new people, being criticized and feeling self-conscious) while largely unrelated to most non-interpersonal objects or events (Borkovec, Robinson, Pruzinsky, & DePree, 1983; Cassidy et al., 2009; Roemer, Molina, & Borkovec, 1997). Individuals with GAD have been found to have more

interpersonal problems (Borkovec, Newman, Pincus, & Lytle, 2002), often reporting themselves to be overly intrusive and nurturant in relationships (Eng & Heimberg, 2006; Pincus & Borkovec, 1994), and less interpersonally effective than others (Erickson & Newman, 2007). Given this, the therapeutic relationship might be of particular importance for individuals with GAD. In fact, the notion of the "therapist as a secure base" in psychotherapy was central to Bowlby's clinical approach (Bowlby, 1988; Cassidy et al., 2009), and studies have found individuals with GAD to find the therapeutic relationship, particularly in the context of MI, especially healing and corrective (Macaulay, Angus, Khattra, Westra, & Ip, 2017).

Disagreement as an 'Interpersonal Window.' Understandably, the tendency for individuals with GAD to defer to others (e.g., Newman et al., 2013) in interpersonal relationships may also occur in the context of psychotherapy. Psychotherapy represents a unique relationship, wherein a client with GAD may particularly defer to their therapist as the holder of 'expertise' on themselves, refrain from self-asserting, and thus engage in similar attachment patterns as those experienced with their primary attachment figures (Bowlby, 1973; Cassidy et al., 2009; Newman et al., 2014). In the context of the present study, client disagreement with the therapist's statement or direction (i.e., as in a disagreement episode) might be conceptualized as having been somewhat *outside* of what was 'typical' for a client with GAD, who may or may not have had a history marked by insecure attachment, interpersonal problems, and high deference (Borkovec et al., 2002; Erickson & Newman, 2007; Newman et al., 2013).

Further, in a context largely defined by cooperation (i.e., a therapy session), a client's opposition might represent a key and *rare* interpersonal moment in which they were asserting their personal needs, perhaps for the first time (Cassidy et al., 2009). Given this, a disagreement episode might represent a unique 'interpersonal window' for the therapist to help the client with

GAD challenge entrenched developmental patterns associated with a need for deference in interpersonal relationships (Borkovec et al., 2002; Przeworski et al., 2011; Westra & Arkowitz, 2010). Akin to the concept of 'sensitive periods' in neurodevelopmental psychology, defined as "windows of time during development in which experiences may be maximally effective in inducing neurobiological and behavioral change" (Curley & Champagne, 2016, p. 2), disagreement episodes might represent a window of opportunity for the therapist to help the client 'course correct' their history of deference and self-doubt (Erickson & Newman, 2004; Przeworski et al., 2011). Importantly, the present study suggests that there is also relative 'risk' associated with inappropriately navigating this interpersonal window. Specifically, by becoming increasingly hostile during a rare occurrence of client assertiveness, the therapist runs the risk of recapitulating the client's pattern of deference; potentially further consolidating self-doubt and beliefs of their ineffectiveness in interpersonal relationships

Disagreement episodes in the present study might also be considered to have represented 'corrective-emotional experiences' for clients with GAD (Alexander & French, 1946). Coined by Alexander and French (1946) to describe particularly transformational experiences in psychoanalytic therapy (Lambert, 2012), corrective experiences incorporate insights and recognition of patterns of behaviours as well as the consequences of engaging in new behaviours. More recently, corrective emotional experiences have been described as experiences in which, "a person comes to understand or experience affectively an event or relationship in a different and unexpected way" (Castonguay & Hill, 2012, p. 5). By being met with increased therapist affiliation and warmth following a rare assertion of personal needs (and after taking the risk to communicate such needs), the client with GAD might have learned that they are capable of asserting their needs and of receiving support during a time of threat (Cassidy et al., 2009). This

is of particular importance given research showing that attachment systems are especially activated during times of threat (i.e., disagreement), and the availability and responsiveness of the attachment figure during these times is thought to be of fundamental importance to reducing fearfulness and maximizing a sense of security (Ainsworth & Wittig, 1969; Cassidy et al., 2009; Sorce & Emde, 1981). Further support for the notion of disagreement episodes as corrective emotional experiences is offered by findings from Macaulay and colleagues (2017), in the context of examining client corrective experiences in the MI-CBT group of the Westra and colleagues (2016) parent RCT. Here, authors found that clients tended to note their therapists' pointing out their tendency to be harsh on themselves as the most meaningful therapist acts in their treatment. These researchers concluded that such therapist acts might have served to disconfirm or "potentially started to correct" these clients' negative view of themselves (Macaulay et al., 2017, p. 178).

In addition to noting the difficulty clients experience in sharing negative reactions to their therapists (Rennie, 1993), Rennie (1994) also discusses the inherent power differential in the therapeutic relationship that makes it particularly difficult for clients to challenge the therapist/authority figure. Especially for clients with GAD then, who may have histories of feeling unheard by attachment figures or of deferring to others as a means of preserving relationships (Brown & Whiteside, 2008; Cassidy et al., 2009; Hale et al., 2006), disagreeing with their therapist might be a notable deviation from the norm. And while resistance has been found to occur across contexts and clinical diagnoses (e.g., Beutler et al., 2002, 2011; Binder & Strupp, 1997; Miller & Rollnick, 2002), for clients with GAD in the current study, disagreeing with their therapist may have represented an important interpersonal risk, which offered the

therapist a fleeting interpersonal window to provide a corrective experience (Alexander & French, 1946).

The following excerpt from the present study elucidates MI-therapists' skill in becoming increasingly affiliative in the context of disagreement, and demonstrates the clinician's ability to use the client's opposition as an opportunity to encourage client autonomy. In this excerpt, the client asserts themselves by disagreeing with the therapist's interpretation of seeing the 'real' version of the client emerge in session upon noticing the client's tearfulness:

Therapist (T): When I see those tears and hear you say what you're saying, **that seems like the real you. I don't know if you feel like that.** [Therapist makes a complex reflection
and checks in with client re: its accuracy; coded a 1-4 'Nurturing & Protecting' – 2-2
'Disclosing & Expressing]

Client (C): What's the real me? What, what... (laughs) [Client is not on board with therapist's interpretation and disagrees with therapist's reflection]

T: I hear you saying that that doesn't feel okay. [1-2 'Affirming & Understanding']
C: Yeah...

T: That scares me [1-2 'Affirming & Understanding']. That's not okay to...to dismiss myself and not take care of myself. [1-4 'Nurturing & Protecting' – therapist is affiliatively deepening client's experience here whilst preserving client's assertion]
C: Yeah...I don't know (laughs). It doesn't feel to me like the real me...[C continues to disagree]

T: I see. [1-2 'Affirming & Understanding']

C: ... 'cause it feels like the real me is the psycho who's cutting... who doesn't have her needs. I guess our understanding of the real me is different.

T: ...of the real you is different, yeah! [T agrees with client that their conceptualizations are different and comes alongside the client; 1-2 'Affirming & Understanding']

C: Like, you're saying the real me is like...

T: I mean, you know, clearly, you know best, right? [T defers to client's expertise here – 1-2 'Affirming & Understanding'] I absolutely defer to your expertise on yourself.

[Therapist encourages client autonomy]

C: Yeah.

It is possible that receiving training in MI helped therapists increase their attunement to a key clinical marker, resistance, which when validated and supported, helped clients cultivate a greater sense of agency (Bohart & Tallman, 1999; Westra et al., 2016). This approach to disagreement highlights the ways in which the MI therapist might have taken advantage of the 'interpersonal window' offered during the disagreement episode to not only support the client but to also encourage the client's agency in resolving the problem. In other words, by noticing the disagreement and reflecting to the client that they know best, the therapist in the above excerpt communicated belief in the *client's* ability to navigate a difficult interpersonal moment.

The facilitative interpersonal conditions offered by MI therapists, specifically during key moments of disagreement, may have facilitated improvements in client agency by helping clients rewrite their emotional 'scripts,' thereby improving their GAD symptoms one year later (Miller & Rollnick, 2002; Rogers, 1961; Westra et al., 2016). Indeed, Faris and colleagues (2009) suggest that one of the primary mechanisms of change in MI is its contribution to the enhancement of client agency. Defined as the client's ability to actively influence the course of psychotherapy (Bohart, 2006; Bohart & Tallman, 1999), agency is considered an indicator of positive psychological functioning and important in helping clients make use of interventions to

help themselves (Williams & Levitt, 2007). The MI therapist likely conveyed to clients that their discrepant voices were not only permitted but encouraged (Macaulay et al., 2017; Westra, 2012), which may in turn, have enhanced the client's sense of agency.

This is consistent with several qualitative psychotherapy process studies (e.g., Button, Norouzian, Westra, Constantino, & Antony, 2018; Khattra et al., 2017; Macaulay et al., 2017) based on the Westra and colleagues' (2016) trial, examining clients' immediate posttreatment accounts of their experiences in treatment. In the Button and colleagues (2018) study for example, unique categories related to agency were observed for clients with GAD who had undergone MI-CBT, but were rarely endorsed for clients receiving CBT-alone. Specifically, MI-CBT clients described feelings of inner confidence stemming from treatment (e.g., "This was the first therapy where I felt during and afterwards that I could handle things on my own rather than needing a therapist...so [therapy] enabled me to be more self-sufficient" p. 728). MI-CBT clients were also found to more commonly refer to being 'in charge' of their therapy, which is largely consistent with MI spirit and its emphasis on viewing 'client-as-expert' (Button et al., 2018; Miller & Rollnick, 2013; Westra & Aviram, 2013). These observations were further supported by Gomez Penedo and colleagues (2017) in their work demonstrating that MI-CBT, compared to CBT, was most effective for clients with problematic low agency and non-assertiveness. Enhanced agency may in fact be one of the primary reasons why improved client outcomes were observed at the one-year mark, but not immediately posttreatment, in the present study.

Similarly to the current study, Westra and colleagues (2016) noted that, "the major process enhancements that accompany the integration of MI with CBT may very well confer additional benefits beyond symptom reduction, to include greater self-trust or agency" (p. 777). These authors underscored the role of client attributions for improvement in the maintenance of

promoted by MI might be most evident when the client ends therapy, and must operate independently without the therapist's guidance (Westra et al., 2016). Indeed, studies have noted the importance of client internal attributions on positive outcomes (e.g., Powers, Smits, Whitley, Bystritsky, & Telch, 2008) and have underscored the power of self-efficacy in functioning as a mediator of outcomes (e.g., Bandura & Adams, 1977). The present study offers support for the notion that MI might help clients create internal attributions of their *own* progress in treatment, which in turn, might serve to enhance treatment gains over time (Westra et al., 2016).

Clinical and Training Implications

The present findings converge with emerging psychotherapy research recommending increased therapist responsivity across therapy models and the integration of client centered approaches into more directive treatments as a means of improving outcomes (Aviram et al., 2016; Beutler et al., 2011; Boswell et al., 2013; Constantino et al., 2013, 2017; Westra et al., 2016; Westra & Aviram, 2013; Westra & Norouzian, 2018; Zickgraf et al., 2015). For instance, Constantino and colleagues (2013) recommend a contextualized integration model that is centered on systematized, flexible and empirically tested models for addressing particular psychotherapy process themes (Boswell & Castonguay, 2007), such as outcome expectations, ambivalence, and alliance ruptures and repair.

Importantly, context-responsivity in psychotherapy is difficult (Stiles et al., 1998), and a therapist's ability to tacitly attend to both psychotherapy process (i.e., macroanalytic skills) and content (i.e., microanalytic skills) should not be assumed (Beutler et al., 2002; Patterson, 1984). In line with this contention, Hill and colleagues (1989) noted that therapists were significantly less capable of detecting their patients' negative feelings, compared to their positive ones,

especially if these negative feelings were concealed by clients. Hill and colleagues (1992) also stated that therapists may take their clients' negative reactions personally, become anxious, and feel less confident about their skills, or may not have the skills required to know what to do differently when clients are reacting negatively. Indeed, Zickgraf and colleagues (2015) have noted that rather than assuming that skilled therapists can manage difficult client behaviours, there needs to be more guidance on how to cope with such behaviours within CBT models. The present study thus addresses this important gap by providing evidence that training in an approach predicated on the effective identification and management of resistance, such as MI, can help therapists navigate these moments more successfully within the context of CBT (Aviram et al., 2016; Westra et al., 2016; Westra & Aviram, 2013; Westra & Norouzian, 2018).

A significant clinical implication advanced by the current study is the value of encouraging therapists to reflect on their *own* internal reactions to clients (particularly feelings of frustration or annoyance; Westra, Aviram, Connors, Kertes & Ahmed, 2011). The present study suggests that monitoring one's own reaction to clients can function as a pseudo 'hostility gauge' that alerts therapists to negative process and reminds them to switch from increased direction to support. Notably, therapist emotional reactions to clients have not been as prominently discussed in CBT as in psychoanalytic tradition (Winnicott, 1949), despite early researchers contending that therapist personal reactions to clients extend beyond classic countertransference:

... "Major deterrents to the foundation of a good working alliance are not only the patient's characterological distortions and maladaptive defenses but – at least equally important – the therapist's personal reactions.

Traditionally these reactions have been considered under the heading of countertransference. It is becoming increasingly clear, however, that this

conception is too narrow" (Strupp, 1980, p. 953).

Moreover, there is research to suggest that monitoring internal reactions to clients might be particularly helpful. For example, in the context of CBT for GAD using the *Ratings of Emotional Attitudes to Clients by Treaters* (REACT; Najavits & Colson, 1992) scale, Westra and colleagues (2011) found that greater therapist early positive reactions to clients (e.g., liking, enjoyment, attachment) were associated with significantly lower levels of client resistance at midtreatment and greater reductions in client resistance from early to midtreatment. These authors concluded that therapists "should monitor their early reactions to clients, especially their feelings of regard for and positive emotional connection to the client, as well as developing feelings of frustration, helplessness, and power struggles" (Westra et al., 2011, p. 8). Further, they highlighted the importance for clinical supervisors using therapist reactions to clients as an important source of information.

Indeed, research is emerging on the value of training therapists to observe such processes and practice their skills in navigating them. Specifically, there is research to suggest that the identification and management of nuanced tensions in the alliance, such as resistance, is a trainable clinical skill. For example, in a study conducted by Hara and colleagues (2015), CBT therapists' post session ratings of resistance among clients with GAD were not related to either client post session alliance scores or posttreatment outcomes. However, the ratings of *trained* observers, who were trained in the appropriate identification of resistance, in these same sessions, were highly predictive of outcomes. These findings are in keeping with recommendations advanced by Binder and Strupp (1997) noting that training in observation and systematic analysis of interpersonal processes via videotaped therapy sessions can help clinicians detect important negative processes. Whipple and colleagues (2003) and Lambert and colleagues

(2001) have also shown that informing therapists of difficulties in treatment by giving therapists feedback when cases are failing has the capacity to improve client outcomes.

Together with the present study, these findings are particularly promising in light of earlier studies on negative process using the SASB (e.g., Strupp, 1993, Strupp & Hadley, 1979; classic "Vanderbilt I & II" studies), which concluded that training in the identification and management of negative interpersonal processes does not significantly improve therapists' capacities to monitor and manage difficult moments in psychotherapy. And while these early authors' contentions that "negative process is difficult to control and especially eradicate – even when the therapy model and associated training is designed to deal with it" (Binder & Strupp, 1997, p. 129; Henry et al., 1993) may still ring true, the present study is one of the first to empirically demonstrate that systematic training in MI can help therapists navigate resistance and improve client outcomes. This is especially important given that therapist effects were controlled for in the current study (i.e., natural variations in therapist interpersonal skill), all therapists were novice and delivered CBT. The present findings are also encouraging given research showing that when asked to identify key moments in therapy, clients are most likely to recall moments in which there was disagreement between the client and therapist (e.g., the therapist failed to understand the client's perspective/objection; Viklund, Holmqvist, & Nelson, 2010).

It is important to note that the present study does not suggest that the use of directive clinical approaches is contraindicated. Instead, it communicates that training therapists to know the difference between directing and supporting is a *clinical skill*, and flexibly moving from direction to support at key moments can greatly improve psychotherapy process and treatment outcomes (Stiles et al., 1998; Westra & Norouzian, 2018). As such, the present study urges clinicians and researchers alike to reframe resistance as arising from inappropriately timed

therapists' directive (or even hostile) responses, rather than as an obstacle to effective intervention (Aviram et al., 2016; Aviram & Westra, 2011; Miller & Rollnick, 2013; Westra, 2012). Thus, an important clinical implication advanced by the current study is for therapists to see merit in viewing resistance as a natural client response to the prospect of change (Miller & Rollnick, 2002) and to use it as a *cue* (rather than a threat) that their approach must shift. Importantly, correctly timed therapist direction can be helpful, and a recent study by Button (2019) elucidated this in their study finding client ambivalence to significantly moderate treatment outcomes for worry. Specifically, for clients who had higher levels of ambivalence, MI-CBT was related to better outcomes. This study suggests that for clients who are less ambivalent, and highly motivated for treatment, directive therapeutic approaches that are action-oriented can work equally as well. Taken together with this study, then, it is important for therapists to be aware of the interpersonal *context* surrounding client change, and the dangers associated with inappropriate direction when a client demonstrates ambivalence or resistance regarding change (Sijircic et al., 2016; Stiles, 2009).

Strengths, Limitations, and Future Directions

A notable strength of the present study is its use of rigorous, observationally based process coding systems, which allowed for a precise and careful analysis of *specific* therapist behaviours occurring during a key clinical marker of interest – resistance. Not only are the *Adapted Client Resistance Code* (CRC; Chamerberlain et al., 1984; Westra et al., 2009), *Motivational Interviewing Skill Code 1.1* (MISC 1.1; Hagen Glynn & Moyers, 2009), and the *Structural Analysis of Social Behavior* (SASB; Benjamin, 1974) well-validated systems, they also allowed for an analysis of specific therapist effects. To this end, the present study allowed for a quantification of the relative weight exerted by specific therapist behaviours during disagreement

episodes and their effects on client outcomes (Benjamin & Critchfield, 2010; Henry & Strupp, 1994). Using the SASB to code interpersonal behaviours in the present study also allowed for a consideration of the relative contributions of both therapist and client behaviours in the interaction, whilst enabling the isolation of specific therapist behaviours that were uniquely associated with client outcomes (i.e., therapist affiliation and hostility; Benjamin & Cushing, 2000).

Another important advantage of the present study is its use of different coders for each observational coding system used. This helped to greatly limit bias and enhanced confidence in coders' ability to correctly (and differentially) identify various phenomena of interest (i.e., resistance, interpersonal behaviours of interdependence, affiliation and hostility, change-talk and counter-change talk). In addition, the data from the present study were derived from a rigorous, well-controlled RCT for CBT for clients with high severity GAD (Westra et al., 2016). This permitted for relative homogeneity of client and therapist characteristics, as well as therapist training and skill (i.e., all were relatively novice therapists who self-selected into treatment condition). Data derived from this RCT also allowed for the examination of a relatively large psychotherapy process sample (N = 60), careful attempts to match disagreement episodes by length in each treatment group, and the representation of each therapist-client dyad at least once in the present sample. This thereby limited external variance and enhances confidence in the validity and reliability of the results obtained.

In terms of limitations, the SASB has been referred to as a "blunt" instrument in psychotherapy research, and has been deemed suboptimal at capturing experiential therapists' complex and subtle capacity to engage the client through empathy (Wong & Pos, 2014, p. 10). To this end, this measure may have missed subtle nuances in therapist behaviour that may have

helped to contextualize this study further. For example, the SASB model does not particularly differentiate complex therapist empathic reflections, intended to deepen a client's experience, from simple reflections, meant merely to follow the client. This is an important limitation as, in some ways, the SASB limited the present study's ability to further differentiate therapist affiliative behaviours, as well as specific hostile behaviours, between groups. It might be beneficial for future studies to consider differentiating SASB code categories further to capture nuanced differences in affiliative, autonomy granting and hostile therapist behaviours. Further, given the theoretically espoused role of MI in enhancing client agency via encouraging client autonomy (e.g., Button et al., 2018; Faris et al., 2009; Miller & Rollnick, 2013; Westra et al., 2016), it would be interesting for future work to differentiate MI-consistent autonomy granting/preserving behaviours (e.g., "you know best" therapist statements) or empathy statements, from MI-inconsistent autonomy granting behaviours, such as ignoring or neglecting the client, and the impact (if any) of these behaviours on client measures of client agency and treatment outcomes. In addition, although efforts were made to match the CBT and MI-CBT disagreement episode samples by length and quality, and there was sufficient variability in the primary process measures of interest (resistance, affiliation, hostility, and autonomy) across both groups, sampling CBT episodes prior to the MI-CBT sessions may have inadvertently created an order effect. Simultaneous and random sampling of treatment groups is recommended in future studies, as well as the use of the same measures to code interpersonal processes.

Moreover, the present study only examined *one* disagreement episode for each therapistclient dyad. Given research showing that resistance tends to be repeated within the course of psychotherapy, particularly if left unmanaged (e.g., Aviram & Westra, 2011; Button et al., 2015), it would be fruitful for future studies to examine the *repeated* impact of improperly managed disagreement episodes on client outcomes. And while the present study suggests that even *small* amounts of inappropriately managed resistance (i.e., increased therapist hostility and decreased affiliation) can be toxic to client long-term outcomes, it would be important to disentangle whether sustained, or incremental effects of repeated therapist inappropriate management of resistance impacts outcomes at a greater rate than one mismanaged episode. Accordingly, future studies should examine the effect of sustained and repeated therapist mismanagement of resistance on client outcomes.

The present study also exclusively examined disagreement in early sessions of psychotherapy. It may be important for future research to assess whether the timing of disagreement episodes, within the context of several weeks or months of psychotherapy, matters in terms of client outcomes. For example, to address whether disagreement episodes occurring later in treatment (particularly mismanaged episodes where the therapist is hostile) pose a greater risk to the alliance and on treatment outcomes than early disagreement episodes, given that the therapist may be more internalized by the client later on in therapy (Benjamin & Critchfield, 2010; Bowlby, 1973). In addition, given that therapist and client alliance ratings have been found to converge over time, with greater convergence leading to improved client outcomes (e.g., Coyne, Constantino, Laws, Westra, & Antony, 2018), future studies should examine the sequential impact of specific therapist behaviours on client behaviours, in addition to outcome ratings. Further, given research showing that MI is capable of helping clients with GAD resolve interpersonal problems (Button, 2019; Gomez Penedo, Constantino, Coyne, Westra, & Antony, 2017; Mennin, Heimberg, Turk, & Fresco, 2002; Newman, Castonguay, Bokovec, & Molna, 2004), future studies should also consider investigating the relative impact that therapist behaviours of affiliation, autonomy support, and hostility have on other related psychotherapy

process outcomes for individuals with GAD, such as interpersonal problems, language (i.e., presence of change-talk or counter-change talk), rates of disclosure etc.

Notably, the data in the present study, particularly the therapist affiliation data, were not normally distributed given that hostility is rare and cooperative behaviours are much more common within the context of psychotherapy. While other studies have also found this to be the case (i.e., disproportional affiliative process compared to hostile process; e.g., Ahmed et al., 2012; Critchfield et al., 2007; Kertes, 2015; Wong & Pos, 2014), and the present study transformed the affiliation variable to reconcile this issue, future studies should consider other ways to capture the phenomena of interest that further differentiate therapist behaviours. While the present study differentiated hostility from affiliation and autonomy, the therapist hostility measure was *created* for the present study and has not been previously validated. In addition, while therapist hostility and affiliation were considered separate constructs in the present study (r = -.63), therapist hostile behaviours as well as autonomy behaviours were both considered in the creation of the therapist weighted affiliation variable. To the extent that hostility and affiliation overlap or represent facets of the same construct, measuring the two as separate variables in the present study could also be conceptualized as a limitation.

Therapist effects were examined and controlled for in the present study, demonstrating that therapists accounted for between 13 and 32% of the variability in therapist behaviours of affiliation, autonomy and hostility. By controlling for therapist effects, the present study was able to better capture the unique impact of therapist behaviours on outcomes, as a function of training. Although client behaviours were not a focus of the present study, psychotherapy is inherently dyadic, with both the therapist and client simultaneously influencing client outcomes (Coyne et al., 2018). It might be interesting for future studies to examine therapist-client processes, for

example, in the form of interpersonal complementarity (Ahmed et al., 2012; Benjamin & Cushing, 2000; Kiesler, 1996), to gain a more complete picture of between- and within-therapist effects during disagreement episodes (Constantino, Boswell, Coyne, Kraus, & Castonguay, 2017). Indeed, studies using the SASB to explore interpersonal complementarity have found lower rates of affiliative interpersonal complementarity (i.e., moment-to-moment reciprocation of friendly relational behaviour) during resistance in therapist-client dyads in low versus high outcome expectations groups, thereby suggesting an important association between in-session interpersonal processes and client and therapist outcomes (Ahmed et al., 2012).

Finally, the present study only considered those with severe GAD presenting for CBT within the context of an RCT, and the client and therapist sample was predominantly female. Although studies have found age, gender composition and problem severity to be unrelated to the efficacy of MI (e.g., Hettema, Steele, & Miller, 2005), with the effects of MI found to be significantly larger for ethnic minority samples, generalizability of the present study is limited. Future studies should consider testing more diverse samples and other theoretical approaches, as well as the integration of MI with other directive, action-oriented models. Further, given evidence that therapist behaviours (e.g., adherence, competence and skill) can vary as a function of training (e.g., Beidas & Kendall, 2010), future studies should prioritize the examination of specific individual differences related to a therapist's ability to learn MI skills, such as their theoretical orientation, motivation, and education (Norouzian et al., 2019).

Conclusions

"We hope that our point has been made, namely, that whether conceptualized as transference and countertransference, or as hostile complementary transactions, or as alliance ruptures, or in some alternative

way, negative therapeutic process is pervasive, enormously destructive to the therapeutic relationship, and extremely difficult for therapists to manage..." (Binder & Strupp, 1997, p. 134).

The aim of the present study was to systematically evaluate whether training in MI, a collaborative, client centered approach grounded in the effective management of client resistance, was capable of impacting specific therapist behaviours during disagreement episodes in the context of CBT for GAD (Miller & Rollnick, 2002). Therapists who received training in MI integrated with CBT were found to be significantly more affiliative during disagreement, and notably less hostile compared to therapists trained in CBT-alone. Therapist affiliation and hostility, precisely during moments of disagreement, were found to significantly and substantively mediate the relationship between treatment group (i.e., MI-CBT vs. CBT-alone) and client long-term treatment outcomes. This study underscores the link between resistance, therapist behaviours of hostility and affiliation and client outcomes, and delineates a pathway through which psychotherapy outcomes may be improved – namely, through systematic training in the identification and appropriate management of in-session ambivalence and resistance (Aviram et al., 2016; Constantino et al., 2017; Miller & Rollnick, 2002; Westra & Norouzian, 2018). By reframing client resistance as an *opportunity* to learn more about the client and to explicitly shift gears from a directive to supportive stance, the present study provides promise for clinicians and researchers to more effectively manage and conceptualize resistance (Miller & Rollnick, 2002). Described as a "living, evolving method," this study encourages the use of MI as a foundational platform from which any change-oriented approach can be practiced, and offers one way to significantly improve clients' experiences in psychotherapy, and perhaps ultimately, the benefit they receive from it (Miller & Rollnick, 2009, p. 137; Westra, 2012).

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Appendix A

MANUAL FOR RATING INTERPERSONAL RESISTANCE

Westra, H. A., Aviram, A., Kertes, A., Ahmed, M., & Connors, L. (2009) **DO NOT reproduce or distribute without permission

Key Coding Principles/Concepts

Definition of Resistance is "going against, opposing, diverting, blocking, or impeding the direction set by the therapist." This is the core definition and every code counted as resistance must meet this definition.

This system is meant to capture *both* resistance to the therapist, as well as resistance to treatment/therapy (i.e., resistance to being in this treatment/changing). The gestalt concept that the system is meant to capture is *talk and/or process* that reflects pessimism/contrariness/scepticism (e.g., "I don't buy this," "this won't work," "I can't/won't change," "I won't go along with this," "I don't agree with you").

In a typical therapy session, the therapist is nearly always setting a direction (e.g., asking a question, making a reflection or suggestion), and inviting or asking the client to comply with this direction (i.e., by answering the question, responding to the reflection or suggestion). Therefore, you can nearly always determine 'where the therapist is going.' Client responses can then be coded as to whether or not they 'go along' with the therapist's invitation or request to follow OR go against/block this direction.

Central to coding using this system is that coders continually ask themselves: "Is this behavior meant to cooperate with the therapist - to go where the therapist is going - or to go against the therapist?"

This is a process coding system and thus content is secondary. Coders should rely less on the words used, and centrally decipher and rely on what is being communicated beyond the words. That is, coders need to ask: "What is the intention of this client/therapist behavior?" irrespective of the words used. Often, the very same client words can communicate cooperation or resistance. In coding, one is trying to *capture the underlying interpersonal message*. That is, is the client's communication (in its totality) meant to say: "Go ahead; keep going; I'm with you," or is it meant to say: "Back off; I don't agree; I'm not on board with where you're going." For example, a client statement of "I don't know" may very well be cooperative (non-resistant) if the client has considered the therapist's question and then seems to genuinely be indicating that they don't know (and the overall tone is one of cooperation). However, these same words ("I don't know"), if stated quickly, carelessly, or with an irritated tone would be communicating resistance. It is also possible for the same response, "I don't know," to be coded as both resistance and nonresistance at different time points within the same session. For example, if the therapist repeatedly presses the client for a response, you would want to closely keep an eye on the client's response because that same response, "I don't know" - which earlier could have been cooperative (depending on the context), could shift to communicate resistance (i.e., "stop asking me that!").

Client statements do NOT automatically get coded as resistance. This includes any 'counterchange' statement, statement of hopelessness, difficulty completing therapy tasks, or any statement of the problem. These statements can seem to automatically communicate resistance (e.g., "I can't change," "The homework didn't work for me," "What you are suggesting seems hard," "I have a lot of problems"), but as mentioned earlier, whether or not these client statements communicate resistance depends on the context. That is, whether or not resistance can be inferred from client responses in such situations *depends on the process with which - and the context in which -* they express their reservations (i.e., how it came about and what it is communicating). Stated differently, a client can articulate all kinds of problems, lack of progress, or even concerns with the therapist or the therapy, but this is not necessarily (and certainly not automatically) coded as resistance - it is not about the content but the interpersonal context - the intent of the client to oppose or block the therapist OR to go along.

To illustrate, if the therapist proposes an experiment and asks the client how they feel about it, to which the client responds that they are afraid and unsure if they can do it – this is NOT coded as resistance because the therapist had asked the client about their feelings, thus giving the client autonomy to express their reservations. Here, the client is actually cooperating with the therapist by responding to their question truthfully. For example, the therapist might say: "I bet this sounds pretty scary. What are your thoughts about this exercise?" to which the client responds with reluctance or reservations. This would NOT be coded as resistance because in process, the client is actually following the therapist's lead. However, if the therapist either in their initial question or subsequent statements somehow communicates that the client is not free to have reservations, e.g., "Yes, but you're supposed to feel anxious," and the client continues to articulate their doubts or concerns e.g., "Well, I don't know about this. It sounds pretty hard," this would be coded as resistance because the client is not going along with the therapist's direction that they should warm up to the proposed task.

Another contextual clue would be *unsolicited* statements of "I can't," "This won't work," "That is hard," etc. That is, if such statements come out of nowhere (i.e., are not elicited by the therapist asking or clearly inviting such responses), then they would likely be expressing objection or resistance to where the therapist is going.

Again, rely less on the content than the interpersonal context. Ask yourself: "What is really going on here interpersonally?" "What is the client's statement/behavior meant to communicate to the therapist - beyond the words they use?"

To take another example, if the therapist is in the middle of proposing a homework assignment, and the client jumps in to indicate that they don't think they can do it (i.e., the client's message is not meant to help the therapist adjust the homework to the client's preferences, but to abandon the homework altogether, thus taking control away from the therapist), this will be coded as resistance.

In other instances, a therapist may be asking the question while preserving the client's freedom to answer in whatever way they choose. However, the client's response may still be coded as resistance IF the tone or content makes it clear that they are intending to oppose e.g., "Well, I'm not feeling any better if that's what you're asking," or "I know you want me to feel better by

now, but I really don't." Importantly, although the therapist did not have an agenda when asking this question, the client is responding as if they did, and their intent is clearly meant to oppose the therapist.

Develop an interpersonal paraphrase. This can really help in determining whether a client's response is resistance. Ask yourself: "What is this client really saying to the therapist on a process or interpersonal level?" For example, an interpersonal paraphrase for the client statement: "Well, it's not quite so extreme as what you are saying" might be "Wait a minute, slow down, don't jump to the conclusions you are jumping to."

Ask yourself: "What is the therapist's intention?" It is also very useful to constantly ask yourself what the therapist wants the client to do. For example, if a therapist asks the client whether something is helpful or unhelpful, and the client responds honestly that they find a given technique unhelpful - this is NOT resistance. The therapist had invited the client to respond truthfully and with autonomy; therefore, although the client may not be on board with a certain technique the therapist had suggested, at this moment they are cooperating *interpersonally* with the therapist by answering them truthfully. If that same therapist question is leading, however (i.e., it is clear from the context that the therapist wants the client to respond that they are feeling better), then the same response: "No, this is not helpful," would be coded as resistance (i.e., opposing the direction of the therapist). Always ask yourself: "Where is the therapist going? What does the therapist want?" Then the client's response can be assessed for whether or not it complies with this direction.

Trust your gut/Rely on the gestalt. Often, you can 'feel' that resistance is present in the interaction, but have difficulty putting this into words right away. What also often occurs during coding is that you 'think' or reason through a response so much that you lose the 'gestalt' of the response. Always rely on the gestalt. It's important to take a step back and ask yourself: "Is there something wrong/off here?" "If I were the therapist, would I feel this client is challenging/doubting/questioning/going against/not cooperating with me or the therapy?" If the answer is "yes, this feels off," then it is likely resistance. Always walk your code through the 'final clinical test' (i.e., does it 'feel' like resistance?) Then, make sure you can explain or justify your code.

Ask yourself: "How could this response be turned into something else?" It is also very helpful to ask yourself (about tricky segments), "I think this response is a 1 but how could this be turned into a 0 – what would need to be there for this to be a 0?" or "I think this response is a 2, but how would it have to look like in order for it to be a 1?" etc. In other words, contemplating how the client's response would have to be different in order for it to be something other than the code you think it is, try playing with various versions of it in order to arrive at more confidence in your final code.

A note on the adaptation of the manual. In this adapted coding system, the focus is on interpersonal process (i.e., as opposed to content or client verbalizations). In the original coding system, the focus was on content and process, thus relying more on verbal content and statements than the present system does. Stated differently, in this system, client statements can *never* be coded in isolation of the interpersonal context and message (i.e., of opposition or

cooperation) that is being communicated. Interpersonal resistance is nearly always captured in the tone, gestures, speed of response, and other nonverbal aspects of or the 'totality' of the response. The specific words are of course relevant, but are always secondary to the interpersonal message being communicated. Thus, as already noted, the exact same words ("I can't do this" or "This is not working") can be coded as resistance or not resistance, depending on the interpersonal context and the interpersonal message they are communicating (i.e., "I am with you" or "I am going against you"). Therefore, even when considering the examples below of client statements displaying the different types of interpersonal resistance, these must always be considered in terms of the interpersonal context in order to be validly coded (i.e., the message they send to the therapist regarding cooperation or opposition).

Types of Interpersonal Resistance

There are several main types of interpersonal resistance:

- Disagree, Confront, Challenge, Doubt
- Own Agenda / Sidetrack / Interrupting
- Ignoring / Not responding / Not answering
- Ouestions about treatment

Disagree, Confront, Challenge, Doubt (I won't... I don't agree). Client responses in this category indicate dissatisfaction with the therapy and/or the therapist, disagreements with the therapist, or scepticism about the treatment/therapy/therapist. This category also includes client failure to comply with a session directive or homework, as well as responses indicating that the client does not think the therapist can help the client, complaints about the therapist, disagreements with the therapist's statements or suggestions including "Yes, but..." statements.

Other responses here include any complaints, negativity, scepticism about treatment/change e.g., "You're okay but I don't think this treatment will work for me," or "I really don't have a lot of hope that this will work."

This category also includes remarks of an "I can't" nature. Here, the remarks can be in reference to either change or treatment/therapy e.g., "I can't do thought records," "I can't do that homework," "I couldn't do the homework," "I tried to change my thinking but I can't," "I know it's an unnatural worry but there's nothing I can do that is able to control it." This can also include hopelessness, defeated, self-blaming statements in relation to the treatment/therapist/therapy; i.e., statements indicating an inability of the client to engage with therapy/treatment or change, as well as statements of prolonged, repetitive, defeatist or negative conditions regarding therapy.

VERY IMPORTANTLY (as noted under Key Principles), such statements do NOT automatically get coded as resistance. They must be resistance in process (i.e., they must communicate opposition interpersonally - not just verbally). Stated differently, *it must be clear from the interpersonal context (rather than simply through the words used) that the statement or behavior is meant to oppose, disagree, or challenge the therapist/therapy*.

For example, the statement: "I really don't have a lot of hope that this will work" may not be coded as resistance if the therapist had just asked the client about their thoughts about the utility of treatment. It could be coded as resistance, however, if this statement was unsolicited, came out of nowhere (i.e., the message interpersonally is to oppose), or was in response to a therapist discussing the benefits of treatment (e.g., when presenting the treatment rationale), thus opposing the direction of the therapist.

Responses in this category could also include 'polite' agreement, where the tone or the lack of enthusiasm clearly indicates that the client is not totally on board (e.g., polite or dismissive "yes," "sure," "okay," "sounds good/fine"). There may also be an absence of head nods or nonverbal gestures communicating agreement, which may indicate that the client is not in agreement/not buying what the therapist is saying. This may also include highly impoverished responses, with little to no elaboration (i.e., interpersonally, the client is saying I do not agree). A dismissive or sarcastic tone could also indicate resistance (e.g., "well" or "sure" said sarcastically, or client tone that clearly indicates scepticism/disagreement). Non-verbal behaviour indicating the client has doubts (e.g., sighs or dismissive gestures such as looking away/clearly not paying attention) could also indicate resistance.

It is important to pick up on leading questions made by the therapist. Often these will be obvious from the content of the question itself e.g., "Are you feeling *better* this week?" "Is that the *only* way things could turn out?" Always try to gage what the therapist is really intending (i.e., is there clearly a `right` answer or response to the question or statement?) Then, try to gage whether the client complies with, or provides the response the therapist is expecting or trying to elicit. There may also be instances when leading questions will not be obvious from the question itself, but may be inferred as leading from the context (e.g., the therapist clearly has an agenda for the client to say or see something). Additionally, you will sometimes see the therapist asking what seems like a neutral, autonomy granting, or open question, which is clearly leading e.g., "Did you get a chance to do that thought record?" "Could it turn out differently than you think?"

Note as well that when the disagreement has to do with the client correcting the therapist on some factual matter, but the client and therapist are generally cooperating (i.e., the client's correction is meant to help the therapist move in the direction they are heading rather than to oppose the therapist's direction), this will NOT be coded as resistance. Client corrections that are meant to block the therapist, however, will be coded as resistance, even if these are factual. Importantly, this differentiation should not be inferred from the content of the client's correction (i.e., what is the disagreement about – whether factual or not), but from the timing and the spirit with which the client corrects the therapist. In general, always try to gage whether the client's disagreement/correction was done to help the therapist move things along in the direction set by the therapist, or if the correction was done to halt/block the therapist. Is the client's intention to help or block the therapist? For example:

T: "So you have panic attacks daily"

C: (friendly tone) "Actually no, not everyday" or "Well, I would not say daily" (NOT resistance) (the interpersonal message here is - please continue)

T: "So you have panic attacks daily"

C: "No! (stated firmly) Not everyday" or "I didn't say everyday. (stated firmly) I said every other day" (Resistance) (the interpersonal message here might be – "you don't know what you are doing")

Own Agenda, Sidetrack, Interruptions. (You won't, because I won't let you talk about what you want to). This category includes own agenda responses indicating the client wants to discuss an issue different from the current direction set by the therapist, or instances in which the client persists in discussing tangentially related issues, thus not allowing the therapist to talk. While it is valid for a client to bring up other areas of concern, such responses would be coded as resistant if they indicate that the client is not attending to the therapist by bringing up a new topic (i.e., the therapist is trying to set a direction and the client is not going along). This often has the quality of the therapist feeling invisible; i.e., the client acts as if the therapist is not there.

Interrupting. There are two steps in coding interruptions:

- automatically coded as resistance (i.e., not every interruption sends a negative interpersonal message about control). There are positive and negative interruptions. The context is key in determining which kind of an interruption it is. If the interruption represents friendly talkover (i.e., the client is engaged/cooperating, and thus talks over the therapist, but the context is one of helping/going along/facilitating the direction of the therapist), this is not resistance. However, if the context and intent of the client is to block the therapist (i.e., talk over in order to oppose), then it is coded as resistance. That is, in order for an interruption to be coded as resistance it must occur in an opposing or negative interpersonal context. Ask yourself: "If I were the therapist, would this come across as friendly/helpful or would it come across as blocking me?"
- 2) Once you have determined that an interruption is resistance, you will need to ensure that it meets the definition of an interruption as follows: If the client begins to talk while the therapist is talking, but then quickly relents before saying anything substantive (concedes the floor to the therapist), this would NOT be coded as an interruption because the client considered interrupting, but has chosen to 'follow' the direction of the therapist. Additionally, if the therapist has communicated 'enough' of their thought and then begins to trail off (either spontaneously or as the client begins to talk; i.e., the therapist's new direction is "go ahead and talk") then this would also NOT be coded as an interruption (e.g., "So you're being somewhat perfectionistic and..." trails off or client starts talking). However, if the therapist raises their voice (i.e., does not trail off but is clearly communicating "I want to continue to have the floor," "I am not finished yet"), and the client continues to talk, then this is coded as an interruption. As always, in identifying whether an interruption has occurred, the central concept you should pay attention to is whether the client is following the direction set by the therapist (i.e., if the therapist clearly indicates "I want to say something" and the client does not concede, this will be considered an interruption).

In some instances you may see the therapist interrupting the client. Here, the therapist is taking the floor from the client, thus setting a new direction (i.e., "I want to say something"). The key

question for coding is: "Does the client stop what they are doing, and follow the new therapist direction (cooperating), or does the client not respond to/take in the information interjected by the therapist (resistance)?" Sometimes, you may see that the client concedes to the therapist's talkover (makes room for the therapist to take the floor), but then does not respond to what the therapist interjected. This would be considered ignoring (see below).

Ignoring and Not Responding. This category includes client responses indicating that they are ignoring the therapist, either by not responding or by going in a different direction (i.e., Own Agenda/Sidetrack). Client responses in this category often have a feel *as if the therapist has not said anything*. Ignoring is coded as resistance because the client is not following the therapist's direction. This is true even if the therapist's statement is a simple reflection or a 'minimal encourager.' That is, it doesn't matter what the therapist is doing – whether they are asking a question, making a reflection, etc. The therapist is always trying to influence the client to follow, and in these instances the client is choosing not to follow (i.e., to ignore or refuse to be influenced by the therapist). Some acknowledgement of therapist responses (even minimal encouragers) would be expected (head nods, "yes," "un-huh," or clear integration or expansion upon what the therapist had said). If the client does not acknowledge or integrate what the therapist has said (i.e., ignoring, going their own way, acting as if the therapist has not said anything), this is resistance.

For example, if the client is telling their story and not responding to the therapist at all although the therapist tries to interject (if only just to track the client's story), or if they don't allow the therapist interject/completely ignore the interjection – this would be considered resistance. Another example of this is if the therapist does manage to interject something, and the client seems to not have heard the therapist at all/acts as if the therapist did not say/ask anything. For example:

T: "What time would be best for you to do this?"

C: "What should we do about my husband?" (ignoring – resistance)

Versus

"I think evening would be best." (Cooperating – not resistance)

C: "So my daughter was saying that she thought I was too harsh."

T: "And you're wondering whether she might be right."

C: "And then she said I didn't listen to her and..." (ignoring - resistance)

Not Responding/Not Answering (You can't... because I won't give you information, or I'll give you inconsistent/wrong information). This category includes client responses indicating that they are withholding information by not responding to a question for two seconds or more. Note that the client's intent must be clearly resistant (i.e., not just taking time to ponder or think about their response). This category includes not answering, or avoiding answering a direct question. That is, all therapist questions must be answered. Always check to make sure the client's answer is relevant to the therapist's question (i.e., is not ignoring). Examples of client responses to a direct question that are considered resistance include instances in which the client is being evasive, non-direct, or leaves the statement open-ended. In addition, short, curt, highly abbreviated responses may fall here (i.e., one-two word answers in response to the therapist, or

clearly resistant, non-cooperative, brief, or 'polite' responses such as "sure," "ok," "whatever," where the client's tone is clearly resistant). By providing such abbreviated or clipped responses, the client is sending an interpersonal message that they are not going along.

Note, that often what follows a client pause can signal resistance as well (e.g., (pause)... "well...")

Also, note that "I don't know" can often signal not answering. Sometimes clients genuinely do not know something, but this should be obvious from the context (e.g., the client pauses before saying I don't know in order to genuinely consider the therapist's question). In other instances, "I don't know" is an opposing response (i.e., "I'm not going to follow you by thinking about this," "I'm not going to respond to this").

T: "How often does he do this sort of thing?"

C: "I'm not sure." (said immediately and without further amplification) – Resistance.

T: "If you did nothing, in six months would everything be hunky-dory?"

C: "It could be, it could not." – Resistance, because the client is responding to the therapist's direct question by being evasive (tone must clearly indicate the client is meaning to oppose the therapist by not responding truthfully or taking time to consider the therapist's question).

T: "What are you expecting to happen in these sessions?"

C: (laughs) "I don't know." – Resistance, because client tone is dismissive (i.e., laughter) and client is not going along with therapist direction to discuss their expectations regarding therapy.

Note on coding exposure exercises. In CBT the therapist will at times do exposures in session or assign them for homework between sessions. Clients often experience distress in conducting such exposures (in fact, experiencing distress is a requirement of a 'good' exposure exercise). The client's distress and/or protest at the difficulty of the task is NOT coded as resistance in these situations. For example, one can often see the client 'complaining' that "this is difficult," "I can't stand it," "I don't want to do this," etc. This is not coded as resistance, since it typically does not represent *interpersonal* resistance to the therapist/therapist's direction, but rather represents *intrapersonal* resistance to anxiety/experience, or may represent descriptions of their experience. In other words, such statements typically do not carry the key message of interpersonal protest directed at the therapist (which is the central construct captured in this system).

However, during such exposures, the therapist will typically continue to engage and dialogue with the client (e.g., "Where is your anxiety rating now?" "What are your thoughts now?" "Take a deep breath"). Such interactions CAN be coded for resistance. That is, the client should still be expected to interact with the therapist when the therapist requests this (e.g., by asking a question, making a reflection, giving a direction). If the client ignores the therapist's questions or other attempts to interact (set a direction), this would be coded as resistance. For example, during an exposure:

C: "Oh, I hate this!" (NOT resistance – expressions of distress, resistance to the client's inner experience/anxiety)

C: "This is too hard" (NOT resistance - because not in response to the therapist)

T: "Where is your anxiety right now on a scale of 1 to 10?"

C: "It's high" (Not resistance – the client is going along with the therapist's direction by responding to their question)

T: "Give me a number on the scale of 1 to 10."

C: "I don't know exactly, but it's up there (Resistance – in response to a direct question, the client is giving an open-ended, evasive response)

T: "What are your thoughts?"

C: "I don't like this. I think I'm going to pass out." (Not resistance – the client is responding to the therapist's question)

T: "And where is your anxiety right now?"

C: "Oh, My hands are so clammy." (Resistance – the client is ignoring the therapist's question)

T: "Stick with it, you're doing well"

C: (looking distressed) "I'm not doing well!" (Resistance – client disagrees with the therapist)

T: "Let's stick with it until the anxiety starts to go down"

C: Nods. (Not resistance – although not responding verbally, client indicates agreement non-verbally)

Questions about the Treatment/Therapist. Sometimes the client doesn't necessarily come out and state their doubts (e.g., "I don't think this will help"), but rather they may ask questions stemming from underlying skepticism/doubt. These questions are often meant to doubt/challenge the therapist/therapy. These are not questions that are asked in order to get more information, but rather have the interpersonal message that 'I don't' know about/don't like this' (e.g., "How effective is this therapy?" "How many people have you seen?" "Have you read my file?") Underlying such questions is a skepticism (i.e., "I don't know about this/about you," "I don't trust this therapy/you").

Questions in this category can also include doubting/challenging the requirements of the therapy, or questioning treatment procedures (e.g., confidentiality, filling out questionnaires). That is, the client is resisting participating in the treatment process. Again, tone and intent is very important; if it is simply a question for the purpose of clarifying (e.g., "So, I fill out questionnaires after each session?" "No one else will see these tapes?"), then it is NOT resistance. However, if the tone is clearly questioning or resisting the treatment (e.g., in negative tone, "So, are you *sure* everything is confidential?" "Do we *have* to videotape?"), then it would be coded as resistance. It is important to note where the question is coming from (i.e., is it really a question/attempt to clarify, or is it coming from a place that says "I don't want to do this/not sure about this").

Importantly, it is ONLY resistance if the question(s) have not been prompted by the therapist. For example, if the therapist says: "It sounds like you have some questions about the therapy," or "Do you have any questions about this?" then the client is cooperating with the direction set by the therapist and it would not be coded as resistance. Questions that 'come out of the blue' (i.e., are not prompted by the therapist) and/or are clearly highly skeptical (even if prompted by the therapist e.g., "So what's the point of doing this then?") count as resistance.

These *questions can often carry with them a 'role reversal'* - i.e., a sense that the client is 'taking over' control of the session. The underlying message is: "I want you to answer to me now," "I'm acting on you," "You answer to me." This can be coded as resistance because the client is opposing the general rules of therapy, which are that the therapist acts on the client. Ask yourself: "Who is in control now?" In these exchanges, clients often put the therapist in the position of convincing, arguing, reflecting on their own self as a therapist with an accompanying loss of power/control. These questions have a 'taking the bait' quality, where the therapist is 'on their heels,' defending themselves, responding to the client by answering their questions, and 'letting go' of their role of being in control of the session and encouraging the client to self-reflect (e.g., "I did read your file," "I am qualified," "CBT does work").

When coding such interchanges, CONTINUE to code it as resistance while the therapist is in responding or 'taking the bait' mode, and the client is patiently listening/nodding/providing minimal encouragers such as "okay." Resistance is coded UNTIL the interaction shifts or the roles have flipped back, and the therapist resumes their role, or the client makes a genuinely cooperative response. This can happen if the client switches topics to something else (thus ending the resistant interchange) or if the therapist manages to reassume their role within the interchange, stops being defensive, or resumes their role of encouraging client self-reflection (e.g., "It sounds like you have concerns about the therapy/me," "People often have a lot of concerns about treatment. Tell me more"). Here, the therapist has stepped out of being in a defensive/self-reflective mode, and resumed their role of exploring/encouraging/leading the client to reflect on their concerns/doubts, etc.

Assigning Resistance Codes to Time Bins

Each session is divided into 30 sec time bins. We have found that this is long enough to capture most forms of resistance, while being short enough for valid coding. Once you have decided that resistance is present, you then rate the quality of resistance using the following scale:

- 0 Absence of resistance
- 1 Minimal, qualified resistance
- 2 Clear, unqualified resistance
- 3 Hostile, confrontational resistance
- **0 Absence of resistance.** The client is going along with the therapist.
- 1 Toned down, gentle, tentative, or qualified resistance. Client responses in this category reflect nice, polite, or gentle resistance. The client is not 'going along' and/or is being skeptical/expressing concern, BUT the context is generally one of cooperativeness. In other words, the client is simultaneously communicating "I want to try," "Please don't abandon me," "I want to work with you," "I do have some hope/belief in this," BUT or AND "I don't know about this," "I have some reservations/questions/doubts."

Client responses reflecting this code may also be construed as assertiveness. Hostility and firm confrontation are *absent* in these resistant responses. Clear resistance is also absent in these

responses (i.e., the client is *not* sending a unilateral or clear interpersonal message that he/she is going against the therapist). Rather, *these responses are sending a mixed interpersonal message* of opposition with a simultaneous intent or wish to cooperate with the therapist.

1 codes are often expressed as qualified, tentative, toned down, apologetic-like statements or behaviours with a softer, gentler tone. The message is: "I want to work with you - want to get along - I don't want to alienate you, BUT I have some concerns - I don't agree - I can't do that - I am not quite on board." Other instances of this code may include a 'non-response' to the therapist (e.g., silence or absence of head nodding that indicate that the client is not on board, but the response is passive or gentle, rather than being clearly or overtly oppositional/confrontative/hostile). That is, the client is preserving the therapeutic relationship by cooperating with the therapist and is not overtly communicating that they are in opposition.

Ambivalent ("yes, but") responses may often reflect qualified resistance, although this is not always the case. To determine whether these responses are qualified resistance, the key is to gage the interpersonal message they communicate. Specifically, the "Yes, but..." part of a statement may be a throw-away response (especially if said quickly), while the overall response is really communicating disagreement (e.g., "Yes, but I can't do it"), and would therefore be considered clear resistance (code 2). A paraphrase here might be: "That is all fine for you, but I'm not on board." You need to consider the gestalt or interpersonal message communicated by the response. In contrast, "Yes, but..." responses that reflect qualified rather than clear resistance are typically more elaborated e.g., "I want to try this, but I'm not sure," "I do the breathing and it helps, but it doesn't fix it." Again, these responses communicate a *simultaneous* message of cooperation, with some reservations or disagreements. Even a response that sounds overtly resistant e.g., "I'm just not sure," but is expressed in a soft, humble, non-aggressive tone, would be coded as a 1. The interpersonal message is "I'm conflicted – I want to go along; please stay on my team... BUT I have some concerns."

When in doubt, refer to the Key Principles and Definitions in making this judgment. 1 codes have a quality of appearing or clearly sending a message to the therapist to "hang in there with me," while in 2 codes this quality is absent.

Other useful questions to ask yourself when deciding whether an ambivalent response is qualified or clear resistance are: (i) Can you easily replace the "Yes" with a "No" without altering the response (e.g., "Yes, but I can't do it" may easily be translated into "No, I can't do it," and still be consistent with the intention/interpersonal message of the response). In this case, it would be considered clear resistance (code 2). If, however, replacing the "Yes" with a "No" changes the message in the response, it is likely qualified resistance. (ii) What happens to the meaning or interpersonal message of the response when you replace the "But" with an "And?" (i.e., "Yes, and I can't do it"). If the client's statement retains its original meaning, it is likely qualified resistance. That is, the person meant the "Yes" part of the response.

Questions about therapy are usually considered 1 codes, because they are by definition not clear resistance (i.e., the client is not coming out directly/straightforwardly in stating their skepticism; rather, they are putting it in the safer form of a question). This is generally true unless the question is clearly highly doubtful (e.g., "What is your success rate?" "Does this therapy work?")

That is, client questions that would likely put the therapist on edge or make the therapist uncomfortable, or questions that are stated in an aggressive or clearly highly skeptical tone are NOT coded as qualified resistance.

A 1 code also includes instances in which the client's intention is not to stop the therapist altogether (i.e., the client is not sending a clear stop message, but sending a "slow down" message). Here, the client is not trying to block the therapist from doing what they are doing, but is asking them interpersonally (or verbally), to put the brakes on a bit.

C: "Well, I wouldn't quite say that" (palm up to signal the therapist to slow down) – Qualified resistance, because the client is not completely disagreeing with/opposing the therapist

C: "Well, I definitely wouldn't say that" – Clear resistance, because the client clearly meant to stop the therapist.

2 – **Clear, unequivocal resistance** - either in process (e.g., sidetrack, talking over, ignoring) and/or in content (i.e., clearly and unequivocally expressed doubts that are intended to block the therapist from the direction they are going in). Code 2 includes instances in which the client does not qualify or soften their response, but clearly, firmly, straight-forwardly and overtly states their disagreement/doubts or challenges/questions the therapist (when not invited to), and/or in process clearly runs over the therapist, clearly and without pretense goes against the therapist. Examples include: "No. I do not agree," "I'm not doing that," "I don't believe this is going to work," "Does CBT *really* work?"

Clear resistance also includes any non-verbal responses (e.g., vocal tone, behavioural gestures) that clearly indicate or send the message "I don't agree," "I don't buy this," such as the client shaking their head, rolling their eyes, or deliberately/obviously looking away from the therapist. The underlying message here would be: "I don't hear you." Pure, non-verbal responses (i.e., client gestures without a verbal message) are typically considered clear resistance since when these are intended to communicate resistance they send a clear message to the therapist. That is, it is very difficult to imagine a 'toned down' or qualified eye roll or head shake.

Additionally, when an interruption is meant to communicate resistance, it is always coded as clear resistance because such interruptions always send a clear blocking interpersonal message to the therapist.

3 – Hostile, confrontational resistance. The client's tone is critical in these responses, and needs to be clearly hostile, combative, or discrediting the therapist. Responses in this category would often make the therapist feel uncomfortable, since they can have an edge of a personal attack/ critique of the therapist. They can often be responses to the person of the therapist or directly address the therapist (i.e., a shift in focus from what is being discussed/the treatment to the person of the therapist). A good question to ask yourself is: "If I were the therapist, how would this response make me feel?" Hostile, combative responses often feel unsettling to therapists since they seem to be sending a personal, negative message (e.g., questioning the therapist's competence, criticizing them, putting them down). Note that such responses are

usually very rare (so they typically require some significant pondering or strong consideration before assigning the code).

For example, at the end of a long session, the client says: "They didn't tell me about all these questionnaires. If they had, I wouldn't have come." (i.e., discounting any benefit from their contact with the therapist).

Another example may be: "Well. You've got your work cut out for you with me!"

Hostile resistance in process includes client responses that are clearly overly firm or emphatic. Examples include:

C: "No! I didn't say that! I said..."

C: "You didn't hear what I said..." (i.e., overtly stating or clearly implicating a fault of the therapist/therapy; the paraphrase here might be: "You have no idea what you're doing," "I already told you that!" "You are not listening").

C: "Well, Dr. X (said sarcastically), I didn't mean that, I meant..." (Note here that the use of therapist's name is also a good clue that a message is being sent directly to the therapist).

T: "What kinds of things help with the worry?"

C: "Nothing, nothing at all helps!" (Quick, dismissive, not softened) OR

C: "No one has been able to help me at all because nothing helps!" (global and clearly implying that this therapist will not be able to help either).

Again, tone and non-verbals (e.g., heavy sighs, eye rolling) that clearly indicate that the client is unhappy with the therapist or the therapist's direction are critical. Hostile resistance responses are often sarcastic, caustic, highly clipped, demeaning, or imply disgust or clear unhappiness with the therapist.

In distinguishing between clear and hostile resistance, it can be helpful to 'put yourself in the therapist's shoes. A code 3 is usually a statement or reaction on the part of the client that would make the therapist very uneasy (e.g., a clear, firm, repeated, emphasized statement that "this won't work," "this is useless," and certainly would include any direct or highly implied challenge to the therapist/therapy, such as 'grilling' about the therapy/therapist). A code 3 response may also be a clearly passive-aggressive non-verbal client behaviour that sends the interpersonal message: "I don't want to be here" or "I don't care about what you have to say." This would include behaviors such as answering/searching through a cell phone during the session with no justification/apology, deliberately looking away from/ignoring the therapist when they are talking to the client, etc.

Other Procedural Notes

Required Materials. Transcripts are not used in coding using this system. The coder must have at least an audiotape (but preferably a videotape) to code using this system because the way in which things are expressed (i.e., timing, intonation, tone, volume) is absolutely key for valid coding. We recommend coding directly from the video or audio file. Transcripts are not necessary or even useful, because they can encourage coders to rely too much on the words, thus

reducing their attention from the gestalt, and undermining the validity of the coding (given that this is a process coding system).

Whatever mode you chose (video or audio), you should be consistent. For example, when using video, you should be consistent in the video capture of the information (e.g., camera in the same position for each dyad – preferably able to capture the client fully) in order to ensure consistency in the stimulus used for coding. Also, if you use only audio, note that at times, you will miss some codable information. We find that the majority of information relevant to coding using this system can be picked up from audio (e.g., tone, speed of responding), but at times visual observation can provide additional codable information (e.g., eye roll, client looking away, physically withdrawing from the therapist) or be very helpful in the coding of a verbal response.

Note that we do not code explicitly for the type of resistance. Rather, this coding system is designed to capture the quality of resistance (as defined by the 0 to 3 scoring system). In other words, we are not interested in the specific type of resistance (e.g., ignoring, disagreeing, interrupting). Rather, we are interested in the presence of resistance and whether it is qualified, clear, or hostile. However, the type of resistance is important when noting the reason for your numeric code assignment (e.g., "I coded this as a 2 because it is an interruption/clear disagreement," etc.)

The DEFAULT code is always 0 – absence of resistance. That is, if the response can be interpreted as cooperative (there is a competing argument or interpretation that can be made that the client is actually being cooperative), then you must code it as cooperative. That is, the response must be unambiguously resistant to get a resistance code. In cases of ambiguity, always default to cooperation.

Each time bin is coded for peak resistance (i.e., the highest code in the bin). So for example, if there is a `1`in the bin but also a `2`, the bin would be coded as `2` (regardless of when the 1 occurred).

If the response is softened after it has been made, in keeping with coding peak resistance you would *not* drop the score. For example, the response: "I doubt that I can stop worrying... but I'll give it a try" is coded 2 and not 1, even though it is softened at the end. In contrast, the response: "I'll give it a try... but I doubt that I can stop worrying" is coded a 1 and not 2 because it is softened up front.

When unclear about the intensity of a resistance response, always code the less intense score on the rating scale (i.e., if the client's response could be interpreted as either 1 or 2, code 1 by default).

Unintelligible responses are coded as 0.

Always note in the comments column of the coding template the basis for your response (e.g., ignoring, disagreeing). In other words, it is not only important to get the correct code, BUT it is also important to ensure that you are right for the right reason. Therefore, you should briefly explain your reason for each resistance code that you give.

You must code from the beginning to the end of the session in sequence in order to appreciate the context of the session. For example, sometimes a client will disagree with something either repeatedly (based on something the therapist had said earlier in the session) or a few time bins after the therapist has made their point. In other instances, the previous context clearly makes a subsequent response resistance. For instance, the client has spent 10 minutes outlining the problems worry causes for them at work and then later when the therapist asks: "So is this a problem for you at work?" the client responds with "Yes, it definitely is!" (sounding exasperated). While this response may seem cooperative because the client is answering the question, it is actually resistant because of the previous context (i.e., is intended to criticize the therapist for not listening/understanding the client's earlier statements).

Carry over. If the client's resistance continues into the next time bin, then the next time bin would also be coded as resistance. For example, the client continues to elaborate their disagreement or objection (e.g., provides elaboration or examples to further underscore how the therapist is wrong). Carry overs always continue to be coded at their initial intensity level (e.g., a 2 continues to be coded as a 2 carry over and would only come down to a 1 if the client explicitly throws in a partial agreement or somehow softens their resistance). For example,

T: "I know you think you are incompetent, but do other people really notice it all that much?"

C: "Yes, they do." (2) "The other day my boss sat me down and told me I was delegating too much ..." (continuation 2).

Note that if the client then says (in the next time bin or at the end of this time bin): "I know that I tend to think, *wrongly*, that everyone notices, but..." (i.e., I partially agree with you), then the carry over code would reduce to a 1 – qualified resistance.

Similarly, if the client firmly disagrees with the therapist in a confrontational manner (thus receiving a hostile resistance code), and then goes on to clearly elaborate their disagreement, the carryover code may be reduced to 2 if the tone is no longer hostile, combative, and the message is not personally directed at the therapist.

Do NOT code expressed doubts about PREVIOUS therapy (i.e., a client may have had bad experiences before but still feel hopeful/non-resistant to this therapy/therapist). Thus, you should only be coding client resistance to *the current* therapy/therapist. Previous treatment/therapist is relevant only in so far as these are linked to the current therapy/therapist or it's clearly implied that the comments are also directed toward/relevant to the current therapy/therapist (e.g., the therapy is clearly CBT and the client says: "I thought doing thought records was a waste of time," "The relaxation exercises don't help me at all").

DO NOT give the client a 'pass' because you like him/her, or otherwise 'excuse' their resistance for another reason (e.g., "they are just anxious/shy," "that's just their personality style"). Code what is there, regardless of the reason for it.

*Adapted from the Client Resistance Code; Kavanagh, K., Gabrielson, P., & Chamberlain, P. (1982a). *Manual for coding client resistance*. Unpublished instrument, Eugene, Oregon.

Appendix B

Penn State Worry Questionnaire (Meyer et al., 1990)

Instructions. Please read the following statements and rate the degree to which each describes you "on average" in the past week. Use the following scale.

Not at all	Somewhat typical	Very typical
typical of me	of me	of me
1. I worry if	I do not have enough time to do ever	ything
2. My worrie	s overwhelm me	
3. I tend to w	vorry about things	
4. Many situa	ntions make me worry	
5. I know I sl	nould not worry about things, but I ju	ast cannot help it
6. When I an	under pressure I worry a lot	
7. I am alway	ys worried about something	
8. I find it ha	rd to dismiss worrisome thoughts	
9. As soon as	s I finish one task, I start to worry abo	out everything else I have to do
10. I always	worry about everything	
11. Even who	en there is nothing more I can do abo	out a concern, I continue to worry about it
12. I have be	en a worrier all my life	
13. I notice th	hat I have been worrying about thing	S
14. Once I st	art worrying, I cannot stop	
15. I worry a	ll the time	
16. I worry a	bout projects until they are done	

Tables and Figures

 Table 1. Therapist Characteristics

	(N=21)	
Measure	CBT-alone	MI-CBT
Gender	13 Female	8 Female
Age	M = 29.00, SD = 5.06	M = 28.50, $SD = 2.07$
Identified primary	11 Cognitive-Behavioural	1 Cognitive-
orientation	1 Client Centered	Behavioural
	1 Integrative	2 Client Centered
		5 Integrative

 Table 2. Sample Characteristics

Participants $(N = 60)$				
Measure	CBT-alone (N = 30)	MI-CBT (N = 30)		
Gender	28 Female	25 Female		
	2 Male	5 Male		
Age (years)	M = 34.80, $SD = 12.72$	M = 32.93, $SD = 11.46$		
	Range = 20 to 63	Range = 18 to 58		
Ethnicity	23 Caucasian	21 Caucasian		
	3 Asian (e.g., South	2 Asian (e.g., South		
	Asian, East Asian,	Asian, East Asian,		
	Southeast Asian)	Southeast Asian)		
	2 Hispanic/Latin	1 Hispanic/Latin		
	American	American		
	1 Biracial/Multiracial	2 Afro-Caribbean,		
	1 Other	African American,		
		African		
		1 Biracial/Multiracial		
		3 Other		
Marital status	15 Single	14 Single		
	2 Cohabitating	6 Cohabitating		
	10 Married	10 Married		
	1 Divorced/Separated			
	2 No data			
Highest level of	1 Some high school	2 Completed high school		
education	1 Completed high school	7 Some post-secondary		
	7 Some post-secondary	education		
	education	14 Completed post-		
	15 Completed post-	secondary education		
	secondary degree or	6 Completed Masters		
	diploma	Degree		
	6 Completed Masters	1 Completed PhD		
	Degree			
Average family income	13 less than \$50,000	8 less than \$50,000		
	12 \$50,001-\$100,000	9 \$50,001-\$100,000		
	4 \$100,001-\$150,000	8 \$100,001-\$150,000		
	1 \$150,001-\$175,000	1 \$150,001-\$175,000		
		4 \$175,000+		
Employment/Education	11 Unemployed/	5 Unemployed/		

status	Temporarily unable to go to work/school	Temporarily unable to go to work/school	
	15 Employed currently	18 Employed currently	
	4 In school currently	7 In school currently	
Concurrent	6 Yes	11 Yes	
antidepressant	24 No	19 No	
medication use			
Comorbidity	24 (80%) Other Anxiety	20 (67%) Other Anxiety	
	Disorder	Disorder	
	13 (43%) Major	24 (80%) Major	
	Depressive	Depressive	
	Disorder/Dysthymic	Disorder/Dysthymic	
	Disorder	Disorder	
Previous	21 Yes	19 Yes	
Psychotherapy	7 No	7 No	
Treatment	2 No data	4 No data	

Table 3. Means and Standard Deviations for Study Variables

Measure	CBT-alone	MI-CBT
	M (SD)	M (SD)
Baseline PSWQ	75.32 (3.36)	74.07 (3.85)
Posttreatment PSWQ	44.43 (17.30)	44.70 (17.12)
1-year posttreatment PSWQ	48.47 (19.39)	37.87 (14.23)
Therapist weighted affiliation	T = 14.75 (4.14)	T = 17.49 (1.96)
during disagreement	NT = .53 (.415)	NT = .56 (.014)
	T Range = 16.02	T Range = 7.04
	(2.43 to 18.45)	(11.41 to 18.45)
Therapist weighted autonomy	13 (.183)	05 (.210)
during disagreement	Range = .68	Range = .79
	(43 to .25)	(46 to .33)
Therapist hostility during	1.33 (2.20)	.10 (.40)
disagreement	Range = $7 (0 \text{ to } 7)$	Range = $2 (0 \text{ to } 2)$
Proximal percent resistance	.20 (.13)	.06 (.07)
Disagreement length (minutes)	9.60 (7.93)	4.90 (3.84)
	Range = 29 (1 to 30)	Range = 15 (1 to 16)

Note. PSWQ = *Penn State Worry Questionnaire*; Proximal percent resistance = amount of resistance (%) in either the session prior, of, or after the session selected for disagreement. T = transformed variable; NT = not transformed. Note that higher scores on each of the SASB indices represent higher amounts of the construct of interest (i.e., therapist affiliation, autonomy, hostility). Negative scores represent less of the behaviour of interest (i.e., a negative weighted autonomy score suggests less autonomy granting and more autonomy taking, or controlling, behaviours).

Table 4. Intercorrelations of Measures

Variable	1	2	3	4	5	6	7	8
1. Therapist weighted		.08	63**	12	11	39**	-0.03	11
affiliation		(p =	(p <	(p =	(p =	(p =	(p =	(p =
wiiiiwiioii		.530)	.010)	.424)	.384)	.002)	.818)	.392)
2. Therapist weighted			.13	.10	01	13	04	.06
autonomy			(p =	(<i>p</i> =	(p =	(p =	(p =	(p =
<i>auv</i> eneny			.331)	.450)	.913)	.308)	.790)	.654)
3. Therapist				.11	.06	.24	.13	.36**
hostility				(p =	(p =	(p =	(p =	(p =
				.386)	.624)	.061)	.325)	.005)
4. Baseline					.07	.21	.21	.07
PSWQ					(p =	(p =	(p =	(p =
					.598)	.113)	.110)	.620)
					.376)	.113)	.110)	.020)
5. PSWQ Posttx						.61**	04	22
						(p <	(p =	(p =
						.010)	.760)	.094)
6. PSWQ							.034	12
1-year Posttx							(p =	(p =
							.796)	.383)
7. Proximal								.19
percent								(p =
resistance								.154)
8.								
Disagreement								
episode length								<u> </u>

Note. *p < .05, two-tailed; **p < .01, two-tailed. PSWQ = Penn State Worry Questionnaire; Proximal percent resistance = amount of resistance (%) in either the session prior, of, or after the session selected for disagreement; Posttx = Posttreatment.

 Table 5. Proportion of Therapist SASB Behaviour Codes by Treatment Group

Measure	CBT-alone	MI-CBT
	M (SD)	M (SD)
Percent 1-1 'Freeing & Forgetting'	.00 (.00)	.00 (.01)
Percent 1-2 'Affirming &	.35 (.15)	.44 (.19)
Understanding'		
Percent 1-3 'Loving & Approaching'	.00 (.00)	.00 (.00)
Percent 1-4 'Nurturing & Protecting'	.55 (.17)	.51 (.17)
Percent 1-5 'Watching & Controlling'	.02 (.03)	.01 (.02)
Percent 1-6 'Belittling & Blaming'	.00 (.00)	.00 (.01)
Percent 1-7 'Attacking & Rejecting'	.00 (.00)	.00 (.00)
Percent 1-8 'Ignoring & Neglecting'	.01 (.03)	.00 (.00)

Note. These proportions (%) were calculated based on the raw count of each of these therapist codes in a disagreement episode by dividing the total number of a particular therapist code by the total number of therapist codes in that episode (both Surface 1 and 2; Benjamin, 1974).

Table 6. Therapist Hostile Behaviours (Count) per Disagreement Episode by Treatment Group

	CBT-alone		MI	-CBT
	TID (Client ID)	Behaviour Count	TID (Client ID)	Behaviour Count
1-6 'Belittling & Blaming'	*180 (BY150) *215 (JW354)	1 2	100 (EV224)	2
		Total Count 1-6 CBT: 3		Total Count 1-6 MI-CBT: 2
1-7 'Attacking & Rejecting'	None	0	None	0
1-8 'Ignoring & Neglecting'	185 (BO140) *180 (BY150) 155 (DN191)	6 4 3 5 1 1 7 2 2 4 Total Count 1-8 CBT: 35	None	0

Note. TID = Unique therapist ID from RCT representing therapist; Client ID = Unique client ID from RCT representing client; Count = raw number of times this code appeared for this therapist/client dyad within the disagreement episode. * = denotes therapist engaged in two forms of hostility (1-6 'Belittling & Blaming' and 1-8 'Ignoring & Neglecting') with client during the same disagreement episode.

Table 7. Therapist Affiliation, Autonomy, and Hostility Regressed on Treatment Group (H1)

	Coefficient				
	(B)	s.e.	p-value		
DV: Therapist Weighted Affiliation					
Treatment Group (1)	2.82	1.05	.007**		
Disagreement Length	.018	.08	.826		
DV: Therapist Hostility					
Treatment Group (1)	-2.28	.99	.022*		
Disagreement Length	.031	.027	.258		
DV: Therapist Weighted Autonomy					
Treatment Group (1)	.23	.13	.071		
Disagreement Length	.01	.01	.128		

Note. *p < .05, two-tailed; **p < .01, two-tailed; ***p < .001, two-tailed. DV = Dependent variable; Treatment Group (1) = MI-CBT. Given that the present study was interested in examining the presence and amount of therapist hostility during disagreement episodes, and the SASB manual does not outline a weighted score for hostility, therapist hostility in the current study was computed as the total number of codes reflecting therapist hostility and was not a weighted score.

 Table 8. PSWQ Outcomes regressed on Therapist Affiliation (H2)

	Coefficient (β)	s.e.	p-value
DV: PSWQ 1-year Posttreatment			
Therapist Weighted Affiliation	-1.53	.59	.010*
Treatment Group (1)	-8.61	2.63	.001**
Disagreement Length	66	.23	.004**
Baseline PSWQ	.72	.66	.271
DV: PSWQ Posttreatment			
Therapist Weighted Affiliation	62	.89	.481
Treatment Group (1)	57	4.63	.902
Disagreement Length	63	.23	.006**
Baseline PSWQ	.32	.71	.647

Note. *p < .05, two-tailed; **p < .01, two-tailed; ***p < .001, two-tailed. DV = Dependent variable; PSWQ = *Penn State Worry Questionnaire*; Treatment Group (1) = MI-CBT.

 Table 9. PSWQ Outcomes regressed on Therapist Hostility (H2)

	Coefficient (β)	s.e.	p-value
DV: PSWQ 1-year Posttreatment			
Therapist Hostility	2.39	.57	<.001***
Treatment Group (1)	-10.73	2.61	<.001***
Disagreement Length	85	.27	.002**
Baseline PSWQ	.72	.70	.304
DV: PSWQ Posttreatment			
Therapist Hostility	1.51	.86	.077
Treatment Group (1)	95	4.63	.837
Disagreement Length	74	.26	.004**
Baseline PSWQ	.310	.70	.659

Note. *p < .05, two-tailed; **p < .01, two-tailed; ***p < .001, two-tailed. DV = Dependent variable; PSWQ = *Penn State Worry Questionnaire*; Treatment Group (1) = MI-CBT.

Table 10. PSWQ Outcomes regressed on Therapist Autonomy (H2)

	Coefficient (β)	s.e.	p-value
DV: PSWQ 1-year Posttreatment			
Therapist Weighted Autonomy	-3.16	5.58	.571
Treatment Group (1)	-12.08	3.29	<.001***
Disagreement Length	66	.20	.001**
Baseline PSWQ	.83	.68	.226
DV: PSWQ Posttreatment			
Therapist Weighted Autonomy	.69	5.44	.899
Treatment Group (1)	-2.47	4.41	.576
Disagreement Length	645	.23	.005**
Baseline PSWQ	.34	.70	.633

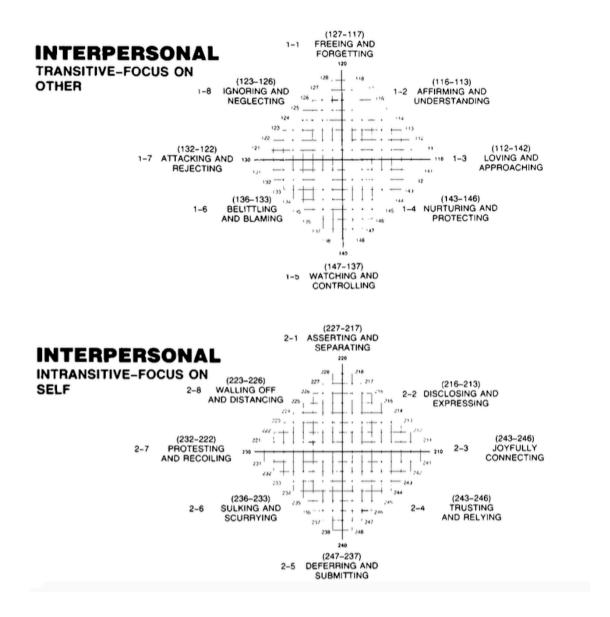
Note. *p < .05, two-tailed; **p < .01, two-tailed; ***p < .001, two-tailed. DV = Dependent variable; PSWQ = *Penn State Worry Questionnaire*; Treatment Group (1) = MI-CBT.

 Table 11. Therapist Affiliation and Hostility as Mediators

Mediational Models			
Therapist Weighted Affiliation	Coefficient (SE)	Therapist Hostility	Coefficient (SE)
Treatment (1) → Affiliation (a path)	2.82** (1.05)	Treatment (1) → Hostility (a path)	-2.28* (.99)
Affiliation → 1-year PSWQ (b path)	-1.53* (.59)	Hostility → 1-year PSWQ (b path)	2.39*** (.57)
Treatment (1) \rightarrow 1-year PSWQ (c' path)	-8.61** (2.63)	Treatment (1) \rightarrow 1-year PSWQ (c' path)	-10.73*** (2.61)
Treatment (1) → Affiliation → 1-year PSWQ (Indirect effect; ab)	-4.31* (1.73)	Treatment (1) → Hostility → 1-year PSWQ (Indirect effect)	-5.43* (2.82)
Affiliation intercept	14.58*** (1.35)	Hostility intercept	.86* (.38)
Affiliation residual variance	10.14** (3.14)	Hostility residual variance	N/A
1-year PSWQ intercept	22.81 (49.36)	1-year PSWQ intercept	-1.05 (52.47)
1-year PSWQ residual variance	230.64***(42.87)	1-year PSWQ residual variance	241.44*** (45.87)

Note. *p < .05, two-tailed; **p < .01, two-tailed; ***p < .001, two-tailed. PSWQ = Penn State Worry Questionnaire; Affiliation = Therapist Weighted Affiliation during disagreement episodes; Treatment (1) = MI-CBT; a = the effect of treatment group on the mediator; b = the effect of the mediator on outcome, controlling for the predictor variable; c' = the direct effect of treatment on outcome controlling for the mediator; indirect effect = the effect of treatment on outcome through the mediator.

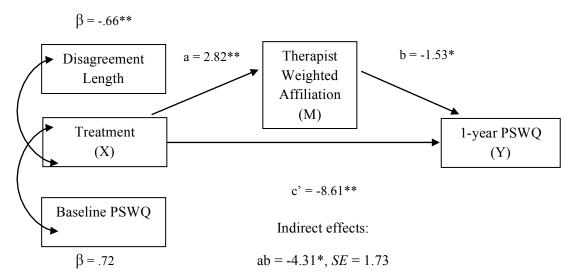
Figure 1. The Structural Analysis of Social Behavior (SASB) model, cluster version



Note. Each of the two surfaces describes a behavioural focus. Vertical axes represent the degree of interpersonal interdependence and horizontal axes represent the degree of interpersonal affiliation. In the context of the present study, Surface 1 ('Focus on Other') was typically used to code the therapist's behaviours in relation to the client ('Other'). Surface 2 ('Focus on Self' in relation to 'Other') was typically used to code the client's behaviours in relation to the therapist (Benjamin, 1987).

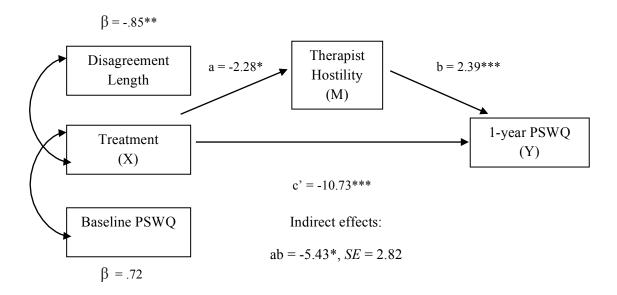
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Figure 2. Therapist Weighted Affiliation Mediation Model



Note. *p < .05, two-tailed; **p < .01, two-tailed; ***p < .001, two-tailed. Mediation model of the effect of treatment (X; MI-CBT = 1; CBT = 0) on 1-year PSWQ outcomes (Y) through therapist weighted affiliation during disagreement episodes (M), while controlling for disagreement length and baseline worry (PSWQ).

Figure 3. Therapist Hostility Mediation Model



Note. *p < .05, two-tailed; **p < .01, two-tailed; ***p < .001, two-tailed. Mediation model of the effect of treatment (X; MI-CBT = 1; CBT = 0) on 1-year PSWQ outcomes (Y) through therapist hostility during disagreement episodes (M), while controlling for disagreement length and baseline worry (PSWQ).