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Gottman Processes and Couple Outcomes While Navigating Infertility

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A Dissertation Submitted to The Graduate School at the University of Missouri – St. Louis in partial fulfillment of the requirements for the degree Doctor of Philosophy in Education with an emphasis in Counseling.

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Abstract

Infertility remains one of the most difficult relational contexts for couples. However, some research suggests that some couples actually increase their overall satisfaction in their relationship through infertility due to a deeply shared emotional experience. To the knowledge of the author of this dissertation, no studies exist which explain how couples arrive at their relational outcomes through the experience of infertility. These studies within this dissertation add to the present literature by explaining how couples may arrive at their relational outcome through the lens of Gottman Method Couple Therapy (GMCT). For both studies presented here, 902 participants were recruited through various social media platforms. Participants completed scales regarding their overall satisfaction in their couple relationship, their perceived relational impact of their experience of infertility, as well as the Sound Relationship House Questionnaire (SRH-Q). Various aspects of the Gottman theoretical framework were examined, including Friendship and Intimacy, Shared Meaning, and Quality Sex, Passion, and Romance. These Gottman factors were also examined as a mediator between the relationship between overall couple satisfaction and the relational impact of infertility. Further, Gottman Conflict Processes were also examined as a mediator, with Gottman Conflict Management (i.e., Compromise and Effective Repair Attempts) acting as a moderator within the mediation model. Significant bivariate correlations were found between relational quality of life during infertility and overall couple satisfaction ($r = .354, p < .001$). Friendship and Intimacy ($\beta = .066$), Shared Meaning ($\beta = .191$), and Quality Sex, Passion, and Romance ($\beta = .155$), along with Gottman Conflict Processes ($\beta = .016$), were all found to be mediators between relational quality of life during infertility

and couple satisfaction. However, Gottman Conflict Management was found to moderate the relationship between quality of life during infertility and Gottman Conflict Processes within the moderated mediation model. Thus, Gottman couple therapy processes provided pathways to explain how couples within this sample arrived at their outcomes amidst infertility. Future directions for research will be discussed, as well as clinical implications and specific Gottman interventions for GMCT with this special population.

Introduction

Medical practitioners define infertility as 12 months of failed pregnancy attempts for women aged 34 or younger, or 6 months of failed pregnancy attempts for women aged 35 or older (Cousineau & Domar, 2007). Both medical and mental health practitioners recognize infertility as a significantly distressing experience (Galst, 2018; Volgsten et al., 2008). Individuals and couples often find the experience of infertility difficult due to the loss of a dream of having a child, as well as the intrusive nature of assistive reproductive technologies (ARTs) such as invitro-fertilization (IVF) and intrauterine insemination (IUI; Gozuyesil et al., 2017). Infertility is not a monolithic experience; indeed, individuals and couples have a wide array of difficult emotional reactions when navigating infertility, ranging from anxiety, grief, and loss to posttraumatic growth (Casu et al., 2019; Cousineau & Domar, 2007; Luk & Loke, 2015; Pasch & Sullivan, 2017). Of course, these reactions may also impact couple interactions, potentially altering the relational experience of the couple dramatically (Cousineau & Domar, 2007; Jaffe & Diamond, 2011). Infertility alters nearly all aspects of the relationship, including sex (Sawsane et al., 2021), finances (Cousineau & Domar, 2007), and shared dreams (Jaffe, 2014; 2017). Boivin et al. (2011) addressed the impacts of infertility within the concept of fertility quality of life (FQOL). FQOL refers to the extent to which the experience of infertility has affected the individual emotionally, medically, and relationally (Boivin et al., 2011).

The Current Gap: Infertility and Couple Outcomes

Despite this difficult journey, 25-35% of couples find themselves more emotionally bonded to one another after navigating infertility (Luk & Loke, 2015; Pasch

& Sullivan, 2017). However, other couples indicate that their relationship is damaged beyond repair, even leading to dissolution (Cousineau & Domar, 2007). How this variation occurs remains unclear amongst counselors and couple therapists (Casu et al., 2019; Cousineau & Domar, 2007; Luk & Loke, 2015; Pasch & Sullivan, 2017). Psychologists, counselors, and couple therapists have all proposed various models for how couples may engage in positive social support within the dyad while navigating infertility, yet none fully explain this variation of couple outcomes (Casu et al., 2019; Pasch & Sullivan, 2017, Ridneour, 2009). To my knowledge, there is no research indicating how and why some couples have deeper relational bonding after infertility, while others separate as a result of their traumatic experience. Luk and Loke (2015) also indicated that there currently are very few specialized theoretical treatments for these couples which address the unique emotional and relational impacts of the experience of infertility. Infertility affects couple interactions in unique ways (Casu et al., 2019). Infertility significantly alters how individuals and couples planned to live their lives (Jaffe & Diamond, 2011). Some couples navigating infertility experience heightened conflict due to the disruption of these life dreams (Najafi et al., 2014) and many perceive their partner as unsupportive and unempathic of their experience, leading to further opportunities for relationally destructive conflict (Hawkey et al., 2021). Couple conflict in infertile couples also decreases the likelihood of successful medical intervention to produce a biological child, as increased couple conflict in infertility is related to increased stress, which then in turn makes pregnancy less likely (Gozuyesil et al., 2019). Further, the emotional, relational, and financial burden of infertility predicts intervention dropout (Rooney & Domar, 2018). Couples navigating infertility and invitro-fertilization (IVF)

must make several life-altering decisions, including whether to continue with assistive reproductive technologies (ARTs), what to do with unused embryos, as well as the decision to disclose the genetic origins of their embryos (Anguzu et al., 2020).

Infertility may decrease empathic responding within the couple dyad significantly (Soleimani et al., 2014). Infertility can impact couple communication patterns due to differing reactions to grief and differing experiences with social disenfranchisement (i.e., a lack of social opportunity to process grief; Doka, 2008; Ridenour, 2009; Soleimani et al., 2014). As the members of the couple navigate their own emotional responses, they may have difficulty supporting the emotions of their partner (Johnson, 2015; Park et al., 2019).

In general, couples who lack emotional validation towards one another experience increased levels of conflict and have a higher chance of relational dissolution (Freidlander et al., 2019). Gottman and Gottman (2015) noted that lack of emotional validation from the male partner in mixed gender couples is one the leading predictors of relational or marital dissolution. Further, Gottman (2011; see also Gottman & Gottman, 2015) noted that couples who have increased emotional flooding (i.e., intense emotions of anger during conflict) have more unresolved conflict, report less satisfaction in their relationship, and have a higher chance of ending their relationship.

General support within the dyad, however, correlates with greater relationship satisfaction through infertility (Peterson et al., 2011). Though dyadic support in the context of infertility has yet to be fully explained as to how it happens within a couple relationship, dyadic support nonetheless remains an important factor in weathering the storm of infertility (Casu et al., 2019). Gottman and Gottman (2015) indicated that

couples who turn towards one another during crises, have greater empathic responding, and manage conflict for major life decisions have greater relational bonds over time.

Overall, couples struggling with infertility who have greater emotional validation towards one another, maintain shared meaning of their grief experience, have similar views of reproduction, and manage conflict effectively tend to have better relational outcomes than couples struggling with infertility who have increased emotional flooding, avoidant communication styles within the dyad, and who have divergent views on reproduction (Brigance et al., 2020; Jaffe & Diamond, 2011; Pasch & Sullivan, 2017; Gottman & Gottman, 2015).

How Couples Achieve Outcomes During Infertility

I propose that the various frameworks of Gottman Method Couple Therapy (GMCT) explain how dyadic support and conflict management happen within a couple who are experiencing infertility, as well as how couples arrive at their posttraumatic couple outcomes. Based on the theoretical and research work of John and Julie Gottman, GMCT provides specific interventions for couples which enhance communication patterns, providing resilience in the face of conflict as well as data-driven pathways to successful, lasting relationships (Gottman, 1994b; Gottman & Levenson, 1986). Within GMCT, several research-based constructs on couple relational health provide consistent evidence on lasting relationships even through traumatic experiences and significant disruptions in life dreams (Gottman & Gottman, 2015). The Sound Relationship House (SRH; see *Figure 1*) gives an outline of how couples may achieve this through a system of shared meaning, turning towards one's partner for emotional support, having a "love map" of one's partner (in other words, knowing your partner's passions, dreams,

preferences, and dislikes), and managing conflict (Gottman & Levenson, 1986). Couples who engage in these principles have more emotional bonding (Gottman, 2011) and often have more psychological and relational resilience in the face of their trauma (Gottman & Gottman, 2015). GMCT theoretical processes specifically address how couples navigate their life dreams, face perpetual gridlock on life-altering decisions, and maintain emotional bonding in midst of life crises – all of which remain salient for couples navigating infertility (Gottman, 2011; Jaffe & Diamond, 2011). GMCT processes can assist couples struggling with these aspects of infertility and may provide a pathway for couples navigating infertility to engage in deeper emotional bonding through their experience as well as avoiding perpetual destructive conflict described in the present academic literature. This fills the current gap of explaining how variations in couple outcomes occur through infertility and gives valuable insight for couple and family therapists who work with this special population. With specific research outlining how couples achieve their outcomes, clinicians may alter their practice to help achieve relational outcomes more akin to deeper emotional bonding and relational satisfaction.

Theoretical Framework and Proposed Studies

Therefore, my proposed studies will further investigate how couples arrive at their outcomes during and after infertility through the GMCT theoretical framework. Finding how couples arrive at their outcomes may also inform couple therapists on specific interventions for this special population. GMCT gives specific guidance for couples struggling with mismatched emotional responses, couples struggling with perpetual gridlock on major decisions, and couples who have ruptures in shared meaning – all of which are aspects of relationship which infertility impacts dramatically (Cousineau &

Domar, 2007; Jaffe & Diamond, 2011; Jaffe, 2017). GMCT contains several specific interventions which address all these issues for couples (Gottman & Gottman, 2015). Therefore, Gottman Method Couple Therapy (GMCT) will be the lens through which couple relational health will be viewed.

I proposed that couples who experience infertility arrive at their outcome due to interaction patterns already imbedded in their relationship aligning with the SRH. Couples who already manage conflict effectively, create more shared meaning in their relationship, turn towards one another during bids for emotional connection instead of away, have a positive perspective of one another even during conflict, maintain passion during sex and intimacy, and have shared fondness and admiration can endure the emotional storm of infertility and develop deeper emotional bonds through their experience. I theorized that couples who have a solid SRH prior to or during their infertility experience will have better relational outcomes and greater couple satisfaction.

In contrast, couples who have more communication patterns characterized by GMCT conflict processes (see *Figure 2*) will experience more negative effects due to their infertility. GMCT conflict processes include harsh conversational startups, intense emotional flooding during conflict, criticism, defensiveness, emotional stonewalling, contemptuousness as well as a lack of the ability to compromise and effectively repair the relationship after a disagreement (Friedlander et al., 2019; Gottman & Tabares, 2017). Further, couples who have a more negative sentiment during conflict will also experience more significant relational and emotional difficulty during infertility (Gottman & Gottman, 2015).

I explained these effects through moderated mediation modeling examining FQOL as the predictor variable, and couple satisfaction as the outcome variable. In the first study, I examined how FQOL predicts couple satisfaction. In other words, I investigated how general couple satisfaction and the overall quality of life of an individual during infertility are related to one another. However, this relationship was mediated by the SRH variables of friendship and intimacy, shared meaning, and quality sex and romance. The behaviors embedded within the SRH explain the relationship between couple satisfaction and FQOL. Ultimately, I will submit a manuscript summarizing this study to the *Journal of Marriage and Family*, the leading journal in couple therapy at the time of this writing. See *Figure 3* for a visualization of the modeling for this study.

In the second study, I examined GMCT conflict processes, and how these may be predictors of lower couple satisfaction and increase the deleterious relational and emotional impact of infertility. I examined how the four horsemen of the apocalypse (stonewalling, criticism, contempt, and defensiveness), harsh startup, negative sentiment override, and flooding negatively mediate the relationship between relationship satisfaction and FQOL. I predicted that couples who engage in higher levels of Gottman conflict processes will explain the negative correlation between relationship satisfaction and FQOL. However, I predicted Gottman conflict management (i.e., compromise and effective repair attempts) would moderate these mediation pathways. Couples who have difficult emotional experiences in their conflict, and yet can compromise and offer repairs for their relationship often find that their conflict is easier to navigate (Gottman & Tabares, 2017). This provided a framework for how couples can manage their conflict

while navigating their infertility experience, as well as important factors of conflict which impacts couples who suffer from infertility specifically. I will submit an article describing this study to the *Journal of Couple and Family Psychology*, the flagship journal for Division 43 (couple and family psychology) within the American Psychological Association (APA). See *Figure 4* for a visualization of the modeling for this study.

Utilizing moderated mediation modeling within this descriptive correlational design provided a more data-driven explanation of the various behaviors which couples engage in to produce greater couple satisfaction through their infertility (Hayes, 2017). This will give couple therapists specific targets for their interventions with this population by explaining specific constructs of dyadic support which enhance couple satisfaction even though the experience of infertility.

These two research articles fill an important gap in the current academic literature regarding infertility and couple outcomes. Though researchers have proposed various models for dyadic coping and social support through infertility, no research exists which explains *how* this coping and support happens in a committed relationship. This gave critical illumination to specific behaviors which couples may engage in to maintain a strong, emotionally bonded relationship through infertility, as well as give important insight on how some conflict processes may increase and affect the couple more critically through their experience. To my knowledge, this study is the first of its kind to quantitatively explain specific couple behaviors through an experience of infertility which lead to couple outcomes.

In the final article, I synthesized these findings and placed them into a practice article through a conceptual writing of how GMCT can be applied specifically to the infertility population. I utilized findings from the first two studies to further validate the use of this theory, as well as specific ways in which GMCT may be modified to suit couples navigating infertility. This article provided a step-by-step process for applying GMCT to couples experiencing infertility, as well as thoughts for future outcome research. Showing couple therapists how we can intentionally guide couples towards posttraumatic growth associated with the experiences of some couples within the academic literature will be the ultimate goal. I will submit this conceptual manuscript to the *Journal of Marriage and Family Therapy*, the flagship journal of the American Association for Marriage and Family Therapists.

The Gottman Sound Relationship House in a Sample of Couples Navigating Infertility

Infertility continues to rise in Western society (Cousineau & Domar, 2007; Livingston, 2018). Indeed, 48% of all adult individuals in the United States have either experienced infertility themselves or know someone who has been directly affected by infertility (Brigance et al., 2020; Livingston, 2018). Many couples find infertility emotionally and relationally distressing (Casu et al., 2019; Rooney & Domar, 2018; Pasch & Sullivan, 2017). Infertility can cause present and future grief, as a vision for the present and future self are disrupted (Greil, 2018; Jaffe, 2017). For many individuals, infertility correlates with increased anxiety, depression, and shame (Joja et al., 2015; Volgsten et al., 2008). Social support from a partner often acts as a buffer against the emotional and relational difficulties which infertility engenders. Specifically, couple communication patterns play a critical role in couple outcomes during infertility. (Brigance et al., 2020; Gurman, 2011; Pasch & Sullivan, 2017). Despite the emotional and relational difficulties within the experience of infertility, couples report a wide array of outcomes, ranging from relational dissolution to increased secure attachment (Cousineau & Domar, 2007; Pasch & Sullivan, 2017). Luk and Loke (2015) noted that many couples find themselves closer together after infertility due to a shared emotional experience; yet other couples find themselves in a relationship damaged beyond repair (Cousineau & Domar, 2007). Uncovering the factors influencing these different outcomes may provide couple therapists the opportunity to enhance relational support for both individuals and couples navigating infertility. No current studies exist to my knowledge which illuminate the factors that influence post-infertility relational outcomes for couples

of this special population (Brigance et al., 2020; Cousineau & Domar, 2007; Luk & Loke, 2015). Gottman Method Couple Therapy (GMCT), however, provides a road map for relational health for couples who are having difficulty with perpetually difficult decisions, disruptions in shared meaning, and difficulties with emotional connection (Gottman & Gottman, 2015). Within GMCT, the Sound Relationship House (SRH) gives a framework for specific behaviors which couples engage in to build a deeper emotional bond despite difficult contexts (Gottman & Levenson, 2000). The purpose of this study is to find how the constructs within the SRH might explain specific ways couples interact to achieve deeper connection despite the emotional toll which infertility engenders.

Infertility

Medically, infertility is defined as having 12 months of failed pregnancy attempts for women aged 34 or younger, or 6 months of failed pregnancy attempts for women 35 and older (Cousineau and Domar, 2007). Infertility can present a wide variety of social, emotional, medical, and relational experiences which may be difficult to navigate (Cousineau & Domar, 2007). Infertility engenders disenfranchised grief (Jaffe & Diamond, 2011). That is, individuals may experience grief associated with their loss, but have no socially acceptable way to process that grief (Doka, 2008; Jaffe, 2017). Disenfranchised grief can compound the emotional effects of infertility (Brigance et al., 2020). This disenfranchisement may come from both friends and family members; in other words, trusted friends and family may unwittingly prevent the individual or couple from processing their grief by emotionally invalidating the sufferer (Doka, 2008; Skrisky et al., 2022).

However, the effects of infertility on couple relationship satisfaction remain mixed (Cousineau & Domar, 2007; Pasch & Sullivan, 2017). Despite the deleterious nature of infertility on individual emotional well-being, 25-35% of individuals in one study of 2,812 fertility patients reported that the experience of infertility made their relationship stronger through a mutually shared experience (Peterson et al., 2011). Some factors are particularly salient for individuals who report posttraumatic growth and resilience amidst infertility, including family support (particularly parent support; Skirsky et al., 2022), general social support from friends, and support from a partner (Casu et al., 2019; Ridenour et al., 2009; Soleimani et al., 2014). Despite these studies for individuals navigating infertility, no studies exist which describe how increased couple satisfaction happens for couples struggling with infertility. Currently, only models of interaction based on theory exist in the literature (Jaffe & Diamond, 2011). However, in their theoretical model, Pasch and Sullivan (2017) noted that couples who engage in meaning-based coping within the couple dyad report greater relationship satisfaction. That is, couples who place deeper existential meaning to their life experience find coping with their infertility easier than individuals who avoid emotionally accepting their infertility. Yet, it remains unclear how couples achieve meaning-based coping through the academic literature (Pasch & Sullivan, 2017).

Relational Quality of Life During Infertility

In an emotional and relational sense, infertility can cause trauma symptoms (Brigance et al., 2023; Jaffe, 2014; 2017). Reproductive trauma describes adverse reproductive experiences, including infertility, miscarriage, stillbirth, difficult pregnancies, and difficult deliveries (Jaffe & Diamond, 2011). However, within the

context of the experience of couples, the outcomes remain nuanced based on dyadic coping mechanisms; couples experiencing reproductive loss who engage in more social support within the couple dyad report better emotional outcomes (Freedle & Kashubeck-West, 2021). Berg and Wilson (1991) indicated that women who are undergoing assistive reproductive technology (ART) treatment have worsening psychological distress as their marital relationship deteriorates in a ‘spiraling’ effect. Brigance et al. (2023) indicated that women navigating infertility have avoidance behaviors associated with PTSD.

In mixed gender married couples experiencing infertility, the perceived lack of emotional support from husbands has been associated with an increase in the distress of the wife (Matsubayashi et al., 2004). In other study samples, men have reported feeling burdened by the demands of ARTs and expressed less interest in pursuing treatment than women (Asazawa, 2012). Women have noted feelings of shame at the onset of an infertility diagnosis, while men tend to feel shame and guilt later in the treatment process or when they caused the infertility (Joja et al., 2015; Pasch & Sullivan, 2017; Volgsten et al., 2008). These shame responses often lead to disruptions of the communication cycle, causing relational difficulties (Cousineau & Domar, 2007; Soleimani et al., 2014).

Peloquin et al. (2018) indicated that blaming predicted psychological adjustment and couple satisfaction in couples seeking ARTs. This also aligns with other research within GMCT showing that criticism harms the couple relationship (Gottman & Gottman, 2015). Traumatic events, including those outside of the infertility experience, may produce various emotional responses within the couple, and thus provide fertile ground for non-empathic communication as well as unproductive conflict (Johnson, 2015).

Infertility and Couple Satisfaction

Researchers have sought to measure general relational satisfaction for decades (Funke et al., 2007). Within the academic literature, various modes of defining this satisfaction have led to many scientific terms and forms of measurement, including: Dyadic adjustment, marital satisfaction, and relational adjustment (Omani-Samani et al., 2018). However, Funke et al. (2007) have recently coined the couple outcome of couple satisfaction. Couple satisfaction refers to the general contentment within a committed relationship (Funke et al., 2007). Researchers have noted that couple satisfaction provides a more sound predictor of true couple outcomes (Funke et al., 2007). Within the context of infertility, Omani-Samani et al. (2018) noted that couple satisfaction is a reliable and valid way to predict couple outcomes through the various experiences of infertility and fertility treatment. Couple satisfaction remains one of the best predictors of couple outcomes within this unique context (Funke et al., 2007; Omani-Samni et al., 2018).

Although infertility can disrupt the couple quality of life, coping mechanisms and communication patterns may encourage resilience within the relationship and actually increase couple satisfaction (Casu et al., 2019; Luk & Loke, 2015; Ridenour et al., 2009). Casu et al. (2019) indicated that couples who have more active partner coping styles experience less psychological distress and have greater quality of life than couples who have avoidant coping. That is, couples who consistently turn to one another for emotional support and validation have greater relational success than couples who avoid processing their emotions surrounding infertility (Casu et al., 2019; Pasch & Sullivan, 2017). Couples who have similar perspectives on child-rearing and family planning also tend to navigate the waters of infertility with more relational stability (Luk & Loke, 2015).

Additionally, cultures which associate the identity of women with childbearing may exacerbate the infertility stresses experienced by couples (Alhassan et al., 2014).

Interestingly, many couples have reported that their couple satisfaction improved through the process of infertility (Casu et al., 2019; Cousineau & Domar, Luk & Loke, 2015; Pasch & Sullivan, 2017). In their comparative study examining couple outcomes for couples experiencing infertility and couples not experiencing infertility, Drosdzol and Skrzypulec (2009) found that couples who experienced infertility reported higher couple satisfaction and more secure couple attachment than couples who did not experienced infertility. In contrast, Onat & Beji (2012) showed no differences between the groups regarding couple satisfaction. Luk & Loke (2015) suggested that couples experiencing infertility discuss critical issues in their relationship due to their infertility, and thus find greater meaning in their status as a couple. Couples also reported that infertility yielded greater emotional intimacy as the couples came together to reconstruct their shared dreams of the future, thus producing a more secure bond through mutual-meaning making and emotional validation (Drosdzol & Skrzypulec, 2009). This implies that couples who turn towards one another for shared meaning of their experience and mutual emotional validation have greater relational bonding through their infertility (Luk & Loke, 2015).

Emotional validation, shared meaning making, and managing conflict can also affect couple satisfaction outcomes amidst difficult experiences (Casu et al., 2019; Cousineau & Domar, 2007). Vassar et al. (2009) noted that various styles of couple interactions and coping account for much of the variance seen in infertile couple outcomes, with those who have more aligned ways of coping and communicating

maintaining a better ability to weather the emotional and relational storm of infertility. This aligns from previous research within GMCT, which showed that couples who have greater empathic responding, more positive interpretations of their partner, and deeper shared meaning have greater trauma resilience (Gottman, 2011).

Couple communication, coping, and appraisal of their partner play further important roles in couple outcomes during infertility. Specifically, communication quality rooted in shared emotional validation of one another's trauma and compatibility of shared meaning of reproduction lead to more positive relational outcomes (Anguzu et al., 2020; Luk & Loke, 2015; Pasch & Sullivan, 2017;). Couples who have divergent views on reproduction may still yet reach congruence through quality communication (Jaffe, 2017; Pasch & Sullivan, 2017). Other models of coping for infertile couples resonate with the underlying theme of GMCT that positive couple interactions offer protection against the deleterious relational effects of infertility. The infertility resilience model proposed by Ridenour et al. (2009) noted that dyadic coping plays a role in individual coping during infertility. Further, according to their couple communication model, Casu and colleagues theorize that couples who communicate effectively with more mutual empathy, active support of their partner, and increased emotional regulation generally experience less distress throughout their infertility experience (Casu et al., 2019; Ridenour et al., 2009). McLaughlin and Cassidy (2019) indicated that high levels of attachment behaviors yield greater relational satisfaction over time through the experience of infertility.

Although highlighted within the academic literature and theorized by various models, infertility researchers have yet to explore the relationship between specific

couple interactions and relational outcomes with quantitative methods (Brigance et al., 2020). No studies were found which analyze the specific, discrete behaviors and interaction patterns needed to navigate infertility and predict couple satisfaction through this unique experience.

Towards Insights of the Sounds Relationship House and Infertility

The SRH within GMCT may provide this model for specific modes of communicating and behaving within couple relationships which encourages deep emotional bonds through the experience of infertility, thus leading to greater couple satisfaction. The SRH provides many of the constructs and attachment behaviors studied separately from various research regarding how couples may remain resilient in the face of infertility, including: Ways to solve perpetual gridlock on important decisions, ways to turn towards a partner during communication and give empathic responses, strategies for building shared meaning of a deeply emotional experience, as well as maintaining affection for one's partner despite difficult and traumatic contexts (Gottman & Gottman, 2015). These behaviors currently align within the larger research zeitgeist, but have yet to be recognized in one single model. Further, other models of couple interaction do not include many of the important aspects of couple resilience through infertility as GMCT currently does. Even though various models have illuminated how couple communication buffers the effects of infertility on relational quality, no study was found which examines the nature of this communication. Based on the available research literature, I propose that various models of resilience for couples are simply underlying communication patterns of friendship and intimacy within the SRH, and so should be aggregated into this research. The SRH gives a more detailed description of how couples

may achieve this resilience through specific ways of communicating and relationally behaving in the face of their infertility. Further, GMCT contains several modalities of communicating pertinent to couples struggling with infertility which researchers have yet to explore altogether, such as creating shared meaning during grief, turning towards one another for connection during everyday interactions, regulating emotions amidst infertility, navigating perpetual gridlock on major life decisions, and navigating issues with sexual intimacy during fertility treatment (Jaffe & Diamond, 2011). GMCT, and more specifically, the SRH, provides a holistic conceptual framework which addresses all problematic areas for couples struggling with infertility currently identified within the academic literature. Researchers have yet to fully explore the theoretical concepts within the SRH, and how those concepts apply to an actual sample of couples struggling with infertility.

Friendship and Intimacy, Sex, and Shared Meaning within The Sound Relationship House

In his empirical work on couples, Gottman (2011; see also Gottman, 1993) showed that the SRH explains how couples build commitment and trust over time through specific modes of communicative behaviors. Couples who engage in the SRH patterns of relating have a greater chance of staying together through time, have better couple satisfaction, and are resilient to outside stressors, including trauma, addictions, infidelity, and mental health difficulties (Friedlander et al., 2019; Gottman, 2011; Gottman & Levenson, 1986).

The SRH is arranged in a hierarchical order to convey the metaphor of a house solidly built on a firm foundation (Gottman, 1994a). The SRH is arranged as follows:

Building love maps, shared fondness and admiration, turning towards instead of away, maintaining a positive perspective, managing conflict, making life dreams come true, and creating a shared meaning system. Building love maps forms the foundation at the bottom of the SRH, while shared fondness and admiration, turning towards instead of away, having a positive perspective, managing conflict, making life dreams come true, and creating shared meaning form the internal workings of the “house”. These constructs are intended to build emotional bonding within the couple, as well as build a sense of dyadic community (Gottman, 2011). Therefore, these behaviors increase a sense of emotional connection and decrease feelings of loneliness (Gottman & Gottman, 2015).

In the context of infertility and couple satisfaction, this model of relational health coincides with present research suggesting that infertile couples who have greater emotional validation for one another, shared meaning around reproduction, and more empathic communication improve their relationship through their stressful experience (Casu et al., 2019; Luk & Loke, 2015; Pasch & Sullivan, 2017; Soleimani et al., 2014). The three main interaction variables for this study (friendship and intimacy, shared meaning, and quality of sex, passion, and romance) will be extrapolated in the following sections.

Friendship and Intimacy

Building Love Maps

Building love maps forms the foundation of the SRH (Gottman & Gottman, 2015). Love maps represent the knowledge of the internal world of the partner within the couple dyad (Gottman, 2011). This “internal world” could include many aspects of what makes the partner a unique individual, including their passions, their dreams, their

general likes and dislikes, their idiosyncrasies, and their pet-peeves (Gottman & Gottman, 2015). Knowledge of a partner's internal world forms the inner workings of the empathic response system, and so knowing a love map for one's partner can encourage more effective communicative behaviors (Gottman, 2011; Gottman & Silver, 2012).

Building Fondness and Admiration

Also known as the fondness and admiration system, building fondness and admiration for one's partner remains an important factor in motivating empathic responding (Greenberg, 2010; Johnson, 2015). Gottman & Gottman, (2015) refer to building fondness and admiration as a "system" due to the structured way building fondness and admiration may take place. In fact, Gottman (2011) noted that building fondness and admiration conveys affection, respect, and validation through small, everyday life interactions. As couples mutually engage in these specific behaviors, emotions of fondness and admiration soon follow (Gottman, 2011). This is the basis for current models of couple coping during infertility (Pasch & Sullivan, 2017; Ridenour et al., 2009). Examples of building fondness and admiration may be recognizing a partner's accomplishments, listing a partner's positive qualities, and expressing gratitude towards a partner (Gottman, 2011; Gottman & Gottman, 2015). Doing these behaviors during infertility may provide daily resilience to the relational, emotional, and medical stressors of infertility by allowing the couple to engage in more consistent, daily dyadic coping (Jaffe & Diamond, 2011).

Turn Towards Instead of Away

Bids for emotional connection are subtle or overt behaviors in which one partner reaches out towards the other partner for emotional validation through a simple behavior,

such as a simple routine comment towards a partner (“you will never guess what happened at work today”), or a more intentional gesture (“there is something that I really need to tell you and it is very important to me”; Gottman & Levenson, 2000). Gottman and Levenson noted that partners who turn towards one another during these bids have greater affection and increased emotional bonds over time. For couples navigating infertility, turning towards one another could provide a basis for emotional responding and effective communication of the individual effects of infertility within the dyad. These processes correlate with effective dyadic coping needed for couples navigating infertility (Brigance et al., 2020; Jaffe & Diamond, 2011, Pasch & Sullivan, 2017).

Creating Shared Meaning

Having shared meaning remains critical for couples navigating infertility (Friedlander et al., 2019; Jaffe & Diamond, 2011; Pasch & Sullivan, 2017). Couples who have more shared meaning around parenthood, family, and the future have greater resilience in the face of infertility (Casu et al., 2019). Building rituals for emotional and relational connection over time remains a protective factor for couples experiencing a variety of negative events (Shapiro & Gottman, 2005). The shared meaning system for couples remains profound, not just for couples struggling with infertility, as it creates a relational space in which one’s intimate identity can be co-created with another person in a way that is emotionally validated and honored (Johnson, 2015). Gottman and Gottman (2015) noted that shared meaning for couples is divided into rituals, roles, goals, and symbols. Couples who build a shared meaning system around other factors in their relationship may also find that building consensus around parenthood and medical

intervention becomes easier, as the couple's shared meaning system becomes more fluid (Cousineau & Domar, 2007).

Quality of Sex, Romance, and Passion

Within couples who are experiencing infertility, sex remains one of the most disrupted patterns of relating (Cousineau & Domar, 2007). Gottman and Gottman (2015) noted that couples who have deeper emotional bonds, deeper shared meaning, along with a higher quality of sex and passion, tend to have greater relational outcomes over time. Quality sex acts as an expression of deeper emotional connection, as well as simultaneously assisting couples in making that connection (Gottman & Gottman, 2015). For couples struggling with infertility, sex remains complicated due to the timed intercourse often required (Cousineau & Domar, 2007). Sex and intimacy also often become disrupted in couple relationships during infertility due to the mechanical nature of sex to produce a child (Soleimani et al., 2014). However, couples who maintain quality sex through infertility may face their relationship with greater resilience (Luk & Loke, 2015; Ridenour et al., 2009).

The Present Study

Infertility often impacts the couple's ability to communicate empathically due to significant strains of grief and loss, financial difficulties, sexuality and intimacy (Brigance et al., 2020) as well as disruptions in life dreams (Jaffe & Diamond, 2011). However, some couples report that their relationship is in fact more emotionally bonded post-infertility (Luk & Loke, 2015). Given the existing research on the potential for effective couple communication and emotional validation to provide protective factors for infertile couples, as well as the research surrounding GMCT, I examined friendship

and intimacy, shared meaning, and quality sex and romance within the SRH as a pathway for couples to achieve deeper couple satisfaction even through the difficult experience of infertility. With this research, I sought to fill the current gap in the academic literature by explaining how couples achieve increased emotional bonding through their traumatic experience of infertility and how their overall couple satisfaction might be predicted. This will help provide a concrete pathway for couple therapists who work with these couples on how to build these deeper emotional bonds. The research question for the present study, then, is as follows: Do couples achieve greater relationship satisfaction through their infertility experiences and maintain a greater fertility quality of life by engaging in friendship and intimacy, greater quality of sex and romance, and shared meaning patterns within the SRH?;

Fertility quality of life was examined in its relationship to overall couple satisfaction for couples experiencing infertility. However, to explore how couples achieve this relationship, shared meaning, friendship and intimacy, as well as quality of sex and romance was also be examined. Therefore, my hypotheses are as follows:

- 1) Relational fertility quality of life will have a positive relationship with overall couple relationship satisfaction.
- 2) The Gottman friendship and intimacy cluster construct of the SRH will act as a mediator between relational quality of life during infertility and couple satisfaction.
- 3) The Gottman shared meaning system cluster will act as a mediator between relationship quality of life during infertility and couple satisfaction; and finally,

- 4) Gottman quality sex, passion, and romance will act as a mediator between relationship quality of life during infertility and couple satisfaction.

Methodology

Study Design

This study utilized a nonexperimental, descriptive observational design exploring mediating models within the study variables. Specifically, I initially examined how fertility quality of life is related to couple satisfaction to gauge how infertility has impacted overall contentment and enjoyment in the relationship. I also examined how the various SRH constructs (turning towards instead of away, shared meaning, building love maps, and shared fondness and admiration) build a mediating pathway from fertility quality of life to couple satisfaction. Mediation modeling provides a pathway for examining how or why variables may be related (Hayes, 2015). I utilized mediation modeling to explore how the relationship between fertility quality of life and couple satisfaction might be explained by the SRH. In other words, having greater quality of life and relational satisfaction, even during the trauma of infertility, is explained by couple interactions characterized by the SRH.

Procedure

IRB approval was obtained through the University of Missouri-St. Louis. Respondents may participate in this study if they meet the current medical definition of infertility, have experienced infertility for no more than 10 years, are at least 18 years of age, and indicate that they are or previously were in a committed relationship during their infertility experience. Participants were provided a link to Qualtrics, where the study questions are organized into an online response format. Participants were recruited

through a distribution of the Qualtrics survey in various infertility support groups on Facebook, as well as fertility clinics from across the United States. I contacted fertility clinics in the St. Louis area and asked permission to hang fliers with QR codes to the study in their waiting rooms. The Institute of Reproductive Grief Care, a nonprofit organization in San Diego, California, also promoted the study through their social media channels (LinkedIn, Facebook, Instagram, and TikTok). By continuing with the survey beyond the initial informed consent, participants indicated their consent. Participants completed the Couple Satisfaction Index (CSI), Fertility Quality of Life Questionnaire (FertiQoL), and the Sound Relationship House Questionnaires (SRH-Q, short form). Demographic information was collected as well.

Participant Recruitment Plan

Individuals were eligible for this study if they a) are 18 years or older, b) meet the medical definition of infertility, c) indicate that they have been experiencing infertility for no longer than 10 years, and d) indicate that they are currently in or previously were in a committed relationship during their infertility experience. The researcher chose these parameters to better fit the current literature on the definition of the infertility experience (see Cousineau & Domar, 2007). Participants were asked if they were experiencing 12 months of failed pregnancy attempts if they are 34 or younger, or 6 months of failed pregnancy attempts if they are 35 or older. Participants were also asked to indicate how long that they have been experiencing infertility in months, their current status of parenthood, and their current relationship status. I chose a limit of 10 years to potentially be more inclusive of those who have been more recently diagnosed with infertility and may be seeking medical treatment, as medical treatment often requires years of financial

planning, medical tests, and failed medical intervention (Jaffe & Diamond, 2011; Rooney & Domar, 2016). Including participants beyond the 10-year mark may skew the data by including too many participants who have decided to discontinue medical treatment or have otherwise fully processed their infertility experience.

As a part of this study, an a priori power analysis was conducted using G*Power (Faul et al., 2007). This was done to determine the minimum sample size needed to test the hypotheses presented here in this study. Results of this analysis indicated the required sample size to achieve 80% power for detecting medium effect at a significance criterion of $\alpha = .05$ was $N = 270$. Thus, 270 participants is deemed sufficient to test the hypotheses.

Measures

Couples Satisfaction Index-4

The Couples Satisfaction Index Short Form (CSI-4; Funk & Rogge, 2007) is a 4-item scale designed to measure an individual's overall satisfaction in their committed relationship. The CSI-4 has a variety of question styles; however, all are scored with Likert scales. Three items have 5-point Likert response options, while one item has a 6-point Likert response option. Item scoring is kept continuous throughout, with higher scores yielding higher levels of couple satisfaction. Total scores may range from 0 to 21. Scores below 13.5 are generally considered indicative of relational dissatisfaction.

The CSI was developed using item response theory and correlates with other measures of couple satisfaction (Funk & Rogge, 2007). Omani-Samani et al. (2018) found that the CSI-4 was correlated with marital contentment and satisfaction in infertile couples. Internal consistency remains high on the CSI for both male partners ($\alpha = .94$) and female partners ($\alpha = .93$) in mixed gender couples. The CSI-4 also displays strong

convergent and divergent validity evidence through testing in multiple samples when compared to other measures of couple and marital satisfaction, including the dyadic adjustment scale and the Locke-Wallace marriage test (Figueiredo et al., 2019).

Fertility Quality of Life

The Fertility Quality of Life Questionnaire (FertiQoL; Boivin et al., 2011) is a 24-item scale assessing the level of impact that infertility has had on an individual. There are a variety of Likert response patterns through the FertiQoL. The FertiQoL gives a total core score, a total treatment score, along with several subscale scores, including emotional, mind-body, relational, social, treatment tolerability, and treatment environment. The emotional subscale refers to the general emotional impact of infertility, whereas the relational subscale refers to the impact on the committed relationship. The social subscale indicates the level of impact of infertility on social circles such as friends and family, and mind-body refers to the level of impact on the physical self. The treatment tolerability subscale indicates the level of perceived invasiveness of treatment, whereas the treatment environment indicates the perceived quality of staff and medical equipment used within the context of medical fertility treatment (Boivin et al., 2011). The FertiQoL has shown solid psychometric properties for individuals and couples navigating infertility (Boivin et al., 2011; Donarelli et al., 2016), including high internal consistency for all subscale scores (Emotional, $a = .90$; Mind-Body, $a = .85$; Relational, $a = .80$; Social, $a = .75$; Treatment Tolerability, $a = .72$; Treatment Environment, $a = .84$; FertiQoL Core, $a = .92$; and FertiQoL Treatment, $a = .80$). Researchers have utilized the FertiQoL in dozens of studies and found it to be a valid estimate of the effects of infertility and fertility treatment in terms of both convergent and discriminant validity

through comparisons with other widely used fertility treatment measures, relationship measures, and psychosocial measures (Asazawa, 2015; Boivin et al., 2011). For the purposes of this study, only the relational subscale was utilized.

Sound Relationship House Questionnaire

In order to measure friendship and intimacy, shared meaning, and quality sex and romance, the Sound Relationship House Questionnaires, Short Form (SRH-Q) will be utilized. The SRH-Q is a 94-item scale assessing various aspects of the Sound Relationship House for individuals within a committed relationship. The SRHQ has 16 constructs, broken down into 4 main areas. These areas and constructs are as follows: Friendship and Intimacy (love maps, fondness and admiration, turning toward or away, and emotional distance and loneliness), Conflict (harsh startup, the four horsemen, gridlock on perpetual issues, accepting influence, and compromise), Conflict Processes (flooding, negative sentiment override, and effective repair attempts), and Meaning (shared meaning rituals, shared meaning roles, shared meaning goals, and shared meaning symbols). These scales had the following internal consistency in mixed-gender couples for males and females, respectively: Love maps ($a = .61$, $a = .58$), fondness and admiration ($a = .90$, $a = .91$), turning toward ($a = .90$, $a = .89$), negative sentiment override ($a = .92$, $a = .92$), harsh startup ($a = .93$, $a = .89$), repair attempts ($a = .86$, $a = .88$), compromise ($a = .53$, $a = .50$), gridlock ($a = .91$, $a = .89$), four horsemen ($a = .94$, $a = .91$), flooding ($a = .89$, $a = .86$), emotional distance and loneliness ($a = .89$, $a = .88$), and shared meaning total ($a = .92$, $a = .89$). The SRH scales show both convergent and divergent validity when compared to other measures of couple interaction, including the Locke-Wallace Marriage Test (Gottman & Gottman, 2015). Within the sample for this

study, not accounting for gender, internal consistency was acceptable for total Gottman friendship and intimacy ($\alpha = .76$), Gottman conflict processes ($\alpha = .89$), as well as Gottman sex, passion, and romance ($\alpha = .85$), and Gottman total shared meaning ($\alpha = .82$). Cronbach's alpha was the lowest for Gottman conflict management ($\alpha = .68$).

For the purposes of this study, I chose SRH constructs which correspond with the friendship and intimacy cluster score, the shared meaning cluster score, and quality sex and romance. Participants will complete 6 subscales, including: Love maps, fondness and admiration, turning towards or away, quality of sex, romance, and passion, as well as overall shared meaning system. Items are offered in a true/false format, with 1=False and 2=True. Higher scores indicate perceived higher levels of the measured construct within the relationship. For the purposes of this study, I will utilize these six subscales into three scores: Friendship and intimacy, quality of sex, passion, and romance, as well as shared meaning.

Participants

Participants were recruited from various social media platforms, including Facebook, Twitter, Instagram, and LinkedIn. On Facebook, the call for participation was shared 92 times across different groups. On LinkedIn, the call for participation was shared 23 times. After cleaning the data, a total of 902 participant responses were recorded surpassing the 282 required participants to obtain statistical power for all hypotheses. . Of those 902 participants, 669 (74.1%) identified as female, 219 (24.2%) as male, 7 (.7%) as nonbinary, 4 (.4%) as transgender, and 3 (.3%) as two-spirited. Participants came from a distribution of race and ethnicity roughly proportional to those of the U.S. population, with 561 (62.1%) identifying as White, 168 (18.6%) as Black/African American, 92 (10.1%) as Asian/Asian-American, 74 (8.2%) as

Hispanic/Latinx, 41 (4.5%) as Indigenous American, and 4 (.4%) as Native Hawaiian/Pacific Islander. Many were heterosexual ($n = 545$, 60.4%) or mostly heterosexual ($n = 296$, 32.8%). Others were lesbian/gay ($n = 56$, 6.2%), bisexual ($n = 55$, 6%), and pansexual ($n = 40$, 4.4%). Three hundred and thirty four (37%) participants completed an undergraduate degree, while 209 (23.1%) had some college education but no degree. Others noted that high school was the highest level of education obtained ($n = 70$, 7.7%), and 12 (1.3%) did not complete high school. Others indicated that they had some graduate hours but no degree ($n = 137$, 15.1%), 103 (11.4%) had a master's degree, and 24 (2.6%) had a doctorate degree. Regarding location of living, 504 (55.8%) participants lived in an urban/city environment, 324 (35.9%) from a suburban environment, and 52 (5.7%) in a rural environment. Most participants identified as being middle class ($n = 378$, 41.9%), while 258 (28.6%) identified as being working class. Regarding class, 199 (22%) participants identified as being upper middle class, 24 (2.6%) as upper class, and 35 (3.8%) as being in the low income/poverty level. The vast majority of participants indicated that they were married or otherwise in a committed relationship ($n = 865$, 95.8%), while 35 (4.2%) indicated that they were divorced or separated. See *Table 2* for a complete list of participant demographics.

Overall, participants reported that their experiences with infertility varied, with 406 (45%) indicated that they had experienced intrauterine insemination (IUI), 394 (43.6%) experiencing invitro fertilization (IVF), 163 (18%) experiencing embryo adoption, and 82 (9%) experiencing surrogacies. Participants also indicated a range of reproductive losses, including miscarriage ($n = 417$, 46.2%), stillbirth ($n = 297$, 32.9%), and secondary infertility ($n = 171$, 18.9%). 373 participants (41.3%) did not have a child

at the time of data collection, 276 (30.5%) had a biological child, 120 (13.3%) had an adopted child, and 134 participants (14.8%) had both biological and adopted children. See *Table 3* for a complete list of participant experiences of parenthood and assistive reproductive technologies.

Data Analysis

Data Preparation

Initially, 1784 responses were noted within Qualtrics, with some evidence of bot activity (including low reCAPTCHA scores within Qualtrics' bot detection program). A bot data cleaning protocol was then initiated based on Griffin et al. (2021). 242 responses were removed due to respondents beginning the first few questions, but not finishing. Bot cleaning procedures were then initiated, with the first process being to delete all responses with Qualtrics' bot detection reCAPTCHA scores of less than .5. Outliers for completion time were also examined, with completion times being examined in a distribution. All extreme completion times were deleted, including those being more than 45 minutes and those being less than 5 minutes. After these were examined, response fallacies were observed in several cases, including indicating the experience of secondary infertility even though the respondent indicated that they did not have children. Other embedded fallacies, such as responding differently to the social class question twice, allowed for the removal of several responses. Overall, 604 responses were removed as potential bots. Missing values were also analyzed by engaging the missing values function within SPSS. Responses with less than a 60% response rate were discarded as potential bots per Griffin et al.'s (2021) guidelines. Otherwise, missing values were

replaced with mean values per the missing values function. The final data pool included 902 participants.

Data Modeling and Assumptions

After the data set was finalized, descriptive statistics were analyzed for couple satisfaction, relational quality of life during infertility, friendship and intimacy, sex, passion, and romance, as well as shared meaning. Demographic characteristics of the sample were also examined. Bivariate correlations were examined to fulfill the assumption that couple satisfaction and relational quality of life during infertility were indeed related. These correlations yielded a significant relationship. To check for assumptions for regression and mediation analysis, outliers were examined. Linearity was examined using scatterplot matrices. Q-Q plots of residuals were utilized to examine normality. Finally, Levene's test for equality of variances was investigated. All assumptions of normality for regression and mediation analysis were met by the data set.

To test the mediation hypothesis, the PROCESS macro for SPSS v. 28 was utilized. Specifically, model 4 within the PROCESS macro was chosen. Mediation modeling was conducted in a series of three mediation models to assess the effects of each hypothesis. For each mediation model, relational quality of life during infertility was utilized as the predictor variable, and couple satisfaction was utilized as the outcome variable. By examining the 5,000 bootstrap samples produced by the PROCESS macro, a significant effect was noted for each confidence interval not containing zero. Further, these bootstrap samples were examined to calculate the indirect effects of friendship and intimacy, sex, passion, and romance, as well as shared meaning on couple satisfaction.

Variables that showed significant associations with the couple satisfaction index were entered as covariates to rule out the possibility of these factors accounting for the hypothesized effect (Lafarge et al., 2019). The following variables were indicated as covariates: Gender, whether or not the individual had a child, race, socioeconomic status, as well as the experiences of miscarriage, and stillbirth.

The conceptual model and statistical template of Model 4 (Hayes, 2013) fits best with the second hypothesis and was therefore selected for the mediation analysis. According to Hayes (2013, 2015), if the index of mediation is significant, it indicates that the conditional indirect effects at different levels (e.g., at one SD above, below, and at the mean) of the mediator variable are significantly different from one another. This provides support that the mediation effects are significant. Furthermore, for simple indirect effects, PROCESS also generated the bias-corrected CI at one SD above, below, and at the mean. Total of 1,000 bootstrap samples and a 95% CI for these estimations will be used. If the 95% CI for the average estimates of these 1,000 indirect effects does not include zero, it indicates that the indirect effect is statistically significant at the .05 level (Shrout & Bolger, 2002).

Results

Participants indicated that their relational quality of life had been impacted by infertility a moderate amount ($M = 18.98$, $SD = 2.72$), and yet most participants noted that they were generally satisfied with their relationship on the CSI-4 ($M = 17.98$, $SD = 4.10$). Most participants noted that their relationship had been strengthened through the process of infertility a mild to moderate amount ($M = 3.12$, $SD = 1.12$). Participants also noted generally high levels of sex, passion, and romance ($M = 22.56$, $SD = 3.45$),

friendship and intimacy as a part of the Sound Relationship House ($M = 33.42$, $SD = 2.72$), and shared meaning ($M = 34.92$, $SD = 4.18$). See *Table 4* for a complete list of means and standard deviations of all main study variables.

Hypothesis 1: Bivariate Correlations

Before calculating bivariate correlations, several covariates were added to control for various participant factors. Gender, child status, as well as the experiences of, miscarriage, and stillbirth, were all added as covariates. Significant correlations were noted between couple satisfaction and relational quality of life during infertility ($r = .354$, $p < .001$), leading to the support of the first hypothesis. Significant correlations were also noted between couple satisfaction and the other main study variables, including shared meaning ($r = .444$, $p < .001$), friendship and intimacy ($r = .297$, $p < .001$), and sex, passion, and romance ($r = .456$, $p < .001$). Relational quality of life during infertility also showed positive correlational relationships between the mediation variables, including shared meaning ($r = .380$, $p < .001$), sex, passion, and romance ($r = .226$, $p < .001$), and friendship and intimacy ($r = .193$, $p < .001$). See *Table 4* for a complete list of bivariate correlations between the main study variables.

Mediation Analyses

Hypothesis 2: Gottman Friendship and Intimacy as a Mediator

In the first mediation model, friendship and intimacy was utilized as the mediator between couple satisfaction and relational quality of life during infertility, with couple satisfaction acting as the outcome variable. Gender and whether the individual had a child were added as covariates in the model. Other covariates included the experiences of miscarriage, and stillbirth. The overall mediation regression model accounted for 20.3%

of the variation in couple satisfaction ($r = .203$, $F(7, 891) = 32.48$, $p < .001$). The indirect effect unstandardized coefficient, $\beta = .066$ 95% CI [.037 - .098], had a confidence interval which did not contain zero. Friendship and intimacy mediated the relationship between relational quality of life during infertility and couple satisfaction. Thus, the second hypothesis was supported. See *Figure 6* for a visualization of coefficient effects with Gottman friendship and intimacy as a mediator between relational quality of life during infertility and couple satisfaction.

Hypothesis 3: Gottman Shared Meaning System as a Mediator

In the second mediation model, shared meaning was utilized as the mediator variable between relational quality of life during infertility and couple satisfaction. As with the first two models, gender, whether the individual had a child, and experiences such as miscarriage, and stillbirth. This final model yielded that shared meaning accounted for 26.9% of the variation in couple satisfaction ($r = .269$, $F(7, 891) = 46.84$, $p < .001$). The indirect unstandardized coefficient, $\beta = .191$, 95% CI [.141 - .246], had a confidence interval which did not contain zero. Therefore, the third hypothesis was supported. See *Figure 7* for a visualization of the Gottman shared meaning system as a mediator between relational quality of life during infertility and couple satisfaction.

Hypothesis 4: Gottman Sex, Passion, and Romance as a Mediator

In the final model, sex, passion, and romance was utilized as the mediator variable. Again, couple satisfaction was utilized as the outcome variable. Gender and child status were also included as covariates. As with the first model, other covariates included the experiences of miscarriage and stillbirth. The overall mediation regression model accounted for 28.9% of the variation in couple satisfaction ($r = .289$, $F(7, 891) =$

51.81, $p < .001$). The indirect unstandardized coefficient, $\beta = .155$, 95%CI [.110 – 207], had a confidence interval which did not contain zero. Sex, passion, and romance mediated the relationship between relational quality of life during infertility and couple satisfaction. Thus, the final hypothesis was supported. See *Figure 8* for a visualization of Gottman Sex, Passion, and Romance as a mediator between relational quality of life during infertility and couple satisfaction.

Discussion

This study yielded significant results from all mediation models, leading to the support of all hypotheses. Relational quality of life during infertility was a significant predictor of couple satisfaction, meaning that individuals who are experiencing infertility indeed tend to have their relationship satisfaction effected by the infertility experience. This study further solidifies Gottman Method Couple Therapy as a scientific mode of treatment for couples, which is an important component of ethical consideration for counselors (C.7.a., ACA Code of Ethics; American Counseling Association, 2014).

Casu et al. (2019) indicated that experiences of infertility may negatively impact couple relating (see also Jaffe & Diamond, 2011). In their model of couple resilience through infertility, Ridenour et al. (2009) noted that couples who actively engage in dyadic coping reduce the individual and relational stress common within the infertility experience. However, couple therapists currently lack a concrete way to guide couples towards this dyadic coping (Pasch & Sullivan, 2017). These results indicate that behaviors aligned within the Gottman Method may provide some explanation on how couples achieve greater couple satisfaction through the experience of infertility (Drosdzol & Skrzypulec, 2009; Ridenour et al., 2009). Further, these results provide couple

therapists and couple psychologists a concrete pathway within GMCT on how to intervene for these couples, with specifically focusing on the Sound Relationship House, the shared meaning system, as well as sex, passion, and romance.

Interestingly, sex, passion, and romance provided the highest variation amongst the three mediating variables. This means that couples who maintain healthy sex and romance within their relationship during infertility may increase their overall satisfaction of their relationship and potentially mitigate some of the harmful relational effects of fertility treatment, which aligns with previous research (e.g., Hawkey et al., 2021; Soleimani et al., 2014). However, these data also suggests that couples who maintain a shared meaning system and engage in behaviors associated with Gottman friendship and intimacy concepts also maintain couple satisfaction through infertility; That is, as couples turn towards instead of away from one another, maintain a positive perspective and engage in empathic and emotional connection, relational satisfaction may actually be maintained or increased through infertility. Armed with this knowledge, couple therapists can guide couples struggling with infertility with specific Gottman interventions to encourage turning towards their partner instead of away, increasing overall shared meaning, and bridging an emotional connection between the couple (Gottman, 2011). This could potentially increase couple satisfaction and emotional bonding through the infertility experience.

Couple therapists should be cognizant of specific interventions within GMCT which encourage increased friendship and intimacy and shared meaning within the SRH (Gottman, 1994a). Couples who have a sounder relationship house tend to have better outcomes even through difficult experiences (Gottman & Gottman, 2015; Holman &

Jarvis, 2003; Hogan & Flanagan, 2022). Results from this study indicate that couples who maintain their SRH through infertility may also maintain a healthier couple relationship and have greater couple satisfaction. Further, couples who maintain healthy sex and romance also tend to have healthier relational outcomes (Gottman, 2011). Mediation pathways indicate that this may need to be a priority for Gottman couple therapists working with couples navigating infertility. In this sample, sex, passion, and romance accounted for the greatest variation in couple satisfaction. Couple therapists should be mindful on alterations within sex and romance life as couples navigate infertility, and potentially encourage interventions aimed at maintaining or increasing healthy sex and romance within this couple population (Casu et al., 2019; Jaffe, 2014).

Interventions surrounding shared meaning should also be a priority through infertility. Providing Gottman interventions for increased shared meaning within the couples' roles, goals, and values could potentially provide ample space for the couple to increase their relational and emotional bonding within the infertility experience (Casu et al., 2019; Gottman, 1994a; McLaughlin & Cassidy, 2019). Within the shared meaning system, shared goals, rituals, and roles all provide pathways for the couple to make mutual meaning of their infertility experience, and thus also provide opportunities for mutual emotional support (Casu et al., 2019; Gottman & Gottman, 2015).

Clinical Implications

Couple therapists have a unique opportunity to guide couples struggling with infertility towards more relationship satisfaction through their experience. Based on the findings of this study, Gottman interventions may play a critical role in couple therapy for couples struggling with infertility. Couple therapists should consider Gottman

interventions based on increasing quality sex, passion, and romance, along with creating shared meaning and increasing friendship and intimacy during infertility. Specifically, the Stress Reducing Conversation may help increase friendship and intimacy as well as shared meaning for couples (Gottman & Gottman, 2015). In this Gottman intervention, the therapist guides the couple in taking on roles as speaker and listener, engaging in empathic responding, and supporting one's partner as they navigate a difficult stressor outside of the relationship (Gottman, 2011). This may play a critical role for couples struggling with infertility, as each member of the couple will likely experience intense stress due to their potential for stress and trauma resulting from infertility (Greil, 2018; Pasch & Sullivan, 2017). Further, infertility can act as an emotional "wedge" in the relationship in which each member of the couple consistently turns away from each other (Cousineau & Domar, 2007; Soleimani et al., 2014). However, the stress reducing conversation could help couples begin to emotionally turn towards one another again for support (Gottman & Gottman, 2015). Ultimately, the couple can replicate this stress reducing conversation outside of therapy, and thus increase the support that they may offer one another (Casu et al., 2019).

The couple therapist should also engage the couple in Creating a Shared Meaning System (Gottman & Gottman, 2015; see also Gottman, 2011). In this Gottman intervention, the couple therapist works with the couple in finding ways to have deeper shared meaning in daily life unique to the couple (Gottman & Gottman, 2015). Having a deeper shared meaning system could allow the couple to create a deeply shared emotional connection in the midst of their infertility (Casu et al., 2019). According to the results of this study, having a solid shared meaning system could allow the couple to have

increased relational satisfaction through their infertility regardless of the outcome of their parent status.

These interventions may be slightly adjusted for couples struggling with infertility. For many couples, navigating infertility involves disenfranchised grief (perhaps even disenfranchisement within the relationship; Jaffe & Diamond, 2011). In their theoretical work, Brigance et al. (2021) suggested that couples may also have difficulty navigating the extreme emotions that are so common within infertility. The couple therapist should be mindful of this as they guide the couple through Gottman interventions. This may require the couple therapist to practice the stress-reducing conversation multiple times in session before it is replicated in the daily life of the couple.

Limitations and Directions for Future Research

This study carries some limitations. Nearly all participants indicated a binary gender option (either male or female), with very few participants indicating transgender, genderqueer, or two spirit as their gender identity. These individuals are often left out of the quantitative research regarding their relational experiences amidst infertility. More research should be conducted on the unique experiences of these individuals. Further, less than 10% of this sample indicated an option besides heterosexual or mostly heterosexual regarding their sexual identity. Again, the experiences of lesbian, gay, and queer individuals are often overlooked within current psychological science, with this study also presenting a sample which underrepresents this population. More research should also be done on the experiences of these special populations when experiencing infertility. As with many quantitative studies in which recruitment takes place online, the

sample also skewed somewhat for middle to upper middle class White women. Further research collecting the voices of other underrepresented populations, including those living in working class or poverty conditions, should be explored. Also, this study's findings may not accurately reflect the experiences of individuals within the LGBTQ+ population, as most of the participants indicated that they identify as either heterosexual or mostly heterosexual.

Indeed, significant mediation was found in all models; however, each mediation model explained only partial pathways from the impact of infertility on the relationship and couple satisfaction. At least 60% of the variance (or more) remains unexplained in how couples achieve their relational satisfaction amidst infertility. Therefore, researchers should examine further possibilities in what factors may contribute to this variance. Further, the vast majority of individuals in this sample indicated that they were married to their partner. This may mean the findings of this study are not representative of non-married couples struggling with infertility.

The FertiQoL was not originally designed for research studies with large sample sizes (such as this study). Indeed, the FertiQoL was designed for evaluation of individual experiences with infertility to inform mental health or medical treatment (Boivin et al., 2011). Though results in this study showed that the relationship subscale of the FertiQoL had solid reliability and the purpose is similar, utilizing the FertiQoL in such a way in this study was not the original design for this measure.

Although I engaged in a rigorous process of data cleaning after bots were detected, there remains no guarantee that bots did not infiltrate the sample on a small scale. Although the data cleaning process for bots as detailed by Griffin et al. (2021) has

been shown to be quite effective, bots are continually improving in their ability to remain disguised. This should be considered when interpreting the results of this study.

The research design here does not indicate causality, although results could be used to further investigate interventions for couples struggling with infertility. Clinical and field research should be conducted with specific Gottman interventions focusing on the shared meaning system and building up the sound relationship house for couples going through infertility. Pre- and post-test measures could be utilized to determine the specific effects of therapeutic intervention for this special population.

Utilizing Moderated Mediation of Gottman Conflict Processes in Examining Relational Distress in Couples Navigating Infertility

Couple conflict management remains one of the most studied aspects of couple therapy (Friedlander et al., 2019; Hogan & Flanagan, 2022; Lawrence & Bradbury, 2007). No matter the theoretical construct used to view couples, all modes of couple therapy address difficulties with maladaptive relating (Gurman et al., 2015). Couple conflict does not necessarily equate to destructive relating, nor does it always lead to an unsatisfactory relationship (Gottman & Gottman, 2015). Rather, destructive conflict, characterized by highly charged emotional responding, lack of conflict repair, psychological attacks, and relational resentment, often damage couple attachment (Johnson, 2015) and more often lead to relational dissolution (Friedlander et al., 2019; Hogan & Flanagan, 2022; Gottman & Tabares, 2017). Infertility engenders a wide array of relational and emotional reactions for couples (Luk & Loke, 2015). Intuitively, researchers often infer that infertility damages a relationship significantly. However, many couples report that their relationship becomes stronger than before their infertility experience, while others report that infertility damaged their relationship beyond repair (Cousineau & Domar, 2007; Luk & Loke, 2015). The difference may lie in how couples manage conflict during their infertility experience (Pasch & Sullivan, 2017). However, few, if any, studies exist which extrapolate specific conflict management processes for couples experiencing infertility. Therefore, the purpose of the present study is to examine specific aspects of couple conflict within a sample of couples struggling with infertility, specifically through the lens of Gottman conflict processes.

Couples who are experiencing infertility remain especially prone to this compounding context of maladaptive conflict (Brigance et al., 2020; Casu et al., 2019; Jaffe & Diamond, 2011; Pasch & Sullivan, 2017). Cousineau & Domar (2007) noted that couples experiencing infertility have increased risk for relational difficulties, including sexual stressors, medical stressors, economic stressors, and psychological stressors (see also Gozuyesil et al., 2018; Greil et al., 2016; Volgsten et al., 2008). Specifically, couples experiencing infertility often find their intimate life significantly impacted by having to engage in timed intercourse, thus removing the spontaneous romance of the event and minimizing an important aspect of intimate relating (Cousineau & Domar, 2007; Jaffe & Diamond, 2011; Soleimani et al., 2014). Couples experiencing infertility may also find the emotional trauma difficult to bear within the relationship, leading to perpetual gridlock on how to resolve their relational issues (Casu et al., 2019; Cousineau & Domar, 2007; Pasch & Sullivan, 2017). Many couples report that their relationship is damaged beyond repair in the fallout of infertility (Cousineau & Domar, 2007; Luk & Loke, 2015). Throughout infertility, couples may become gridlocked on important decisions regarding medical treatment, how to proceed with their identity as parents, and how to obtain financial resources needed for fertility treatment (Anguzu et al., 2020). These phenomena have yet to be observed collectively in couples in a study of couples navigating infertility. Due to this gap in the present academic literature, couple and family practitioners have no guidance on how specific conflict processes occur within couples who are struggling with infertility.

However, I propose that couple therapists may predict the couples who will have greater distress amidst the infertility experience based on how the couple engages in

conflict within Gottman Method Couple Therapy (GMCT; Gottman & Gottman, 2015). Gottman & Levenson (1986) proposed distinct ways in which couples engage in conflict which leads to greater distress in the relationship and even dissolution (see also Gottman & Gottman, 2015). These conflict processes often determine relational satisfaction through time (Gottman & Gottman, 2015).

Infertility exacerbates the frequency of couple conflict and may also increase the intensity of conflict processes as noted by Gottman and Gottman (2015; see also Cousineau & Domar, 2007). Infertility strikes at the heart of emotional understanding, in that individuals within the dyad may have various views of reproduction and therefore may invalidate one another's experience (Brigance et al., 2020; Soleimani et al., 2014). Individually, those who suffer from infertility often experience heightened anxiety, depression, shame, grief, and guilt (Volgestan et al., 2008). These difficult individual experiences lead to ruptures within the relationship when the couple cannot manage their emotional responding and have disrupted communication within their conflict (Johnson, 2015). However, no current models of specific conflict management, as well as conflict behaviors, have been found in the academic literature for couples who are experiencing infertility (Anguzu et al., 2020; Brigance et al., 2020; Jaffe & Diamond, 2011). With such a model, couple therapists may better treat couples navigating infertility by providing targeted interventions to manage conflict specific to infertility, giving couples the tools needed to navigate such a traumatic and emotional experience.

I seek to add to the academic literature in examining a sample of couples who are experiencing infertility and investigate their conflict processes, and thus explain specific conflict behaviors which engender couple distress during infertility. Specifically, we will

examine specific pathways which lead from fertility impact to couple satisfaction through GMCT conflict constructs. Our research question, then, is as follows: How do the Gottman conflict processes effect couple satisfaction and relational growth during infertility specifically? Clinical implications for couple therapists, as well as directions for future research, will also be explored.

Infertility and Quality of Life

Researchers developed the concept of infertility quality of life to examine the degree to which infertility has directly impacted the relational health of the couple, as well as the emotional impact on individuals (Boivin et al., 2008). Previous researchers have linked lower infertility quality of life to decreased relationship satisfaction overall and increased couple conflict (Casu et al., 2019). In other words, as the impact of infertility on the couple relationship becomes greater, relational health becomes more difficult to navigate (Jaffe & Diamond, 2011). Couples who have lower infertility quality of life (that is, a greater negative impact on their lives due to infertility) may engage in more conflict and thus experience significantly more distress (Pasch & Sullivan, 2017). Couples who experience infertility and engage in destructive patterns of relating may find the individual experience of infertility especially difficult (Casu et al., 2019; Luk & Loke, 2015). Potentially, within the GMCT framework, the four horsemen, harsh startup, emotional flooding, and negative sentiment override during couple conflict may make the experience of infertility for couples especially egregious (Gottman & Gottman, 2015).

Couple Conflict, Couple Satisfaction, and Infertility

Couple satisfaction remains one of the best predictors of couple outcomes, especially through the experience of infertility (Omani-Samani et al., 2018). Funke and

Rogge (2007) found that couple satisfaction more accurately measures couple contentment and outcomes than other measures. Although couple satisfaction remains a solid predictor of couple outcomes within the context of infertility, many questions remain on how couples navigate their outcomes within this context (Pasch & Sullivan, 2017).

Researchers disagree on how couples reach couple satisfaction through an experience of infertility (Luk & Loke, 2015). Although many couples report that their relationship remains damaged due to their experience, other couples report that their relationship has actually improved through infertility (Luk & Loke, 2015; Pasch & Sullivan, 2017). Differences may lie in how couples approach their infertility at an individual level, as well as how couples approach conflict within their committed relationship (Casu et al., 2019; Ridenour et al., 2009).

Infertility can cause a significant disruption of life dreams (Jaffe & Diamond, 2011). Indeed, one may equate the experience of infertility to the death of a dream, though this death is often not socially seen or validated (Jaffe, 2014; 2017). Cultural expectations and gender norms in mixed gender couples translates to significantly higher physical and emotional suffering for women (Greil et al., 2016). In fact, up to 40% of women in an infertility sample reported psychological symptoms equivalent to a depressive or anxious mood disorder (Volgsten et al., 2008). This individual suffering often transfers to the relationship in the form of increased conflict (Jaffe & Diamond, 2011). For both men and women in mixed gender couples experiencing infertility, shame, grief, and guilt are rampant, though the percentage of men who experience these symptoms remains unclear (Jaffe & Diamond, 2011; Joja et al., 2015). Individuals who

have difficulty processing their own emotions of their own infertility may also have difficulty processing the emotions of their partner (Brigance et al., 2020). This mismatched processing could lead to ruptured attachment and increased destructive conflict within the relationship (Johnson, 2015).

Infertility lays bare the emotional turmoil of potential biological childlessness and the death of a life dream, thus leading to potential mismatched emotional responding and blaming (Peloquin et al., 2018; Soleimani et al., 2014). In general, couples who experience a traumatic event tend to report higher rates of relationship distress (Hammett et al., 2022). For couples experiencing infertility, the trauma of infertility may also ultimately lead to relational dissolution (Cousineau & Domar, 2007; Jaffe & Diamond, 2011). Even though some glimpses radiate within the academic literature on how couples go from infertility to dissolution, very few, if any, scientific authors describe specific connections within couple conflict patterns and models of couple outcomes in a broader sense.

Anguzu et al. (2020) noted that couples navigating infertility often experience decisional conflict; that is, increased patterns of conflict surrounding difficult decisions related to medical treatment and childbearing. Peloquin et al. (2018) also indicated that couples experiencing infertility may engage in blaming, shaming, and criticism as their emotional difficulties are turned to destructive patterns within the relationship. This mutual blaming leads to deleterious relational experiences which of course also leads to increased emotional distress (Gottman & Gottman, 2015; Johnson, 2015). In some cases, when doctors expose one partner as the cause for the infertility, the other partner may blame them for the infertility experience (Peloquin et al., 2018). This blaming may lead

to bitterness and emotional flooding as noted within GMCT, and of course may also lead to decreased relationship satisfaction through the long term. Although researchers have yet to specifically illuminate these connections within the academic literature (Gottman & Gottman, 2015), researchers have discovered that emotional flooding and bitterness can lead to increased emotional distancing, decreased frequency of sexual intimacy, and turning away from one another, all of which may contribute to decreased relationship satisfaction (Peloquin et al., 2018). Bitterness and blaming may also lead to other forms of maladaptive relating (such as flooding and a lack of compromise) which may be pertinent to sufferers of infertility, and yet these connections have also not been explored.

Gottman Conflict Processes and Infertility

Gottman and Gottman (2015) noted that specific patterns of conflict engender increased relational distress, inhibit emotional and physical intimacy, and increase emotional pain of the individual. Known as the Gottman conflict and conflict processes, these specific ways of interacting give way to relational turmoil, often to the point of dissolution (Gottman & Tabares, 2017). Overall, Gottman conflict and conflict processes have been found to be linked to increased destructive conflict, decreased contentment within the relationship, and increased chance of separation. Gottman and Gottman (2015) disaggregate these overall conflict processes into discreet ways of interacting, which are as follows: The four horsemen, harsh startup, negative sentiment override, gridlock on perpetual issues, and flooding (Gottman, 2011).

Gottman Conflict Processes

The Four Horsemen

The four horsemen refers to the four specific ways of interacting which lead to destructive conflict, including contempt, defensiveness, stonewalling, and criticism (Friedlander et al., 2019). Couples who engage in the four horsemen during conflict rarely solve their differences (Gottman & Tabares, 2017). Further, individuals in couples who engage in the four horsemen have a lesser view of their partner (Friedlander et al., 2019) while also having diminished positive emotional responses and higher levels of negative emotions (such as contempt or disgust) when with their partner (Hawkins et al., 2002). Along similar lines, couples who blame their partner for their infertility experience have a higher chance of relational distress (Peloquin et al., 2018). Thus, engaging in the four horsemen also makes it more difficult to compromise and solve problems effectively during infertility, as comments made through the lens of the four horsemen trigger emotional elevation in the partner, and so a cycle of destructive conflict ensues (Friedlander et al., 2019; Rueda et al., 2021).

Defensiveness

Defensiveness is characterized by refusing to accept influence from the other partner, refusing responsibility in the relationship, and possibly turning the blame to the other partner (Gottman & Gottman, 2015). Behaviorally, defensiveness may appear as a refusal to apologize and a refusal to accept blame (Gottman & Tabares, 2017). Within a couple dyad, defensiveness leads the couple to further gridlock on perpetual conflict issues as the defensive individual refuses to accept their role in making the relationship healthier (Gottman et al., 2019). For couples navigating infertility, stressors may increase defensiveness as both members of the couple attempt to navigate their emotional trauma;

this may especially be true for couples who do not utilize one another for a source of coping and instead remain avoidant (Casu et al., 2019).

Criticism

Criticism involves actively pointing out the flaws of the other partner in a harsh manner (Gottman & Gottman, 2015). Repeated criticism may leave the other partner feeling defensive, and so the couple may then engage in more destructive conflict (Gottman et al., 2019). Criticism is also deleterious for the emotional well-being of the other partner (Beeney et al., 2019) by engendering feelings of shame (Gottman & Gottman, 2015) and degrading the partner's sense of worth (Beeney et al., 2019). Thus, there is less trust within the relationship and increased bitterness. In the context of infertility, blaming the cause of the infertility on another partner may lead criticism to bloom within the communication patterns of the dyad (Peloquin et al., 2018).

Contempt

Similarly, contempt is the general feeling of being morally superior to the other partner and thus encouraging the contemptuous partner to engage in emotionally hurtful comments (such as criticism; Beeney et al., 2019). Contempt is especially harmful to relationships as it dehumanizes the other partner (Friedlander et al., 2019). In marriages, engaging in contempt remains the leading cause of divorce (Gottman & Gottman, 2015). Infertility may increase feelings of contempt as blaming and shaming for the individual who is the primary cause of infertility also increases (Peloquin et al., 2018).

Stonewalling

According to Gottman (1994), stonewalling involves shutting down the emotional response within the relationship repeatedly until a general state of apathy ensues. This

decreases positive sentiment (Hawkins et al., 2002), decreases empathic responding (Johnson, 2015), and engenders feelings of malaise and dissatisfaction within the relationship (Gottman, 1993). Potentially, stonewalling may make the emotional connection between the couple dyad during infertility more difficult to establish, thus making the emotional connection needed to engage in resilience in the face of infertility less likely.

Negative Sentiment Override

Sentiment override refers to the ability to maintain a positive view of one's partner despite a disagreement (Gottman & Gottman, 2015). When engaging in conflict, couples tend to experience anger towards their partners (Friedlander et al., 2019). Gottman (1993) indicated that the difference between masters and disasters of relationship is the intensity and frequency of experiencing this anger. Couples who are the "masters" tend to regulate their negative sentiment towards their partner during conflict, attempt to see things from the partner's point of view, and thus maintain positive sentiment even during disagreement (Friedlander et al., 2019).

In the context of infertility, feelings of grief and shame may make positive sentiment difficult to engage in. Thus, negative sentiment may take hold and change the appraisal of the other partner (Gottman & Gottman, 2015; Pasch & Sullivan, 2017). Negative sentiment override may then lead to further social isolation in the face of infertility as mutual disenfranchisement begins to engender withdrawing behaviors (Leo et al., 2021).

Harsh Startup

Beginning difficult conversations with one's partner with criticism, blame, or heightened emotional responding often leads to unproductive conflict cycles (Johnson, 2015). Starting conflict or difficult conversations in this manner often leaves both members of the couple unsatisfied or even hurt (Gottman & Tabares, 2017). Gottman & Gottman (2015) noted that how couples begin their difficult conversations may determine how those conversations end; that is, couples who begin difficult conversations or conflict in a gentler way ("I have something important to me that I really want to talk about with you") find that their conversations are easier to navigate than those couples who have harsher startup ("You should know by now that this is important to me"). Having a gentler conversation startup makes emotional flooding less likely, is soothing to one's partner, and makes compromise more likely (Friedlander et al., 2019). Couples who are experiencing infertility may need gentler startups for many of their difficult conversations, as this may provide the groundwork for more productive communication surrounding many difficult areas of reproduction. Having a harsher startup for couples navigating infertility likely produces fractures in the relationship and keeps both members of the couple feeling emotionally distant (Brigance et al., 2020; Johnson, 2015).

Gridlock on Perpetual Issues

Gottman (1983) noted that some issues for couples remain perpetual and unsolvable. However, the difference in couple satisfaction lies in the couple's ability to avoid gridlock and engage in higher levels of compromise (Gottman & Gottman, 2015). Gridlock leaves both members of the couple entrenched in their views, making repair attempts and compromise more difficult, as well as increasing opportunities for the four horsemen and emotional flooding (Gottman & Gottman, 2015). Indeed, infertility may be

considered a perpetual issue due to the length of time and emotional hurt involved (Jaffe, 2017). Being gridlocked on issues of parenting, finances, or medical treatment during infertility may lead the couple to a place of feeling emotionally or relationally stuck, with no way to solve their problems. Thus, decisional conflict may become more difficult for couples who are unable to compromise or offer effective repair attempts. Decisional conflict remains especially pertinent to couples struggling with infertility, yet this has yet to be fully considered within the realm of couple therapy and how this may increase couple distress during infertility (Anguzu et al., 2020).

Flooding

Flooding may also be especially difficult for couples struggling with infertility. When engaged in especially destructive conflict, the fight or flight response within each member of the relationship may become triggered and thus emotional flooding takes hold (Gottman & Gottman, 2015). When an individual or both individuals within the dyad are flooded, physiology makes it nearly impossible to engage in higher order reasoning, and thus empathic skills needed for positive relating within the SRH are blocked until the individual can become regulated (Hoover & Jackson, 2019; Gottman & Gottman, 2015; Johnson, 2015). For couples navigating infertility, stressors related to financial decisions, medical care, sex, and the future of parenthood for the couple may all contribute to emotional flooding (Jaffe & Diamond, 2011). In a couple's relationship, each member of the dyad may be experiencing vastly different emotions regarding infertility, and thus may not be readily received by their partner due to the other partner's own emotional distress, thus making destructive conflict more prevalent and increasing the individual distress of the infertility experience (Brigance et al., 2020; Luk & Loke, 2015).

Gottman Conflict Management and Infertility

However, couples who effectively manage their conflict experience higher levels of overall relational contentment (Gottman & Tabares, 2017). Processing conflict effectively gives way to better communication within the relationship (Friedlander et al., 2019). Gottman and Gottman (2015) noted two specific ways in which couples often manage conflict effectively: Effective repair attempts and compromise.

Effective Repair Attempts

Attempting to repair the relationship after or during conflict leads to better communication surrounding difficult issues (Friedlander et al., 2019). Couples who attempt to make repairs after conflict often find that issues surrounding their conflict are easier to navigate (Gottman & Gottman, 2015). For individual's navigating infertility, disagreements may be especially common (Cousineau & Domar, 2007). Couples experiencing infertility often must make difficult decisions in which both members of the dyad have very different positions (Anguzu et al., 2020; Jaffe, 2017). Effective repair attempts may provide space for couples to maintain their relational health while also navigating various difficult issues surrounding their infertility, thus effectively processing heavy decisional conflict so common in the experience of infertility (Anguzu et al., 2020; Gottman & Gottman, 2015; Jaffe & Diamond, 2011).

Compromise

Couples who compromise during conflict find their issues easier to solve (Gottman & Tabares, 2017). Compromise involves one member of the couple altering their wishes to suit the wishes of their partner, and vice versa (Gottman & Gottman, 2015). When both members of the couple compromise, conflict is less emotionally

charged (Friedlander et al., 2019). Couples navigating infertility may find compromise difficult, as their dreams of childbearing are at stake (Jaffe & Diamond, 2011). Other issues, such as financial and medical decisions, may also require compromise (Jaffe, 2017). Couples who compromise during their infertility may find their decisional conflict lessened and may also find general communication more fluid as the couple faces various crises imbedded in their infertility experience. Compromise remains an important aspect of navigating infertility, especially considering their high level of decisional conflict, yet it has not been explored within a sample of couples experiencing infertility.

I sought to add to the academic literature in examining a sample of individuals who are experiencing infertility and investigate their conflict processes within a couple relationship, and thus explain specific conflict behaviors which engender less couple satisfaction during infertility. Specifically, I examined specific pathways which lead from fertility impact to couple satisfaction through GMCT conflict constructs. My research questions, then, are as follows: How do the Gottman conflict processes relate to couple satisfaction during infertility specifically? Does Gottman conflict management effect the presence of Gottman conflict processes? Clinical implications for couple therapists, as well as directions for future research, will also be explored.

Present Study

Engaging in a descriptive correlation study design examining moderated mediation, data from this study was utilized to investigate a possible relationship between infertility relationship quality of life and overall relationship satisfaction, with the Gottman conflict processes of flooding, gridlock on perpetual issues, harsh startup, the four horsemen, and negative sentiment override acting as negatively related mediators in order to provide

further explanation on specific conflict patterns which engender more distress in couples struggling with infertility. I proposed that Gottman conflict management will act as a moderator between fertility quality of life and Gottman conflict processes. In other words, couples who can compromise more efficiently and offer more frequent repair attempts may weather the storm of more frequent destructive conflict surrounding their infertility experience.

I collected and analyzed data to further investigate how particular styles of conflicting within a couple dyad affect fertility quality of life and couple satisfaction for couples navigating infertility. Those who are in relationships which are characterized by more of the Gottman conflict processes may show their overall relationship satisfaction and infertility quality of life damaged further (Gottman & Gottman, 2015; Jaffe & Diamond, 2011). However, couples may be able to navigate their conflict during infertility through Gottman conflict management. Currently, to my knowledge, there remain no models of couple conflict for couples navigating infertility. I sought to examine how couples engage in conflict when experiencing infertility specifically, and how those communication patterns yield different couple relational outcomes. I also sought to investigate how specific patterns of conflict within couples who struggle with infertility may also increase relational distress, while other patterns of repair, connection, and compromise may moderate these relationships and thus aide the relationship through increased conflict surrounding infertility. This fills the current academic literature by applying a specific model of couple conflict through the distressing experience of infertility. The specific relationships in these models will give valuable insight on how couples may alter their conflict to increase their relational intimacy even in the face of infertility, which couple

therapists can utilize to help couples experiencing infertility manage various aspects of their conflicts.

Therefore, the present hypotheses are as follows:

- 1) Fertility relationship quality of life (the relationship subscale of the FertiQoL) will be positively related with overall couple satisfaction through bivariate correlations.
- 2) The Gottman conflict processes cluster (totaled from the four horsemen, harsh startup, gridlock on perpetual issues, negative sentiment override, and emotional flooding subscales) will act as a mediator (indicating a negative relationship) between infertility relationship quality of life and couple satisfaction.
- 3) Gottman conflict management (including compromise and effective repair attempts) will act as a moderator between infertility quality of life and the conflict processes cluster. See *Figure 4* for a visualization of these hypotheses.

Methodology

Procedure

IRB approval was obtained through the University of Missouri-St. Louis. Respondents could participate in this study if they indicated that they meet the medical definition of infertility, are currently or have been in a committed relationship, and have been experiencing infertility within the past 10 years. Participants also needed to be at least 18 years of age. Participants were provided with a link to the study survey in Qualtrics. Participants were recruited through messages posted in various infertility support groups on Facebook, LinkedIn, as well as fertility clinics in the St. Louis, Missouri area (accessible to the researchers). The Institute of Reproductive Grief Care, a

nonprofit organization in San Diego, California, also advertised this study on their Facebook and LinkedIn pages.

By continuing with the study, participants indicated consent. Participants then completed a demographic questionnaire (including questions regarding their couple, parent, and infertility status), the Couple Satisfaction Index (CSI-4), Fertility Quality of Life Questionnaire (FertiQoL), and the Sound Relationship House Questionnaires (SRH-Q, short form). After completing the study, respondents were thanked for their time in participating.

Participant Recruitment Plan

Individuals were eligible for this study if they a) are 18 years or older, b) meet the medical definition of infertility, c) indicate that they have been experiencing infertility for no longer than 10 years, and d) indicate that they are currently in or previously were in a committed relationship during their infertility experience. The researcher chose these parameters to better fit the current literature on the definition of the infertility experience (see Cousineau & Domar, 2007). Participants were asked if they are experiencing 12 months of failed pregnancy attempts if they are 34 or younger, or 6 months of failed pregnancy attempts if they are 35 or older. Participants were also be asked to indicate how long that they have been experiencing infertility in months. The researcher chose a limit of 10 years to potentially be more inclusive of those who have been more recently diagnosed with infertility and may be seeking medical treatment, as medical treatment often requires years of financial planning, medical tests, and failed medical intervention (Jaffe & Diamond, 2011). Including participants beyond the 10-year mark may skew the

data by including too many participants who have decided to discontinue medical treatment, or have otherwise fully processed their infertility experience.

As a part of this study, a priori power analysis was conducted using G*Power (Faul et al., 2007). This was done to determine the minimum sample size needed to test the hypotheses presented here in this study. Results of this analysis indicated the required sample size to achieve 80% power for detecting medium effect at a significance criterion of $\alpha = .05$ was $N = 282$. Thus, 282 participants is deemed sufficient to test the hypotheses.

Study Design

This study used a nonexperimental, descriptive observational design exploring mediating models within the study variables. Specifically, the researcher examined how fertility quality of life is related to couple satisfaction to gauge how infertility has impacted overall contentment and enjoyment in the relationship. The researcher also examined how the Gottman conflict processes will build a mediating pathway from fertility quality of life to couple satisfaction. In other words, the researcher will seek to explore how the Gottman conflict processes might explain the relationship between fertility quality of life and couple satisfaction. Mediation modeling gives insight on how or why variables may be related (Hayes, 2015). Further, Gottman conflict management will be added as a moderator between fertility quality of life and Gottman conflict processes.

Measures

Couples Satisfaction Index-4

The Couples Satisfaction Index Short Form (CSI-4; Funk & Rogge, 2007) is a 4-item scale designed to measure an individual's overall satisfaction in their committed

relationship. The CSI-4 has a variety of question styles; however, all are scored with Likert scales. Item scoring is kept continuous throughout, with higher scores yielding higher levels of couple satisfaction.

The CSI-4 was developed using item response theory and is correlated with other measures of couple satisfaction (Funk & Rogge, 2007). Omani-Samani et al. (2018) found that the CSI-4 correlated with marital contentment and satisfaction in infertile couples. Internal consistency is high on the CSI for both male partners ($\alpha = .94$) and female partners ($\alpha = .93$) in mixed gender couples.

Fertility Quality of Life

The Fertility Quality of Life (FertiQoL; Boivin et al., 2011) is a 24-item scale assessing the level of impact that infertility has had on an individual. There are a variety of Likert response patterns through the FertiQoL. For the first 4 questions, respondents may respond with “completely”, “a great deal”, “moderately”, “not much”, and “not at all”. For items 5 and 6, respondents may indicate “very dissatisfied, dissatisfied”, “neither satisfied nor dissatisfied”, “satisfied”, and “very satisfied”. On questions 7 through 14, respondents may indicate “always”, “very often”, “quite often”, “seldom”, and “never”. The final 9 questions (15-24), respondents may note “an extreme amount”, “very much”, “a moderate amount”, “a little”, and “not at all”. The FertiQoL gives a total core score, a total treatment score, along with several subscale scores, including: Emotional, mind-body, relational, social, treatment tolerability, and treatment environment. The FertiQoL has shown solid psychometric properties (Boivin et al., 2011; Donarelli et al., 2016), including high internal consistency for all subscale scores (Emotional, $\alpha = .90$; Mind-Body, $\alpha = .85$; Relational, $\alpha = .80$; Social, $\alpha = .75$; Treatment Tolerability, $\alpha = .72$;

Treatment Environment, $a = .84$; FertiQoL Core, $a = .92$; and FertiQoL Treatment, $a = .80$). However, for the purposes of this study, we utilized only the relational subscale within the moderated mediation models in order to focus on the relational impacts of infertility.

Sound Relationship House Questionnaires

The Sound Relationship House Questionnaires (SRH-Q, short form) is a 94-item scale assessing various aspects of the Sound Relationship House for individuals within a committed relationship. The SRH-Q has 16 constructs, broken down into 4 main areas. These areas and constructs are as follows: Friendship and Intimacy (love maps, fondness and admiration, turning toward or away, and emotional distance and loneliness), Conflict (harsh startup, the four horsemen, gridlock on perpetual issues, accepting influence, and compromise), Conflict Processes (flooding, negative sentiment override, and effective repair attempts), and Meaning (shared meaning rituals, shared meaning roles, shared meaning goals, and shared meaning symbols). These scales had the following internal consistency in mixed-gender couples for males and females, respectively: Love maps ($a = .61$, $a = .58$), fondness and admiration ($a = .90$, $a = .91$), turning toward ($a = .90$, $a = .89$), negative sentiment override ($a = .92$, $a = .92$), harsh startup ($a = .93$, $a = .89$), repair attempts ($a = .86$, $a = .88$), compromise ($a = .53$, $a = .50$), gridlock ($a = .91$, $a = .89$), four horsemen ($a = .94$, $a = .91$), flooding ($a = .89$, $a = .86$), emotional distance and loneliness ($a = .89$, $a = .88$), and shared meaning total ($a = .92$, $a = .89$). The SRH-Q has excellent discriminate and constructive validity as well (Gottman & Gottman, 2015). Within this sample, not accounting for gender, internal consistency was acceptable for total Gottman friendship and intimacy ($a = .76$), Gottman conflict processes ($a = .89$), as well as

Gottman sex, passion, and romance ($a = .85$), and Gottman total shared meaning ($a = .82$). Cronbach's alpha was the lowest for Gottman conflict management ($a = .68$).

For the purposes of this study, I will choose the Gottman conflict cluster scores, as well as the flooding subscale, to make up the Gottman conflict processes variable. In all, the mediator variable of Gottman conflict processes includes the following summed subscales: harsh startup, flooding, negative sentiment override, four horsemen, and gridlock on perpetual issues. I will also administer all questions from the compromise and effective repair attempts scale to measure Gottman conflict management skills. These subscales form a total of 40 questions. Items are offered in a true/false format, with 1 = False and 2 = True. Higher scores indicate higher levels of the measured construct perceived by the respondent in their relationship.

Participants

Social media platforms, such as Facebook, Twitter, Instagram, and LinkedIn, were utilized to recruit participants. On Facebook, the call for participation was shared 92 times. On LinkedIn, the call for participation was shared 23 times. After the data cleaning protocol was finalized, 902 participants were recorded. This surpasses the 282 required participants to obtain statistical power for all hypotheses. Of those 902 participants, 669 (74.1%) identified as female, 219 (24.2%) as male, 7 (.7%) as nonbinary, 4 (.4%) as transgender, and 3(.3%) as two-spirited. Participants came from a normal distribution of race and ethnicity, with 561 (62.1%) identifying as White, 168 (18.6%) as Black/African American, 92 (10.1%) as Asian/Asian-American, 74 (8.2%) as Hispanic/Latinx, 41 (4.5%) as Indigenous American, and 4 (.4%) as Native Hawaiian/Pacific Islander. Many were heterosexual ($n = 545$; 60.4%) or mostly heterosexual ($n = 296$; 32.8%). Others

were lesbian/gay ($n = 56$; 6.2%), bisexual ($n = 55$; 6%), and pansexual ($n = 40$; 4.4%). Regarding education, 334 (37%) participants completed an undergraduate degree, while 209 (23.1%) had some college education but no degree. Others ($n = 70$; 7.7%) indicated high school as their highest level of education, and 12 did not complete high school. Still others had some graduate hours but no degree ($n = 137$; 15.1%), 103 (11.4%) had a master's degree, and 24 (2.6%) had a doctorate degree. Regarding place of living, 504 (55.8%) participants lived in an urban/city environment, 324 (35.9%) from a suburban environment, and 52 (5.7%) in a rural environment. Most participants identified as being middle class ($n = 378$; 41.9%), while 258 (28.6%) identified as being working class. Others ($n = 199$; 22%) identified as being upper middle class, 24 (2.6%) as upper class, and 35 (3.8%) as being in the low income/poverty level. The vast majority of participants indicated that they were married or otherwise in a committed relationship ($n = 865$; 95.8%), while 35 (4.2%) indicated that they were divorced or separated. See *Table 2* for a complete list of demographics for participants.

Participants noted that they had varying experiences with ARTs and reproductive loss. Of the 902 participants in this study, 406 (45%) indicated that they had experienced intrauterine insemination (IUI), 394 (43.6%) experiencing invitro fertilization (IVF), 163 (18%) experiencing embryo adoption, and 82 (9%) experiencing surrogacies. Participants also indicated a range of reproductive losses, including miscarriage ($n = 417$; 46.2%), stillbirth ($N = 297$; 32.9%), and secondary infertility ($n = 171$; 18.9%). Regarding parent and child status, 373 (41.3%) participants did not have a child at the time of data collection, 276 (30.5%) had a biological child, 120 (13.3%) had an adopted child, and 134 (14.8%) participants had both biological and adopted children. See *Table 3* for a

complete list for participant experiences of parenthood and assistive reproductive technologies.

Data Analysis

Data Preparation

At the time of termination of data collection, 1784 responses were recorded in Qualtrics. However, significant evidence of bot activity (including low reCAPTCHA scores imbedded within Qualtrics' bot detection program) were present. The bot data cleaning protocol, as suggested by Griffin et al. (2021), was then initiated. Of the 1784 responses, 242 responses were removed due to respondents beginning the first few questions, but not completing the study. Any responses with a reCAPTCHA score of less than .5 were removed, as this was significant evidence that the respondent was a bot. Outliers for completion time were also examined in a distribution. All extreme completion times were removed, including those being more than 45 minutes and those being less than 5 minutes. Some response fallacies, such as indicating the experience of secondary infertility but not indicating that the respondent had children, were also removed as potential bots. Other embedded fallacies, such as responding differently to the social class question twice, gave credence to the respondent being a bot as well. Overall, 604 responses were removed as potential bots. Missing values were also analyzed, with a completion rate of less than 60% indicating potential bot activity (Griffin et al., 2021). All other missing values were replaced with mean values per the SPSS missing values function. The final data pool included 902 participants.

Data Modeling and Assumptions

After the data set was finalized, descriptive statistics were analyzed for couple satisfaction, relational quality of life during infertility, Gottman conflict processes, and Gottman conflict management. Demographic characteristics of the sample were also examined. Bivariate correlations between demographic factors and couple satisfaction were examined to identify potential covariates. Gender, race, sexual orientation, social class, parent status, as well as the experiences of miscarriage and stillbirth, were all found to be covariates within the data sample. Bivariate correlations were further investigated to fulfill the assumption that couple satisfaction and relational quality of life during infertility were indeed related. These correlations yielded a significant relationship at the .01 level. To check for assumptions for regression and mediation analysis, outliers were examined. Linearity was examined using scatterplot matrices. Q-Q plots of residuals were utilized to examine normality. Finally, Levene's test for equality of variances was investigated, with a Levene's statistic above .05 indicating equality of variances. All assumptions of normality for regression and mediation analysis were met by the data set.

To test the second hypothesis, the PROCESS macro for SPSS v. 28 was utilized. Specifically, model 4 within the PROCESS macro was chosen. For the mediation model, relational quality of life during infertility was utilized as the predictor variable, and couple satisfaction was utilized as the outcome variable. By examining the 5,000 bootstrap samples produced by the PROCESS macro, a significant effect was noted for each confidence interval not containing zero. Further, these bootstrap samples were examined to calculate the indirect effects of Gottman conflict processes on couple satisfaction. To test the third hypothesis, moderated mediation was utilized. To do this, model 8 within the PROCESS macro was chosen. As with the mediation model,

relational quality of life during infertility acted as the predictor variable, and couple satisfaction acted as the outcome variable. Gottman conflict processes acted as the mediator, while Gottman conflict management acted as the moderator between relational quality of life during infertility and Gottman conflict processes. The interaction term of Gottman conflict management on relational quality of life during infertility and Gottman conflict processes was examined, as well as the overall interaction term of the moderated mediation model.

Variables that showed significant associations with the relationship subscale of the FertiQoL were entered as covariates to rule out the possibility of these factors accounting for the hypothesized effect (Lafarge et al., 2019). The following variables were indicated as covariates: Gender, whether or not the individual had a child, race, socioeconomic status, as well as the experiences of miscarriage, IUI, and stillbirth.

The conceptual model and statistical template of Model 4 (Hayes, 2013) fits best with the second hypothesis and was therefore selected for the mediation analysis, whereas Model 8 (Hayes, 2017) was chosen for the moderated mediation analysis. According to Hayes (2013, 2015), if the index of mediation is significant, it indicates that the conditional indirect effects at different levels (e.g., at one SD above, below, and at the mean) of the mediator variable are significantly different from one another. This provides support that the mediation effects are significant. Furthermore, for simple indirect effects, PROCESS also generated the bias-corrected CI at one SD above, below, and at the mean. Total of 1,000 bootstrap samples and a 95% CI for these estimations will be used. If the 95% CI for the average estimates of these 1,000 indirect effects does not include zero, it indicates that the indirect effect is statistically significant at the .05 level (Shrout &

Bolger, 2002). Further, if the interaction term for moderation effects is significant at the .05 level, support may then be provided that the moderator has a significant effect on the interaction between the independent variable and the mediator.

Results

Within this study, participants noted that their relationship had been impacted by infertility a moderate amount ($M = 18.98$, $SD = 2.72$). However, most participants indicated that they were generally satisfied with their relationship per results from the CSI-4 ($M = 17.98$, $SD = 4.10$). Most participants noted that their relationship had been strengthened through the process of infertility a mild to moderate amount ($M = 3.12$, $SD = 1.12$). However, participants also indicated a moderate amount of conflict ($M = 27.71$, $SD = 5.20$), and yet also higher levels of conflict management ($M = 17.00$, $SD = 2.28$). See *Table 4* for a list of means and standard deviations of all main study variables.

Hypothesis 1: Bivariate Correlations

Before calculating bivariate correlations, several covariates were added to control for various participant factors. Gender, child status, as well as the experiences of miscarriage and stillbirth, were all added as covariates. Significant correlations were noted between couple satisfaction and relational quality of life during infertility ($r = .354$, $p < .001$), thus supporting the first hypothesis. Significant correlations were also noted between couple satisfaction and the other main study variables, including conflict ($r = -.393$, $p < .001$) and conflict management ($r = .312$, $p < .001$). Relational quality of life during infertility was also noted as having a similarly negative relationship with conflict ($r = -.361$, $p < .001$), and a positive relationship with conflict management ($r = .382$, $p <$

.001). See *Table 4* for a complete list of all bivariate correlations between main study variables.

Mediation Analyses

Hypothesis 2: Gottman Conflict Processes as a Mediator

In the mediation model, conflict was utilized as the mediator between couple satisfaction and relational quality of life during infertility, with couple satisfaction acting as the outcome variable. Gender and whether the individual had a child were added as covariates in the model. Other covariates included the experiences of miscarriage and stillbirth. Finally, race, sexual orientation, and social class were controlled for as well. The overall mediation regression model, with Gottman conflict as the mediator, accounted for 23.06% of the variation in couple satisfaction ($r = .230$, $F(8, 890) = 33.35$, $p < .001$). The indirect unstandardized coefficient, $\beta = .152$, 95% CI [.111 - .198], had a confidence interval which did not contain zero. Conflict measures mediated the relationship between relational quality of life during infertility and couple satisfaction. Thus, the second hypothesis of this study was supported. See *Figure 9* for a visualization of all coefficient effects within this mediation model.

Moderated Mediation Analysis

Hypothesis 3: Gottman Conflict Processes and Gottman Conflict Management

In the moderated mediation model, conflict was added again as the mediating variable, but conflict management was selected as the moderation variable. Thus, conflict management would potentially moderate the relationship between relational quality of life during infertility and conflict. Again, couple satisfaction was utilized as the outcome variable within the moderated mediation model. As with the first model, all covariates

were added in the model analysis. The interaction term between relational quality of life and Gottman conflict processes, with Gottman management as the moderator, was significant ($p < .001$), with a coefficient of $-.0803$. The index of the moderated mediation, $\beta = .016$, 95% CI [.003 - .031], had a confidence interval which did not contain zero, allowing the claim that moderated mediation had indeed taken place within the moderated mediation model. Thus, the third hypothesis was also supported. See *Figure 10* and *Figure 11* for a visualization of moderation between relational quality of life during infertility and Gottman conflict processes, with Gottman conflict management as the moderator.

Discussion

Results from these data analyses, including bivariate correlations, mediation modeling, and moderated mediation modeling, resulted in the acceptance of all hypotheses; that is, these data indicate that relational quality of life during infertility is indeed related to couple satisfaction within our sample, and that Gottman conflict processes partially mediate that relationship. Further, these data also indicate that Gottman conflict management moderates the relationship between relational quality of life during infertility and Gottman conflict scores. This study further solidifies Gottman Method Couple Therapy as a scientifically based practice for couples struggling with infertility, which aligns with current ACA code of ethics (C.7.a., Scientific Basis for Treatment; American Counseling Association, 2014).

Infertility remains one of the most difficult contexts that couples experience (Pasch & Sullivan, 2017). In their quantitative study, Casu et al. (2019) indicated that the stress of infertility may have a negative effect on the ability of the couple to communicate

effectively and may increase conflict. However, the nature of specific kinds of conflict experienced by couples navigating infertility has yet to be fully explored. According to this study, couples who engage in these Gottman conflict behaviors may have their overall relational quality of life during infertility and their overall couple satisfaction reduced through their experience of infertility. This aligns with other Gottman-focused research showing that couples who engage in more flooding, more gridlock on perpetual issues, more four horsemen, more negative sentiment override, and greater amounts of harsh startup during difficult conversations experience higher levels of couple distress and lower relational and marital adjustment (Friedlander et al., 2019; Gottman & Gottman, 2015). However, couples who do engage with one another with higher levels of Gottman conflict processes may have the impacts of these conflicts lessened due to Gottman conflict management skills (specifically, compromise and effective repair attempts; Gottman & Tabares, 2017).

These results also may partially explain how couples may arrive at their relational outcome during the infertility experience. Pasch and Sullivan (2017) noted that many couples reported that their relationship is stronger after the infertility experience, while other couples reported that their relationship is damaged beyond repair. Cousineau and Domar (2007; see also Ridenour, 2009) further indicated that many couples experiencing infertility have such a negative effect on their relationship that the relationship dissolves. Data from this study indicates that Gottman conflict processes may partially explain the variation in these couple outcomes during infertility. Couples who engage in more flooding, more four horsemen, more gridlock, more negative sentiment override, and higher levels of harsh startup may find that navigating the experience of infertility is

much more relationally difficult than couples who engage in fewer amounts of these behaviors.

Couples going through infertility may find that they have more frequent conflict (Brigance & Brigance, 2022; Casu et al., 2019; Pasch & Sullivan, 2017), and that this conflict may be more emotionally charged due to the existential nature of losing the dream of becoming a parent (Brigance et al., 2021; Graurholz et al., 2021; Jaffe, 2014). Thus, couples may find themselves engaging in more flooded conflict, more of the four horsemen, and more overall negative sentiment towards their partner due to their infertility experience (Friedlander et al., 2019; Gottman & Gottman, 2015). This conflict may also become harsher as couples further navigate emotionally difficult situations within infertility. It's further plausible that gridlock may also ensue due to the various difficult decisions associated with infertility (Casu et al., 2019). According to these data, this could have harmful implications for the couple relationship during the infertility experience since couples within this sample experienced more relational impact of infertility and less couple satisfaction as Gottman conflict processes increased. However, finding compromise and repairing the relationship after conflict could partially mitigate the effects of these behaviors, as noted within the moderation analysis here in this study (Gottman & Tabares, 2017).

These results align with other studies focused on Gottman conflict processes and difficult couple contexts (Gottman & Tabares, 2017). In the context of infertility, couples often find themselves facing disenfranchised grief (Doka, 2002), significant alterations in sex and intimacy (Soleimani et al., 2014), and possibly the death of a dream of having a child (Graurholz et al., 2021). Other difficult contexts include high medical bills for

fertility intervention and physically intrusive medical procedures such as IVF (Brigance & Brigance, 2022; Casu et al., 2019; Cousineau & Domar, 2007). These difficult contexts often engender increased emotional conflict within the couple navigating infertility, leading to decreased overall relationship health and a decreased ability to utilize the relationship as a method of coping through infertility (Casu et al., 2019; Jaffe & Diamond, 2011). However, researchers have yet to highlight specific kinds of conflict or conflict processes for this special population within the academic literature. Data from this study suggests that couples who engage in higher levels of Gottman conflict processes may find infertility more difficult to bear within their relationship as they navigate the deleterious contexts of the overall infertility experience (Friedlander et al., 2019; Hoover & Jackson, 2021; see also Gottman & Gottman, 2015).

However, based on the results of this study, couples who engage in higher levels of Gottman conflict management (compromise and effective repair attempts) may find that Gottman conflict processes have less of an impact on their relationship during infertility. Even couples who find that they have higher levels of harsh startup, flooding, four horsemen, perpetual gridlock, and negative sentiment towards their partner during infertility may find that the impact of such behaviors is lessened due to compromise and repairing the relationship after a conflict. This aligns with previous research showing that Gottman conflict management skills may reduce some of the effects of nonproductive conflict within relationships due to difficult contexts (Gottman, 2011; Gottman & Tabares, 2017). Therefore, Gottman conflict management interventions may be a promising approach for couples struggling with infertility.

Couple therapists should be mindful of couple conflict and couple conflict management during infertility. Couple therapists should assess for levels of Gottman conflict processes rooted in their general relational patterns, as well as within the experience of infertility. However, the therapist could also provide interventions for compromise and effective repair attempts within the relationship (Gottman & Gottman, 2015; Holman & Jarvis, 2003). This could potentially be quite powerful for the relationship during the experience of infertility (Casu et al., 2019; Hoover & Jackson, 2021). This also aligns with previous research indicating that meaning-based coping within the relationship, as opposed to avoidant-coping, brings a couple in closer relationship to one another during infertility (Pasch & Sullivan, 2017; Ridenour et al., 2009).

Clinical Implications

Therapists working with couples struggling with infertility should be mindful of specific Gottman interventions (e.g., the Gottman compromise intervention, Dreams within Conflict, and the Aftermath of a Fight intervention) which may guide couples towards recognition of destructive conflict processes, as well as ways to manage conflict. Data from this study suggests that couples who have more Gottman conflict processes have less couple satisfaction and more deleterious impact on their relationship during infertility. Couples who manage their conflict better decrease this deleterious impact.

Therefore, the couple therapist should focus on ways to recognize specific Gottman conflict processes within the relationship during infertility, such as harsh startup to difficult conversations, recognizing the four horsemen, and recognizing negative sentiment towards one's partner (Gottman, 2011). The couple therapist may also want to

consider the Aftermath of a Fight or Regrettable Incident intervention (Gottman & Gottman, 2015). In this intervention, the couple therapist guides the couple through specific steps in repairing the relationship after a fight in which the couple became emotionally flooded. These instances may be especially prevalent with couples struggling with infertility, as heightened emotions, financial strain, and deeply emotional decisions increase in intensity (Jaffe, 2017). As the couple therapist guides the couple through specific speaker and listener exercises within this intervention, the therapist can also give the couple specific ways to support one another and also repair the relationship after a heated conversation (Gottman, 2011). Further, the Dreams within Conflict exercise allows the therapist to guide the couple in recognizing specific personal dreams imbedded within the emotional reactions of conflict (Gottman & Gottman, 2015). For couples struggling with infertility, the dream of becoming a parent may be especially prevalent (Jaffe, 2014; 2017; see also Jaffe & Diamond, 2011). Unpacking dreams can help with recognizing the ‘why’ behind an emotional reaction allowing the couple to increase their empathic responding during conflict, thus mitigating the effects of flooding and harsh startup especially (Gottman & Gottman, 2015).

In managing conflict, the couple therapist should engage the couple in the Gottman compromise intervention (Gottman, 2011). This intervention involves the parsing out of specific stances for each member of the couple during a conflict and allows the couple to identify deeply held personal core values which should not be compromised, and also some variables which may be compromised. In the context of infertility, each member of the couple may feel as if their core values are existentially or physically threatened, as both members may have to alter the way that they see their

future (both as individuals and as a couple; Jaffe, 2017). Providing space for the couple to honor one another's core values could give each member of the couple a sense of safety in the relationship in which their values are seen as important (Gottman & Gottman, 2015). Not only does this allow the couple to potentially respect one another's deeply held core values during infertility, this intervention also allows the therapist to guide the couple on how to compromise on those values which may be open to change. This addresses compromise within the relationship but may also help the couple in perpetual gridlock (Gottman & Gottman, 2015). Couples struggling with infertility, especially, may find themselves in increased states of perpetual gridlock as they navigate multiple emotional, financial, and medical decisions (Pasch & Sullivan, 2017; Jaffe & Diamond, 2011; Ridenour et al., 2009).

Limitations and Directions for Future Research

Some limitations should be noted from the present study. As with the first study, the sample underrepresented individuals of nonbinary gender status, with most participants identifying as either male or female gender. Further, the sample seemed to skew towards White women of middle-class status or higher, potentially underrepresenting individuals who are nonwhite, not a woman, and potentially working class or at the poverty level. Although this sample included many nonwhite participants, specific research on the experiences of nonwhite individuals experiencing infertility should be considered. Intersectionality may play a role within the experience of infertility for nonwhite individuals and couples, and thus provide an outside variable to consider for couples navigating conflict during infertility (Jaffe & Diamond, 2011) Further, almost all of the individuals within this sample indicated that they were in a married relationship.

Therefore, the results of this study may not be entirely representative of non-married couples navigating infertility.

The presence of bots remains as another limitation. Although a rigorous bot cleaning protocol was initiated (Griffin et al., 2021), there remains no guarantee that more technologically advanced bots did not penetrate the data sample. The fact that bots could still be present in the sample and somewhat disrupt the data interpretation should be considered.

Given that the mediation model predicted only a partial mediation pathway between the impact of fertility on the relationship and couple satisfaction, there remains a significant portion (76.94%) of the pathway between the impact of infertility on the relationship and couple satisfaction which is unexplained in this study. Further research should be done to investigate other factors which could be contributing to difficulties in couple satisfaction during infertility and thus further explain the pathways in this relationship.

Although the relationship subscale of the FertiQoL showed solid reliability within this sample, utilizing the FertiQoL for research in large sample was not the original design for this measure. The FertiQoL was originally designed to measure the impact of infertility on individuals (Boivin et al., 2011), and thus inform treatment from mental health and medical practitioners.

This study was a nonexperimental design. More research should be conducted for Gottman conflict processes in a clinical or experimental context, potentially showing the practical impacts of engaging couples with Gottman conflict management interventions during their infertility journey. Doing this research could provide more practical data to

couple therapists who work with this special population. Outcome studies should also be considered.

Gottman Method Couples Therapy with Couples Experiencing Infertility

Couples who experience infertility are becoming increasingly common in the United States (Livingston, 2018). Many couples in the millennial generation or younger find themselves waiting longer to begin trying to conceive as they seek further education or career advancements (Cousineau & Domar, 2007; Jaffe & Diamond, 2011; Livingston, 2018). This makes successful pregnancies more difficult to attain due to biological factors of aging (Cousineau & Domar, 2007). Infertility can at times engender anxiety, depression, shame, grief, and guilt for individuals (Gouranti et al., 2018; Volgsten et al., 2008). Even though 48% of individuals within the United States reported having experienced infertility themselves or know someone who has experienced infertility, social isolation and disenfranchisement often accompanies infertility (Jaffe, 2014; 2017; Livingston, 2018). Known as disenfranchised grief, this experience leaves the grief associated with infertility much more difficult to process (Doka, 2002; Jaffe & Diamond, 2011). Couples find the experience damaging to their relationship emotionally, sexually, and financially (Cousineau & Domar, 2007). Many couples find that the experience of infertility damages their relationship beyond repair (Cousineau & Domar, 2007; Casu et al., 2019; Jaffe & Diamond, 2011). Even with these increasingly prevalent experiences in current society, little to no specialized treatment modalities exist for couple therapists who intervene for these couples (Brigance et al., 2020).

In this article, we propose that Gottman Method Couple Therapy (GMCT) fills that gap for couple therapist working with couples struggling with infertility. GMCT is a research-based mode of couple therapy which has become more pervasive in its usage over the past two decades (Gottman & Gottman, 2015). GMCT provides specific

interventions to address how to honor life dreams, manage emotions during communication, maintain a positive view of one's partner, and create deeper shared meaning as a couple even during trauma, all of which remain salient for couples struggling with infertility (Casu et al., 2019; Friedlander et al., 2019). GMCT also provides specific pathways for managing destructive as well as decisional conflict, including identifying dreams within conflict; these factors also remain crucial for couples in their infertility experience (Gottman & Gottman, 2015; Jaffe & Diamond, 2011). In this article, we will outline a specific modality within GMCT for couples struggling with infertility, including infertility-specific intervention strategies for GMCT therapists. Also, will address special caveats for clinically caring for couples struggling with infertility and how the GMCT therapist may adapt their practice to provide more effective treatment for this special population.

Infertility Disrupts Shared Dreams, Communication, and Sex

Medical professionals define infertility as experiencing 12 months of failed pregnancy attempts for women 34 or younger, or 6 months of failed pregnancy attempts for women 35 or older (Cousineau & Domar, 2007). However, individuals experience a myriad of psychological and relational impacts in the midst of infertility (Gozyuesil et al., 2018; Jaffe & Diamond, 2011). Therefore, the psychological effects remain more nuanced (Jaffe, 2014). Relationally, the unique stress of infertility for couples affects the life dream of having a biological child (Jaffe, 2014; 2017; Jaffe & Diamond, 2011). Expectations for how life should proceed after a diagnosis of infertility remains especially difficult for couples, as both members of the dyad may have to form a new consensus of what the future may hold or even the existential meaning of the relationship

itself (Jaffe & Diamond, 2011). However, disenfranchised grief can leave this deeply emotional experience difficult to process within social circles outside of the relationship (Jaffe, 2017). Individuals struggling with infertility may feel isolated from others in their grief, as their grief becomes socially invalidated. Infertility may also affect communication patterns within the couple as this life dream becomes altered (Casu et al., 2019; Soleimani et al., 2014). Couples may view their partner differently if blame or criticism are present (Peloquin et al., 2018).

Couples who have divergent views on medical treatment of infertility, parenthood, and alternative options (such as adoption or childlessness) often find their experience of infertility especially difficult (Casu et al., 2019; Cousineau & Domar, 2007). Indeed, Cousineau and Domar (2007) noted that couples who are experiencing infertility may have increased destructive conflict and decreased overall relationship satisfaction which may extend beyond fertility treatment. Couples often experience sexual dysfunction as sex becomes a mechanical experience to produce a child, thus robbing the couple of the romance typically associated with intimacy (Cousineau & Domar, 2007; Soleimani et al., 2014).

Though increasing in commonality, individuals nonetheless often find their infertility experience shocking (Greil et al., 2016; Jaffe, 2017). Such a shocking disruption of life dreams often engenders grief, shame, anxiety, and depression for both men and women in mixed gender couples (Jaffe & Diamond, 2011; Joja et al., 2015; Volgsten et al., 2008). Indeed, individuals often find the emotional experience of infertility difficult to process within their relationship (Brigance et al., 2020). Due to the deep emotional experiences of infertility, couples may find that their communication

patterns are profoundly disrupted (Casu et al., 2019). Usual patterns of everyday relating, including shared enjoyment in even mundane tasks, may become disrupted (Pasch & Sullivan, 2017).

This stress may enact contrasting emotional reactions from both individuals within the dyad (Goff et al., 2006). Non-empathic responding may lead to destructive patterns of communication which affect the ability of the couple to bond in the face of their reproductive trauma (Brigance et al., 2020; Johnson, 2015). This increased cycle of destructive communication may lead to increased use of the four horsemen, weaker conflict management, and disruptions in shared life meaning (Friedlander et al., 2019). Thus, infertility may also deteriorate the relationship quality of the couple over time (Luk & Loke, 2015).

Indeed, the grief of losing a shared dream of biological childbearing often damages couple empathic responding (Jaffe, 2017). Gottman and Gottman (2015) indicated that having a shared dream for couples enhances couple connection and builds an emotional bond together. However, this death may lead to decreased dyadic coping and even relational dissolution (Jaffe & Diamond, 2011).

Justification for Gottman Method Couple Therapy with Couples Struggling with Infertility

Despite these powerful and challenging forces surrounding infertility, many couples report that their relationship actually becomes stronger through their trauma (Cousineau & Domar, 2007). Indeed, in one study sample, 25-35% of couples reported that their relationship grew stronger after navigating infertility (Pasch & Sullivan, 2017). One of the key factors contributing to this growth may lie in how the couple interacts

prior to experiencing infertility. In other words, couples who have a stronger way of relating, empathizing, and communicating within the dyad may have a greater resilience to trauma (Goff et al., 2006; Gottman & Gottman, 2015) and may navigate the process of infertility in a more fluid way (Casu et al., 2019; Pasch & Sullivan, 2017; Soleimani et al., 2014). We propose that these communication patterns lie within GMCT.

With GMCT, there exists a sub-theoretical construct known as the Sound Relationship House (SRH; see Figure 1). The SRH is a set of healthy relationship principles and modes of communication which, metaphorically speaking, establishes the healthy “house” of the couple. The SRH remains a crucial part of healthy relating in the midst of infertility because it provides a way of managing emotional responses to grief, maintaining shared dreams and shared meaning in the midst of difficult contexts, and focuses on managing disruptive conflict. The principles outlined within the SRH align with present research on couple communication and conflict management regarding infertility by giving specific ways in which couples may interact to increase emotional bonds, empathic relating, and shared meaning amidst this unique form of grief (e.g., Casu et al., 2019). Yet, researchers have not yet amalgamated these processes into one theoretical construction (such as the SRH).

Infertility remains a unique and often emotionally challenging experience for couples, yet no unique therapeutic approaches exist which address the distinctive impacts of this experience. For example, infertility often damages the sexual relating of the couple (Cousineau & Domar, 2007; Soleimani et al., 2014) as well as increasing blaming and shaming within the relationship (Peloquin et al., 2018), damaging shared dreams (Jaffe & Diamond, 2011), and disrupting everyday patterns of relating (Casu et al., 2019;

Soleimani et al., 2014). GMCT can address these disruptive and unhealthy communication patterns in couples facing infertility, as well as help them reimagine personal dreams, values, and shared meaning in ways that promote communication and relational growth (Gottman & Gottman, 2015). GMCT can address issues for couples experiencing infertility with its focus on increased empathic responding, ways to manage increased destructive conflict, ruptures in life dreams, increased shared meaning in the face of grief, and turning towards one another for emotional support (Gottman & Levenson, 1986; Gottman & Gottman, 2015).

In synthesizing this research on how couples navigate the reproductive trauma of infertility, especially regarding relationship health outcomes, couple therapists may be wise in considering GMCT as a best practice approach in treating couples navigating infertility. The Gottman therapist may, in fact, be able to partner with the couple going through infertility in a way which builds resilience, decreases maladaptive relating, and rebuilds communication systems associated with healthy relationships through specific interventions which have been found to increase couple resilience amidst other forms of stressors (Gottman, 1998; Friedlander et al., 2019).

Gottman Method Couple Therapy with Couples Struggling with Infertility

Within this section, I will address how couple therapists utilizing GMCT may apply specific Gottman interventions to aid couples navigating infertility. With its focus on communication patterns, shared life dreams, mutual meaning making, regulating emotions, and maintaining positive sentiment, GMCT remains particularly suited for couples struggling with infertility. Infertility is an experience which assaults the couple's existing dreams for the future and could potentially upend usual patterns of relating by

increasing the amount of flooding in conflict and disrupting positive sentiment (Brigance et al., 2020; Jaffe & Diamond, 2011; Pasch & Sullivan, 2017). The structure of GMCT could allow couples to achieve the communication patterns necessary to build resilience to the trauma of infertility by allowing more effective couple coping (Ridenour et al., 2009). This fills the current gap in the literature by giving concrete behaviors to couples during their infertility experience to promote more positive outcomes. Thus, treating couples within this modality could allow more couples to achieve the posttraumatic growth which many couples report through their experience of infertility by enacting increased shared meaning of their experience, increased empathic responding, processing their disenfranchised grief within the dyad, increasing positive regard for their partner, and managing conflict surrounding sex, finances, and medical treatment associated with infertility (Luk & Loke, 2015; Pasch & Sullivan, 2017).

Many couples navigating infertility experience uniquely painful contexts, upending their individual lives as well as their committed relationship (Cousineau & Domar, 2007). The Gottman therapist should engage specific aspects of the SRH affected by the couple's reproductive trauma, as well as maintain an awareness of how the four horsemen within the context of infertility could contribute to an increase of emotional flooding and negative sentiment within daily couple communications, thus damaging couple attachment (Johnson, 2015).

Metaphorically speaking, the Gottman therapist should convey to the couple experiencing infertility that there is a "fire" within their SRH, and typically this fire begins on the 6th (making life dreams come true) and 7th floors (having shared meaning). In other words, the aspects of their relationship which carried an almost existential weight

(the expectations of parenthood) have been significantly disrupted. This fire could then spread to other aspects of the SRH, including managing conflict, having a positive perspective of one's partner, turning towards, sharing a fondness and admiration, and building love maps. The fallout from this fire often includes an increase of the four horsemen, disruptions in shared meaning, increased disenfranchisement within the dyad, and emotional flooding. Depending on the current relational health status of the couple, the Gottman therapist may begin working with the couple to put out the "hottest fires" (that is, the most salient destructive patterns of relating due to the experience of infertility), and then begin identifying how infertility has damaged the couple's SRH. For example, if a couple is facing a disruption in their life dreams of parenthood, the Gottman therapist might engage in the dreams within conflict intervention.

The Gottman therapist should work with the couple on rebuilding their SRH in the face of infertility, and thus establishing a pattern of relating which builds resilience and even posttraumatic growth for the couple (Friedlander et al., 2019; Pasch & Sullivan, 2017). A specific structure for utilizing this specialized version of GMCT will be examined in the following sections. Within the first sessions, the GMCT therapist will provide an SRH assessment and interview with the couple and examine how infertility has specifically impacted their relationship in the context of the SRH. The GMCT therapist will then engage in various interventions based on those assessments to increase shared meaning, empathic responding, and better conflict management in the face of infertility – all of which remain critically important for this special population (Casu et al., 2019; Jaffe & Diamond, 2011; Pasch & Sullivan, 2017).

The First Sessions: Establishing Knowledge through Assessment and Psychoeducation

As with all couples in the Gottman therapy modality, the first few sessions for couples experiencing infertility should focus on assessment, including all sound relationship house assessments, four horsemen, trust and commitment, quality of sex, romance, and passion, as well as all conflict related measures. This, of course, allows the couple therapist to examine the existing patterns of interaction for the couple, as infertility often impacts couple relating in all the aforementioned areas (Freidlander et al., 2019; Jaffe & Diamond, 2011). For example, infertility often damages the sexual relating of the couple (Cousineau & Domar, 2007) as well as increasing blaming and shaming within the relationship (Peloquin et al., 2018), damaging shared dreams (Jaffe & Diamond, 2011), and disrupting everyday patterns of relating (Soleimani et al., 2014). Thus, the Gottman measures described below may allow for the therapist to identify specific points of relational dysfunction damaged by infertility within the couple relationship.

One form of assessment common in the Gottman modality is a collection of a sample of couple communication while wearing a pulse oximeter (Gottman & Gottman, 2015). The pulse oximeter is set to give an alarm once the heart rate has reached a certain level and thus has become “flooded”. Within GMCT, flooding refers to the increased emotional arousal to the point of overriding effective empathy, decision making, and other-centered communication. Assessing the couple with the pulse oximeter allows the couple therapist and the couple to see, in real time, when a couple becomes flooded during a conflict conversation (Friedlander et al., 2019). In the context of infertility, the

therapist may specifically ask the couple to discuss a disagreement related to their infertility experience. Below is a fictional example of how the therapist may introduce this assessment for the current couple, Mike and Katie. Mike and Katie have been experiencing infertility for three years, and have attempted several ART's, including IUI and IVF. Mike and Katie are both successful professionals, with Mike working in information technology and Katie working in sales for a successful corporation. Mike and Katie are both Black, heterosexual, and cisgender. Mike and Katie have experienced increased conflict around their infertility, which has spilled over into almost all aspects of their daily lives including their work and their friendships. Due to their infertility, Mike and Katie report increased conflict, less satisfaction in their relationship, and have even considered terminating their marriage.

Therapist: Mike and Katie, we are now going to do an activity which allows me to see what your bodies are doing when you have conflict. Both of you will wear a pulse oximeter so that we can know when your heart rate reaches a certain point. This is the emotional flooding that we talked about earlier. When we go through infertility, we often find ourselves in intense emotional states. Just like we talked about before, infertility affects our life dreams, our shared meaning for what it means to be parents, as well as how to move forward with medical intervention. Remember, flooding is when we become overcome with emotion and we are not able to really empathize with our partner anymore. Please know that this is not a “gotchya” activity. You both may experience flooding in this moment. What do you all think?”

Katie: “I mean, sure sounds okay.”

Mike: “Yeah okay.” Therapist: “Great. I know that we have talked some already about why you want to pursue therapy while you are going through infertility treatments. I am wondering if you can have a conversation around any form of conflict that you have about your infertility. Would that be okay?”

Katie: “[laughs] Oh that’s easy!”

Mike: “Yeah I think we know where to go with this.”

Therapist: “[laughs] okay, Katie, how about you start us out?”

Katie: “Um, okay, sure. I think I want to talk about moving forward with another IVF treatment.”

Mike: “Oh here we go again”.

Katie: “See! I can’t even begin to talk about why this is important. You already have me shut down!”

Mike: “That’s because we talk about this all the time, and it always ends the same way for you Katie – we just don’t have the money!”

[The therapist notes criticism from Mike based on finances].

Katie: “Mike, do you want to be a dad or not?”

[Here, the therapist notes increased criticism from Katie related to Mike’s journey of fatherhood during the flooding experience, and that Mike appears particularly frustrated].

Mike: [pulse oximeter begins to beep] “Oh, it’s beeping...”

Therapist: “Right. Mike, in this moment you have become flooded. Your body is responding in a way that makes it almost impossible to respond to Katie in a productive way. In the future, we will talk about ways to manage this flooding.

Right now, we are just assessing, but we will soon learn how to handle this kind of situation. Now that we have a sample of what flooding looks like for you, we can move on to the other assessments. Before we do, let's just take a breath for a minute.”

This assessment can provide a wealth of knowledge for the therapist in finding more precise points in the relationship which have been affected by infertility, especially as it relates to how infertility is actively disrupting couple communication and consensus building within the dyad as well as increased emotional flooding (Casu et al., 2019; Freidlander et al., 2019).

When reporting assessment results, the couple therapist should keep the effects of infertility in mind, and how the specific infertility experience of the couple has disrupted their SRH (Gottman & Gottman, 2015; Gottman & Tabares, 2017). Below is an example of how the therapist processes the oximeter and SRH assessment results with the client, Mike and Katie. Keep in mind that some psychoeducation has already been completed with the couple on the four horsemen.

Therapist: “Thank you both again for doing these assessments. This is extremely helpful for all three of us in finding specific things to work on, especially as you both seek infertility treatment. Can we talk about some specific things that I observed?”

Mike: “Yeah I am really curious on what you have to say.”

Katie: “Yes. I just want our relationship to be what it was before we started IVF.”

Therapist: “Right. And I am hopeful we can get there. I think we need to focus on downgrading some

of the four horsemen which we have already talked about. Mike, I noticed that you become more flooded when you engage in criticism based on money. Katie, your defensiveness also contributes to your flooding, and you also experience increased criticism on Mike's hesitation to proceed in IVF. Does that sound right?"

Mike: "Thank you! She is just so defensive!"

Katie: "If you would just listen, maybe I wouldn't be!"

[Therapist notices how quickly the couple engages in criticism and approaches a flooding state again. However, the therapist is tentative in directly pointing out criticism with a flooded couple because of the sensitive nature of their emotional state. The therapist then moves to a gentle redirection].

Therapist: "This is not a moment for criticism, but a moment for reflection. Let's talk about how you both have dreams of parenthood, and how those disrupted dreams may be contributing to your conflict."

Katie: "Okay [takes a deep breath]. I'm willing to listen."

This assessment procedure within the Gottman therapy modality allows the therapist to find specific points for goal setting surrounding present research on how infertility may affect couple interactions (Casu et al., 2019; Pasch & Sullivan, 2017). The GMCT therapist should identify specific points from the assessment on how infertility has affected the relationship through disrupted interactions, and then work with the couple on setting manageable goals on how to increase affection, decrease instances of the four horsemen and flooding, and reengage shared meaning systems and shared dreams. Once the therapist has worked with the couple on building specific goals

surrounding their infertility experience, the therapist then moves into treatment. Below, we will outline specific Gottman interventions which directly apply to couples navigating infertility based on current research. These interventions include addressing flooding and the four horsemen through the aftermath of a fight or regrettable incident exercise, increasing emotional responding and shared meaning through the dreams within conflict intervention, addressing flooding and increased conflict management through emotion coaching, and repairing the shared meaning system as well as decreasing disenfranchised grief through shared symbols.

Into Therapy: Specific Gottman Interventions for Couples Experiencing Infertility

I outline here how specific GMCT interventions address nonempathic responding due to infertility, disruptions in life dreams and shared meaning due to the experience of infertility, increasing positive sentiment in the face of reproductive trauma, and managing conflict surrounding the future of parenthood, financial decisions, and medical decisions. I propose that four specific interventions within GMCT address specific difficulties for couples associated with infertility. These interventions are: Aftermath of a Fight or Regrettable Incident, Dreams within Conflict, Emotion Coaching, and Building Shared Meaning. See *Table 5* for an outline of these interventions. Below, I will explain how these interventions address specific difficulties for couples struggling with infertility. Note that these interventions may be interspersed throughout therapy as needed. There is no need to do these interventions in any certain order. I encourage the GMCT therapist to let the assessment fuel which interventions are utilized based on each individual couple.

Addressing Conflict in Infertility: Aftermath of a Fight or Regrettable Incident

Here, the therapist works with the couple to down-grade negative affect during conflict conversations and decrease emotional flooding (Gottman & Gottman, 2015). Reducing flooding and allowing the couple to engage in higher-order communication cycles more akin to healthy relating remains the overarching theme throughout therapy (Friedlander et al., 2019). Many couples struggling with infertility find emotional flooding difficult to navigate (Soleimani et al., 2014). Couples experiencing infertility often find themselves having increased emotionally charged conversations due to the existential nature of parenthood (Jaffe & Diamond, 2011). Infertility robs couples of the ability to communicate effectively during decisional conflict which remains common with the infertility experience (Anguzu et al., 2020; Friedlander et al., 2019). Therefore, the GMCT therapist should address this increased emotional flooding with the couple experiencing infertility within the first few sessions after assessment, especially for those couples who report higher flooding within their oximeter assessment results.

The GMCT intervention “Aftermath of a Fight or Regrettable Incident” fits well with this goal (Gottman & Gottman, 2015). All couples engage in hurtful conversations at some point in their relationship, especially couples navigating infertility (Casu et al., 2019; Gurman et al., 2015). However, couples who are successful in working through conflict know how to process their disagreements with empathy and a commitment to communicate in healthier ways (Gottman & Gottman, 2015; Johnson, 2015). The aftermath of a fight intervention follows a simple process but therapists must only use it when each member of the couple is psychologically and physiological soothed (Friedlander et al., 2019). Each member of the couple takes turns talking about their own emotional experiences and relationship needs during the conflict as it relates to infertility,

as well as the experiences and needs of their partner. Each partner then validates the reality of the other partner, and then offers repairs as needed. For example, a therapist may invite the couple to validate each other's feelings when they describe their needs. The couple then plans for improving empathic responding. Below is an example of navigating this intervention with Mike and Katie.

Therapist: "Now is a good time for us to go back and do our Aftermath of a Fight or

Regrettable Incident intervention. We have talked about this intervention before. This is a great way to talk about flooding and conflict after it has happened, and then find ways to talk about your infertility next time. Mike, I would like for you to reflect on your own emotional experiences, as well as Katie's. Then, give those emotional experiences a voice here and now by expressing them. Katie, you will do the same with Mike. Mike, how about you start us off?"

Mike: "Sure. Katie, when we were having that fight yesterday, I felt so afraid that another

round of IVF would be too expensive, and that we would just be taking on more debt. I also felt so shocked at how emotional you were and that kind of threw me off guard. I did not respond well to you at all. You were feeling a lot of fear that we would never become parents, and that you would never become a mother. I'm sorry for not listening to that part of you, Katie."

Addressing Disruptions in Shared Dreams During Infertility: The Dreams Within Conflict Intervention

Of all interventions within GMCT, Dreams Within Conflict remains one of the most pertinent to couples struggling with infertility. Couples navigating infertility often find themselves perpetually gridlocked in their decisional conflict regarding medical treatment, finances, and their future identities as parents (Anguzu et al., 2020). The dreams within conflict intervention focuses on not solving conflict or resolving the perpetual gridlock. Rather, the Dreams Within Conflict intervention refocuses the conflict on simply finding the hidden dream within each partner's position (Gottman & Gottman, 2015).

Oftentimes, after processing conflict for infertile couples, both members of the dyad may find that there are dreams of parenthood within their conflict. That is, individuals within the dyad may have unmet needs related to personal dreams of parenthood and their relationship which they perceive themselves as "fighting for" (Friedlander et al., 2019). Couples experiencing infertility often undergo a grief of their dreams for parenthood, even a dream rooted in personal identity (Jaffe & Diamond, 2011). The therapist should be mindful of this and identify various dreams of parenthood within conflict. For example, one member of the dyad may insist on additional rounds of IVF, even though finances are scarce. The other member of the couple may prioritize saving money in preparation for becoming parents in the future. The therapist could consider both views as related to parenthood, as one member of the couple wants to continue medical treatment, and the other member of the couple desires financial stability for their current and future family. In every conflict, the therapist should remain mindful of how all viewpoints relate to caring for one's future family, producing children, or both

(Jaffe & Diamond, 2011). In other words, the therapist should find hidden dreams within the conflict of the couple.

Finding subthemes of dreams within conflict increases empathic responding during conflict (Gottman & Gottman, 2015). The therapist coaches the couple on how to be the speaker and how to be the “dream catcher”. The dream catcher simply listens to the speaker with the goal of finding the hidden dream within their partner’s position, as opposed to trying to solve their partner’s problem. The dream catcher should take notes until they become more proficient in this technique (Gottman, 2010*). The therapist may intervene and refocus the couple if problem solving ensues, or if any other distractions from finding hidden dreams arise. Below is an example of how a GMCT therapist may guide Mike and Katie through the Dreams Within Conflict intervention.

Therapist: “Let’s try something different here. You have both talked to each other today about your perpetual gridlock on how to move forward with IVF treatment. You have both talked about how this seems unsolvable, and that you have both been really hurt by each other’s responses. But, what if you could identify dreams within each other’s position? What if, embedded within your viewpoints, are deeply held dreams that you just haven’t communicated about?”

Mike: “I think I follow.”

Therapist: “Let’s try this. This is called the dreams within conflict exercise. During this exercise, one person is the speaker, and the other person is the dream catcher. In other words, one person listens for the hidden dreams of the other while listening to their position. We aren’t solving problems here. In fact, we aren’t doing anything except practicing finding one another’s dreams within their

position. Here, I have a handout for you both to take a look at of possible dreams within conflict. The dream catcher will also take notes. How does this sound?"

Katie: "Makes sense".

Therapist: "Great. Mike, how about you be the dream catcher first, and Katie, you can be the speaker."

Mike: "Sure, why not?"

Therapist: "Remember Mike, you are just taking notes and trying to identify Katie's personal dreams within her position. Go ahead, Katie."

Katie: "Okay. Well, I really want to move forward with another round of IVF, even if that means we have to get another loan or if I have to work another job. I don't think we should give up yet you know? Even if our other rounds of IVF didn't work, our doctor says that there is still a chance. I am not getting any younger, either. I'm just scared I will be too old if we wait too much longer."

[The therapist notes the emotional content behind the dreams as well].

Therapist: "Great work, Katie. I also appreciate how you voiced your emotions around your dreams so fluently. Mike, as the dream catcher, what dreams did you take note of for Katie?"

Mike: "Well, I saw your dream of becoming a mom, and how you are afraid that this dream will never happen. You are afraid that your age will keep you from living out this dream."

Katie: "Yes!"

Emotion Coaching During Infertility

Embedded within many of the Gottman interventions is the concept of emotion-coaching, which has roots in emotion-focused approaches (Greenberg, 2010; Johnson, 2015). Emotion-coaching is the process of building empathic responses for couples through knowledge of their own emotions, as well as the emotions of their partner (Gottman, 1994a). This aligns with past research showing that couples who have divergent emotional responses to their infertility often have more difficulty navigating their experience (Brigance et al., 2020; Soleimani et al., 2014). Emotion-coaching enhances emotional literacy, empathic responding, and higher-order reasoning during conflict (Johnson, 2015). Therefore, engaging in emotion-coaching with the couple allows for greater emotional connection even in the midst of divergent emotional experiences amidst infertility (Gottman, 2011). Metaphors may be a particularly suited intervention when discussing emotions and meta-emotions (Johnson, 2015). For couples experiencing infertility, this form of emotion coaching may allow imagery to further illustrate understanding of emotion processing (Brigance et al., 2020) by allowing couples to detach from emotions and look at them in an isolated way. The following segment is an example of utilizing a metaphor to engage in emotion coaching with Mike and Katie.

Mike: "I'm just tired of you blowing up all the time! Every time we talk about money, or

adoption, or doing another round of IVF, you either blame me or cry uncontrollably. I don't know what to do with that, Katie!"

Katie: "How about you just listen, Mike? Have you thought about that?"

[The therapist notes increased flooding, as well as increased criticism. The therapist decided to turn to emotion coaching to address this by using metaphor].

Therapist: “I think this is a good point to stop and think about what emotions are coming up right now. Let’s think of it as simply stepping out of the spotlight, but leaving the feelings and emotions there on the stage for us to watch for a bit.

Katie, what emotions are you seeing on Mike’s stage right now?”

Katie: “I mean...if we are just looking at his emotions...he sounds frustrated.

Angry at me maybe?”

Mike: “Yes, I am frustrated, but not at you, Katie. [Mike becomes teary-eyed].

I’m sorry I just let my frustration get the best of me there. I mean...I guess if I were to look at my ‘emotional stage’, I would see frustration because I don’t know how to respond to you, to support you”.

Therapist: “Mike, that’s great work in recognizing your emotions. Katie, what do you think about what Mike just said?”

Katie: “That makes sense. And I guess I also feel frustrated that I am not received in a more caring way, you know? I need your compassion, Mike, not your answers. Just see my emotions and hold them.”

Mike: “Right. I definitely want to work on that. It’s just hard though, you know? Sometimes I don’t know how to do that. I mean, I guess that’s why we are here in therapy.”

Addressing Disenfranchised Grief During Infertility: Creating Shared Symbols

Finally, the therapist should work with the couple on rebuilding their shared meaning system. Divergent experiences of infertility and divergent expectations for

parenthood may damage couple's shared meaning (Casu et al., 2019; Jaffe & Diamond, 2011; Pasch & Sullivan, 2017). Building (or rebuilding) a shared meaning system within GMCT means turning the couple towards enjoyable shared rituals that are intrinsically valued (Gottman, 2011). Potentially, infertility can significantly impact the shared meaning system of the couple by calling into question the identity of the dyad as parents (Jaffe, 2014). Further, the couple may have unprocessed and disenfranchised grief (Jaffe & Diamond, 2011). Building a shared meaning system around active coping of the couple's grief may allow the couple to process the grief in the context of a deeply shared emotional experience (Goff et al., 2006; Jaffe, 2017; Luk & Loke, 2015). Powerful symbols of meaning could include: Everyday rituals of connection (such as shopping for groceries together), marking of important dates or holidays, shared dreams for the future, and shared spirituality (Gottman & Gottman, 2015). Below, the therapist guides the couple on engaging in a deeply personal ritual around their shared grief.

Katie: "Our two-year anniversary is coming up. Do you remember, Mike?"

Mike: "Two years ago? I am guessing that is when we tried our first round of IVF."

Katie: "You do remember".

[The therapist recognizes an important shared symbol and expresses this to the couple].

Therapist: "I can tell that this is a very important part of your history, the first round of IVF. Tell me more about this."

Katie: "I thought for sure the first round of IVF would work. The doctors said

that it would. But it didn't. I guess it was just the first time that I realized that Mike and I may not be biological parents.”

Mike: “Right. It was the first time that I ever considered the fact that I may not be a dad.”

[The therapist notes the emotional connection between Mike and Katie as they discuss this important date. The therapist moves to solidify the shared meaning and shared grief between the two of them for this experience].

Therapist: “This is an important date for you. It sounds like it's also a date that brings up grief. The same thing happens on specific dates or holidays when we lose a loved one. Except, you lost a dream as a couple. What do you think about finding a way to mark this date together?”

Katie: “Maybe we should plan something. My dad always wanted to take our kids sailing. We loved doing that as a family. I wrote some letters about our infertility, and I want to keep them, but maybe I could write some more. This may sound stupid, but it might be special for me to burn these letters and throw the ashes into the lake.”

Mike: “I would love to do that with you. Can I write something, too?”

Therapist: “This sounds like a beautiful way to mark this time together”.

Considerations for Clinical Implementation

Utilizing GMCT with couples with infertility requires an attunement from the therapist on the specific ways in which infertility impacts relationships. However, couples have varied ways of responding to infertility which therapists should remain mindful of (Cousineau & Domar, 2007). The couple therapists should consider the varied

levels of medical intervention, various causes of infertility, and gender differences in mixed gender couples (Jaffe, 2014; Jaffe & Diamond, 2011). Therapists working with couples struggling with infertility should ask the couple directly about their experiences with medical intervention, while also paying mindful attention to subconscious gender expectations (Jaffe, 2017).

Further, the therapist should consider cultural implications for couples. That is, different cultures may have different expectations for individuals and couples as it pertains to reproduction, and so these varied cultural implications may impact how the couple is processing their infertility experience (Jaffe, 2014). Similarly, therapists should consider intersectionality when working with couples struggling with infertility. Couples outside of the heteronormative sphere may experience distress related to their treatment as a LGBTQIA couple alongside their infertility. GMCT has been found to be an effective mode of treatment for gay and lesbian couples (Gottman & Tabares, 2017). However, specific points of intersection, such as how these couples may be treated differently in the medical community and how the broader family may receive both the couple's relationship status and their infertility, may need to be addressed. Currently, very little research exists on how sexual and racial minority couples experience infertility (Jaffe & Diamond, 2011; Jaffe, 2017). The therapist should be mindful that sexual and racial minority couples often experience microaggressions when interacting with medical professionals (Jaffe & Diamond, 2011). When working with these couples, the Gottman therapist may actively point out these microaggressions and other social injustice stressors during therapy to increase awareness of difficult feelings associated with these stressors (Gottman & Tabares, 2017).

Couple therapists who work with couples struggling with infertility have often experienced infertility themselves (Jaffe & Diamond, 2011). These couple therapists should be mindful of countertransference. The couple therapist should explore their own unhelpful reactions to the couple's infertility and interaction patterns and should seek their own supervision or their own therapy to work these reactions (Jaffe, 2014; Jaffe & Diamond, 2011). Although not a concept addressed within GMCT, self-disclosure remains a powerful, yet selective, tool for the therapist (Jaffe & Diamond, 2011). Due to disenfranchised grief, building an alliance with the couple will at times prove difficult, as many individuals experiencing infertility have built a belief over time that others cannot empathically receive them (Jaffe, 2017). The therapist may have more success with some couples if they self-disclose their own experience with infertility, as this will help build a sense of connection through a shared experience (Jaffe, 2017). However, this should be done selectively and only to build the therapeutic alliance, as over-sharing may take away from the couple's therapeutic experience (Gurman et al., 2015; Sels et al., 2021).

Generally, couple therapists working with couples struggling with infertility should address several common factors for this population, such as: Divergent views on how medical treatment should continue, divergent views on adoption, the cumulative trauma of other adverse reproductive events such as miscarriage or stillbirth, as well as sexual and financial stress (Jaffe & Diamond, 2011). Couples who experience one form of reproductive trauma (such as infertility) also often experience other forms (such as miscarriage; Diamond & Diamond, 2016). These other forms of reproductive trauma often engender their own forms of disenfranchised grief for the couple, as well as increasing feelings of unprocessed shame, guilt, and anxiety (Diamond & Diamond,

2016; Galst, 2018; Volgesten et al., 2008). The couple therapist should focus on rituals of connection and increasing shared meaning for these couples due to the increased need to process grief within the dyad (Hiefner, 2021). The couple may also have divergent views on how to proceed with parenthood through medical treatment or adoption. Often, these couples find themselves having increased decisional conflict and perpetual gridlock (Anguzu et al., 2020). Within the GMCT framework, managing conflict, decreasing the four horsemen, and honoring one another's life dreams will be especially important. The GMCT therapist should work with these couples to have positive sentiment for one another even in the face of wanting different paths for parenthood, as well as unique ways for these couples to manage their potentially perpetual gridlock. The Dreams Within Conflict intervention could provide an important way for couples to navigate these various dreams and navigate their perpetual gridlock (Gottman & Gottman, 2015).

Therapists should address disenfranchised grief (Jaffe & Diamond, 2011). Couples will find their shared meaning system damaged by this unique form of grief, as each member of the dyad may be experiencing intense emotional loss which has been unresolved both socially and within the couple (Doka, 2008; Jaffe, 2014). Finding ways to process the couple's grief may lead to shared rituals and shared meaning within the couple which builds a deeper bond (Gottman & Gottman, 2015; Pasch & Sullivan, 2017; Sels et al., 2020). Processing disenfranchised grief will likely look different for every couple, since, by its nature, disenfranchised grief does not have a societal blueprint for how it is enacted. The therapist should remain open to all unique ways that the couple may process this grief together, including through specific dates to commemorate, ways to display their grief in their home, or specific rituals (Jaffe & Diamond, 2011).

Limitations

Heteronormativity remains problematic for infertility research, especially research with couples (Jaffe & Diamond, 2011). Most researchers have collected data on mix gender couples struggling with infertility, while the experiences of sexual orientation minority couples going through infertility remain largely unexplored (Brigance et al., 2021). This, of course, remains problematic for couple therapists who seek to treat couples from diverse backgrounds. Though GMCT is an effective treatment methodology for both mix gender couples as well as couples belonging to LGBTQIA communities (Gottman & Tabares, 2017), the scarcity of research on the experiences of sexual orientation minority couples leaves a gap for best practices, as intersectionality (such oppression within the medical community as well as society at large) remains problematic for these couples in general (Jaffe & Diamond, 2011).

Couples who are struggling with other contextual difficulties may require further Gottman interventions based on their experiences. For example, couples who are struggling with infertility and also infidelity may require alterations in this approach based on the needs of the couple. Therapists should alter these interventions for couples who are experiencing other forms of reproductive trauma, such as miscarriage and stillbirth. Couples who experience these other forms of reproductive traumas may have other relational difficulties which arise separately from the infertility experience (Diamond & Diamond, 2016).

The lack of specific outcome research for this modality with couple struggling with infertility also serves as a limitation of this approach. Though specific GMCT interventions, such as emotion coaching or Dreams Within Conflict, give specific

guidance to couples navigating the difficulties of infertility, no current research exists which illuminates the specific effects these interventions will have on a couple struggling with infertility.

Directions for Future Research

In general, more outcome studies are needed for working with couples who are experiencing infertility (Brigance et al., 2021; Pasch & Sullivan, 2017). Though the pervasiveness of infertility is quite ubiquitous for couples, few (if any) outcome studies exist which illuminate specific modalities as best practice approaches. Engaging in outcome studies with couples struggling with infertility will allow therapists from a variety of backgrounds to have more concrete data on how treatment should happen for this special population.

Researchers should conduct more outcome studies with GMCT and couples navigating infertility. Though research is ubiquitous on the Gottman method, no research with this modality with couples struggling with infertility exists to the knowledge of the authors. Therefore, couple therapists should further explore the use of the GMCT modality with couples experiencing infertility. This will refine the GMCT approach with this special population, as well as provide further quantitative and/or qualitative insight in how couples experience GMCT methodology during infertility.

Further, more research is needed on how cultural intersections play a role in how couples navigate their infertility experience. Much of the academic literature remains focused on heteronormative viewpoints in the context of infertility (Brigance et al., 2021; Casu et al., 2019). The intersectionality of gender, sexual orientation, culture, and infertility could give way to grief which is more egregious, compounded by societal

oppressions. Processing infertility within couples from a non-dominant social standing may have special considerations which have yet to be illuminated.

Conclusion

Infertility remains one of the most salient issues facing couples who seek couples therapy (Casu et al., 2019; Cousineau & Domar, 2007; Pasch & Sullivan, 2017).

Livingston (2018) reported that almost half of all individuals in the United States have either experienced infertility themselves or know firsthand someone who has. It remains quite plausible that the current statistic of 1 out of every 5 couples experiencing infertility is indeed an underestimate. Therefore, couple counselors must be equipped and prepared to treat couples who are experiencing infertility (Brigance & Brigance, 2022; Casu et al., 2019; Cousineau & Domar, 2007).

Previous research has been mixed regarding the effects of infertility on couple relationships (Casu et al., 2019; Drosdzol & Skrzypulec, 2009; Pasch & Sullivan, 2017). Indeed, in a sample of couples experiencing infertility, a full third indicated that their relationship was stronger after the infertility experience (Pasch & Sullivan, 2017); however, Cousineau and Domar (2007) noted that many couple relationships also end in dissolution due to the difficult emotional weight infertility brings to the relationship. The Gottman theoretical framework provides some insight on how couples navigate other difficult contexts (such as natural disasters or other forms of trauma; see Hammett et al., 2022). This research shows that infertility may be included in those contexts, as individuals within couple relationships in these studies indicated that engaging in more Gottman friendship and intimacy, more quality sex, passion, and romance, as well as the Gottman shared meaning system, may endure the storm of infertility with higher levels of overall satisfaction within the relationship. Conversely, couples who engage in more Gottman conflict processes may feel a greater relational impact due to infertility, and thus

also have lower relational satisfaction through the process of infertility. Interestingly, couples who engage in more Gottman conflict processes and yet also have higher levels of Gottman conflict management may also feel fewer effects of conflict within their relationship during the infertility experience. These studies add to the literature by giving specific pathways for how couples achieve satisfaction (or dissatisfaction) within their relationship as they navigate the realities of infertility. In sum, this dissertation offers potential ways in which couples achieve couple satisfaction through infertility, as well as how couples experience relational dissatisfaction. That is, couples who have more friendship and intimacy, more quality sex, passion, and romance, and more shared meaning may have greater couple satisfaction through infertility. Conversely, couples who have more flooding, perpetual gridlock, more four horsemen, more negative sentiment towards their partner, and harsher startup may have greater dissatisfaction in their relationship through infertility. However, couples who manage their conflict through effective repair attempts and compromise reduce the negative effects of conflict through the infertility experience.

Indeed, this pathway remains a critical piece of potential intervention for couple therapists. Couple therapists who engage in Gottman interventions, such as the Dreams within Conflict intervention or the Compromise intervention, may find that couple struggling with infertility improve their relational bonding through their infertility experience. For couples struggling to communicate their emotional experience, the Dan Wyle intervention may also be utilized. That is, as one member of the couple struggles to communicate their experience, the therapist may sit beside that individual and act as their “voice” temporarily to provide a potential explanation of their emotions during infertility.

Moreover, specific interventions within the GMCT framework, provided in this writing, may also give insights to couple therapists on how to guide couples towards greater relational resilience in the midst of infertility. These interventions, based on both Gottman research as well as the data provided here in these studies, could give couples the tools needed to achieve greater relational bonding and deeper emotional connection even during infertility. These interventions may also provide couple therapists a way to mitigate some of the pitfalls of conflict processes engendered by infertility, and how to manage those conflict processes within the Gottman framework.

Further, this dissertation provides a steppingstone for more research to be conducted with this special population with GMCT in mind. Outcome studies should be considered for couples navigating infertility who choose to see a Gottman therapist to gain specific data on the effects of these interventions. Further, more studies may be conducted with more diverse couples, especially those couples within Black and Brown communities, as well as LGBTQIA communities. Although data within this sample gives insights in a broad way on how couples could engage in Gottman processes while navigating infertility, covert and overt intersections of oppression may give way to different outcomes for Black, Brown, and/or LGBTQIA couples.

Table 1.*Gottman Conflict Processes and Conflict Management.*

Conflict Process	Definition
The Four Horsemen of the Apocalypse	Specific behaviors with and views of one's partner which increase destructive conflict (stonewalling, criticism, contempt, defensiveness).
Negative Sentiment Override	Having a negative view of one's partner during conflict.
Harsh Startup	Starting a difficult conversation with intensity or blaming.
Flooding	Being too emotionally charged to engage in reasoning or conflict resolution.
Gridlock on Perpetual Issues	Being unable to achieve consensus over a long period of time on a sensitive issue.
Compromise (Conflict Management)	The ability to find consensus and adjust demands on an important issue to meet the needs of one's partner.
Effective Repair Attempts (Conflict Management)	The ability to repair any potential fractures in a relationship during or after conflict.

Table 2.*Participant Demographics.*

Factor	N =
Total Participants	902 (100%)
Gender	
Male	219 (24.2%)
Female	669 (74.1%)
Nonbinary	7 (.7%)
Transgender	4 (.4%)
Two-Spirited	3 (.3%)
Race and Ethnicity	
White	561 (62.1%)
Black/African American	168 (18.6%)
Asian/Asian American	92 (10.1%)
Hispanic/Latinx	74 (8.2%)
Indigenous American	41 (4.5%)
Native Hawaiian/Pacific Islander	4 (.4%)
Sexual Orientation	
Heterosexual	545 (60.4%)
Mostly Heterosexual	296 (32.8%)
Lesbian/Gay	56 (6.2%)
Bisexual	55 (6%)
Pansexual	40 (4.4%)
Education Status	
Undergraduate Degree	334 (37%)
Some College, No Degree	209 (23.1%)
Some Graduate, No Degree	137 (15.1%)
Master's Degree	103 (11.4%)
High School Degree	70 (7.7%)
Doctorate	24 (2.6%)
No Degree	12 (1.3%)
Location	
Urban/City	504 (55.8%)
Suburban	324 (35.9%)
Rural	52 (5.7%)
Social Class	
Middle Class	378 (41.9%)
Working Class	258 (28.6%)
Upper Middle Class	199 (22%)
Low Income/Poverty	35 (3.8%)
Upper Class	24 (2.6%)
Relationship Status	
Married/Committed Relationship	865 (95.8%)
Divorced/Separated	35 (4.2%)

Table 3.*Participant Experiences of Reproductive Loss, Child Status, and ARTs.*

Factor	N =
Total Participants	902 (100%)
Assistive Reproductive Technology (ART)	
Intrauterine Insemination (IUI)	406 (45%)
Invitro Fertilization (IVF)	394 (43.6%)
Embryo Adoption	163 (18%)
Surrogacy	82 (9%)
Reproductive Loss	
Miscarriage	417 (46.2%)
Stillbirth	297 (32.9%)
Secondary Infertility	171 (18.9%)
Parent/Child Status	
No Children	373 (41.3%)
Biological Child	276 (30.5%)
Both Biological and Adopted Child	134 (14.8%)
Adopted Child	120 (13.3%)

Table 4.*Means, Standard Deviations, and Bivariate Correlations Between Main Study Variables.*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
CSI-4 ¹	17.98	4.11	-	.355**	.456**	.444**	.296**	-	.312**
			-					.393**	
FertiQoL: Relationship Subscale ²	18.98	2.73	-	--	.225**	.380**	.193**	-	.382**
			-					.361**	
Gottman Sex, Passion, and Romance ³	22.56	3.45	-	--	--	.574**	.427**	-	.439**
			-					.254**	
Gottman Shared Meaning System ⁴	34.91	4.18	-	--	--	--	.580**	-	.637**
			-					.393**	
Gottman Friendship and Intimacy ⁵	33.41	2.72	-	--	--	--	--	-.012	.434**
			-						
Gottman Conflict Processes ⁶	27.71	5.20	-	--	--	--	--	--	-
			-						.364**
Gottman Conflict Management ⁷	17.00	2.28	-	--	--	--	--	--	--
			-						

Note. $p < .05^*$, $p < .01^{**}$, $p < .001^{***}$; 1 = CSI-4; 2 = FertiQoL Relationship Subscale; 3

= Gottman Sex, Passion, and Romance; 4 = Gottman Shared Meaning System; 5 =

Gottman Friendship and Intimacy; 6 = Gottman Conflict Processes; 7 = Gottman Conflict

Management.

Table 5.*Specific Gottman Interventions for Couples Struggling with Infertility*

Specific Infertility Issue for Couples	Intervention	Considerations
Emotional flooding, four horsemen, mismatched emotional responding.	Aftermath of a Fight or Regrettable Incident.	Allows couples to address mismatched emotional responding in any given conflict surrounding infertility. Couple may process their interaction and plan for increased empathy next time.
Emotional flooding, mismatched emotional responding, disruptions in shared meaning, gridlock.	Dreams Within Conflict.	Allows couples to address the ‘why’ in their emotional reactions, which can lead to increased empathic responding and increased shared meaning within their experience.
Emotional flooding	Emotion Coaching.	Gives couples basic emotional literacy in order to address emotional flooding and the four horsemen.
Disruptions in shared meaning, disenfranchised grief.	Creating Shared Meaning System.	Allows the couple to recognize their grief and process it together, thus decreasing disenfranchised grief and increasing mutual empathy.

Figure 1.

The Sound Relationship House.



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Note. Taken from <https://www.gottman.com/blog/the-sound-relationship-house-turn-towards-instead-of-away/>.

Figure 2.

Visualization of Gottman Sound Relationship House Mediation of Fertility Quality of Life and Couple Satisfaction Modeling: Quality of Sex, Romance, and Passion.

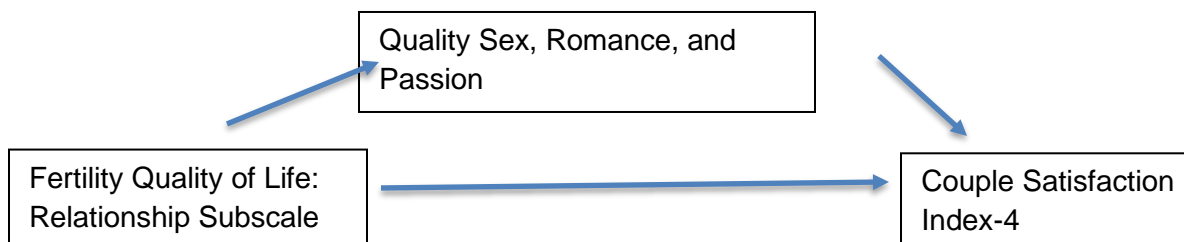


Figure 3.

Visualization of Gottman Sound Relationship House Mediation of Fertility Quality of Life and Couple Satisfaction Modeling: Shared Meaning.

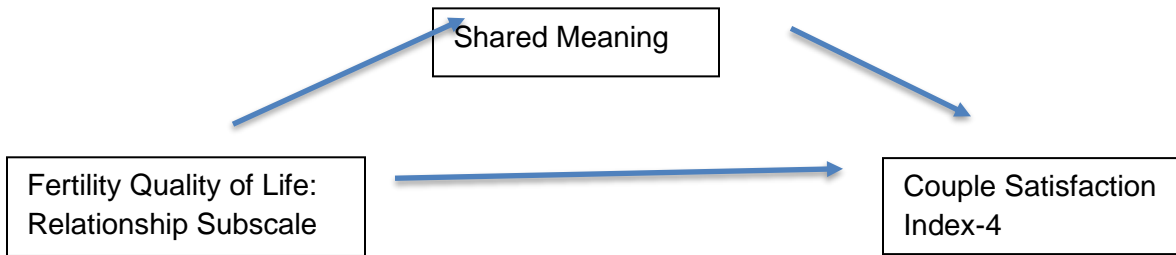


Figure 4.

Visualization of Gottman Sound Relationship House Mediation of Fertility Quality of Life and Couple Satisfaction Modeling: Friendship and Intimacy.

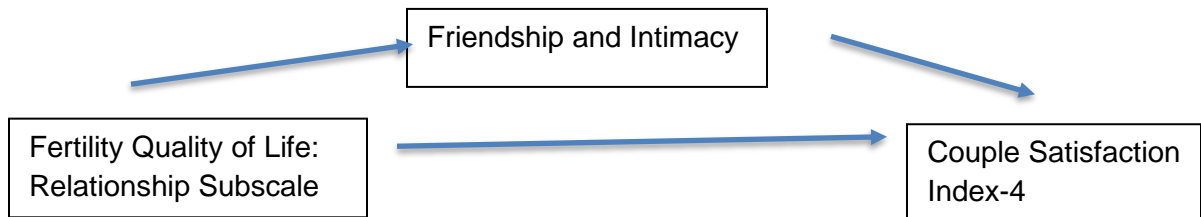


Figure 5.

Visualization of Gottman Conflict Processes Mediation of Fertility Quality of Life and Couple Satisfaction, with Gottman Conflict Management as Moderator.

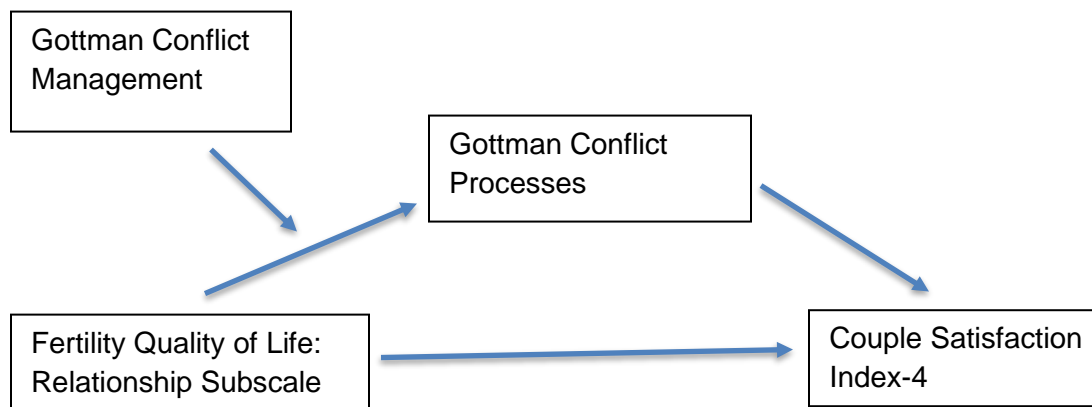
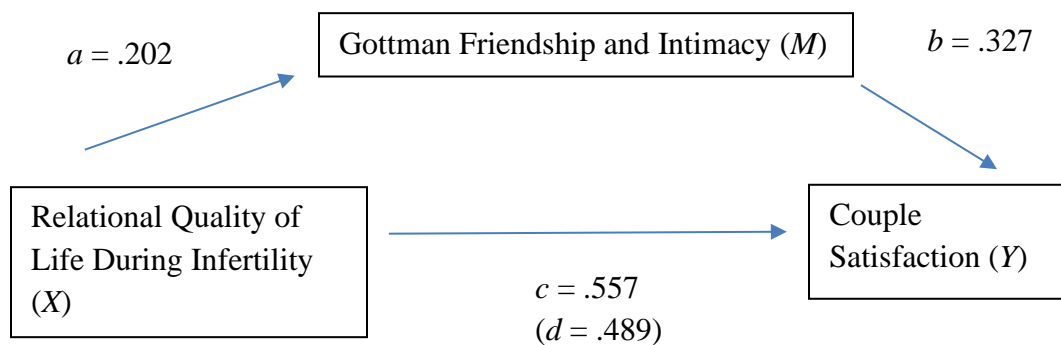


Figure 6.

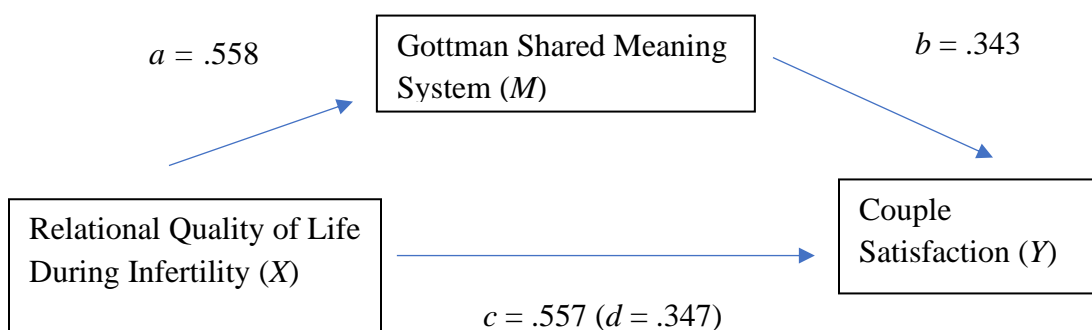
Unstandardized Regression Coefficients for the Relationship Between Relational Quality of Life During Infertility and Couple Satisfaction as Mediated by Gottman Friendship and Intimacy.



Note. a is the effect of Relational Quality of Life During Infertility on Gottman Friendship and Intimacy; b is the effect of Gottman Friendship and Intimacy on Couple Satisfaction; c is the total effect of Relational Quality of Life During Infertility on Couple Satisfaction; d is the direct effect of Relational Quality of Life During Infertility on Couple Satisfaction.

Figure 7.

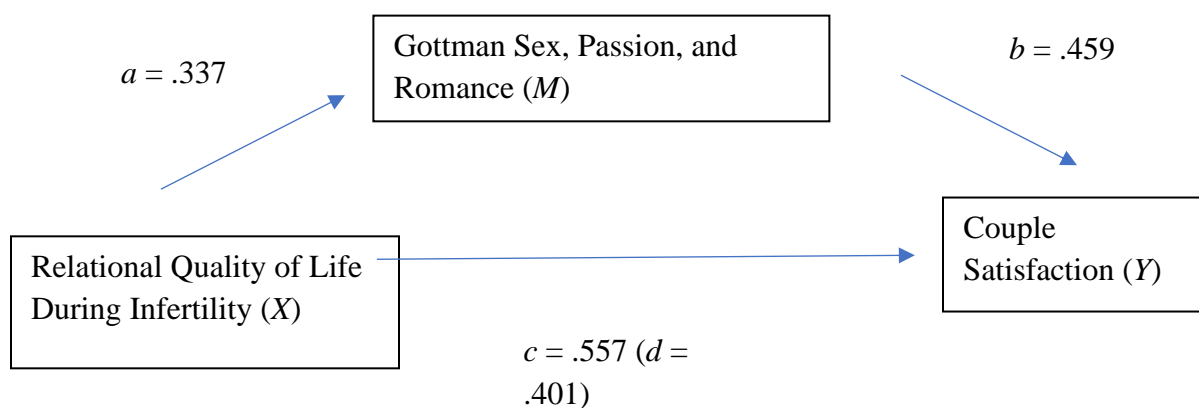
Unstandardized Regression Coefficients for the Relationship Between Relational Quality of Life During Infertility and Couple Satisfaction as Mediated by Gottman Shared Meaning System.



Note. *a* is the effect of Relational Quality of Life During Infertility on Gottman Shared Meaning; *b* is the effect of Gottman Shared Meaning on Couple Satisfaction; *c* is the total effect of Relational Quality of Life During Infertility on Couple Satisfaction; *d* is the direct effect of Relational Quality of Life During Infertility on Couple Satisfaction.

Figure 8.

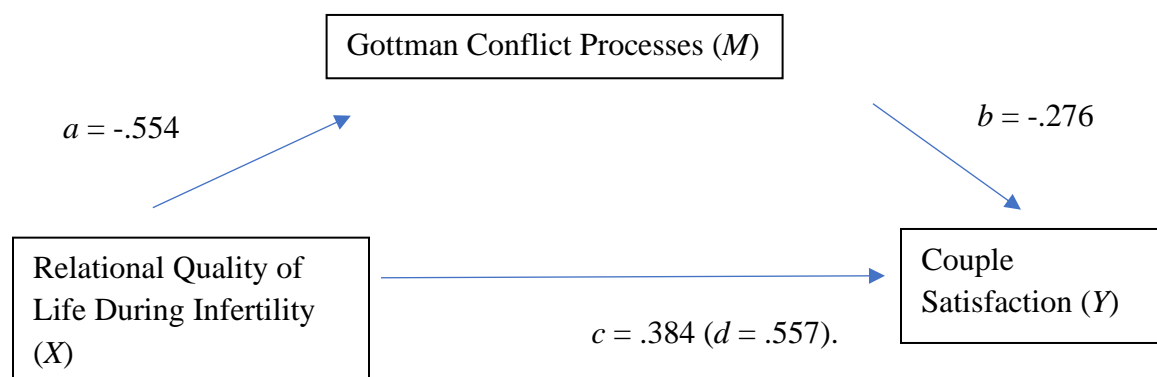
Unstandardized Regression Coefficients for the Relationship Between Relational Quality of Life During Infertility and Couple Satisfaction as Mediated by Gottman Sex, Passion, and Romance



Note. *a* is the effect of Relational Quality of Life During Infertility on Gottman Sex, Passion, and Romance; *b* is the effect of Gottman Sex, Passion, and romance on Couple Satisfaction; *c* is the total effect of Relational Quality of Life During Infertility on Couple Satisfaction; *d* is the direct effect of Relational Quality of Life During Infertility on Couple Satisfaction.

Figure 9.

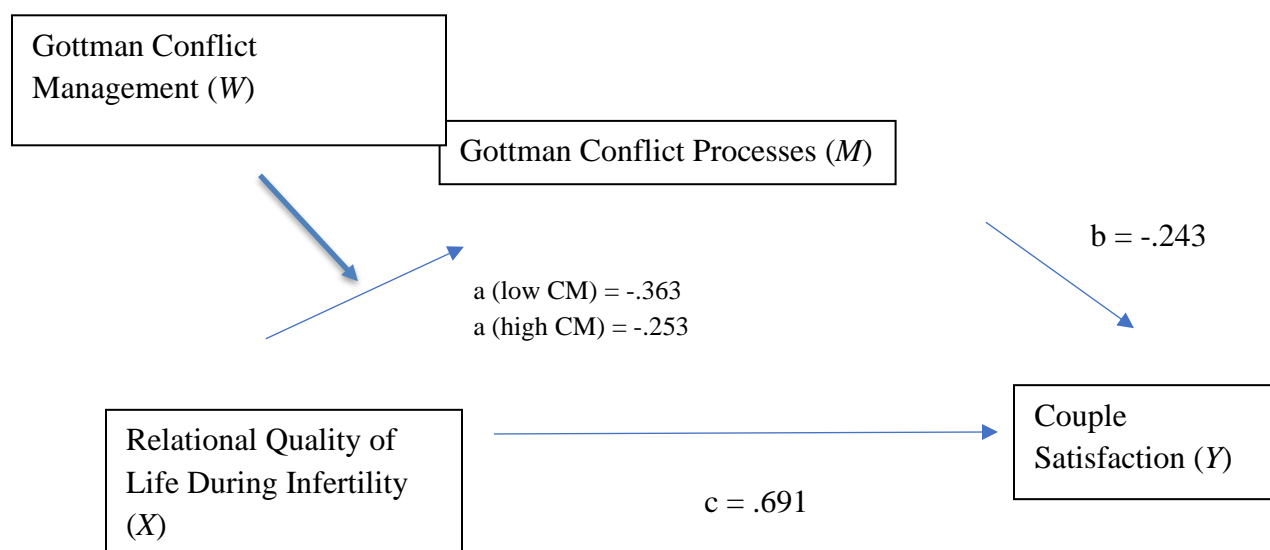
Unstandardized Regression Coefficients for the Relationship Between Relational Quality of Life During Infertility and Couple Satisfaction as Mediated by Gottman Conflict Processes



Note. *a* is the effect of Relational Quality of Life During Infertility on Gottman Conflict Processes; *b* is the effect of Gottman Conflict Processes on Couple Satisfaction; *c* is the total effect of Relational Quality of Life During Infertility on Couple Satisfaction; *d* is the direct effect of Relational Quality of Life During Infertility on Couple Satisfaction.

Figure 10.

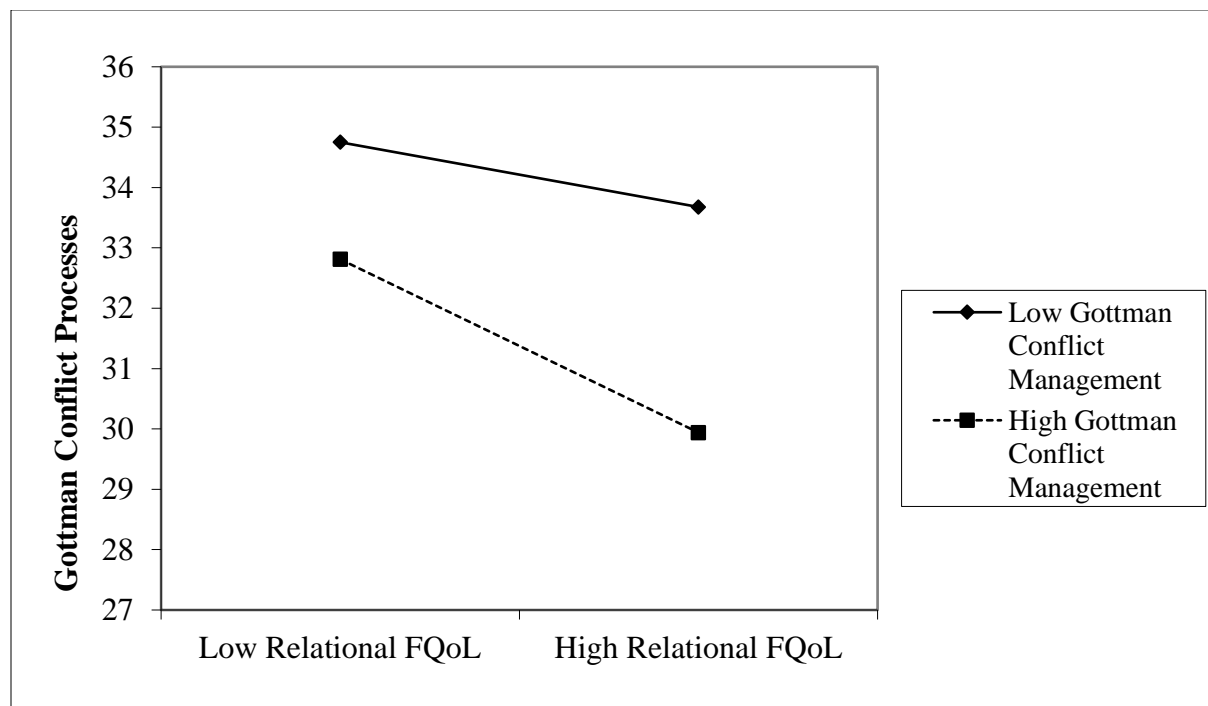
Unstandardized Regression Coefficients for the Relationship Between Relational Quality of Life during Infertility and Couple Satisfaction as Mediated by Gottman Conflict Processes, with Gottman Conflict Management as Moderator.



Note. *a* is the effect of Relational Quality of Life During Infertility on Gottman Conflict Processes with Gottman Conflict Management as Moderator; *b* is the effect of Gottman Conflict Processes on Couple Satisfaction; *c* is the total effect of Relational Quality of Life During Infertility on Couple Satisfaction; *d* is the direct effect of Relational Quality of Life During Infertility on Couple Satisfaction.

Figure 11.

Gottman Conflict Management Moderates Relational Quality of Life During Infertility and Gottman Conflict Processes within Mediation Model.



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