The Influence of Family Communication Patterns on Sexual Communication in Romantic Relationships: A Dyadic Analysis

by

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A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Approved April 2016 by the
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ARIZONA STATE UNIVERSITY

May 2016

ABSTRACT

The current study employs dyadic data analysis to explore the intrapersonal and interpersonal antecedents of sexual communication in romantic relationships. Working from a family relational schema theoretical framework (family communication patterns [FCPs]; see Koerner & Fitzpatrick, 2002a), it is argued that FCPs within individuals' family of origin structure their relational schema, which is subsequently associated with their openness and quality of sexual communication in their sexually active romantic relationships. In particular, dyadic data procedures are used to explore the interdependent influence of partners' FCPs on reported sexual communication. It was predicted that individual (actor effects) and partner (partner effects) reports of FCPs are associated with individuals' reports of sexual communication within romantic relationships. In addition, alternative models were proposed that predicted FCPs are associated with individuals' self-schema (i.e., general and sexual self-concept), which is in turn associated with sexual communication.

A sample of 216 heterosexual romantic dyads (N = 432) participated in a cross-sectional online questionnaire study. Results from path analyses provide partial support for hypotheses. Specifically, individuals from conversationally-oriented families tended to report higher levels of sexual communication in their romantic relationships. Also, the interaction effect between conversation and conformity orientations indicate that dyads tend to engage in more sexual communication when dyadic partners are from pluralistic families (i.e., high conversation, low conformity), and they engage in less sexual communication when partners are from laissez-faire families (i.e., low conversation, low conformity). Furthermore, FCPs were associated with the general and sexual self-concept

(i.e., general self-esteem, general social anxiety, sexual self-esteem, and sexual anxiety), which in turn were associated with sexual communication. This study is important for its contribution to the family, interpersonal, and relational communication literature, as well as for its potential to expand Koerner and Fitzpatrick's (2002a) theory of family relational schema to more domain-specific areas of communication, like sexual communication.

DEDICATION

For Janice and James (mom and dad)

ACKNOWLEDGMENTS

First and foremost, I must thank my committee. Kory Floyd, you are a mentor, an inspiration, and above all else, a friend. You have supported me and believed in me every step of the way, and I would not be where I am without you. Also, your patience with me is so appreciated. You have shaped me into a scholar, and for that, I am grateful. I will always remember our conversations. It was during one conversation in particular that you helped me through a lot of my stress regarding my abilities. You have never given up on me, and I look forward to calling you a colleague; but above all else, I will always call you a close friend. Paul Mongeau, you are incredible in every sense of the word. I vividly remember all of the seminars I took with you, and I enjoyed every single one of them. You pushed me to think critically and theoretically about my ideas. Also, thank you for all of the times you entertained my unscheduled office visits to talk me down from my anxiety – you had the utmost faith in my abilities, and I cannot express how much that has meant to me. Alex Zautra, you are one of the kindest, smartest people I have ever met. I am so grateful for your help with this project, as well as our conversations – thank you so much.

Secondly, I need to thank my family. Mom, your selflessness is admirable, always putting everyone else's needs before your own. I remember the time you called me at 5:00 in the morning from Las Vegas to tell me you had hit the jackpot at BINGO, and you were going to spend all of that money to send me on a class trip to Europe. I look forward to the day when I hit my jackpot, and I get to buy you a place to live in Las Vegas so you can live out your days in pure bliss and happiness – you deserve it! Dad, your practicality and level-headedness is sometimes irritating, but also helpful. You

raised me to be independent and self-sufficient, which was challenging when I was younger; but now, being an adult, I am grateful to have the skills and resilience that I do. Also, thank you for always helping me out when I needed extra assistance—I love you so much. To Rob, Heidi, Elle, Ian, and Bill, thank you for your love and support. To all of my extended family (especially Sandy), I love you more than words can express. I love the time we get to spend together when I'm back home in the mitten. To Maureen, you are my family—M&M for life!

Third, thank you to my friends. To Ashley, my best friend of over ten years, I love you! You know me better than anyone else. You are the one person who can make me laugh without even trying. And your dog Indy is really cute, too. To Neha, you are a gem, and I love you. I love our weekly phone conversations and annual visits. To Lori, you have been the best support throughout these four years – I could not have done this without you. To my other cohort members—Tara, Chiao, Margaret, and Steven—thank you all for taking this journey with me. It's been long, and I couldn't imagine getting through this without all of you.

Fourth, thank you to the staff and faculty in the Hugh Downs School of Human Communication. Heather, I would not be graduating without your help—your compassion, kindness, and generosity are so appreciated. To Rosemary, Lynne, and Sue, thank you all so much for helping me navigate the ins and outs of the HDSHC. Also, a big thank you to Belle Edson, Laura Guerrero, Linda Ledermen, Jess Alberts, Kathy Miller, Sarah Tracy, Daniel Brouwer, and Bradley Adame – you're all amazing!

Getting a PhD is no easy feat. The people listed here, and countless others, have helped get me to where I am today. Thank you to everyone!

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Chapter 1

REVIEW OF THE LITERATURE

Taboo topics such as sex and sexuality are often difficult for relational partners to discuss with each other, as there is potential for rejection, discomfort, and uncertainty (Baxter & Wilmot, 1985; Theiss & Estlein, 2014). Additionally, talking about sexual matters with romantic partners "requires a willingness to be vulnerable" (Montesi, Conner, Gordon, Fauber, Kim, & Heimber, 2013, p. 91). These issues raise potential concern, as research has consistently found robust positive associations between sexual communication, (specifically, disclosure about sexual likes/dislikes, sexual desires, and sexual pleasure), sexual satisfaction, and general relationship satisfaction (Byers & Demmons, 1999; MacNeil & Byers, 2005; Montesi, Fauber, Gordon, & Heimberg, 2010), thus illustrating a connection between sexual communication and relational functioning. Collectively, sexual communication is important within sexually active relationships for its connection to relational outcomes.

The primary goal of the current investigation is to further understanding of sexual communication by exploring antecedents that predict sexual communication between partners. As previously mentioned, connections between sexual communication and relational outcomes have been established; thus, scholars, couples counselors, and romantic couples would benefit from a clearer understanding of the factors that help facilitate sexual communication. Research has discovered that intrapersonal variables (e.g., self-esteem, anxiety, fear of intimacy) are associated with one's engagement in sexual communication (see Davis et al., 2006; Montesi et al., 2013; Oattes & Offman, 2007; Wheeless & Parsons, 1995). However, less is known regarding what cultivates the

relational and behavioral antecedents to sexual communication. Specifically, it is argued in this paper, via Koerner and Fitzpatrick's (2002a) general theory of family relational schema framework, that communication within the family of origin is associated with one's likelihood to engage in sexual communication. Scholars have previously demonstrated via this theoretical framework that communication within the family of origin is associated with communicative behaviors in individuals' romantic relationships (see Koerner & Fitzpatrick, 2002c; Koesten, 2004, Young, 2014). In an effort to expand on the aforementioned work, I contend that family communication plays a role in the openness and quality of individuals' communication about sex in their romantic relationships.

The following chapters in this monograph will first review literature relevant to the current investigation and then propose the method for testing proposed hypotheses and research questions. The review of literature will first conceptualize sexual communication, as well as address the relational outcomes of sexual communication in more detail. Next, Koerner and Fitzpatrick's (2002a) general theory of family relational schema will be articulated and argued as a potential lens to explore the association between family communication and sexual communication. Finally, other potential antecedents to sexual communication (i.e., general self-concept and sexual self-concept) will also be addressed. The method section will first address the sample and sampling procedure. Additionally, the methodological procedure and measures will be discussed. Next, results of the hypothesis tests will be addressed. Finally, a discussion of the findings will be laid out, which includes theoretical, clinical, and methodological implications.

Sexual Communication

This first section will address the role of sexual communication within sexually active relationships. In particular, I will first conceptualize sexual communication between sexually active partners by pulling from the vast literature regarding this construct. After articulating my conceptualization of sexual communication, I will outline the relational outcomes of sexual communication within sexually active relationships. Finally, I argue for the need to study the antecedents to sexual communication, which is an area of research that requires attention.

Conceptualizing Sexual Communication

Sexual communication plays an important role in romantic relationships (MacNeil & Byers, 2005; Wheeless, Wheeless, & Baus, 1984). Sexual communication has been conceptualized similarly across the literature, with slight variations that will be addressed. Based on previous conceptualizations, the current study uses the following definition of sexual communication: the encoding and decoding of verbal and nonverbal messages between sexually active partners regarding the sexual aspects and characteristics of their relationship, which includes the breadth and depth of content, as well as the perceived quality of message exchange.

Incorporating past conceptualizations. It is important to note that the current study adopts a broad conceptualization of sexual communication to account for past literature's nuanced definitions, which include: depth of disclosure about sexual likes and dislikes regarding specific sexual behaviors (Byers & Demmons, 1999; Herold & Way, 1988); breadth of disclosure regarding different topics related to sexual communication (e.g., sexual fantasies, sexual preferences, meaning of sex, anxieties about sex: Coffelt &

Hess, 2014; Snell, Belk, Papini, & Clark, 1989); discussions with partners specifically about safe-sex behavior and sexual health (Cline, Johnson, & Freeman, 1992; Horan, 2015; Lucchetti, 1999; Milhausen et al., 2007; Troth & Peterson, 2000; van der Straten, Catania, & Pollack, 1998); indirectness and avoidance of discussions regarding sexual aspects of a relationship (Davis et al., 2006; Theiss, 2011; Theiss & Estlein, 2014); verbal and nonverbal indicators of pleasure during sexual behavior (Babin, 2013); personal feelings of satisfaction, enjoyment, and ease regarding the nature of sexual communication within a sexually active relationship (Catania, 1987; Cupach & Comstock, 1990; Montesi et al., 2013; Wheeless & Parsons, 1995; Wheeless et al., 1984); and, trait-like dispositions to view sexual communication as anxiety-inducing (Babin, 2012) and to be willing to engage in sexual communication with a partner (La France, 2010).

Additionally, studies have conceptually differentiated between sexual communication that is relational-focused (i.e., associated with relational outcomes such as sexual satisfaction and relational satisfaction)—which includes disclosures with partners about sexual likes/dislikes, pleasurable behaviors, orgasms, and the perceived quality of such communication (Byers && Demmons, 1999; Montesi et al., 2010; Wheeless et al., 1984)—and sexual communication that is health-focused (i.e., associated with health outcomes such as condom use)—which includes discussions about HIV/AIDS, sexually transmitted infections (STIs; Cline et al., 1992; Milhausen et al., 2007); past sexual partners and sexual histories (Horan, 2015; Lucchetti, 1999); condom use and negotiation (Noar, Carlyle, & Cole, 2006; Noar, Morokoff, & Harlow, 2002); and other contraceptive techniques (van der Straten et al., 1998). Although the current study's

conceptualization of sexual communication accounts for both types of message-exchange, the current investigation will only focus on relational-focused sexual communication and relational outcomes (i.e., relational and sexual satisfaction). This decision was made based on methodological choices of past research which have exclusively examined relational-focused sexual communication with relational outcomes (i.e., relational satisfaction and sexual satisfaction; see Byers & Demmons; Montesi et al., 2010, Wheeless et al.) and health-focused sexual communication with health outcomes (i.e., condom use; see Noar et al., 2006). Additionally, Blunt (2012) found that relational-focused sexual communication (conceptualized by Wheeless et al., 1984) was not associated with condom use (i.e., health outcome). It is important to stress that these two outcomes are independent of one another and not expected to covary (i.e., relational and sexual satisfaction are not associated with safe-sex behaviors; see Blunt, 2012).

Sexual communication: Quality and openness. This study's current conceptualization of sexual communication accounts for past definitions, which include components of depth and breadth of sexual communication (conceptually related to openness) and the perceived quality of communication regarding various sexual aspects within the relationship. The idea of quality (i.e., a perception) sexual communication relates to partners' internal feelings regarding the sexual communication that occurs within their relationship; for instance, satisfaction with sexual communication (Wheeless et al., 1984), as well as perceptions of ease, calmness, and comfort associated with sexual discussions with one's partner (Babin, 2013; Catania, 1987). It is not only important for partners to be open about their sexual communication to lead to positive outcomes, but research has shown that partners' relational outcomes are also contingent upon how they

feel about the sexual communication that occurs between them and their partner (Montesi et al., 2010). Interpersonal scholars have emphasized the importance of quality communication between relational partners to lead to positive relational outcomes (e.g., satisfaction, commitment, trust); in particular, quality communication has been characterized as including elements such as affection (Floyd, 2006), support (Burleson, 2010), and confirmation (Ellis, 2002). Communication between relational partners that is perceived as affectionate, supportive, and confirming tends to be positively associated with outcomes such as communication satisfaction and relational satisfaction (Dailey, Romo, & Thompson, 2011). Because of the importance of quality communication, it is essential to include the perception of quality sexual communication in my current conceptualization.

The ideas of depth and breadth of sexual communication relate to the process of self-disclosure (i.e., self-disclosure refers to "[the] process of telling another about one's intimate feelings, attitudes, and experiences"; Sprecher & Hendrick, 2004; p. 858) articulated within social penetration theory (SPT; Altman & Taylor, 1973). SPT argues that increases in both breadth (i.e., number of topics discussed) and depth (i.e., intimacy level of topics discussed) of self-disclosure result in increased intimacy and closeness, which also seems to be the case with regard to sexual communication breadth (i.e., the number of sexual topics discussed) and depth (i.e., the level of intimacy and openness regarding sexual topics discussed: Byers & Demmons, 1999; MacNeil & Byers, 2005; Wheeless et al., 1984). Self-disclosure within romantic relationships has been conceptually related to the relational maintenance concept of openness (Stafford, 2010), which is positively associated with relational satisfaction (i.e., an internal feeling of

contentment and happiness regarding the current state of a romantic relationship) and commitment (i.e., a desire and intention to continue a romantic relationship and ensure it has a future) in romantic relationships (Canary & Stafford, 1992; Weigel & Ballard-Reisch, 2008). Also, findings indicate that as romantic couples avoid one another and evade open communication, the more likely they are to be less satisfied and less committed (Goodboy, Myers, & Members of Investigating Communication, 2010). With regard to sexual communication, Theiss (2011; Theiss & Estlein, 2014) found that avoidance of sexual communication is negatively related to sexual satisfaction. Together, romantic couples' openness (i.e., breadth and depth) and lack of avoidance regarding sexual communication is associated with positive relational outcomes.

Relational Outcomes of Sexual Communication

Sexual communication is strongly associated with positive relational outcomes (i.e., sexual satisfaction and overall relationships satisfaction) (Mark & Jozkowski, 2013). Also, sexual satisfaction and overall relationship satisfaction have been found to be substantially, positively associated with each other, in both cross-sectional (Byers & Demmons, 1999; Mark & Jozkowski, 2013; Mitchell & Boster, 1998) and longitudinal (Byers, 2005; Lawrance & Byers, 1995) studies. This evidence suggests that couples tend to be more relationally satisfied overall when they are sexually satisfied. The study of romantic partners' sexual intimacy and satisfaction is important, as dissatisfaction with sexual aspects of a relationship are associated with greater likelihood of infidelity (Buss & Shackelford, 1997; Mark, Janssen, & Milhausen, 2011; Shaw, Rhoades, Allen, Stanley, & Markman, 2012), which can lead to relational distress and termination (Afifi, Falato, & Weiner, 2001; Roscoe, Cavanaugh, & Kennedy, 1988). Accordingly, furthering

scholarship on the link between sexual communication and satisfaction (both sexual and relational) is useful, as this knowledge can help educate couples and counselors on how to facilitate communication about sex. The following sections outline the association between sexual communication and relational outcomes, which occur through a mutually negotiated sexual script, sexual initiation, and sexual maintenance.

Mutually negotiated sexual script. Engagement in sexual communication provides relational partners an opportunity to develop a mutually negotiated sexual script in which they recognize each other's expectations and desires (see Metts & Cupach, 1989). Scholars argue this process is achieved via an expressive pathway and an instrumental pathway (Cupach & Metts, 1995; MacNeil & Byers, 2005; 2009).

Expressive pathway. Regarding the expressive pathway, increases in sexual communication are associated with greater relational satisfaction, and an increase in relational satisfaction influences reports of sexual satisfaction. This mediated relationship has been supported (see Byers & Demmons, 1999); however, the mediation is stronger for women than for men (MacNeil & Byers, 2005). Prior evidence of the expressive pathway also connects to ideas articulated by social penetration theory (Altman & Taylor, 1973), which argues that increases in both breadth (i.e., number of topics discussed) and depth (i.e., intimacy level of topics discussed) of self-disclosure result in increased intimacy and closeness. In particular, research on sexual communication has also found a significant positive association between sexual communication and overall general self-disclosure, suggesting that couples who are open about a range of different topics (high breadth and depth) also tend to disclose comfortably about sexual topics (Byers & Demmons, 1999; Mark & Jozkowski, 2013).

Instrumental pathway. In contrast, the instrumental pathway suggests that sexual communication serves the function of informing partners about what one likes and dislikes during sexual interaction, which leads to greater perceived sexual reward within the relationship. Increases in perceived sexual reward is then associated with sexual satisfaction. The mediated relationship (i.e., sexual communication →sexual reward→sexual satisfaction) of the instrumental pathway has also been supported (see Byers & Demmons, 1999; MacNeil & Byers, 2005; 2009). Collectively, the findings of the expressive and instrumental pathways indicate that both men and women benefit from sexual communication within a heterosexually active relationship, but through different causal mechanisms.

Sexual communication and relational initiation. Furthermore, sexual communication serves as a vehicle for relational initiation and maintenance within interpersonal relationships. Relationship initiation literature typically examines the communicative behavior that helps facilitate the development of a new relationship (e.g., nonverbal involvement behaviors, nonverbal immediacy, information-seeking, self-disclosure). Sexual communication plays a role in the initiation of sexual relationships (Theiss & Solomon, 2007). As Theiss and Solomon discovered, communication (operationalized to include explicitness of communication with sexual partners about risks associated with sex, consent and agreement to have sex, emotional outcomes, and relational effects of sex) before first sexual coitus was linearly and positively associated with more positive emotions and cognitions (and inversely related with negative emotions and negative cognitions) after first coitus. These findings illustrate that sexual partners—even after accounting for differences in their relational status (i.e.,

stranger/acquaintance, friend, dating partner, spouse)—benefit from explicit sexual communication before the incorporation of sex into the relationship. This positive first sexual experience can also affect the trajectory of the relationship; that is, positively valenced first sexual interactions can help facilitate relational development, whereas negatively valenced first sexual interactions may debilitate or halt future relational development.

Sexual communication and relational maintenance. Sexual communication also plays a fundamental role in the maintenance of sexually active relationships. Almost all work that has examined sexual communication as a maintenance behavior has focused on exclusive dating or married heterosexual relationships (see Cupach & Comstock, 1990; Cupach & Metts, 1995; Holmberg & Blair, 2009; Litzinger & Gordon, 2005; MacNeil & Byers, 2009; Montesi et al., 2010). The research consistently illustrates a significant and positive linear association between sexual communication, sexual satisfaction, and relationship satisfaction (Mark & Jozkowski, 2013). With regard to comparing relational types, research has indicated dating partners communicate about sex more than do casual sexual partners (Lehmiller, VanderDrift, & Kelly, 2014), and that the association between sexual communication and sexual satisfaction is often stronger for sexually active partners who have been together longer (Montesi et al., 2010). This is potentially due to the fact that committed relational partners often have sex with the purpose of developing close, intimate bonds with each other; conversely, casual sexual partners tend to have sex for more self-involved reasons, such as pleasure, release, or sexual fulfillment (Jonason, Li, & Richardson, 2011; Lehmiller, VanderDrift, & Kelly, 2011; Perlman & Sprecher, 2012).

Purpose of the Current Study: Identifying Sexual Communication Antecedents

Overall, sexual communication between partners tends to be associated with positive relational outcomes. Although this knowledge is critical to further our understanding of sexually active relationships, less is known regarding the antecedents to sexual communication (Montesi et al., 2013). Thus, it is important for scholars to research the factors that help partners facilitate sexual communication. Currently research has concluded that various intrapersonal, psychosocial constructs are associated with one's likelihood to engage in sexual communication, including: sexual self-esteem and general self-esteem (Oates & Offman, 2007), social anxiety and fear of intimacy (Montesi et al., 2013), attachment and sexual anxiety (Davis et al., 2006), and relational uncertainty (Theiss, 2011; Theiss & Estlein, 2013). Much less is known regarding the potential interpersonal constructs that potentially play a role in one's sexual communication in a sexually active relationship, which is a major focus of the current investigation. In particular, I argue that communication within the family of origin plays a role is how individuals cultivate the previously mentioned intrapersonal constructs (e.g., self-esteem, anxiety) (Schrodt, Witt, & Messersmith, 2008), which subsequently influence sexual communication. To construct this argument, I draw from the theory of family relational schema (Koerner & Fitzpatrick, 2002a), which addresses how family communication patterns (FCPs) are associated with intrapersonal and behavioral outcomes.

Family Communication Patterns Theory (FCPT)

The FCP theoretical framework was first articulated by McLeod and Chaffee (1972) as a way to understand how children's socialization and perception of reality is

influenced by the communication environment within a family system. These scholars argued that families interactively create particular norms and beliefs (i.e., socio-orientation and concept-orientation) as a way to achieve agreement and structure a shared social reality among family members. Early research—rooted in the media studies discipline—was interested in how family members make sense of media messages through the process of agreement (i.e., a shared social reality within the family system: McLeod & Chaffee, 1972). Agreement is achieved via two family interpersonal processes: 1) socio-orientation, which emphasizes harmonious relationships via implicit agreement and avoidance of any disagreements or conflicts to protect relations between family members; and, 2) concept orientation, which emphasizes the expression of ideas between family members, as well as exposure to contrasting ideas; as a result, family members talk openly with one another about ideas to reach agreement (Chaffee, McLeod, & Atkin, 1971; Chaffee & Tims, 1976; McLeod & Chaffee, 1972). It is important to note that these two orientations are not independent of one another, but instead, families can adopt both types of orientations or have low levels of each orientation; "…families systematically and predictably vary in their use of these two strategies to achieve agreement and create a shared social reality. This process, in turn, is posited to predict different ways in which parents socialize their children…" (Koerner & Schrodt, 2014, p. 4).

After roughly two decades of research using this conceptualization of FCPs, Ritchie and Fitzpatrick (Fitzpatrick & Ritchie, 1994; Ritchie, 1991; Ritchie & Fitzpatrick, 1990) reconceptualized and reoperationalized the socio- and concept-orientations to reflect a *conformity*- (conceptually related to socio-orientation) and *conversation*-

orientation (conceptually related to concept-orientation) within families (reflected in their Revised Family Communication Patterns [RFCP] scale). According to Ritchie (1991), "concept-orientation is associated with supportiveness and open communication… and socio-orientation is associated with parental assertion of power and control" (p. 549). Additionally, this reconceptualization helped scholars to contextualize conversation- and conformity-orientations specifically within a theoretical framework of family communication that has helped scholars understand how FCPs influence familial processes via relationship schema (Koerner & Fitzpatrick, 2002a). Ritchie and Fitzpatrick's (1990) reconceptualization has been adopted and validated by family scholars across disciplines over the last quarter century, including communication (Schrodt et al., 2008), developmental psychology (Rangarajan & Kelly, 2006), educational psychology (Pingree, Hawkins, & Botta, 2000), business and market behavior (Bakir, Rose, & Shoham, 2006; Caruana & Vassallo, 2003; Hsieh, Chiu, & Lin, 2006), and mass communication (Kromar, 1998; Kromar & Vierira, 2005). Furthermore, Schrodt et al. (2008) found that effect sizes for the associations between FCPs and behavioral/psychosocial outcomes were larger when the RFCP (Ritchie & Fitzpatrick, 1990) was used, compared to the original FCP scale (McLeod & Chaffee, 1972), demonstrating strong validity for the new conceptualization and operationalization. The following sections will articulate the general theory of family relational schema, which will be the theoretical framework used in the current investigation. Next, there will be a discussion of FCP research as it relates to conversation- and conformity-orientations and the four family typology.

A Theory of Family Relational Schema

FCPs are constructs within a larger theoretical framework of family communication, which draws from the idea of relational schemas (Baldwin, 1992; Fletcher, 1993; Koerner & Fitzpatrick, 2002a). It is first important to conceptualize the broad concept of schema, which is a construct that has undergone considerable reconceptualization for more than half a century (McVee, Dunsmore, & Gavelek, 2005; Wagoner, 2013). Brewer and Nakamura (1984; as cited in McVee et al., 2005) state that schemas represent "higher-order cognitive structures that have been hypothesized to underlie many aspects of human knowledge and skill. They serve as a crucial role in providing an account of how old knowledge interacts with new knowledge in perception, language, thought, and memory" (p. 120). Broadly speaking, schemas represent individuals' cognitive working models for how to interpret events and stimuli, as well as how to make decisions regarding said events and stimuli. The concept of schema has been applied in various disciplines to understand how individuals process information in different domains (e.g., reading [see McVee et al., 2008], social phobia [see Wenzel, 2004], memory [see Wagoner, 2013], etc.). Specific to the current investigation, individuals possess schemas for how to navigate various relationships (Koerner & Fitzpatrick, 2002a).

Baldwin (1992) proposed relational schemas as a way to understand how individuals process three sources of information to make interactional decisions in relationships: 1) *self-schema*, which refers to how one views him- or herself in a given context; 2) *other-schema*, which refers to cognitive representations one has for a particular relational partner; and, 3) *interactional-schema*, which relate to the

interpersonal scripts individuals possess for particular interactional contexts. According to Baldwin, these three subschemas are interdependent, thus changes to one subschema influences changes in the other; collectively, these three subschemas comprise the relationship schema. According to axiom one of their theory, Koerner and Fitzpatrick (2002a) state; "Relationship schemas contain declarative knowledge, procedural knowledge, and interpersonal scripts linking cognition about the self, other, and the relationship" (p. 82). From this, it is understood that family communication is associated with how family members feel about themselves (e.g., self-concept, self-esteem) and their relationships with family members, with said feelings related to communicative behaviors. More specifically, Koerner and Fitzpatrick (2002a) state that relational schemas have an effect on "the encoding and decoding of information, the inferences and evaluations people make, how they memorize social events, their information-seeking behavior, and ultimately their interpersonal behaviors" (p. 80). Taken together, relational schemas influence individuals' communicative decisions across various relational types. However, Baldwin's original conceptualization of relational schemas encountered criticism as being too broad and abstract (Fletcher, 1993).

Noticing the broad boundaries within the conceptualization of relational schemas by Baldwin (1992), Koerner and Fitzpatrick (2002a) also drew from Fletcher's (1993) model of relational schemas, which asserts that a hierarchy of relational schema exists that individuals access to encode and decode messages (axiom two of the theory): relationship-specific schema (most narrow; e.g., your schema for your specific relationship with your brother); relationship type schema (in the middle; e.g., your schema for all sibling relationships); and, general social schema (most abstract; your

schema for how people should act generally in a particular context). To make decisions, we first pull from narrow schema (i.e., relationship-specific schema); if no schema exists for that particular interactional partner, we then pull from relationship-type schema for that particular type of relationship (i.e., friend, romantic partner); and lastly, we pull from general social schema (axiom four of the theory).

Koerner and Fitzpatrick (2002a) argue that relational schemas within the family system and family communication are interdependent: "How we perceive familial relationships and how we behave in them depends on our family relationship schemas, and our family relationship schemas depend on our interactions within the family" (p. 88). Thus, there is a reciprocal relationship between the communication norms that govern families and the cognitive schema individuals' access to make interactional decisions with family members. These scholars also borrow from Fletcher and assert that familial relationship schema are comprised of the knowledge family members have regarding familial beliefs about intimacy, individuality, and external factors; "Based on previous research that has shown communication's importance for family communication and functioning, we expect beliefs regarding the role of communication in families to be part of family schemas, especially beliefs regarding conversation orientation and conformity orientation in families" (Koerner & Fitzpatrick, 2002a, p. 84). The theory argues that FCPs are an integral construct that comprise family systems' beliefs about communication. The following sections will first conceptualize conversation- and conformity-orientations within families and then discuss the outcomes of FCPs that lend support to Koerner and Fitzpatrick's (2002a) theory of family communication.

Conversation and conformity-orientation. FCPs are divided into two primary orientations: conversation-orientation and conformity-orientation (Koerner & Fitzpatrick, 2002a; 2002b). These two orientations represent perceived beliefs regarding family communication within a family system, primarily between parents and children (Ritchie, 1991). Conversation-orientation (reconceptualized from the original concept-orientation; McLeod & Chaffee, 1972) refers to the extent to which families encourage open, honest communication from all family members about a wide array of issues and topics (e.g., religion, politics, emotions, differing ideas/opinions) without any hesitation or restraint. Families high in conversation-orientation tend to place a high value on open communication, preferring to "talk things out" and support one another rather than avoid (Ritchie & Fitzpatrick, 1990); they possess the "belief that open and frequent communication is essential to an enjoyable and rewarding family life" (Koerner & Fitzpatrick, 2002a, p. 85).

Conformity-orientation (reconceptualized from socio-orientation; McLeod & Chaffee, 1972) refers to the extent to which families stress adherence to familial values, beliefs, and attitudes (i.e., homogeneity). Families high in conformity-orientation see the family structure as hierarchical, with parents having the final say regarding any disagreement (Fitzpatrick & Ritchie, 1994). Given the definition of socio-orientation—the extent to which children maintain a harmonious relationship with parents—conformity-orientation may appear conceptually distinct, yet Fitzpatrick and Ritchie (1994) argued that socio-orientation relates to conformity-orientation insofar as maintaining a harmonious relationship requires children to adhere to the values and wishes of parents and respect their authority. Conversation- and conformity-orientations

theoretically represent distinct, orthogonal constructs (Koerner & Fitzpatrick, 2002a), yet they interact to create a four family-type typology (see Table 1).

Table 1

Family Types: Interaction of Conversation and Conformity Orientations

	High Conformity	Low Conformity
High Conversation	Consensual Families	Pluralistic Families
Low Conversation	Protective Families	Laissez-faire Families

Family typology. The family typology includes consensual families, pluralistic families, protective families, and laissez-faire families (Koerner & Fitzpatrick, 2002b; MacLeod & Chaffee, 1972). Consensual families are high in conversation- and conformity-orientations; thus, these family systems encourage all members to openly communicate, but they also stress the importance of obedience and authority. This creates a unique tension between inviting open conversation while also enforcing familial beliefs, attitudes, and values. Parents in a consensual family typically manage this tension by "spending time and energy in explaining their decisions to their children in the hope that their children will understand the reasoning, beliefs, and values behind the parents' decisions" (Koerner & Fitzpatrick, 2002a, p. 87).

Pluralistic families are high in conversation-orientation but low in conformity-orientation, which means that open communication is encouraged without any restraint due to differing values or beliefs. Parents in this family type often invite children to participate in family decision-making, and do not feel the need to be in constant control of their children (Koerner & Fitzpatrick, 2002b).

Protective families are high in conformity-orientation but low in conversation-orientation. Accordingly, they censure open communication and stress obedience to parental rules and values. Parents in this family type make all of the decisions and do not feel a need to discuss and explain decision-making processes to children (Koerner & Fitzpatrick, 2002b).

Finally, laissez-faire families are low in both conversation- and conformity-orientation, meaning that family members do not communicate openly with one another and do not enforce strict rules and regulations. In laissez-faire families, parents let children make decisions (low conformity), but they feel no need to talk with their children about their decision-making process (low conversation) (Koerner & Fitzpatrick, 2002b).

Outcomes of FCPs. Research has demonstrated strong support for the theoretical contention that relational schema and FCPs are interdependent, with research demonstrating strong associations between FCPs with children and adolescents' psychosocial, behavioral, and information-processing outcomes. To begin, conversation-orientation is typically associated with a variety of positive psychosocial and behavioral outcomes for children and adolescents. For instance, children and adolescents who report a higher conversation orientation in their family tend to have higher scores on self-esteem and sociability, as well as lower scores on shyness (Huang, 1999; Rangarajan & Kelly, 2006); have a higher perceived communication reward (i.e., the belief that communicating with others is rewarding) and a lower communication approach-avoidance (i.e., the desire to avoid communicative interactions; Avtgis, 1999); report lower scores of communication apprehension in group and interpersonal contexts

(Elwood & Schrader, 1998; Hsu, 1998); have higher reports of emotional intelligence (Keaten & Kelly, 2008) and emotional competence, along with lower reports of emotion dismissing (Young, 2009); have higher reports of sympathy and perspective taking ability (Vieira, 2015); and, are more resilient within an academic context (Jowkar, Kohoulat, & Zakeri, 2011).

With respect to behavioral outcomes, people who come from a family high in conversation orientation tend to be more comfortable self-disclosing with same-sex friends (Huang, 1999); have greater desire to initiate conversations, self-disclose, provide emotional support, and manage conflict with same-sex friends and romantic partners (Koesten, 2004); be more communicatively competent (Schrodt et al., 2009), as well as describing their mothers and fathers as communicatively competent (Schrodt et al., 2009); be open with parents about credit card behaviors (Thomson & Kranstuber-Horstman, 2014); and, be more likely to report integrating/collaborating and compromising conflict strategies within the family and less likely to report avoidance conflict strategies (Koerner & Fitzpatrick, 1997; Shearman & Dumlao, 2008; Zhang, 2007).

Conversely, conformity-orientation has typically been associated with deleterious psychosocial and behavioral outcomes, but the effect sizes are smaller than those for conversation-orientation (Koerner & Schrodt, 2014). For example, people from high conformity families tend to have lower self-esteem (Huang, 1999), higher communication apprehension (Hsu, 1998), lower reports of emotional competence and higher reports of emotion dismissing (Young, 2009), and lower reports of cognitive complexity (Koesten & Anderson, 2004). Behaviorally, coming from a high conformity orientation is

associated with a more rigid privacy boundary (i.e., greater likelihood to withhold disclosing personal information) (Bridge & Schrodt, 2013), lower reports of constructive conflict management in same-sex friendships and romantic relationships (Koesten, 2004), and higher reports of conflict avoidance in romantic relationships (Koerner & Fitzpatrick, 2002c).

With regard to the family typology, FCP scholars have consistently found that children and adolescents from pluralistic and consensual families (both high in conversation-orientation) have better psychosocial and behavioral outcomes compared to children and adolescents from protective and laissez-faire families (both low in conversation-orientation). In particular, Huang (1999) found that adolescent college students from pluralistic and consensual families had higher reports of self-disclosure with friends, higher self-esteem, and higher sociability, as well as lower reports of shyness, when compared to adolescents from protective and laissez-faire families. Additionally, in a Chinese sample, Zhang (2008) found that college students from pluralistic and consensual families reported higher assertiveness and responsiveness scores (i.e., socio-communicative style), compared to students from protective and laissez-faire families. Bridge and Schrodt (2013) found that children from protective families had the most impermeable privacy boundaries. Also, Koerner & Fitzpatrick (1997) found that pluralistic families have the easiest time with conflict and engage in it most frequently, which they speculated was because these family members see conflict as a necessary part of relational life; consequently, pluralistic family members are most skillful with conflict and experience the most positivity and support during conflict episodes. Contrastingly, protective families are most likely to avoid conflict, and when

conflict can no longer be avoided, protective family members often encounter verbal aggressiveness because conflict is viewed as threatening to family functioning. Finally, individuals from pluralistic and consensual families tend to have higher reports of communication satisfaction within their families of origin compared to protective and laissez-faire families (Punyanunt-Carter, 2008).

Overall, both conversation- and conformity-orientations, as well as their interaction, are related to psychosocial and behavioral development for children and adolescents. A recent meta-analysis reports stronger effect sizes for conversation-orientation than for conformity-orientation with said outcomes (Schrodt et al., 2008). Additionally, effect sizes have been stronger for FCPs on psychosocial outcomes (e.g., self-concept variables) than on behavioral outcomes (e.g., conflict behavior in the family: Koerner & Schrodt, 2014; Schrodt et al., 2008). Collectively, these findings demonstrate the importance of family systems creating an environment for children and adolescents to express their beliefs, ideas, and opinions openly, without fear of rejection, backlash, or criticism from parents, as a way to develop positive self-concepts. Additionally, research indicates the role FCPs play in the development and maintenance of relational schema within the family, including self-schema (e.g., self-esteem and shyness, see Huang, 1999; communication apprehension, see Hsu, 1998; perceived communication competence; see Koesten, 2004), other-schema (e.g.,, adolescents' perception of parents' communication competence, see Schrodt et al., 2009), and interactional schema (e.g., discussions of credit card behaviors, see Thornson & Kranstuber-Horstman, 2014). With regard to the hierarchical model of relational schema, previous research provides empirical support that FCPs are not only associated with relationship-specific and relationship-type schema

within the family (e.g., conflict patterns within the family system, see Koerner & Fitzpatrick, 1997; confirming communication and affection, see Schrodt et al., 2007), but also that FCPs are associated with general relational schema that influence interactional decisions in relationships outside of the family (see Koerner & Fitzpatrick, 2002c; Koesten, 2004; Ledbetter, 2009; Young, 2014).

FCPs and relational schema outside of the family. It has been argued and empirically validated that communication within a family system is associated with how children and adolescents communicate in later relationships outside of the family (Burleson, Delia, & Applegate, 1995; Koerner & Fitzpatrick, 2002c). Noller (1995) asserts that this association is influenced by children and adolescents' exploration and formation of their identities via communication within their family systems, particularly within their parental relationships. Noller (1995) draws from Marcia's (1966) ego identity statuses and claims that communication with parents is essential to the development of children's and adolescents' self-concept with respect to whether they have explored their identity independently or adopted the identities of their parents, and whether they have committed to particular values and beliefs that shape their identity. Marcia believes that children and adolescents who are allowed to explore their identity and are encouraged to commit to a positive identity are more likely to have healthy psychological adjustment (e.g., higher self-esteem, lower anxiety and depression). However, the ability for children and adolescents to explore and form their identity is influenced by communication within the family system (Noller, 1995). Accordingly, research has demonstrated significant associations between parental communication (e.g., support, confirmation, control) and children's self-esteem (Buri, Kirchner, & Walsh, 1987; Noller, Seth-Smith, Bouma, &

Schweiter, 1992), anxiety, depression (Burt, Cohen, & Bjorck, 1988), and socialization within future relationships (Burleson et al., 1995). FCPs (especially conversation-orientation) are associated with intrapersonal constructs that shape a positive self-concept (e.g., self-esteem, emotional intelligence, communication apprehension), which could subsequently influence how children and adolescents communicate and behave in later relationships (Burleson et al., 1995; Parke et al., 2002).

FCPs shape general social schema. With regard to relational schemas and FCPs, the integration of Fletcher's (1993) notion of hierarchical relational schema is critical for the current theoretical framework. Koerner and Fitzpatrick (2002a) argue it "is economical and efficient because it suggests that, rather than storing knowledge of similar experiences and similar beliefs in different places of memory for different relationships, such knowledge is stored in more general schemas that are available for information processing in different relationships" (p. 77). This suggests that more abstract relationship schemas (i.e., general social schema) are less likely to change as a result of relationship experiences (axiom three), as these abstract schemas are more enduring and applied to various types of relationships (e.g., friendships, romantic relationships). Scholars have examined this claim and found empirical support (Koesten, 2004; Ledbetter, 2009; Young, 2014).

Scholars support an extension of Koerner and Fitzpatrick's (2002a) theoretical framework to examine how familial schemas influence behavioral and cognitive outcomes in non-familial relationships (Koesten, 2004; Ledbetter, 2009; Young, 2014). Pulling from axiom four of the theory (i.e., "In utilizing social knowledge stored in different schemas, persons will always access specific relationship schemas first,

relationship type schemas second, and the general social schema third," p. 82.), individuals may access general social schema or relationship-type schema generated within the family to make communicative choices. This argument also connects to axiom three. From axiom three, people draw from abstract relational schema—which are more enduring than relationship-specific schema—to make interactional decisions in relationships outside of the family, such as romantic relationships. Thus, it stands to reason that individuals from high conversation-oriented families will draw from the general social schema and engage in open communication and self-disclose with relational partners outside of the family, whereas individuals from high conformity-oriented families will do the opposite and avoid particular topics that may be inappropriate or perceived as relationally damaging (Ritchie, 1991). These claims have been supported, with stronger effects found for conversation-orientation on communication in relationships outside of the family compared to conformity-orientation (Huang, 1999; Koesten, 2004).

Ledbetter creates a similar argument, but draws on Bandura's (2001) *social cognitive theory*. From this he argues; "…communication behavior modeled in family environments may influence communication behavior in a variety of social relationships" (p. 141). This contention relates to the previously mentioned general social schema, in so much that our general social schemas are cultivated via communication in our families and we then draw from these schema to make interactional decisions in other relationships. Both scholars found support for their hypotheses: Koesten (2004) found that conversation- and conformity-orientations were associated with communication competence in same-sex friendships and romantic relationships; and, Ledbetter (2009)

found that conversation orientation positively predicted relational maintenance behaviors in friendships, which subsequently predicted friendship closeness. Taken together, relationship schema generated within the family are associated with communicative behaviors in later relationships.

Koerner and Fitzpatrick (2002c) have also explored the influence of FCPs on communication within romantic relationships, specifically, conflict behavior. Drawing from Noller's (1995) contention that family communication influences communication in adolescents' later relationships, the authors predicted that conversation- and conformity-orientations would be associated with conflict behaviors in individuals' romantic relationship. The authors found the following: conformity orientation was the strongest predictor of conflict behavior in romantic relationships, above and beyond conversation orientation and the interaction between conversation and conformity orientation (i.e., conformity orientation positively associated with avoiding, aggressing, and resisting, but negatively associated with positive conflict behaviors). Collectively, these findings indicate a direct association between FCPs with behavior in individuals' romantic relationships.

Predictions related to FCPs and sexual communication. The current investigation seeks to continue the aforementioned line of inquiry to understand how FCPs relate to communicative behaviors in romantic relationships, specifically, the enactment of sexual communication. The previously mentioned studies have a methodological similarity between them: they were all cross-sectional survey designs in which one partner of the dyad reported on their FCPs and communication in later relationships. Neglecting to collect data from both partners in the dyad neglects the

interdependent (i.e., mutual influence) nature of relationships (Parks, 2007); in particular, it fails to capture the potential influence of individual and partner FCPs on later relational functioning. The current study will employ dyadic data collection and analytic techniques to explore how individuals' and their partners' reports of FCPs associate with sexual communication and relational outcomes. This is important to consider, as romantic, sexually-active relational partners are interdependent, which means individuals' experiences and characteristics influence partners' relationally and sexually, and vise-versa (Perlman & Sprecher, 2012). Accordingly, to capture the interdependent influences within romantic couples and explore the effects of FCPs on communication within the romantic dyad, it is important to collect data from both partners in the sexually active dyad.

Based on the theory of family relational schema, it is predicted that FCPs shape one's general social schema (Koerner & Fitzpatrick, 2002a). In particular, conversation-oriented families see the value in open communication about a wide range of topics; accordingly, individuals are likely to apply the belief that open communication is valuable to their romantic relationships (Koesten, 2004). The belief of open communication as valuable is predicted to transfer to the topic of sexual communication; that is, people from conversationally-oriented families are expected to engage in more open communication about sex with their romantic partner. Contrastingly, individuals from a conformity-oriented family are expected to avoid sexual communication with their partner. As Koerner and Fitzpatrick (2002c) found, individuals from high conformity-oriented families tend to avoid conflict in their romantic relationships. Similarly, it is

expected that individuals from high conformity-oriented families are more likely to report less engagement in sexual communication.

In addition, the interaction between conversation-orientation and conformity-orientation (i.e., family types) is expected to influence one's proclivity to engage in sexual communication. As Young (2014) found in her analysis of FCPs and confirmation in romantic relationships, conformity-orientation moderated (i.e., reduced the significant, positive association) the relationship between conversation-orientation and romantic relationship confirmation. Similarly, it stands to reason that conformity-orientation would moderate the positive effect of conversation-orientation on sexual communication (i.e., individuals from pluralistic families report the most sexual communication in their romantic relationship).

Moreover, it is expected that dyadic effects exist with regard to the association between FCPs and sexual communication. Dyadic effects refer to actor and partner effects (Kenny & Cook, 1999). In the context of this investigation, an actor effect would be the association of one's conversation-orientation on one's own sexual communication; on the other hand, a partner effect would the influence of one's conversation-orientation on the partner's sexual communication (see Kenny & Cook, 1999 for full description of this). Due to the interdependent nature of relationships (Kenny & Cook, 1999; Parks, 2007), it is expected that partners' conversation- and conformity-orientations interact to influence reports of sexual communication. Thus, the following hypotheses are derived with regard to the associations between FCPs and sexual communication (all hypotheses represented in Figure 1, which is the hypothesized path model representing the associations between FCPs, sexual communication, and relational outcomes):

*H*1(a and b)*:* 1a) There are positive actor effects of CVO on reported sexual communication in romantic relationships; 1b) There are positive partner effects of CVO on reported sexual communication in romantic relationships.

*H*2 (a and b)*:* 2a) There are negative actor effects of CFO on reported sexual communication in romantic relationships; 2b) There are negative partner effects of CFO on reported sexual communication in romantic relationships.

*H*3 (a and b): 3a) Actor reports of conversation- and conformity-orientations will interact to predict actors' reports of sexual communication; that is, actors' reports of sexual communication will be higher when actors report high levels of conversation and low levels of conformity. 3b) Partner reports of conversation- and conformity-orientations will interact to predict actors' reports of sexual communication; that is, actors' reports of sexual communication will be higher when partners report high levels of conversation and low levels of conformity.

*H*4: Both actors' and partners' reports of conversation orientations will interact to predict actors' reports of sexual communication. In particular, couples in which both partners report high conversation orientation will have the highest reports of sexual communication.

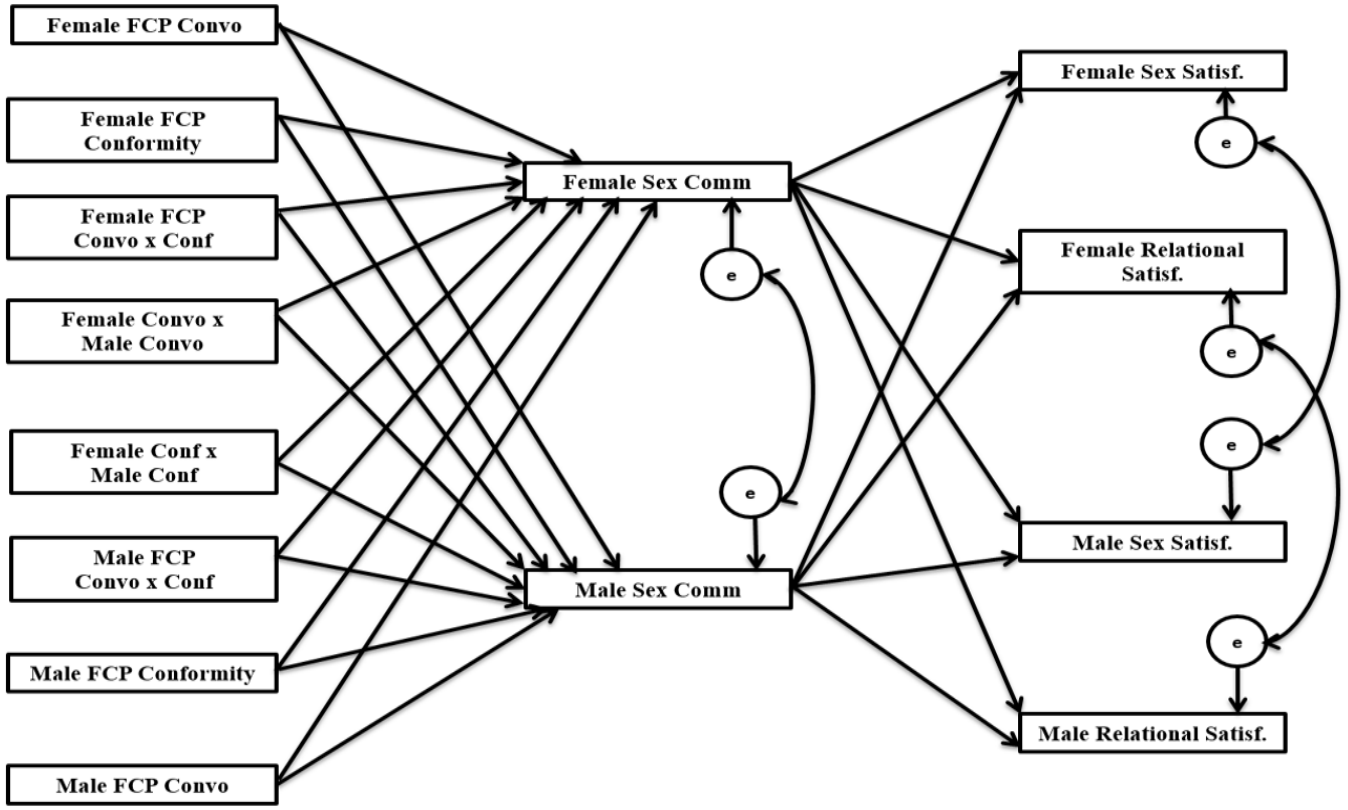
*H*5: Both actors' and partners' reports of conversation orientations will interact to predict actors' reports of sexual communication. In particular, couples in which both partners report high conformity orientation will have the lowest reports of sexual communication.

H6: Actors' and partners' reports of sexual communication are associated with actor repots of relational outcomes (i.e., relationship satisfaction, sexual satisfaction).

This chapter has thus far discussed sexual communication and its relational outcomes in sexually active relationships, and articulated a theoretical warrant for exploring FCPs as an antecedent to sexual communication in individuals' romantic relationships. The next sections will pull from Koerner and Fitzpatrick's (2002a) theory of family relational schema to understand the potential mediating role of self-schema (i.e., self-concept) and interpersonal scripts in the enactment of sexual communication. In particular, first I address the particular variables related to self-schema and interpersonal scripts that been examined in relation to sexual communication, as well as the connection of these variables to FCPs. Next, I argue for the importance of sexual self-concept in the examination of sexual communication.

Figure 1

Hypothesized Models with Family Communication Patterns, Sexual Communication, and Relational Outcomes



Note: This model accounts for hypotheses one through six. Hypotheses one through five are the associations between FCPs on men's and women's sexual communication. Hypothesis six is the association between sexual communication and relational outcomes.

Sexual Communication: The Role of Self-Schema

Koerner and Fitzpatrick's (2002a) theoretical framework argues interpersonal scripts and perceptions of the self (i.e., self-schema) are inextricably linked to family communication schema, in so much that FCPs shape individuals' self-schema and interpersonal scripts. As axiom one states; "Relationship schemas contain declarative knowledge, procedural knowledge, and interpersonal scripts linking cognition about the self, other, and the relationship" (p. 82). According to Koerner and Fitzpatrick (2002a), self-schema is associated with the self-concept and includes "self-relevant thoughts," while interpersonal scripts include expectations for social interaction as well "knowledge of things associated with the behavioral sequences, such as emotions and motivations" (p. 74). Relevant to the current investigation, both self-schema and interpersonal scripts have been linked to sexual communication in romantic relationships (Montesi et al., 2013; Oates & Offman, 2007). Moreover, both self-esteem and anxiety related to communication have been found to associate with FCPs (see Elwood & Schrader, 1998; Huang, 1999). The following sections will first outline an argument as to why self-esteem and social anxiety – collectively referred to as the general self-schema – possibly mediate the link between FCPs and sexual communication. Second, the conceptual and empirical link between self-esteem and social anxiety will be discussed. Third, the construct of sexual self-concept will be introduced as an additional potential mediator of the relationship between FCPs and sexual communication. Finally, hypotheses related to a self-schema mediated model will be addressed.

General Self-Schema: Self-Esteem and Social Anxiety

Self-esteem, social anxiety, and sexual communication. Previous scholars have found that self-esteem (associated with self-schema as internal thoughts of self; see Koerner & Fitzpatrick, 2002a) and social anxiety (i.e., interpersonal scripts – emotions associated with behavioral sequences; see Wenzel, 2004) are moderately to strongly associated with sexual communication in romantic relationships (see Oates & Offman, 2007; Montesi et al., 2013, respectively for associations of sexual communication with self-esteem [r = .46] and social anxiety [r = .23]). Ferroni and Taffe (1997) also found a moderate association between self-esteem and sexual communication. In addition, Wheeless and Parsons (1995) found that both communication apprehension and receiver apprehension were moderately and negatively related to sexual communication. Goldman, Martin, Brynard, DeClemente, and Ditrinco (2014) found that communication apprehension and receiver apprehension are associated with negative views regarding discussing condoms with a sexual partner. Taken together, self-schemas and interpersonal scripts are associated with one's engagement in sexual communication with sexual partners.

The link between self-esteem and social anxiety. Self-esteem and social anxiety have been found to be robustly correlated across the literature, with correlation coefficients ranging from r = -.56 (Valentiner, Skowronski, McGrath, Smith, & Renner, 2011) and -.55 (Cheng, Zhang, & Ding, 2015) with a college student sample and a Chinese sample, respectively, to r = -.65 with sample that compared individuals with social anxiety disorder (SAD) and those without SAD (Iancu, Bodner, & Ben-Zion, 2015; Ritter, Ertel, Beil, Steffens, & Strangier, 2013). Self-esteem and social anxiety have also

been found to be strongly associated via longitudinal analysis (van Tujil, de Jong, Sportel, Hullu, & Nauta, 2014). These robust associations suggest that self-esteem and social anxiety may be latent factors of a larger construct: general self-schema. According to Moscovitch (2009); "individuals with social phobia are unique and primarily concerned about characteristics of self that they perceive as being deficient or contrary to perceived societal expectations or norms" (p. 125). This claim suggests that views of the self – specifically negative views of the self – are the core of social anxiety. Thus, the strong associations between self-esteem and social anxiety indicate an "underlying factor" (Wray & Stone, 2005, p. 140)—the general self-schema.

The construct of self-schema, or self-concept, is complex and multidimensional, with its dimensionality contested among scholars (Marsh & O'Mara, 2008). Similar to the notion of schema (definition appears above), there are different elements of the self (e.g., cognitive, social, physical, academic, etc.), and scholars are recommended to focus on dimensions of the self most related to their research questions and goals (Marsh & O'Mara, 2008). The current investigation focuses on two dimensional of self: general self-schema and the sexual self-schema. The former is examined for two primary reasons. First, general self-schema (comprised of general self-esteem and social anxiety) has been found to be associated with both FCPs (Schrodt et al., 2008) and sexual communication (Montesi et al., 2013; Oattes & Offman, 2007). Second, general self-esteem and social anxiety reflect a broader construct of general self-schema as related to the theoretical framework of the current investigation (Koerner & Fitzpatrick, 2002a); that is, both self-esteem and social anxiety reflect general perceptions of the self in relation to others, which is a major component of the relational schema. Sexual self-concept—which

represents a more specific, narrow component of the self—will also be examined in the current investigation.

Sexual Self-Concept: Sexual Self-Esteem and Sexual Anxiety

The following section attempts to accomplish four goals: first, sexual self-concept will be conceptualized; second, the association between general self-concept variables and sexual self-concept variables will be addressed; third, the relationship between one's sexual self-concept and engagement in sexual communication will be discussed; and finally, attention will be paid to the antecedents of sexual self-concept.

Conceptualizing sexual self-concept. The idea of a sexual self-concept has been conceptualized and operationalized in a variety of ways. However, scholars are in agreement that sexual self-concept conceptually represents a complex, multi-dimensional construct that includes cognitively structured views of the self as a sexual being, including sexual ability, self-esteem, and attitudes/feelings towards sexual interaction (Blunt, 2012; Deutsch, Hoffman, & Wilcox, 2014). Recently, Deutsch and colleagues created and established construct validity (via confirmatory factor analysis of measurement model) of a multi-dimensional sexual self-concept model comprised of five dimensions: 1) sexual self-esteem (i.e., the belief that one is a good sexual partner, has a lot to offer with regard to sexual interaction, and can relate well sexually to another person; three factors: esteem regarding sexual behavior, sexual conduct, and sexual attractiveness); 2) sexual self-efficacy (i.e., the belief that one is able to achieve sexual satisfaction and practice safe sex; two factors: sexual assertiveness efficacy and sexual precautions efficacy); 3) sexual anxiety (i.e., the extent to which one is nervous or apprehensive about real or anticipated sexual interaction); 4) exploration (i.e., willingness

to try new things sexually); and, 5) arousal (i.e., feelings of sexual energy, frustration, and desire). Snell and colleagues (Snell, Fisher, & Shuh, 1992; Snell & Papini, 1989) also created a tripartite typology of sexuality that consisted of sexual self-esteem, sexual depression (i.e., the degree to which people are happy or unhappy about the sexual aspects of their lives), and sexual preoccupation (i.e., the degree to which people are consumed by thoughts of sexual interaction). In 1993, Snell and colleagues (see Snell, 1998; and, Snell, Fisher, & Walters, 1998) expanded the typology of sexuality to include 12 distinct dimensions: sexual self-esteem, sexual depression, sexual preoccupation, internal-sexual control, external-sexual control, sexual consciousness, sexual motivation, sexual assertiveness, self-monitoring, fear-of-sex, and sexual satisfaction. Finally, Rostosky, Dekhtyar, Cupp, and Anderman (2008; using items from Snell's [1998] measure) validated a two-factor sexual self-concept model that consisted of sexual self-esteem and sexual anxiety.

The current study conceptualizes the sexual self-concept as a multi-dimensional construct consisting of sexual self-esteem and sexual anxiety (similar to Rostosky et al., 2008). This decision is made for three primary reasons: 1) sexual self-esteem and sexual anxiety are two constructs that appear in all of the aforementioned sexual self-concept conceptualizations; 2) sexual self-esteem and sexual anxiety are expected to be associated with FCPs based on past research that has linked FCPs to intrapersonal constructs such as general self-esteem (see Rangarajan & Kelly, 2006) and general communication anxiety/apprehension (see Elwood & Schrader, 1998; Hsu, 1998); and, 3) the other potential factors of sexual self-concept are too closely related operationally to other variables of interest in the current study (e.g., sexual assertiveness overlaps with the

concept of open sexual communication [see Menard & Offman, 2009], and sexual assertiveness is a factor of sexual self-efficacy [see Deutsch et al., 2014]; sexual arousal and sexual depression are closely related to the construct of sexual satisfaction, which is an outcome variable of interest).

The association between general self-concept and sexual self-concept. Scholars have argued that self-esteem and anxiety can be domain specific; that is, one can have high general self-esteem but have low sexual self-esteem, and one could experience relatively little anxiety in everyday interactions but become extremely anxious during sexual interaction (see Davis et al., 2006; Oattes & Offman, 2007). However, general self-esteem tends to covary with sexual self-esteem, with the same being true for attachment anxiety and sexual anxiety; additionally, the correlation coefficients between these variables are often moderate to large (see Brassard, Dupuy, Bergeron, & Shaver, 2015; Davis et al., 2006; Oates & Offman, 2007). These findings suggest that general intrapersonal traits (self-esteem and anxiety) tend to transcend to various relational domains, including sexual interaction and sexual communication (Goldman et al., 2014; Wheeless & Parsons, 1995). These findings are relevant to the current investigation, as past research has linked the general self-concept to sexual communication. For instance, Goldman and colleagues found significant negative associations between communication apprehension and receiver apprehension with perceived comfort of discussing condom use with peers. Furthermore, Wheeless and Parsons (1995) found moderate, negative associations between communication apprehension and receiver apprehension with sexual communication satisfaction, suggesting that "communication-related anxieties and fears represented significant communication tendencies that spill-over into relationships

in a somewhat meaningful way" (p. 43). Thus, because the sexual component of one's self-concept has a strong connection to their overall general self-concept and general self-concept variables are associated with sexual communication, it stands to reason that the sexual self-concept predicts sexual communication. Past research would also support this claim, which will be addressed in the next section.

Sexual self-concept and sexual communication. Relevant to the current study, scholars have begun to empirically assess the intrapersonal and interpersonal constructs that are associated with relational partners' proclivity to engage in sexual communication. With regard to how self-concept influences relationally-focused sexual communication, Montesi and colleagues (2013) discovered a mediated relationship in which social anxiety positively predicted fear of intimacy which then negatively predicted one's reports of sexual communication (specifically, disclosure about likes/dislikes and quality of sexual communication). Davis et al. (2006) also found that sexual anxiety was the strongest predictor of inhibited sexual communication compared to attachment avoidance and anxiety, relational love, deference to partner, sex as a barometer, and relationship satisfaction. In addition, Oattes and Offman (2007) discovered that sexual self-esteem was a superior significant predictor of sexual communication within a relationship (r = .66), above and beyond general self-esteem (r = .48), which indicates the unique role sexual self-esteem plays in predicting sexual communication. Finally, Blunt (2012) found that sexual self-concept was strongly associated with one's proclivity to engage in relational-focused sexual communication. With regards to health-focused sexual communication, Snell and colleagues (1992) found that sexual self-esteem was positively associated with women's likelihood to discuss AIDS with their partner. I was unable to

find any other studies that linked sexual self-concept to engagement in health-focused sexual communication.

Antecedents to sexual self-concept. Although scholarship has discovered a link between sexual self-concept and sexual communication, research has paid less attention to exploring the potential antecedents to sexual self-concept. Sexual self-concept has been found to be influenced by past experiences such as sexual abuse, which has been found to influence a negative sexual self-concept (i.e., low self-esteem, high anxiety) (Bruggen, Runtz, & Kadlec, 2006; James, 2011). Additionally, experience with the contraction of a sexually transmitted infection (STI; e.g., herpes, human papilloma virus, etc.) has been found to negatively influence sexual self-concept (Newton & McCabe, 2008). Scholars have also found positive associations between past sexual experiences and a positive sexual self-concept (Impett & Tolman, 2006; Randall, 2008). Continuing with this line of reasoning, scholars have also found that sexual self-concept tends to improve with age, as individuals have more sexual experience (Hensel, Fortenberry, O'Sullivan, & Orr, 2011; Winter, 1988). Scholars have argued that the positive connection between past sexual experience and a positive sexual self-concept is moderated by the perceived quality of sexual experience; that is, individuals are more likely to develop a positive sexual self-concept if they are engaging in satisfying sexual behavior with a repeated partner, as number of partners is unrelated to sexual self-concept (Higgins, Trussell, Moore, & Davidson, 2010; Impett & Tolman, 2006). Accordingly, it stands to reason that sexual experiences within close relationships are viewed as more positive and satisfying, which helps to foster a positive sexual self-concept.

In a qualitative examination of factors affecting women's sexual self-esteem, Heinrichs, MacKnee, Auton-Cuff, and Domene (2009) found that interpersonal variables were most widely reported to affect the development of sexual self-esteem, including: "experience of a loving, open, stable, and respectful relationship with partner," "disrespect and judgment from partners and others"; "openness and comfort about sexuality"; and, "lack of openness and appropriate/positive education about sexuality" (pp. 187—188). The first two interpersonal factors support findings that have demonstrated the importance of positive sexual experiences with a close partner in developing a healthy sexual self-concept. The second two interpersonal factors are more closely linked to open discussions about sexuality with people in individuals' social network, including family members. In fact, participants noted openness, or a lack of openness, within the family unit as a major contributing factor to sexual self-esteem.

Considering General and Sexual Self-Concepts

Noller (1995) argues that family communication is essential to children and adolescents' identity exploration and formation. According to Koerner and Fitzpatrick's (2002a) theory, FCPs are associated with individuals' self-schema (i.e., cognitive representations of themselves), with past research showing that FCPs are associated with psychosocial variables like communication apprehension (Hsu, 1998), self-esteem (Huang, 1999), and subjective well-being (Schrodt et al., 2007). In fact, Schrodt et al. (2008) found that the association between FCPs and psychosocial constructs is stronger than the association between FCPs and behavioral or information processing variables. These stronger associations indicate a robust empirical link between FCPs and individuals' self-schema, suggesting a potential mediated relationship between FCPs and

behaviors in romantic relationships through the self-schema. As previously stated, the associations between general self-concept and sexual self-concept variables are significant and substantial (Davis et al., 2006; Oates & Offman, 2007), indicating an interdependent relationship between general and sexual self-concept (i.e., individuals' sexual self-concepts are affected by the way they view themselves in general, and conversely, individuals' general self-concepts are affected by the way they view themselves sexually). Given this, it is possible that FCPs facilitate not only general perceptions of individuals' self-concepts, but also perceptions related to sexual aspects of their self-concept. Also, one's self-concept – both general and sexual – is associated with the enactment of sexual communication within romantic relationships. This suggests a mediated relationship, in so much that the self-concept mediates the relationship between FCPs and sexual communication. Furthermore, it stands to reason that a partner's self-schema is associated with one's enactment of sexual communication, as similar partner effects of self-schema on communication in relationships have been documented (e.g., partner effects of narcissism on aggression behaviors, see Keller, Blincoe, Gilbert, Dewall, Haak, & Widiger, 2014; partner effects of attachment insecurity on empathic concern, see Peloquin, Lafontaine, & Brassard, 2011). Accordingly, the following hypotheses are proposed (see Figure 2 for hypothesized model—hypotheses 7 through ten—with general self-schema mediating association between FCPs and sexual communication; see Figures 3 and 4 for hypothesized models—hypotheses 11 through 15—with sexual self-esteem and sexual anxiety, respectively, mediating the association between FCPs and sexual communication):

H7: Actor reports of conversation orientation will be positively associated with actor reports of general self-concept (i.e., general self-esteem and general social anxiety).

*H*8*:* Actor reports of conformity orientation will be negatively associated with actor reports of general self-concept (i.e., general self-esteem and general social anxiety).

*H*9*:* Conversation-orientation and conformity-orientation interact to predict actors' general self-concept (i.e., general self-esteem and general social anxiety); that is, conformity orientation moderates the relationship between conversation orientation with general self-concept (i.e., general self-esteem and general social anxiety).

*H*10*:* There will be actor and partner effects of general self-concept (self-esteem and social anxiety) on actor sexual communication.

*H*11*:* Actor reports of conversation orientation will be associated with actor reports of: a) sexual self-esteem (positively associated); and b) sexual anxiety (negatively associated).

*H*12*:* Actor reports of conformity orientation will be associated with actor reports of: a) sexual self-esteem (negatively associated); and b) sexual anxiety (positively associated).

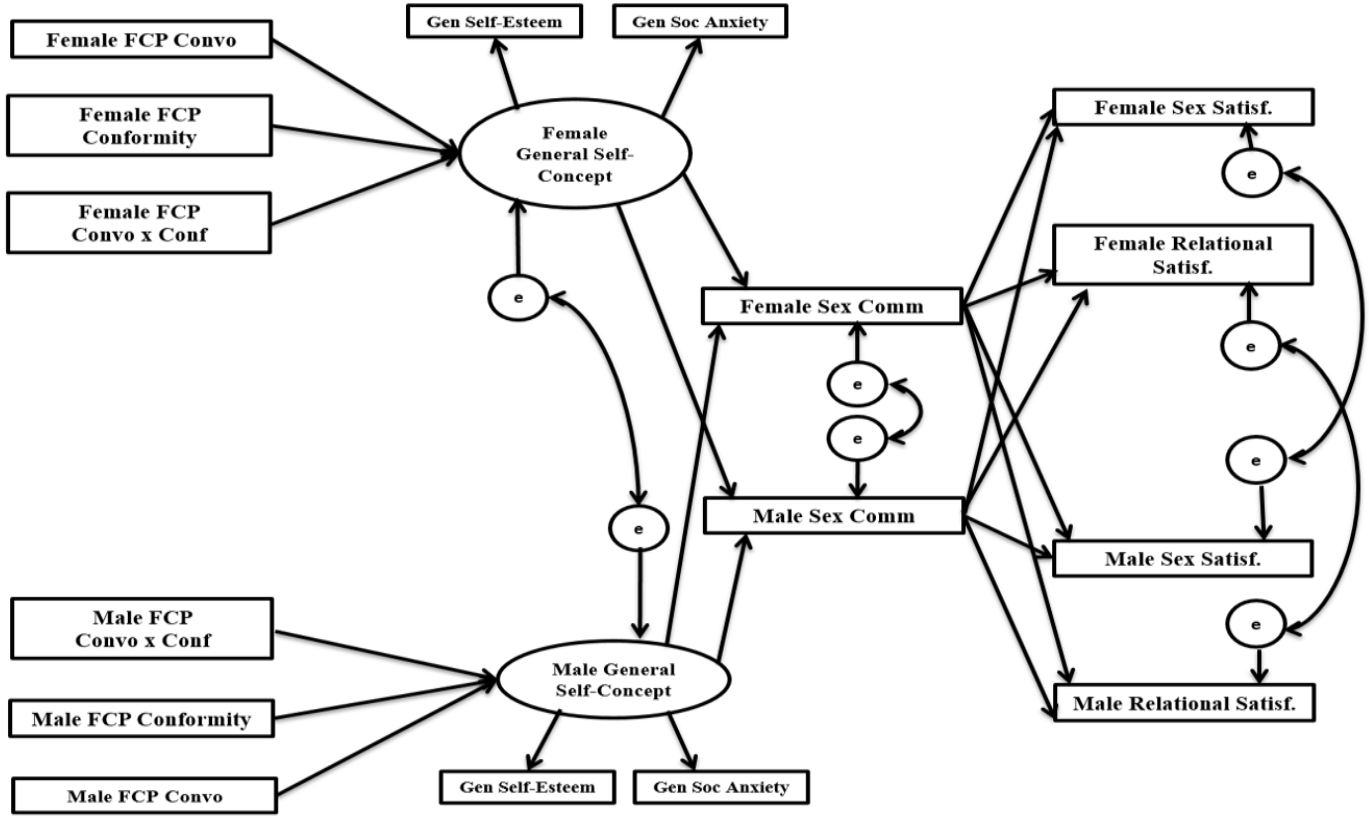
*H*13*:* Conversation-orientation and conformity-orientation interact to predict actors' sexual self-esteem and sexual anxiety; that is, conformity orientation moderates the relationship between conversation orientation with a) sexual self-esteem, and b) sexual anxiety.

*H*14*:* There will be actor and partner effects of sexual self-esteem on sexual communication; that is, a) women's sexual self-esteem is positively associated with their own sexual communication; b) women's sexual self-esteem is positively associated with their partner's sexual communication; c) men's sexual self-esteem is positively associated with their own sexual communication, and d) men's sexual self-esteem is positively associated with their partner's sexual communication.

*H*15: There will be actor and partner effects of sexual anxiety on sexual communication; that is, a) women's sexual anxiety is negatively associated with their own sexual communication; b) women's sexual anxiety is negatively associated with their partner's sexual communication; c) men's sexual anxiety is negatively associated with their own sexual communication, and d) men's sexual anxiety is negatively associated with their partner's sexual communication.

Figure 2

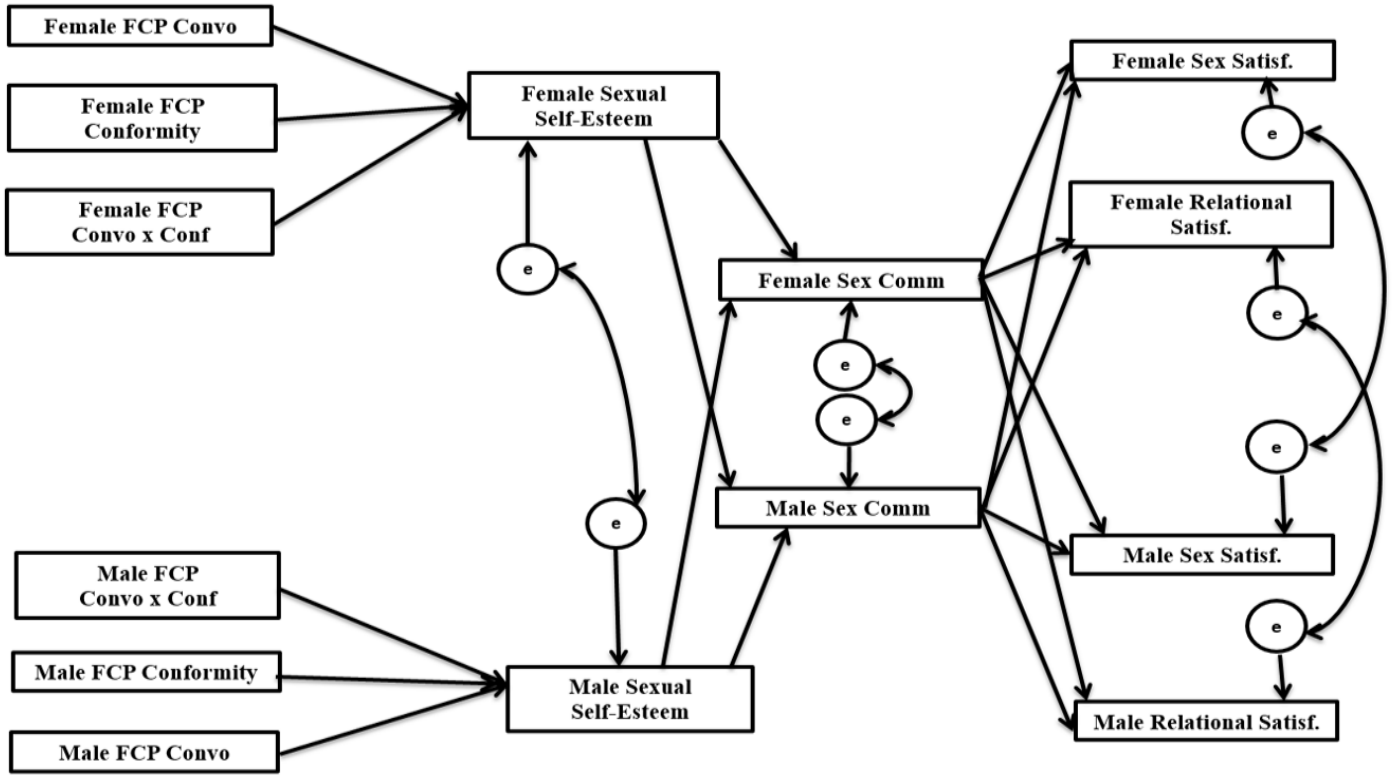
Hypothesized Models with Family Communication Patterns, Genera Self-Schema, Sexual Communication, and Relational Outcomes



Note: This model accounts for hypotheses seven through ten. Hypotheses seven through nine are the associations between FCPs on general self-schema. Hypothesis ten is the association between general self-schema and sexual communication.

Figure 3

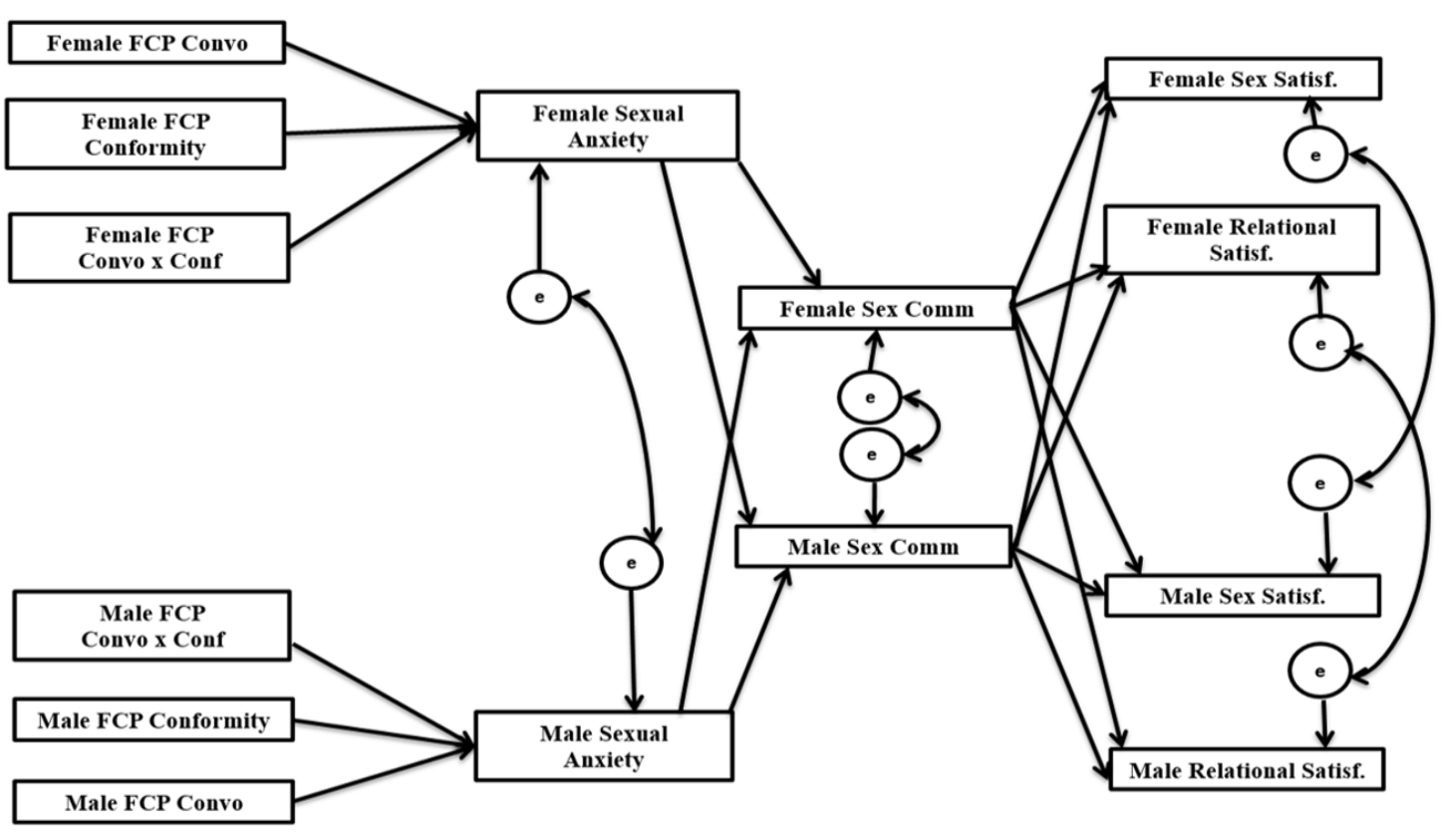
Hypothesized Models with Family Communication Patterns, Sexual Self-Esteem, Sexual Communication, and Relational Outcomes



Note: This model accounts for hypotheses 11 through 15. Specifically, hypotheses 11a, 12a, and 13a are the associations between FCPs and sexual self-esteem. Hypothesis 14 includes the associations between sexual self-esteem and sexual communication.

Figure 4

Hypothesized Models with Family Communication Patterns, Sexual Anxiety, Sexual Communication, and Relational Outcomes



Note: This model accounts for hypotheses 11 through 15. Specifically, hypotheses 11b, 12b, and 13b are the associations between FCPs on sexual anxiety. Hypothesis 15 includes the associations between sexual anxiety and sexual communication.

Chapter 2

METHODOLOGY

The current investigation employed a cross-sectional, dyadic survey methodology to test the previously stated hypotheses. A dyadic quantitative methodology was chosen to account for interdependent influences of romantic partner on the outcomes of interest (see Parks, 2007; Perlman & Sprecher, 2012). Collection of data from both individuals in the sexually active dyad allows the researcher to consider potential partner effects on individuals' outcomes (i.e., the effects of partners' FCPs on participants' reports of sexual communication, and the effects of partners' sexual communication on participants' relational outcomes). Interpersonal scholars have consistently advocated collecting data from both members in a dyad in an effort to explain more variance in individuals' relational outcomes (see Byers & MacNeil, 2006; Domingue & Mollen, 2009; Guerrero, 2014).

Recently, scholars have found that dyadic data is essential for furthering our understanding of relational topics (Kenny & Cook, 1999), with specific attention paid to sexual interaction, as partners mutually influence one another's sexual satisfaction (Fisher, Donahue, Heiman, Rosen, & Sand, 2015). Relevant to the current study, dyadic effects have also been reported for the effect of sexual communication on sexual satisfaction (i.e., partner's reports of sexual communication have been found to be associated with one's reports of sexual satisfaction) (Mark & Jozkowski, 2013; Theiss, 2011). Accordingly, in order to understand the developmental antecedents to sexual communication (i.e., FCPs), it becomes imperative to understand individual and partner effects that potentially create a relationship where partners are able to communicate

effectively about sexual matters. Scholars have already found interdependent influences of developmental variables (i.e., attachment security, avoidance, and anxiety) on communicative behaviors in relationships, such as conflict (Domingue & Mollen, 2009) and relationship-enhancing behaviors (e.g., assurances, confirmation, responsiveness; Birnbaum, Reis, Mikulincer, Gillath, & Orpaz, 2006). Accordingly, it stands to reason that partners' reported FCPs interact to influence openness of sexual communication within relationships.

The following sections will first outline the participants in the current study, along with recruitment procedures. Second, the methodological procedures will be outlined. Third, the selected measures will be addressed, along with reports of their reliability, validity, and operational relatedness to previous conceptualizations of variables from Chapter 1.

Participants

A sample of 216 heterosexual romantic dyads (N = 432; n = 216 women; n = 216 men) were included in the final data analyses. The researcher chose to limit the sampling frame to heterosexual romantic dyads. The primary reason for this is because heterosexual romantic dyads possess partners who are distinguishable (i.e., one person is the boyfriend, one person is the girlfriend) and including homosexual dyads would create indistinguishable data (i.e., two men/two women) (Ledermann, Macho, & Kenny, 2011).

Originally, 537 people had accessed the survey. The following occurred during the data cleaning phase: 27 people were eliminated because they did not answer any of the questions, 11 people were eliminated because they had significant data missing (i.e., did not complete any items on a variable of interest), 35 people were eliminated because

they were not able to be matched up with a dyadic partner, 22 people were removed because they were part of a homosexual relationship thus rendering the dyad indistinguishable, and 10 people (i.e., five dyads) were removed because one of the participants did meet the study criteria of being eighteen years of age or older.

Sample characteristics. Biological sex was the distinguishing factor of all romantic dyads, leaving 216 women and 216 men. Of these 432 individuals, 57.2% identified as Caucasian (*n* = 247), 15.3% identified as Asian (*n* = 66), 12.5% identified as Hispanic (*n* = 54), 5.1% identified as mixed ethnicity (*n* = 22), with remaining participants identifying as Native American (*n* = 13), African American (*n* = 12), Middle Eastern (*n* = 8), Pacific Islander (*n* = 4), Alaskan Native (*n* = 1), or other (*n* = 4). The average age of participants was 22.29 (*SD* = 4.29, range 18 – 49). These sample characteristics resemble other FCP research that has drawn from an undergraduate population (see Ledbetter, 2009; Schrodt, Ledbetter, & Ohrt, 2007; Young, 2009).

With regard to the relationship, a majority of participants identified their relationship as "seriously dating" (*n* = 314), followed by "casually dating" (*n* = 65), married (*n* = 22), engaged (*n* = 21), and some participants labeled their relationship type as "other" (*n* = 10; e.g., "practically engaged," "cohabitating")[1]. Relationship length was measured in months, with relationships ranging from one to 240 months (*M* = 25.93, *SD* = 31.63, *median* = 16). A majority of participants characterized their relationship as living close to each other (not cohabitating) (*n* = 214), followed by 30% (*n* = 129) in

[1] Descriptive statistic reports of relationship type are by individual, not dyad. Of all dyads, there were 28 dyads that were discrepant in their romantic relationship reporting; that is, each partner identified the romantic relationship differently (e.g., one partner said casually dating, whereas the other partner said seriously dating).

cohabitating relationships, and 20% (n = 88) in long-distance dating relationships (one person did not identify living situation for the relationship).

Sampling procedure. A nonrandom convenience sample was used to recruit participants (Meyers, Gamst, & Gaurino, 2013). In particular, eligible participants were recruited from undergraduate courses at a large public university in the United States, which is a similar sampling procedure with FCP research (see High & Scharp, 2015, Ledbetter, 2009; Schrodt et al., 2009). Undergraduate students who fit the inclusion criteria (i.e., currently involved in a sexually active romantic relationship and at least eighteen years of age or older) were invited to participate. At the discretion of the instructor, undergraduate students were awarded extra credit for their participation.

Procedures

The Institutional Review Board first approved the study's procedures. An online survey methodology was used to collect data from participants. Qualtrics, an online survey hosting website, was used as the survey software to collect data, which has proven to be a reliable data collection platform for dyadic data (Amaro, 2014). Participants were presented the continuous scales in the same order. First, they completed the FCPs measure; second, they completed measures related to sexual and general self-concept; third, they reported on sexual communication with their partner; fourth, they reported on relational outcomes; and finally, they completed demographic questions. However, individual items within each scale were randomized so that each participant responded to scale items in a random order (Oldendick, 2008). To do this, the researcher used separate pages for each of the measures (i.e., FCPs, self-concept, sexual communication, and

relational outcomes); next, the researcher set the Qualtrics settings to randomize survey items on each page.

The employment of dyadic data requires careful attention to participant matching, which refers to how the researcher matches dyadic partners' survey responses. The researcher coordinated participant matching by providing sexually active dyads with a matching code. Eligible participants who agreed to participate in the survey received a five-digit code they entered at the beginning and end of the online questionnaire. Participants also provided this five-digit code to their romantic partner, who entered the code at the beginning and end of the online questionnaire. This code was used to match romantic partners' surveys together for the purpose of dyadic data analysis. The researcher then pulled the data and manually matched participants based on the five-digit code provided to them.

Measures

A collection of measures was used in the current investigation to assess FCPs, sexual and general self-concept, sexual communication, and relational outcomes. Composite measures were created for all variables by averaging participants' responses to the individual items within each scale (for similar procedures see Guerrero, 2014; Theiss & Estlein, 2014).

Revised Family Communication Patterns (RFCP) Instrument

Ritchie and Fitzpatrick's (1990) RFCP was used in the current study (i.e., two dimensions in the scale: conversation-orientation and conformity-orientation, each of which represent separate, unidimensional constructs). This scale is comprised of 26 items, with 15 items that measure the degree to which participants perceive a

conversational orientation with their parents (e.g., “In our family we often talk about topics like politics and religion where some persons disagree with others”; “My parents often ask my opinion when the family is talking about something”; “In our family we often talk about our feelings and emotions), and 11 items that measure the degree to which participants perceive a conformity orientation with their parents (e.g., “My parents often say something like ‘You’ll know better when you grow up’”; “When anything really important is involved, my parents expect me to obey without question”; “In our home, my parents usually have the last work”). All items were measured on a 9-point scale (1 = *strongly disagree;* 9 = *strongly agree*).

The RFCP has consistently demonstrated high reliability coefficients for both conversation and conformity orientations (typically above .70; conversation-orientation usually has a higher Cronbach’s alpha compared to conformity-orientation; see Ritchie & Fitzpatrick, 1990), and it has established strong construct validity across a variety of studies (see Chapter 1, as well as Koerner & Fitzpatrick, 2002b). In particular, conversation- and conformity-orientations have been found to be associated with psychosocial constructs, communication behaviors (inside and outside of the family or origin), and information-processing outcomes (Schrodt et al., 2008). Both subscales demonstrated strong internal consistency; conversational orientation (entire sample M = 5.74, SD, = 1.76; female M = 5.79, SD, = 1.78, male M = 5.68, SD, = 1.74) (female Cronbach’s α = .93; male Cronbach’s α = .93), conformity orientation (entire sample M = 4.87, SD = 1.53, female M = 4.86, SD, = 1.59, male M = 4.87, SD, = 1.46) (female Cronbach’s α = .85; male Cronbach’s α = .85).

Self-Concept Measures

The current study collected data that assessed individuals' general self-concept (i.e., general self-esteem, general anxiety) and sexual self-concept (i.e., sexual self-esteem, sexual anxiety). Because the current study is interested in potential antecedents that explain variation in sexual communication, it is important to consider both general self-concept and sexual self-concept, as both constructs have been associated with sexual communication (see Blunt, 2012; Davis et al., 2006; Montesi et al., 2013; Oates & Offman, 2007).

General self-concept. General self-concept consisted of general self-esteem and general social anxiety. Genera self-esteem was measured with Rosenberg's (1965) unidimensional self-esteem scale, which is a ten-item scale that measures one's general self-esteem across various contexts. Sample items on this measure include, "I feel that I'm a person of worth, at least on an equal plane with others," "On the whole, I am satisfied with myself," and "I certainly feel useless at times." Scale items were measured on a 9-point scale (1 = *strongly disagree;* 9 = *strongly agree*). This is the most widely used measure of self-esteem in personality research (Blascovich & Tomaka, 1991; Schrodt et al., 2007), and has demonstrated strong internal consistency and validity throughout its five decades of use (Blascovich & Tomaka, 1991). Relevant to the current investigation, this measure is associated with both conversation- and conformity-orientations (Schrodt et al., 2007). The measure demonstrated strong internal consistency; female Cronbach's α = .89; male Cronbach's α = .89 (entire sample M = 6.73, SD = 1.47, female M = 6.74, SD, = 1.45, male M = 6.71, SD, = 1.49).

General social anxiety was measured using Mattick and Clarke's (1998) Social Interaction Anxiety Scale (SIAS), which is a 19-item unidimensional scale that assesses one's trait-level anxiety with communication in dyads or groups. All items were rated on a 9-point Likert-type scale (1 = *not at all characteristic of me*; 9 = *extremely characteristic of me*). Sample items include "I become tense if I have to talk about myself or my feelings," "I find myself worrying that I won't know what to say in social situations," and "I worry about expressing myself in case I appear awkward." Scholars have found extremely high internal consistency ratings for this measure (see Mattick & Clarke, 1998 – .93; Montesi et al., 2013 – .94). Mattick and Clarke also found extremely high test-retest reliability (.92) for the SIAS. Finally, this measure has established strong concurrent validity as it has been correlated with other established measures of social anxiety (Mattick & Clarke, 1998). Also, construct validity for this scale has been established as it has been associated with depression (Mattick & Clarke, 1998), fear of intimacy, sexual communication, and sexual satisfaction (Montesi et al., 2013) This scale demonstrated strong internal consistency; female Cronbach's $\alpha = .95$; male Cronbach's $\alpha = .94$ (entire sample $M = 6.31$, $SD = 1.62$, female $M = 6.25$, $SD, = 1.71$, male $M = 6.36$, $SD, = 1.53$). It is important to note that scores on general social anxiety were recoded so that higher scores indicated less anxiety (and vice-versa, lower scores indicated greater social anxiety). Due to strong empirical evidence suggesting a strong relationship between these variables, a latent construct will be created that is comprised of the observed variables self-esteem and social anxiety (correlation between general self-esteem and social anxiety for entire sample in current investigation, $r = .57$; for men, $r = .56$, for women, $r = .58$).

Sexual self-concept. The sexual self-concept measure from Rostosky et al. (2008; Rostosky et al. used items from Snell's sexual self-concept scale [see Snell & Papini, 1989; Snell, 1998]) was used, which is composed of two subscales: sexual self-esteem and sexual anxiety. Both subscales were measured on a 9-point Likert-type scale (1 = *not at all characteristic of me*; 9 = *very characteristic of me*). *Sexual self-esteem* is a unidimensional measure composed of eleven items (e.g., "I derive a sense of self-pride from the way I handle my own sexual needs and desires"; "I have positive feelings about the way I approach my own sexual needs and desires"; "I am confident about myself as a sexual partner"). This scale demonstrated strong internal consistency; female Cronbach's α = .90; male Cronbach's α = .92 (entire sample *M* = 6.61, *SD* = 1.48, female *M* = 6.60, *SD*, = 1.45, male *M* = 6.62, *SD*, = 1.52).

The *sexual anxiety* subscale is a unidimensional measure composed of eight items (e.g., "Thinking about the sexual aspects of my life often leaves me with an uneasy feeling"; "I worry about the sexual aspects of my life"; "I'm concerned with how others evaluate my own sexual beliefs and behaviors"). This scale demonstrated strong internal consistency; female Cronbach's α = .90; male Cronbach's α = .90 (entire sample *M* = 6.57, *SD* = 1.82, female *M* = 6.67, *SD*, = 1.85, male *M* = 6.48, *SD*, = 1.79). It is important to note that scores on sexual anxiety were recoded so that higher scores indicated less sexual anxiety (and vise-versa, lower scores indicated greater sexual anxiety). Initial construct validity was established, as the researchers found that sexual self-esteem was positively related with sexual self-efficacy and safe-sex knowledge, whereas sexual anxiety was positively associated with coital debut. Additionally, Brassard and colleagues (2015) found that sexual anxiety was significantly negatively associated with perceived

sexual functioning (e.g., sex drive, ability to reach orgasm, etc.) and sexual satisfaction. Moderate correlation coefficients have found between the two factors (see Brassard et al., 2015; Rostoky et al., 2008); thus, they will be observed separately in analyses.

Sexual Communication

Wheeless et al.'s (1984) Sexual Communication Satisfaction scale (SCSS) was used to assess relationally focused sexual communication. This unidimensional measure contains 22 items asked on a 9-point Likert scale (1 = *strongly disagree*; 9 = *strongly agree*). This particular measure has been selected because it is operationally associated with my previous conceptualization from Chapter 1. First, the SCSS assesses perceived quality of one's own RFSC (e.g., "I am satisfied concerning my ability to communicate about sexual matters with my partner"), perceived quality of one's partner's RFSC (e.g., "I am satisfied with my partner's ability to communicate his/her sexual desires to me"), and overall perceived quality of RFSC (e.g., "I am very satisfied with the quality of our sexual interactions"). Furthermore, the SCSS assesses various topics of RFSC, representing the openness component of the previous conceptualization (e.g., "I tell my partner when I am especially sexually satisfied"; "I do not hesitate to let my partner know when I want to have sex with him/her"; "I am not afraid to show my partner what kind of sexual behavior I find satisfying"). This measure has demonstrated strong internal consistency and validity. Cronbach's alpha coefficients of this measure have consistently been high (.94 in Wheeless et al., 1984). This scale has demonstrated strong construct validity, demonstrating moderate to large associations with sexual satisfaction (Montesi et al., 2010; Montesi et al., 2013; Wheeless et al., 1984), overall relationship satisfaction

(Cupach & Comstock, 1990), and communication apprehension and receiver apprehension (Wheeless & Parsons, 1995).

For this particular study, six additional items were added to the original 22-item scale to assess participants' belief that they listen and attempt to understand their partner's feelings regarding the sexual aspects of their relationship (i.e., "I try to understand my partners' views about the sexual aspects of our relationship"; "I listen to my partner when he/she is talking with me about sex"; "I am interested in my partner's point of view regarding the sexual aspects of our relationship"; "I care about what my partner has to say regarding our sex life"; "My partner's thoughts about our sex life are important to me"; and, "When we talk about sex, I attempt to understand the perspective of my partner"). This created a 28-item measure, which demonstrated strong internal consistency; female Cronbach's $\alpha = .95$; male Cronbach's $\alpha = .94$ (entire sample $M = 7.25$, $SD = 1.32$, female $M = 7.34$, $SD, = 1.33$, male $M = 7.16$, $SD, = 1.31$).

Because six additional items were added to the sexual communication measure an unrotated principle components analysis was conducted. The decision was made to run an unrotated factor analysis, based on the argument from Snyder and Gangestad (1986);

> We, however, consider it most informative to begin with the *unrotated* factor structure. …Given the manner in which the [Self-Monitoring Scale] was constructed (items chosen to tap coherently a hypothesized latent variable), this general factor, if it exists, should naturally be reflected as the first unrotated factor. (p. 127)

The six additional items were expected to be part of the already validated sexual communication construct. The factor analysis was appropriate given the Kaiser-Meyer-

Olkin measure of sampling adequacy (KMO = .95), as well as a significant Bartlett's Test of Sphericity ($\chi^2[378] = 6971.13$, $p < .001$). All factor loadings ranged from .55 to .77 on the first unrotated factor. To account for the nonindependence of the data, separate factor analyses were also conducted for men and women by splitting the data file; similar results were found for each of the sexes. In particular, all items loaded on the first unrotated factor for both sexes, with loadings of .58 and above for women (KMO = .94, Bartlett's Test of Sphericity—$\chi^2[378] = 4033.76$, $p < .001$), and loadings of .50 and above for men (KMO = .92, Bartlett's Test of Sphericity—$\chi^2[378] = 3344.63$, $p < .001$).

Relational Outcomes

Sexual satisfaction. Sexual satisfaction was measured using the unidimensional New Sexual Satisfaction Scale-Short Form (NSSS-S) (see Stulhofer, Busko, & Brouillard, 2010; 2011). This scale consists of 12 items measured on a 9-point Likert-type scale (1 = *not at all satisfied*; 9 = *extremely satisfied*). Six of the 12 items are ego-focused (e.g., "The quality of my orgasms"; "My 'letting go' and surrender to sexual pleasure during sex; "The way I sexually react to my partner"), whereas the other six items are partner and activity focused (e.g., "The balance between what I give and receive in sex"; "My partner's emotional opening up during sex"; "My partner's ability to orgasm"). All 12 items are averaged to create a composite measure of sexual satisfaction. Past studies have demonstrated high internal consistency for this measure, with Cronbach's alphas ranging from .90 to .93, and test-retest coefficients ranging from .72 to .84 (Stulhofer et al., 2011). Validity has also been established for the NSSS-S, with research demonstrating a positive association between the NSSS-S and global life satisfaction, as well as a negative relationship between NSSS-S scores and sexual

boredom (Stulhofer et al., 2011). Furthermore, the NSSS-S was able to discriminate between people with and without sexual disorders (Stulhofer et al., 2011). This scale demonstrated strong internal consistency; female Cronbach's α = .93; male Cronbach's α = .93 (entire sample *M* = 7.18, *SD* = 1.46, female *M* = 7.18, *SD*, = 1.48, male *M* = 7.17, *SD*, = 1.45).

Relationship satisfaction. Hendrick's (1988) unidimensional measure of relationship satisfaction was used in the current study. This scale is composed of 7 questions that employ 9-point scales for each question (e.g., "How satisfied are you with your relationship?" 1 = *not satisfied at all*, 9 = *very satisfied*; "How well does your partner meet your needs?," 1 = *not very well at all*; 9 = *very well*). This particular scale has been widely used by interpersonal communication scholars to examine relational outcomes among romantic relational partners (see Floyd et al., 2009; Guerrero, 2014; Guerrero, Farinelli, & McEwan, 2009) who have demonstrated strong construct validity for this measure. Additionally, reliability coefficients have been very high (typically above .80), indicating strong internal consistency for this measure (see Hendrick, 1998; Floyd et al., 2009, Guerrero, 2014; Guerrero et al., 2009). This scale demonstrated strong internal consistency; female Cronbach's α = .86; male Cronbach's α = .81 (entire sample *M* = 7.52, *SD* = 1.35, female *M* = 7.59, *SD*, = 1.39, male *M* = 7.45, *SD*, = 1.32).

Chapter 3

RESULTS

The actor-partner interdependence model (APIM) was used to analyze all hypotheses; in particular, path analyses (i.e., building a model with observed variables instead of latent constructs; see Bryne, 2010; Kaplan, 2009) and structural equation modeling (SEM) techniques (Kenny, Kashy, & Cook, 2006). SEM allows the researcher the ability to assess relationships between continuous variables of interest (Byrne, 2010) (see Table 2 for a list of correlations between all continuous variables for entire sample; Tables 3 and 4 show correlations between all continuous variable for men and women, respectively). Additionally, SEM techniques allow the researcher to assess relationships between multiple independent and dependent variables simultaneously, unlike regression or multi-level modeling, which only allows for one dependent variable to be assessed with each analysis (Byrne, 2010; Kaplan, 2009; Kenny et al., 2006). The following sections in this chapter will first address the dyadic data assumption of nonindependence as it applies to the current data, as well as outline the data analysis plan. Following this, the researcher will outline the results of the hypothesis tests.

Preliminary Analyses: Tests of Nonindependence

Kenny et al. (2006) state that one of the defining characteristic of dyadic data is nonindependence; partners' scores on dependent variables (i.e., general self-concept, sexual self-concept, sexual communication, sexual and relational satisfaction) should be associated with each another. Dyadic data inherently violates the parametric assumption of independence, because dyadic partners influence each another (Kenny et al., 2006). Therefore, researchers employing dyadic data analytic techniques need to test for

nonindependence of the data, as the treatment of dyadic data as independent increases potential Type I and Type II error inflation (Kenny et al., 2006). Following procedures similar to La Valley and Guerrero (2012) and Guerrero (2014), recommended by Kenny and colleagues (2006), two tests were conducted with the data to test for nonindependence of the data: differences between dyad members' scores (i.e., men and women; see Table 5) on all continuous variables, as well as tests of association between dyad members.

Mean Differences

First, paired samples t-tests were conducted to test for differences on all continuous variables between men and women within dyads. Non-significant differences between partners' scores (unless theoretically expected, see Knight, 2012 for an example of this) empirically indicates non-independence of the data. All tests were nonsignificant, except for sexual communication; $t(215) = 2.22$, $p = .03$, $\eta^2 = .02$. Within dyads, women ($M = 7.34$, $SD = 1.34$) reported significantly higher scores on sexual communication compared to men ($M = 7.16$, $SD = 1.31$).

Associations between Continuous Variables

Next, correlations between dyad members' scores on dependent variables were observed; significant correlations between dyad members' scores on outcomes variables indicate nonindependence (Kenny et al., 2006). Table 5 highlights correlations between dyad members; all correlations between dyad members on the same continuous variables are significant and positive (in Table 5, correlations between dyad members on the same continuous variable are boldfaced). Associations between dyad members are stronger for communicative (i.e., sexual communication, $r = .58$) and relational outcomes (i.e., sexual

satisfaction, r = .59; relationship satisfaction, r = .51) compared to FCPs (i.e., conversation-orientation, r = .19; conformity-orientation, r = .17) and personality constructs (i.e., general self-esteem, r = .22; social anxiety, r = .27; sexual self-esteem, r = .40; sexual anxiety, r = .40). This makes sense, as relational factors (i.e., sexual communication, satisfaction) are expected to correlate more strongly between dyad members than personality factors, as they are a product of relational processes between each member of the dyad (see Perlman & Sprecher, 2012).

Collectively, the lack of significant differences between dyad members' scores on variables (with the exception of the significant difference between dyadic partners on sexual communication), as well as the significant correlations between dyad members' scores on all variables, offer support of nonindependence of the data. Therefore, the proposed dyadic data analytic techniques are appropriate for the given data.

Table 2

Correlations between All Continuous Variables for Entire Sample (*N* = 432)

Variable	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1. FCP Conversation	-.10*	.34***	.18***	.21***	.00	.17***	.23***	.16**
2. FCP Conformity	---	-.24***	-.30***	.03	-.28***	-.08	.08	-.04
3. General Self-Esteem		---	.57***	.38***	.46***	.39***	.26***	.32***
4. General Anxiety			---	.33***	.55***	.40***	.22***	.25***
5. Sexual Self-Esteem				---	.52***	.60***	.65***	.43***
6. Sexual Anxiety					---	.59***	.36***	.40***
7. Sexual Comm.						---	.67***	.58***
8. Sexual Satisfaction							---	.60***
9. Relationship Sat.								---

Notes. **p* < .05; ***p* < .01; ****p* < .001, two-tailed

Table 3

Correlations between All Continuous Variables for Men (*N* = 216)

Variable	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1. FCP Conversation	.07	.31***	.21**	.20**	-.06	.19**	.29***	.11
2. FCP Conformity	---	-.18**	-.31***	.11	-.20**	-.03	.17*	.02
3. General Self-Esteem		---	.56***	.31***	.40***	.32***	.17*	.26***
4. General Anxiety			---	.34***	.57***	.44***	.21**	.28**
5. Sexual Self-Esteem				---	.48***	.53***	.59***	.36***
6. Sexual Anxiety					---	.54***	.27***	.33***
7. Sexual Comm.						---	.63***	.53***
8. Sexual Satisfaction							---	.56***
9. Relationship Sat.								---

Notes. **p* < .05; ***p* < .01; ****p* < .001, two-tailed

Table 4

Correlations between All Continuous Variables for Women (*N* = 216)

Variable	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1. FCP Conversation	-.25***	.37***	.16**	.22**	-.04	.14*	.18**	.20**
2. FCP Conformity	---	-.31***	-.30***	-.06	-.36***	-.13*	.01	-.08
3. General Self-Esteem		---	.58***	.47***	.49***	.46***	.35***	.37***
4. General Anxiety			---	.32***	.56***	.37***	.22**	.22**
5. Sexual Self-Esteem				---	.57***	.67***	.72***	.51***
6. Sexual Anxiety					---	.63***	.45***	.47***
7. Sexual Comm.						---	.70***	.63***
8. Sexual Satisfaction							---	.63***
9. Relationship Sat.								---

Notes. **p* < .05; ***p* < .01; ****p* < .001, two-tailed

Table 5

Correlations between Men's and Women's Scores on All Variables (*N* = 216 dyads)

	F FCP Convo	F FCP Conf	F General SE	F General Anxiety	F Sex SE	F Sex Anx	F Sex Com	F Sex Sat	F Rel Sat
M FCP Convo	**.19****	.01	.16*	.05	.06	-.04	.20**	.12	.12
M FCP Conform	.10	**.16***	-.02	-.11	.13	-.03	.06	.12	.04
M General SE	.05	-.10	**.24*****	.12	.09	.10	.24***	.11*	.26***
M General Anxiety	-.05	-.15*	.24**	**.27*****	.03	.21**	.25***	.12	.17*
M Sex SE	.08	-.03	.27***	.20**	**.41*****	.24***	.47***	.45***	.32***
M Sex Anx	-.05	-.15*	.30***	.31***	.22**	**.42*****	.41***	.26***	.30***
M Sex Com	.03	-.09	.21**	.21**	.27***	.32***	**.58*****	.42***	.37***
M Sex Sat	.14*	.06	.20**	.15*	.37***	.21**	.43***	**.61*****	.37***
M Rel Sat	.08	-.04	.24***	.19*	.27***	.31***	.41***	.45***	**.52*****

Notes. **p* < .05; ***p* < .01; ****p* < .001, two-tailed. Boldfaced and underlined correlation coefficients represent correlation coefficients between male and female dyadic partners on the same continuous variable.

Data Analysis Plan

Hypotheses will be tested using the APIM (Kenny et al., 2006). In particular, the actor-partner interdependence mediation model (APIMeM) will be used to estimate the path coefficients of the previously articulated dyadic path models, which is a structural equation modeling technique (see Ledermann et al., 2011, for a description of this data analysis procedure). This model is adopted because it allows "for estimation of a number of effects while controlling for the non-independence of dyadic data" (Guerrero, 2014, p. 597). Kenny and colleagues (2006) also state that the "SEM solution with distinguishable dyads is perhaps the simplest data analytic method for estimating the APIM, in the sense that the model can be directly estimated using a standard application of a well-known data analytic method" (p. 178). Observed variables (i.e., composite measures of scale items averaged together) will be used in the models rather than latent constructs (i.e., performs confirmatory factor analysis simultaneously with path analysis, using individual items as indicators of the latent construct; see Byrne, 2010). Path analysis is a common procedure adopted by other interpersonal communication scholars (see Wieselquist, 2009); in particular, path analysis has been used by scholars who study sexual communication (see Babin, 2013; Bigras, Godbout, & Briere, 2015; Monetsi et al., 2013), scholars employing dyadic data analytic techniques (Guerrero, 2014; La Valley & Guerrero, 2012)., and scholars examining FCPs (Baiocchi-Wagner & Talley, 2013; Taniguchi & Thompson, 2015).

Preparing the Data Set

The data set was prepared by placing dyadic partners' scores on the same participant line and labeling identifying data correctly as women's variables and men's

variables. By placing both male and female partners on the same participant line the researcher is able to treat the dyad as the level of analysis and examine both actor effects (e.g., the association between female sexual communication and female sexual satisfaction) and partner effects (e.g., the association between female sexual communication and male sexual satisfaction) (see Kenny et al., 2006).

Model Identification

Using SEM analytic techniques requires that models be just-identified (i.e., the number of unique pieces of information in the covariance [correlational] matrix is equal to the number of parameters requiring estimation) or over-identified (i.e., the number of unique pieces of information in the covariance [correlational] matrix is greater than the number of parameters requiring estimation) (see Bowen & Guo, 2012). Under-identified models (i.e., the number of unique pieces of information in the covariance [correlational] matrix is less than the number of parameters requiring estimation) are unable to be analyzed with a structural model (Bowen & Guo, 2012). Just-identification or over-identification is required because degrees of freedom in a structural model is calculated by subtracting the number of parameters estimated from the number of unique pieces of information. Degrees of freedom in a model must be equal to zero (i.e., just-identified) or positive (i.e., over-identified) for it to run. Consequently, if the number of parameters estimated exceeds the number of unique pieces of information (i.e., under-identified), then the degrees of freedom will be negative, thus rendering the model uninterpretable (Bowen & Guo, 2012). All of the proposed models are over-identified; that is, there are fewer parameters requiring estimation than there are unique pieces of information in the

covariance matrix. Accordingly, the proposed models are appropriate in terms of identification.

Fit Indices

Models are assessed via fit indices. Fit indices are important because they indicate the degree to which the theoretically hypothesized model fits the observed data (Meyers et al., 2013). Researchers often report absolute fit indices (i.e., assesses "how well the correlation/covariance of the hypothesized model fits the correlation/covariance of the actual or observed data" [Meyers et al., 2013, p. 870]), as well as incremental/relative fit indices (i.e., assesses model fit in relation to the independence or null model, which is a model that assumes there are no relationships between variables) (Meyers et al., 2013). For this analysis, the following absolute fit indices will be used: 1) chi-square test of model fit (calculated by dividing chi-square value by degrees of freedom); 2) root mean square error of approximation (RMSEA); and, 3) standardized root mean square residual (SRMR). The comparative fit index (CFI) will be the incremental fit index used to assess model fit. These decisions were made following guidelines recommended by other researchers (see Byrne, 2010; Guerrero, 2014; Meyers et al., 2013). With over 20 fit indices currently in the literature (Meyers et al., 2013), it is important for researchers to consider the fit indices they plan to use for their analyses.

To begin, for this study, the chi-square divided by degrees of freedom is a preferred absolute fit index compared to the traditional chi-square test for two primary reasons: first, the traditional chi-square test is sensitive to sample size, with larger samples providing more power to detect significant differences and inflate the chi-square statistic; and second, the traditional chi-square is sensitive to large correlations between

variables, with larger correlations creating poorer fit (Meyers et al., 2013). The RMSEA and SRMR are also absolute fit indices. According to Meyers and colleagues, "The RMSEA is the average of the residuals between the observed correlation/covariance from the sample and the expected model estimated for the population" (p. 871), which allows the researcher begin to estimate population parameters with sample data. The SEM output also produces a 90% confidence interval for the RMSEA, which provides useful information regarding the "precision in the estimate of the RMSEA" (Kenny, 2015, p. 5). The SRMR is empirically defined as the "standardized difference between the observed correlation and the predicted correlation" (Kenny, 2015, p. 5). Unlike the chi-square, RMSEA, and SRMR, the CFI is an incremental or relative fit measure, and it is recommended as the incremental fit measure of choice compared to other indices such as the normed fit index (NFI) (Bryne, 2010; Meyers et al., 2013).

The following predetermined criteria will be used to assess the goodness of fit for each model: 1) x^2/df value of 2 or less indicating good to excellent fit, with values between 2 and 5 indicating adequate fit (Meyers et al., 2013); 2) RMSEA coefficient below .08 indicating good fit, .08 to .10 indicating adequate fit, and anything over .10 indicating poor fit (Meyers et al., 2013); 3) a CFI at or above .90 indicating acceptable fit (.98 or higher indicative of excellent fit, .95 - .98 indicative of good fit, and .90 - .94 indicative of adequate fit; Hu & Bentler, 1995); and, 4) SRMR below .08 (Hu & Bentler, 1999).

FCPs, Sexual Communication, and Relational Outcomes

The first analyses assessed the path models of FCPs (i.e., conversation-orientation, conformity-orientation, interactions between conversation- and conformity-

orientations for each dyad member, interaction between partners' conversation-orientations, and interaction between partners' conformity-orientations), sexual communication for each partner, and relational outcomes (sexual and relationship satisfaction) for each partner. Two separate path analyses were conducted (see Figure 1—path models are collapsed into one figure): 1) a path model with sexual satisfaction as the outcome; and, 2) a path model with relational satisfaction as the outcome. These particular path analyses will test hypotheses one through six. Sexual satisfaction and relational satisfaction were tested in separate models due to their high correlations (see Tables 2—5 for correlations). With dyadic data, partners' error terms on the same endogenous variables (e.g., sexual communication, sexual satisfaction, relational satisfaction) are allowed to correlate (see Figures 1—4; also, see Guerrero, 2014). However, individuals' scores on distinct endogenous variables (e.g., relational satisfaction and sexual satisfaction) should not be allowed to correlate (Kaplan, 2009). Therefore, it was decided to estimate two different path models (i.e., one with sexual satisfaction and one with relational satisfaction).

FCPs, Sexual Communication, and Sexual Satisfaction Path Model

The original hypothesized model demonstrated acceptable fit based on the predetermined criteria: $\chi^2(16) = 40.86$, $p = .001$, $\chi^2/df = 2.55$, CFI = .96, RMSEA = .09 (90% CI = .05 - .12), SRMR = .04. Non-significant paths were removed from the model to help increase model fit (Byrne, 2010). Additionally, the modification indices indicated that adding a direct path from male CVO to male sexual satisfaction would greatly increase model fit. After making these adjustments to the path model, the model demonstrated excellent fit: $\chi^2(21) = 29.57$, $p = .10$, $\chi^2/df = 1.42$, CFI = .98, RMSEA = .04

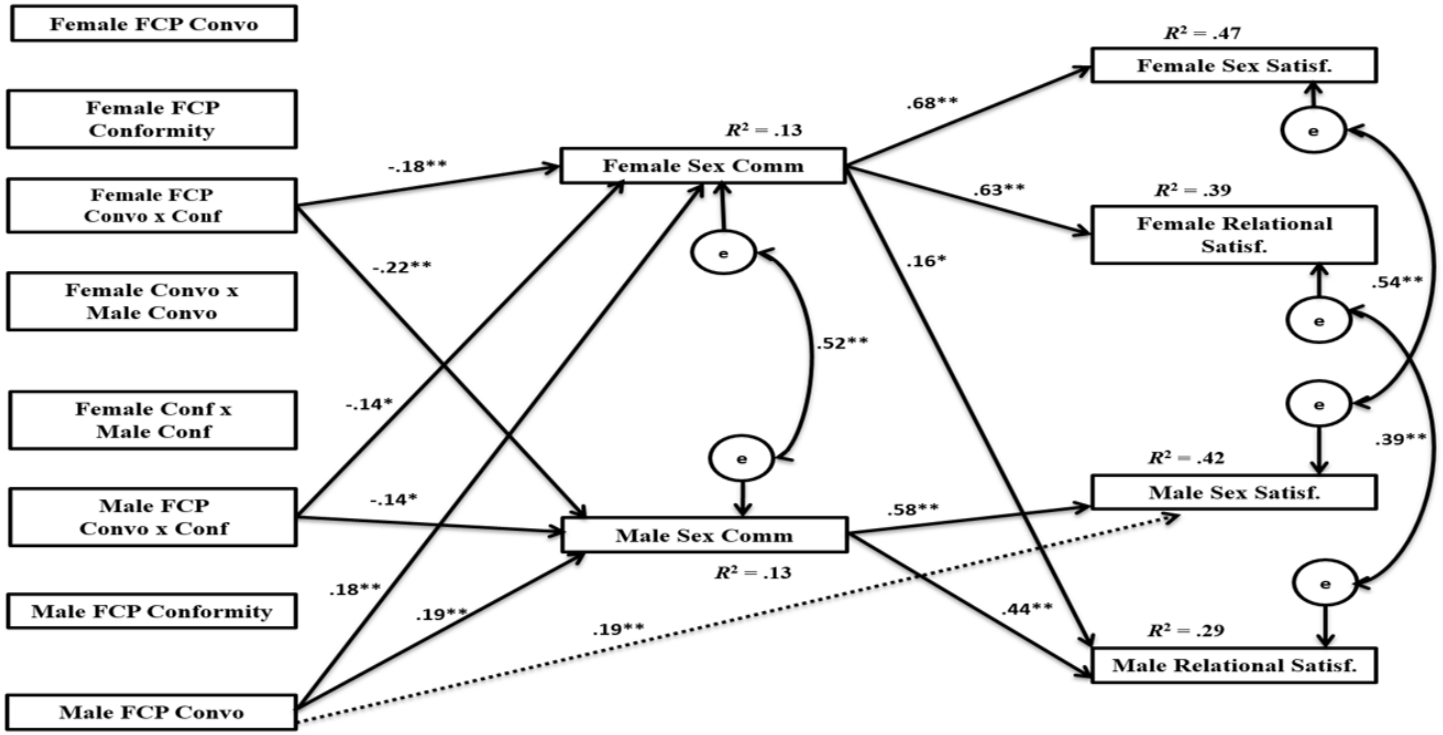
(90% CI = .00 - .08), SRMR = .04. Significant standardized path coefficients are reported in Figure 5, along with R^2 values for each endogenous variable. Effects of FCPs on male and female sexual communication were moderate in size (explained 13% of the variance for both males and females), whereas the effects of male and female sexual communication on relational outcomes were all large (explained 47% and 42% of the variance in sexual satisfaction for males and females, respectively; see Figure 5).

FCPs, Sexual Communication, and Relational Satisfaction Path Model

The original hypothesized model, with relational satisfaction as the outcome, demonstrated exceptional fit with the data: $\chi^2(16) = 10.75$, $p = .82$, $\chi^2/df = 0.67$, CFI = 1.00, RMSEA = .00 (90% CI = .00 - .04), SRMR = .02. Due to the exceptional model fit there were no modification indices indicated. However, non-significant paths were removed from the model, producing a very similar model fit (but with more degrees of freedom, as the removal of paths increases the degrees of freedom): $\chi^2(21) = 13.36$, $p = .90$, $\chi^2/df = .64$, CFI = 1.00, RMSEA = .00 (90% CI = .00 - .03), SRMR = .02. The path coefficients from FCPs to sexual communication remained the same, explaining 13% of the variance in sexual communication for both males and females. Sexual communication explained 39% and 29% of the variance in relational satisfaction for women and men, respectively (see Figure 5).

Figure 5

Trimmed Models with Family Communication Patterns, Sexual Communication, and Relational Outcomes



Note: Two separate path analyses were run: one with sexual satisfaction as the outcome, and one with relational satisfaction as the outcome. Path coefficients from FCPs to sexual communication were the same in each model. The models were condensed into one figure. All coefficients represent standardized regression weights. Only significant paths in the trimmed models are presented; * $p <$ .05, ** $p <$ .01. Model fit indices for each model are presented in text along with unstandardized coefficients. All FCP exogenous variables were allowed to correlate, with correlations ranging from .00 - .25.

Hypothesis one. Hypothesis one predicted positive actor and partner effects for male conversation orientation (CVO) and female CVO on male and female sexual communication (SC). Path coefficients in the model offer partial support for hypothesis one. Specifically, actor effects were found for men (effect of male CVO on male SC, B = .14, *S.E.* = .05, p = .006) but not for women (effect of female CVO on female SC, B = .07, *S.E.* = .05, p = .19). However, the correlation between female CVO and female SC was significant and positive (r = .14, $p < .05$). Partner effects were found for women (effect of male CVO on female SC, B = .13, *S.E.* = .05, p = .008) but not for men (effect of female CVO on male SC, B = .001, *S.E.* = .05, p = .99). Results indicate that within romantic relationships males' CVO has a significant effect on both male and female SC; however, female CVO does not have a significant effect on either female or male SC. Thus, hypothesis one is partially supported.

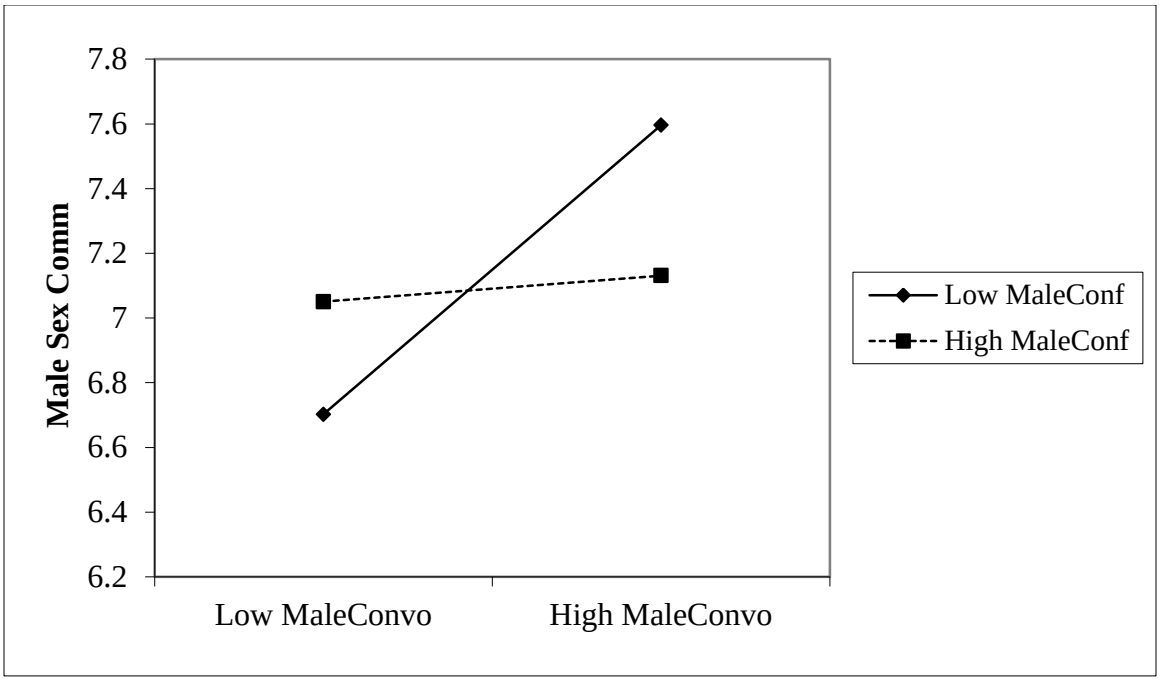
Hypothesis two. Hypothesis two predicted negative actor and partner effects for male conformity orientation (CFO) and female CFO on male and female SC. Path coefficients do not offer support for hypothesis two. Specifically, actor effects were not found for men (effect of male CFO on male SC, B = .02, *S.E.* = .06, p = .77) or for women (effect of female CFO on female SC, B = -.11, *S.E.* = .06, p = .06). Only the correlation between female CFO and sexual communication was significant and negative (r = -.13, $p < .05$). Partner effects were not found for females (effect of male CFO on female SC, B = .09, *S.E.* = .06, p = .13) or for males (effect of female CFO on male SC, B = -.08, *S.E.* = .06, p = .16). Results indicate that CFO does not have actor or partner effects on male or female SC. Thus, hypothesis two is not supported.

Hypothesis three. Hypothesis three predicted that CVO and CFO will interact to predict SC, including both actor and partner effects. Path coefficients offer support for all hypothesized paths in hypothesis three. All significant interaction effects were probed via plots of simple slopes (see Amaro, 2014; Knight, 2012), following procedures specified by other scholars (see Aiken & West, 1991; Dawson, 2014). Specifically, an Excel software generated by Dawson (2012) was used to assess the two-way interaction effects using the coefficients from the path analysis. To help further interpret the results of the interaction effects between CVO and CFO, a median split method was used to categorize participants into one of four family types based on high and low values of CVO and CFO (i.e., consensual family is high CVO and high CFO; pluralistic family is high CVO and low CFO; protective family is low CVO and high CFO; laissez-faire is low CVO and low CFO) (see Keaten & Kelly, 2008; Ritchie & Fitzpatrick, 1990).

Actor effects will be assessed first. To begin, for male actor effects, the interaction between male CVO and male CFO was significantly associated with male SC (B = -.06, *S.E.* = .03, p = .03). Probing of the interaction (see Figure 6) indicates that men from pluralistic families (high in conversation, low in conformity) reported more SC than all other family types, whereas men from laissez-faire families (low in conversation and conformity) reported the least SC. This indicates that male conformity-orientation moderates the positive association between male conversation-orientation and male SC (i.e., the association between male CVO and male SC is stronger for men who come from families with low CFO compared to high CFO). A one-way ANOVA using the median split groups supports this interpretation: $F(3, 212) = 5.47$, $p = .001$, $\eta^2 = .07$. Tukey HSD post hoc tests revealed that men from pluralistic families (M = 7.64, SD = 1.14) reported

significantly higher levels of sexual communication compared to men from laissez-faire families (M = 6.80, SD = 1.23) and protective families (M = 6.85, SD = 1.37). Consensual families (M = 7.30, SD = 1.34) did not differ significantly from any of the three groups.

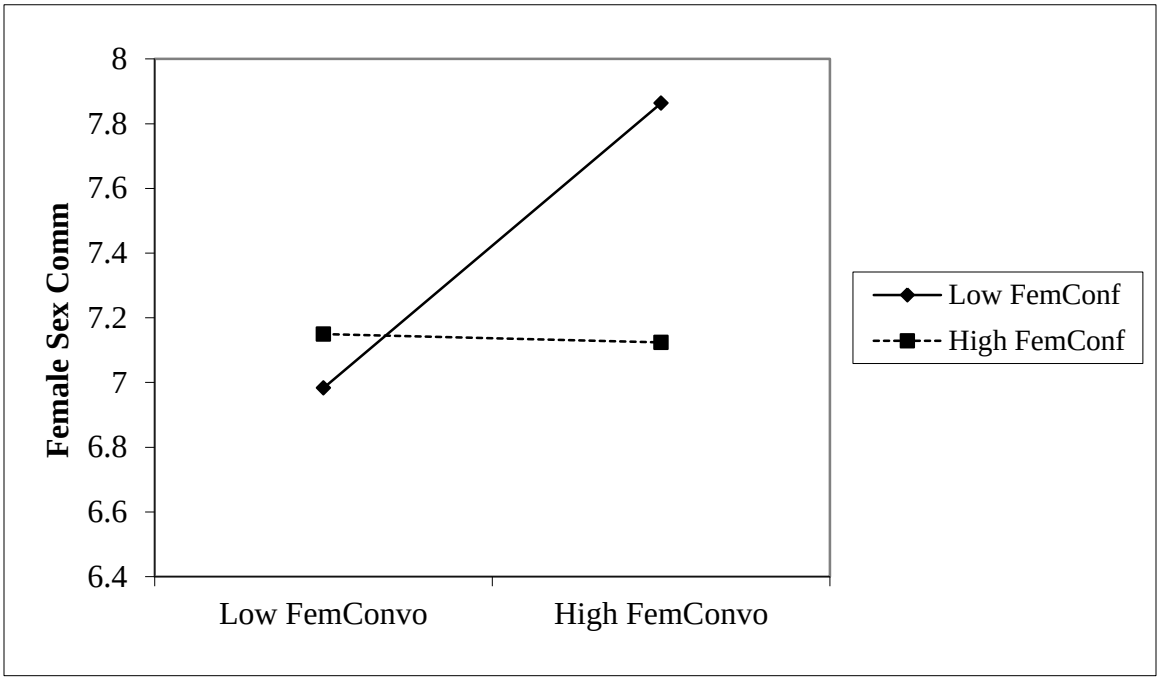
Figure 6. *Interaction between Male Conversation and Male Conformity Predicting Male Sexual Communication*



Second, for female actor effects, the interaction between female CVO and female CFO was significantly associated with female SC (B = -.07, $S.E.$ = .03, p = .007). Probing of the interaction (Figure 7) indicates that women from pluralistic families report more SC than all other family types. Thus, the first part of hypothesis three (i.e., actor effects) is supported. This indicates that female conformity-orientation moderates the positive association between female conversation-orientation and female SC (i.e., the association between female CVO and female SC is stronger for women who come from families with

low CFO compared to high CFO). A one-way ANOVA using the median split groups supports this interpretation: $F(3, 212) = 4.74$, $p = .003$, $\eta^2 = .06$. Tukey HSD post hoc tests indicate that females from pluralistic families ($M = 7.81$, $SD = 1.10$) report significantly higher sexual communication compared to females from laissez-faire families ($M = 6.92$, $SD = 1.43$). Consensual ($M = 7.26$, $SD = 1.33$) and protective ($M = 7.19$, $SD = 1.38$) do not significantly differ from any of the groups.

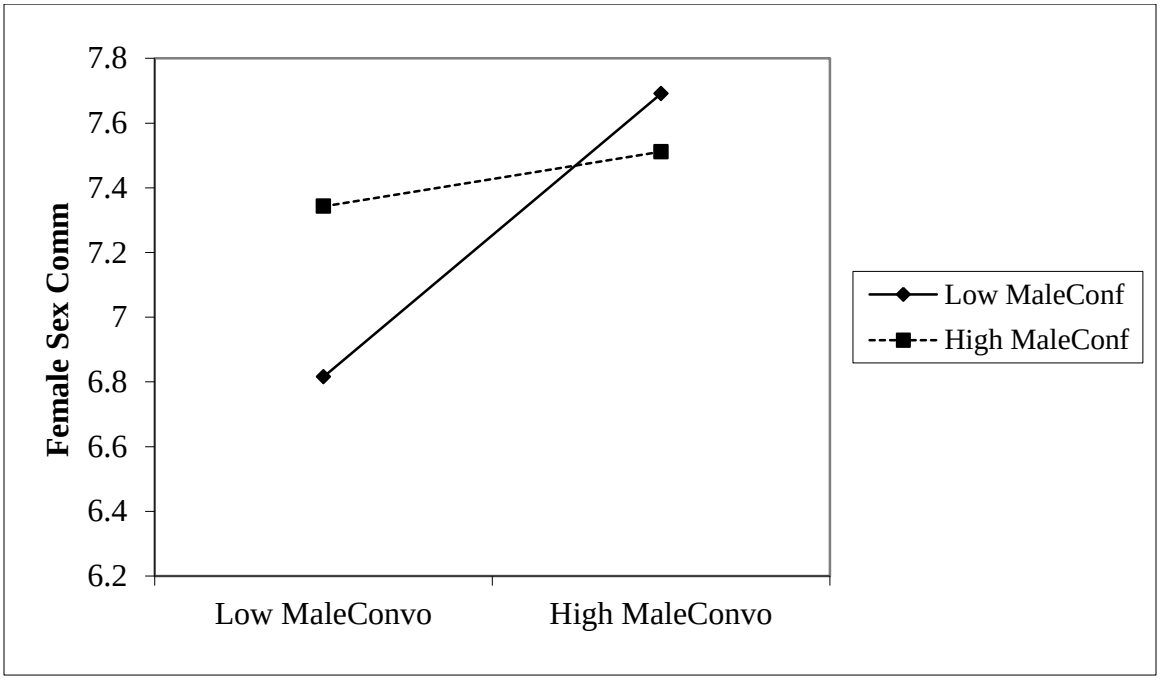
Figure 7. *Interaction between Female Conversation and Female Conformity Predicting Female Sexual Communication*



Next, the partner effects will be assessed. To begin, for male partner effects (i.e., the effects of male FCP interaction on female SC), the interaction between male CVO and male CFO was significantly associated with female SC ($B = -.06$, $S.E. = .03$, $p = .03$). Interpretation of the simple slopes (Figure 8) indicates that women report significantly less SC when their male partner comes from a laissez-faire family. This indicates that

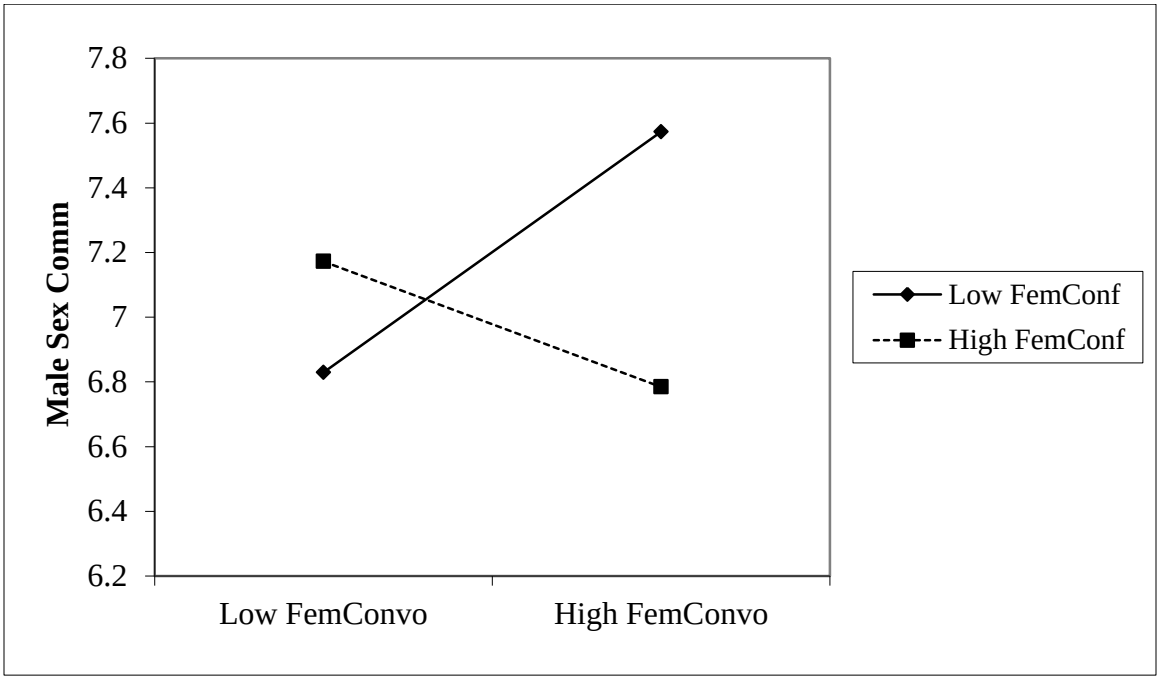
male conformity-orientation moderates the positive association between male conversation-orientation and female SC (i.e., the association between male CVO and female SC is stronger when men come from families with low CFO compared to high CFO). A one-way ANOVA using the median split groups supports this interpretation: $F(3, 212) = 5.84$, $p = .001$, $\eta^2 = .08$. Tukey HSD post hoc tests revealed that men from pluralistic families had female partners ($M = 7.72$, $SD = 1.07$) that reported significantly higher levels of sexual communication compared to women that had male partners from laissez-faire families ($M = 6.82$, $SD = 1.49$). Women with male partners from consensual families ($M = 7.65$, $SD = 1.19$) and protective families ($M = 7.14$, $SD = 1.38$) did not differ significantly from any of the three other groups.

Figure 8. *Interaction between Male Conversation and Male Conformity Predicting Female Sexual Communication*



Finally, for female partner effects (i.e., the effects of female FCP interaction on male SC), the interaction between female CVO and female CFO was significantly associated with male SC (B = -.09, *S.E.* = .03, p = .001). Probing of the interaction (Figure 9) indicates that men report greater SC when their female partner is from a pluralistic family. Also, it appears that men report less SC when their female partner is from a consensual family (high in conversation and high in conformity). This indicates that female conformity-orientation moderates the positive association between female conversation-orientation and female SC (i.e., the association between female CVO and male SC is positive when the female is from a low CFO family, but the association between female CVO and male SC becomes negative when the female is from a high CFO family). A one-way ANOVA using the median split groups supports this interpretation: $F(3, 212) = 2.93$, p = .04, η^2 = .04. Tukey HSD post hoc tests revealed that women from pluralistic families had male partners (M = 7.50, SD = 1.13) that reported significantly higher levels of sexual communication compared to men that had female partners from laissez-faire families (M = 6.80, SD = 1.45). Men did not significantly differ from any of the other groups when the female was from a consensual family (M = 7.00, SD = 1.40) or protective family (M = 7.17, SD = 1.27).

Figure 9. *Interaction between Female Conversation and Female Conformity Predicting Male Sexual Communication*



Hypothesis four. Hypothesis four predicted that men's and women's CVO would interact within a dyad to predict both male and female SC. The interaction term for male and female CVO did not significantly predict male SC (B = -.03, *S.E.* = .03, p = .19) or female SC (B = -.03, *S.E.* = .03, p = .29). Thus, hypothesis four is not supported.

Hypothesis five. Hypothesis five predicted that men's and women's CFO would interact within a dyad to predict both male and female SC. The interaction term for male and female CFO did not significantly predict male (B = .02, *S.E.* = .04, p = .50) or female SC (B = .04, *S.E.* = .04, p = .29). Thus, hypothesis five is not supported.

Hypothesis six. Hypothesis six predicted actor and partner effects for SC on relational outcomes for men and women (i.e., general relationship satisfaction and sexual satisfaction). First, actor effects were assessed. Male SC significantly predicted both male

relationship satisfaction (B = .44, *S.E.* = .07, p < .001) and male sexual satisfaction (B = .63, *S.E.* = .07, p < .001). Also, female SC significantly predicted both female relationship satisfaction (B = .64, *S.E.* = .07, p < .001) and female sexual satisfaction (B = .76, *S.E.* = .07, p < .001). Thus, the actor effects component of hypothesis six is supported.

Next, partner effects were examined. Only one significant path was found; that is, female SC significantly predicted male relationship satisfaction (B = .15, *S.E.* = .07, p = .03). No other significant partner effects were found in the model. All correlations between partner sexual communication and actor relational outcomes were significant and positive: female sexual communication with male sexual satisfaction (r = .43, p < .001) and relational satisfaction (r = .41, p < .001); and, male sexual communication with female sexual satisfaction (r = .42, p < .001) and relational satisfaction (r = .37, p < .001). However, partner effects of sexual communication on outcomes tended to become non-significant after accounting for variation explained by actor effects of sexual communication on outcomes.

FCPs, Self-Concept, and Sexual Communication

A series of six path models were estimated to test hypotheses seven through 15. In particular, three self-concept variables were tested as potential mediators of the association between FCPs and sexual communication: 1) general self-concept (i.e., a latent construct comprised of general self-esteem and general social anxiety)[2]; 2) sexual self-esteem; and, 3) sexual anxiety. Two path models were tested for all three of the

[2] See Chapter 1 for a discussion on the empirical relatedness of general self-esteem and general social anxiety, as this provides the rationale for combining these constructs into a latent factor. Sexual self-esteem and sexual anxiety have not been found to be as empirically related, and thus are tested in separate models as observed variables.

mediators; one model with sexual satisfaction as the outcome variable and one model with relational satisfaction as the outcome variable.

General Self-Concept Models

FCPs, general self-concept, sexual communication, and sexual satisfaction.

The first model tested the relationships between FCPs, general self-concept (a latent variable in the SEM model comprised of general self-esteem and general anxiety), sexual communication, and sexual satisfaction. The original hypothesized model demonstrated adequate fit: $\chi^2(55) = 115.70$, $p < .001$, $\chi^2/df = 2.05$, CFI = .93, RMSEA = .07 (90% CI = .05 - .09), SRMR = .07. The modification indices indicated that drawing a direct path from male CVO to male sexual satisfaction would enhance model fit. This modification was made, along with removing non-significant paths from the model. The trimmed model improved, demonstrating good fit: $\chi^2(55) = 106.44$, $p < .001$, $\chi^2/df = 1.80$, CFI = .95, RMSEA = .06 (90% CI = .04 - .08), SRMR = .08. See Figure 11 for the trimmed path model with standardized coefficients. R^2 coefficients for each endogenous variable were used to assess the overall effect sizes of the independent variables on the dependent variables (i.e., FCPs predicting general self-schema, general self-schema predicting sexual communication, and sexual communication predicting sexual satisfaction); these can be seen in the trimmed path model in Figure 10. Effects of FCPs on general self-concept were moderate to large (21% and 19% of variance explained for women and men, respectively). The effects of general self-concept on sexual communication (25% for both m en and women), as well as the effect of sexual communication on sexual satisfaction, were large.

FCPs, general self-concept, sexual communication, and relational satisfaction. The next model had the same exogenous variables, but had relational satisfaction as the outcome. The original hypothesized model demonstrated good fit: $\chi^2(55) = 91.78$, $p = .001$, $\chi^2/df = 1.67$, CFI = .95, RMSEA = .06 (90% CI = .04 - .08), SRMR = .07. Modification indices did not indicate any significant changes by adding paths. Thus, the non-significant paths were removed and the model was rerun. The trimmed model still demonstrated good fit: $\chi^2(59) = 96.40$, $p = .002$, $\chi^2/df = 1.63$, CFI = .95, RMSEA = .05 (90% CI = .03 - .07), SRMR = .07. All path coefficients remained the same when examining associations between FCPs, general self-concept, and sexual communication. The difference in this model is that relational satisfaction was used as the endogenous dependent variable. Sexual communication significantly and positively predicted relational satisfaction, explaining 39% and 29% of the variance for women and men, respectively (see Figure 10).

***Hypothesis seven*.** Hypothesis seven predicted positive actor effects of CVO on men's and women's general self-concept. For men, male CVO significantly and positively predicted male general self-concept ($B = .22$, *S.E.* = .05, $p < .001$). And for women, female CVO significantly and positively predicted female general self-concept ($B = .24$, *S.E.* = .05, $p < .001$). Thus, hypothesis six is supported.

***Hypothesis eight*.** Hypothesis eight predicted negative actor effects of CFO on men's and women's general self-concept. For men, male CFO significantly and negatively predicted male general self-concept ($B = -.30$, *S.E.* = .06, $p < .001$). And for women, female CFO significantly and negatively predicted female general self-concept ($B = -.20$, *S.E.* = .06, $p < .001$). Thus, hypothesis seven is supported.

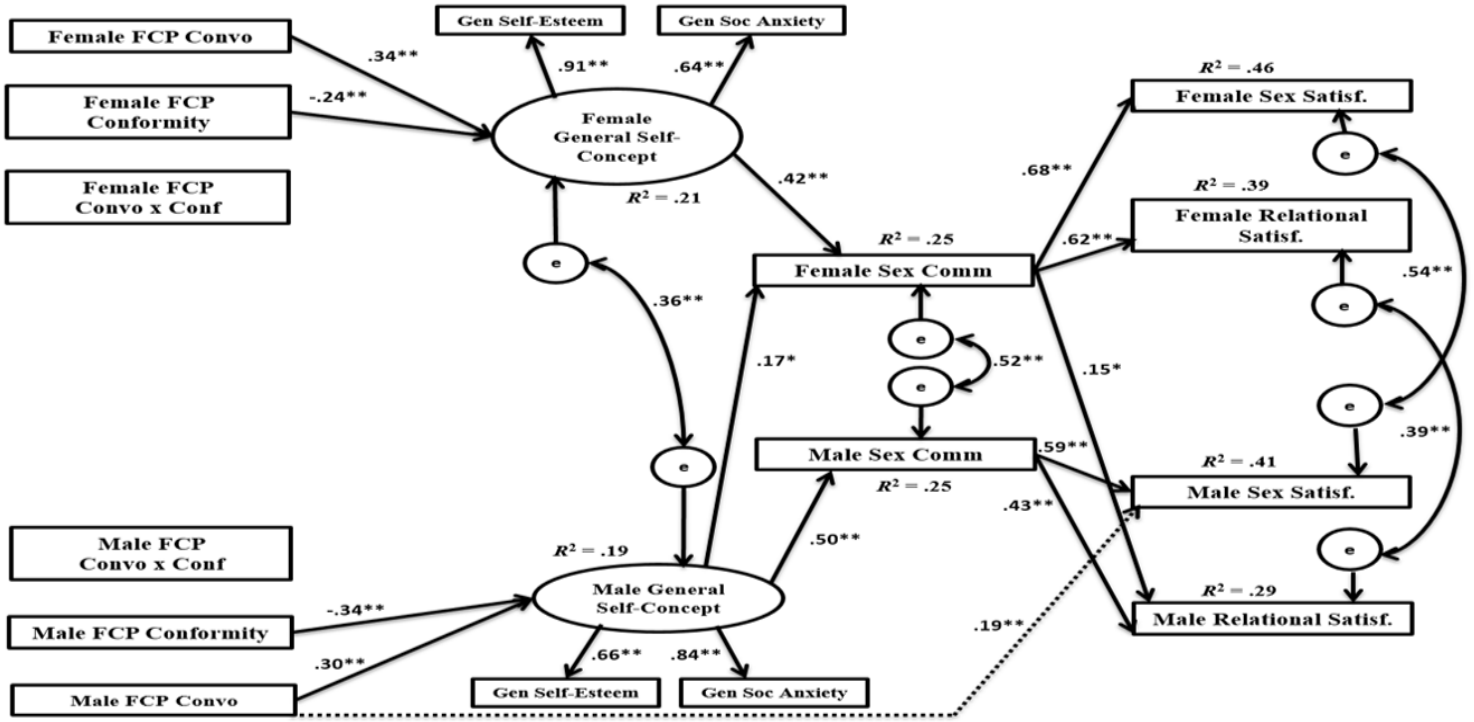
***Hypothesis nine*.** Hypothesis nine predicted actor effects of CVOxCFO interaction on actors' general self-concept. For men, males' interaction term of CVOxCFO did not significantly predict males' general self-concept (B = -.05, *S.E.* = .03, p = .10). And for women, females' interaction term of CVOxCFO did not significantly predict females' general self-concept (B = .01, *S.E.* = .03, p = .62). Thus, hypothesis eight is not supported.

***Hypothesis ten*.** Hypothesis ten predicted actor and partner effects of general self-concept on men's and women's SC. For men, males' general self-concept significantly and positively predicted male SC (B = .46, *S.E.* = .09, p < .001). For women, females' general self-concept significantly and positively predicted female SC (B = .46, *S.E.* = .08, p < .001). Thus, hypothesis nine is supported for actor effects.

With regard to partner effects, male general self-concept significantly and positively predicted female SC (B = .16, *S.E.* = .07, p = .03). Female general self-concept did not significantly predict male SC (B = .09, *S.E.* = .07, p = .22). However, the correlations between female self-esteem (r = .21, p < .05) and female social anxiety (r = .21, p < .05) were significantly associated with men's sexual communication. Thus, hypothesis nine is partially supported for partner effects.

Figure 10

Trimmed Models with Family Communication Patterns, General Self Concept, Sexual Communication, and Relational Outcomes



Note: Two separate path analyses were run: one with sexual satisfaction as the outcome, and one with relational satisfaction as the outcome. Path coefficients from FCPs to general self-concept, as well as general self-concept to sexual communication, were the same in each model. The models were condensed into one figure. All coefficients represent standardized regression weights. Only significant paths in the trimmed models are presented; * $p < .05$, ** $p < .01$. Model fit indices for each model are presented in text along with unstandardized coefficients. All FCP exogenous variables were allowed to correlate, with correlations ranging from .00 - .25.

Sexual Self-Concept Models: Sexual Self-Esteem

FCPs, sexual self-esteem, sexual communication, and sexual satisfaction. This model tested the relationships between FCPs, sexual self-esteem, sexual communication, and sexual satisfaction. The original hypothesized model demonstrated relatively poor fit: $\chi^2(34) = 153.41$, $p < .001$, $\chi^2/df = 4.51$, CFI = .85, RMSEA = .13 (90% CI = .11 - .15), SRMR = .08. Modification indices indicated that direct paths from female sexual self-esteem to female sexual satisfaction, as well as male sexual self-esteem to male sexual satisfaction (these additions were the major modifications, as sexual self-esteem is very highly correlated with sexual satisfaction for both men and women; see correlation matrices in Tables 2-5). Also, similar to the first model, adding a direct path from male CVO to male sexual satisfaction would improve model fit. These modifications were made, along with removing non-significant paths, which produced adequate to good model fit: $\chi^2(38) = 77.70$, $p < .001$, $\chi^2/df = 2.05$, CFI = .95, RMSEA = .07 (90% CI = .05 - .09), SRMR = .07. See Figure 12 for full model with path coefficients. R^2 coefficients for each endogenous variable were used to assess the overall effect sizes of the independent variables on the dependent variables (i.e., FCPs predicting sexual self-esteem, sexual self-esteem predicting sexual communication, and sexual communication predicting sexual satisfaction). The effects of FCPs on sexual self-esteem were small and modest, whereas the effects of sexual self-esteem on sexual communication were large (see Figure 11).

FCPs, sexual self-esteem, sexual communication, and relational satisfaction. This model tested the relationships between FCPs, sexual self-esteem, sexual communication, and relational satisfaction. The original hypothesized model

demonstrated good fit: $\chi^2(34) = 57.16$, $p = .008$, $\chi^2/df = 1.68$, CFI = .96, RMSEA = .06 (90% CI = .03 - .08), SRMR = .06. Removal of non-significant paths helped slightly improve model fit, still possessing good fit: $\chi^2(34) = 59.21$, $p = .03$, $\chi^2/df = 1.48$, CFI = .97, RMSEA = .05 (90% CI = .02 - .07), SRMR = .07. All path coefficients from FCPs to sexual self-esteem, as well as path coefficients from sexual self-esteem to sexual communication remained the same. The only difference in this model was the endogenous outcome variable, which was relational satisfaction (see Figure 11).

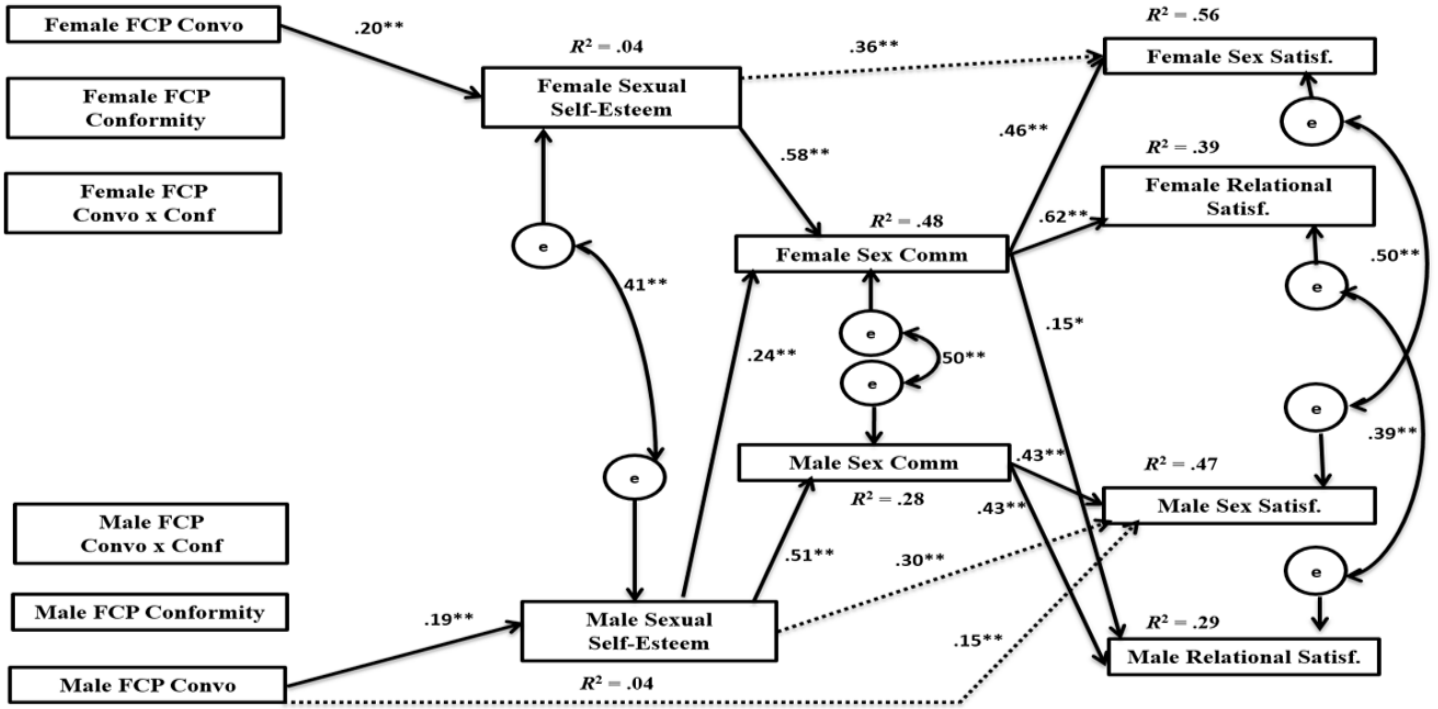
Sexual Self-Concept Models: Sexual Anxiety

FCPs, sexual anxiety, sexual communication, and sexual satisfaction. This model tested the relationships between FCPs, sexual anxiety, sexual communication, and sexual satisfaction. The original hypothesized model demonstrated poor to adequate fit: $\chi^2(34) = 101.12$, $p < .001$, $\chi^2/df = 2.97$, CFI = .91, RMSEA = .10 (90% CI = .08 - .12), SRMR = .08. As in previous models with sexual satisfaction, the modification indices indicated a need to add a direct path from male CVO to male sexual satisfaction. Additionally, the modification indices recommended adding direct paths from male CVO to both female and male sexual communication. Finally, non-significant paths were removed. The trimmed model demonstrated very good fit: $\chi^2(36) = 63.87$, $p = .002$, $\chi^2/df = 1.83$, CFI = .96, RMSEA = .06 (90% CI = .04 - .09), SRMR = .08. R^2 coefficients for each endogenous variable were used to assess the overall effect sizes of the independent variables on the dependent variables (i.e., FCPs predicting sexual anxiety, sexual anxiety predicting sexual communication, and sexual communication predicting sexual satisfaction). The effects of FCPs on sexual anxiety were small and modest, whereas the effects of sexual anxiety on sexual communication were large (see Figure 12).

FCPs, sexual anxiety, sexual communication, and relational satisfaction. This model tested the relationships between FCPs, sexual anxiety, sexual communication, and relational satisfaction. The original hypothesized model demonstrated adequate to good fit: $\chi^2(34) = 76.83$, $p < .001$, $\chi^2/df = 2.26$, CFI = .93, RMSEA = .08 (90% CI = .05 - .10), SRMR = .07. The same modifications were made in this model as were in the sexual satisfaction model (except for the direct path between male CVO and sexual satisfaction, because sexual satisfaction was not observed in this model). Additionally, non-significant paths were removed. This improved model fit and produced an excellently fitted model: $\chi^2(35) = 53.48$, $p = .02$, $\chi^2/df = 1.53$, CFI = .97, RMSEA = .05 (90% CI = .02 - .08), SRMR = .06 (see Figure 12).

Figure 11

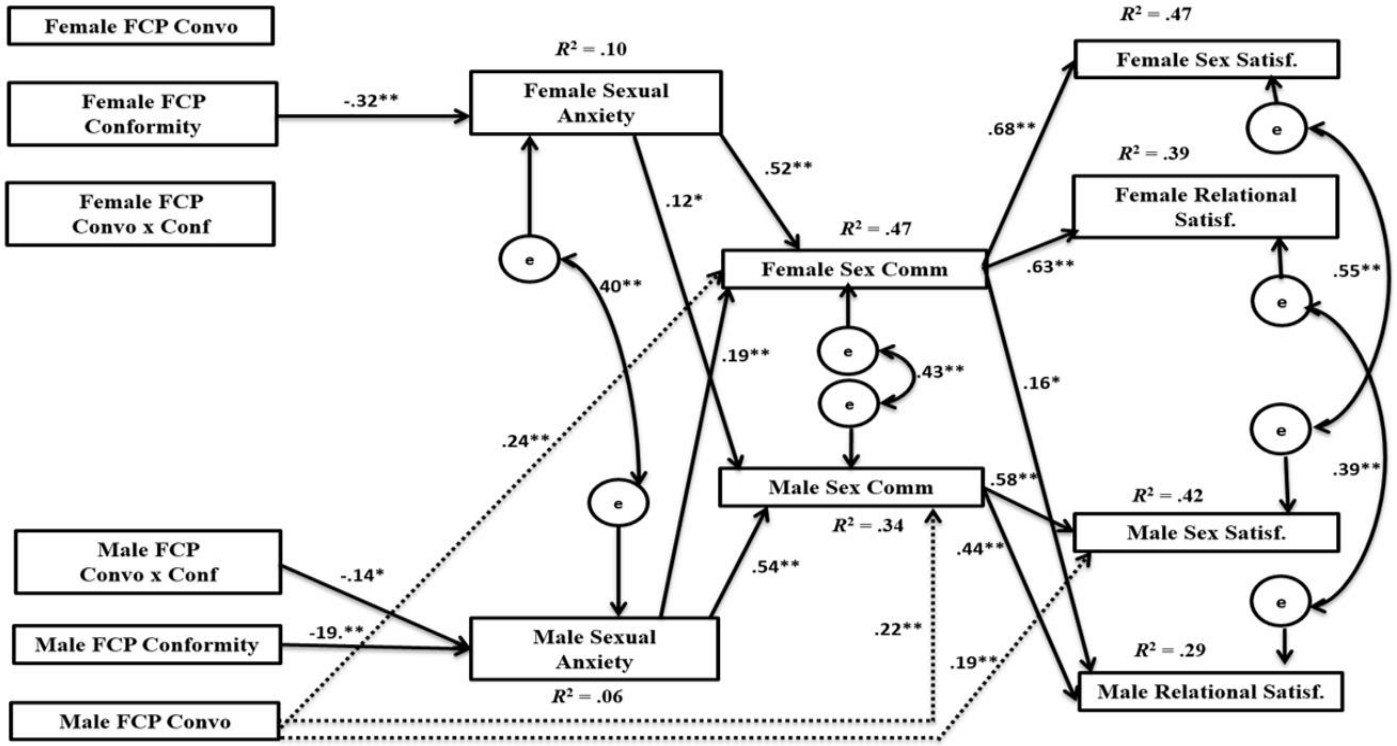
Trimmed Models with Family Communication Patterns, Sexual Self-Esteem, Sexual Communication, and Relational Outcomes



Note: Two separate path analyses were run: one with sexual satisfaction as the outcome, and one with relational satisfaction as the outcome. Path coefficients from FCPs to sexual self-esteem, as well as sexual self-esteem to sexual communication, were the same in each model. The models were condensed into one figure. All coefficients represent standardized regression weights. Only significant paths in the trimmed models are presented; * $p < .05$, ** $p < .01$. Model fit indices for each model are presented in text along with unstandardized coefficients. All FCP exogenous variables were allowed to correlate, with correlations ranging from .00 - .25.

Figure 12

Trimmed Models with Family Communication Patterns, Sexual Anxiety, Sexual Communication, and Relational Outcomes



Note: Two separate path analyses were run: one with sexual satisfaction as the outcome, and one with relational satisfaction as the outcome. Path coefficients from FCPs to sexual anxiety, as well as sexual anxiety to sexual communication, were the same. The models were condensed into one figure. All coefficients represent standardized regression weights. Only significant paths in the trimmed models are presented; * $p < .05$, ** $p < .01$. Model fit indices for each model are presented in text along with unstandardized coefficients. All FCP exogenous variables were allowed to correlate, with correlations ranging from .00 - .25.

***Hypothesis eleven*.** Hypothesis 11a predicted actor effects of CVO on actors' sexual self-esteem. For men, male CVO significantly and positively predicted male sexual self-esteem (*B* = .17, *S.E.* = .05, *p* = .002). And for women, female CVO significantly and positively predicted female sexual self-esteem (*B* = .17, *S.E.* = .05, *p* = .001).

Hypothesis 11b predicted actor effects of CVO on actors' sexual anxiety. It is important to remember that sexual anxiety scores were recoded so that higher scores indicate less sexual anxiety. Actor effects of CVO on actors' sexual anxiety were not supported for men (*B* = -.03, *S.E.* = .06, *p* = .63) or women (*B* = -.01, *S.E.* = .06, *p* = .83). Thus, hypothesis eleven is supported for the association between CVO and sexual self-esteem, but not for the association between CVO and sexual anxiety.

***Hypothesis twelve*.** Hypothesis 12a predicted actor effects of CFO on actors' sexual self-esteem. Actor effects of CFO on actors' sexual self-esteem were not supported for men (*B* = .06, *S.E.* = .06, *p* = .37) or women (*B* = .01, *S.E.* = .06, *p* = .87).

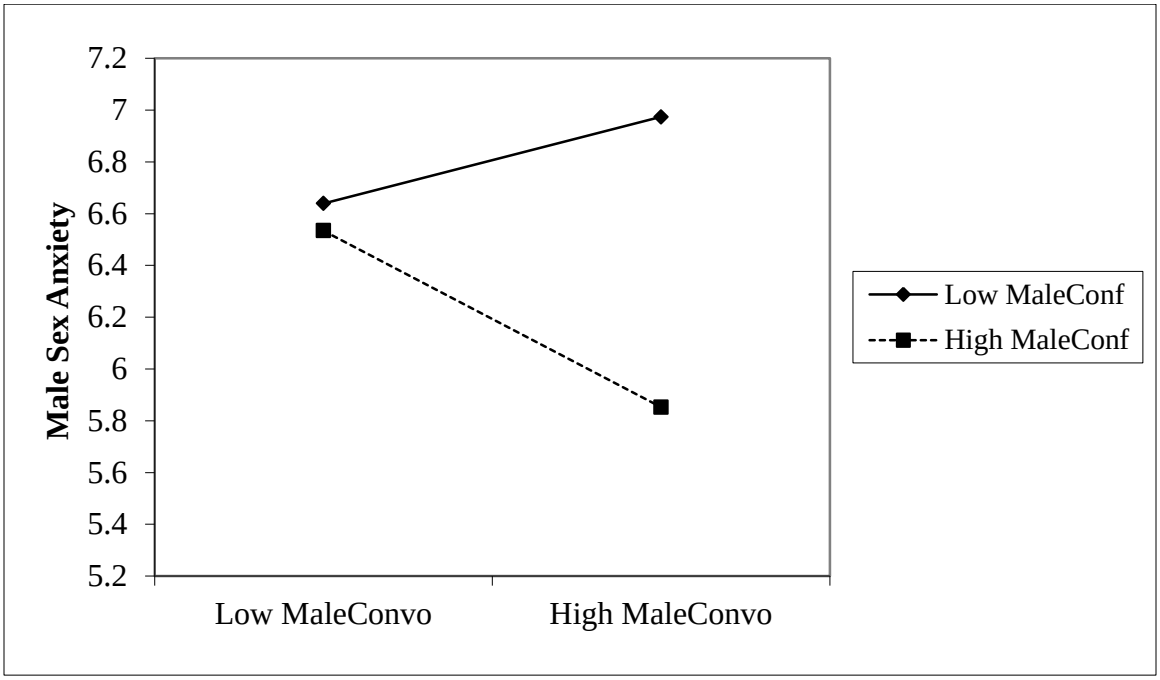
Hypothesis 12b predicted actor effects of CFO on actors' sexual anxiety (i.e., higher CFO associated with more sexual anxiety). Actor effects of CFO on sexual anxiety were significant (recall, lower scores indicate greater sexual anxiety), for both men (*B* = -.24, *S.E.* = .08, *p* = .001) and women (*B* = .38, *S.E.* = .07, *p* < .001). Thus, hypothesis eleven is supported for the association between CFO and sexual anxiety, but not for the association between CFO and sexual self-esteem.

***Hypothesis thirteen*.** Hypothesis 13a predicted actor effects of CVOxCFO interaction on actors' sexual self-esteem. Men's interaction term of CVOxCFO did not significantly predict sexual self-esteem (*B* = -.01, *S.E.* = .03, *p* = .82). For women, the

interaction term of CVOxCFO did not significantly predict sexual self-esteem (*B* = -.01, *S.E.* = .03, *p* = .76).

Hypothesis 13b predicted that the interaction between actors' CVO and CFO would predict sexual anxiety. The interaction term between female CVO and female CFO did not significantly predict female sexual anxiety (*B* = -.05, *S.E.* = .03, *p* = .13). However, men's interaction term of CVOxCFO did significantly predict sexual anxiety (*B* = -.08, *S.E.* = .03, *p* = .02). Interpretation of the simple slopes (see Figure 13) indicates that men from pluralistic families have the lowest sexual anxiety, whereas men from consensual families have the highest sexual anxiety. This indicates that male conformity-orientation moderates the positive association between male conversation-orientation and male sexual anxiety (i.e., the association between male CVO and male sexual anxiety is positive when CFO is low, but the association becomes negative when CFO is high). A one-way ANOVA using the median split groups does not support this interaction in the path model; $F(3, 212) = 2.19$, $p = .09$. Pluralistic families ($M = 6.89$, SD, = 1.76), consensual families ($M = 6.05$, SD, = 2.11), protective families ($M = 6.34$, SD, = 1.64), and laissez-faire ($M = 6.58$, SD, = 1.60) families did not significantly differ from one another (recall higher means indicate less sexual anxiety). The means of these groups does support the visual decomposition of the interaction effect (see Figure 13). Thus, hypothesis twelve is only partially supported for male FCPs on sexual anxiety.

Figure 13. *Interaction between Male Conversation and Male Conformity Predicting Male Sexual Anxiety*



***Hypothesis fourteen*.** Hypothesis 14 predicted actor and partner effects of sexual self-esteem on sexual communication. Hypothesis 14a predicted a significant actor effect for women, which was supported; that is, female sexual self-esteem significantly predicted female sexual communication (B = .54, *S.E.* = .05, $p < .001$). Hypothesis 14b predicted a significant partner effect of female sexual self-esteem on male sexual communication, which was not supported (B = .06, *S.E.* = .06, $p = .29$). The correlation between female sexual self-esteem and male sexual communication is positive and significant ($r = .27$, $p < .05$).

Hypothesis 14c predicted a significant actor effect for men, which was supported; that is, male sexual self-esteem significantly predicted male sexual communication (B = .43, *S.E.* = .05, $p < .001$). Hypothesis 14d predicted a significant partner effect of male

sexual self-esteem on female sexual communication, which was supported (B = .20, *S.E.* = .05, $p < .001$).

***Hypothesis fifteen*.** Hypothesis 15 predicted actor and partner effects of sexual anxiety on sexual communication. Hypothesis 15a predicted a significant actor effect for women, which was supported; that is, female sexual anxiety (recall, higher scores indicate lower sexual anxiety) significantly predicted female sexual communication (B = .23, *S.E.* = .04, $p < .001$). Hypothesis 15b predicted a significant partner effect of female sexual anxiety predicting male sexual communication, which was supported; (B = .09, *S.E.* = .04, $p = .046$).

Hypothesis 15c predicted a significant actor effect of sexual anxiety on sexual communication for men, which was supported; that is, male sexual anxiety significantly predicted male sexual communication (B = .36, *S.E.* = .04, $p < .001$). Finally, hypothesis 15d predicted a partner effect of male sexual anxiety on female sexual communication, which was supported (B = .14, *S.E.* = .04, $p < .001$).

Chapter 4

DISCUSSION

Summary and Implications

The current investigation seeks to understand the interdependent influences of romantic partners' family communication patterns (FCPs) on sexual communication (SC) in romantic relationships. Findings provide partial support for the hypotheses and help to expand the theoretical scope of FCPT (Koerner & Fitzpatrick, 2002a). This chapter will first provide an overview of the findings from this investigation. Next, theoretical implications for family communication patterns theory (FCPT; Koerner & Fitzpatrick, 2002a) will be addressed. Methodological, clinical, and pedagogical implications are then addressed, and limitations and future directions for research are explored.

Summary of Findings

Results offer partial support for the hypotheses and for the general theory of family relational schema (FCPT; Koerner & Fitzpatrick, 2002a). The direct effects of FCPs on sexual communication will first be addressed, followed by the indirect effects of FCPs on sexual communication through individuals' self-schema.

Family communication patterns and sexual communication. The first path analysis (see Figure 5) assessed the effects of FCPs on men's and women's sexual communication (i.e., self-schema variables—general self-schema and sexual self-schema—not included in these analyses). In particular, men's conversation-orientation (CVO) had a direct positive effect on both men's sexual communication (actor effect) and women's sexual communication (partner effect). However, women's CVO did not have a significant effect on women's sexual communication (although the correlation was

significant and positive) or men's sexual communication in the path model. Additionally, the interactions between CVO and conformity-orientation (CFO) (i.e., the four-category family typology) had both actor and partner effects for men and women. Collectively, FCPs explained 13% of the variance in men's and women's sexual communication within their romantic relationships, which is a moderate effect. The following sections will discuss these results further, focusing on conversation-orientation, conformity-orientation, and the interaction between both constructs.

Conversation orientation. Findings indicate that family communication patterns (FCPs) are associated with individuals' relationship schemas (Koerner and Fitzpatrick's (2002a). Recall from Chapter 1 that relationship schemas are shaped by beliefs about communication within the family of origin; "…we expect beliefs regarding the role of communication in families to be part of family schemas, especially beliefs regarding conversation orientation and conformity orientation in families" (Koerner & Fitzpatrick, 2002a, p. 84)[3]. More specifically, current findings suggest that FCPs are not only associated with family relational schemas, but also the general social schema, which individuals pull from to make behavioral decisions in relationships outside of the family. Findings indicate that having a conversationally-oriented relationship with parents is associated with individuals' openness about sexual matters within their romantic relationships (support for H1). According to Koesten (2004); "…communication competencies necessary for adolescent development are more likely developed when the communication environment at home is one that offers a child many opportunities for a free exchange of ideas and participation…" (p. 241). The significant association between

[3] = Relationship schemas were not directly observed in the current study. Instead, FCPs conceptually and theoretically represent individuals' relationship schema (see Koerner & Fitzpatrick, 2002a).

CVO and sexual communication in romantic relationships relates to previous work that has found positive associations between CVO and relational behaviors in friendships and romantic relationships (e.g., Koesten, 2004; Ledbetter, 2009; Young, 2014). Openness in the family of origin is likely associated with openness in romantic relationships, even when discussing difficult, taboo topics like sexual intimacy (see Baxter & Wilmot, 1985). The result speaks to the theory and resembles past findings, including: associations between CVO with confirmation behaviors in romantic relationships (Young, 2014), communication competence in romantic relationships and friendships (Koesten, 2004), and relational maintenance behaviors within friendships (Ledbetter, 2009).

Although not hypothesized in the current investigation, CVO was significantly and positively associated with individuals' sexual and relationship satisfaction (see Table 2 for entire sample, $r = .23$ and $r = .16$, respectively, $p < .05$) in their romantic relationships. In fact, men's CVO had a significant effect on their own sexual satisfaction (this non-hypothesized path was included in the models based on modification indices; men's CVO was significantly associated with their sexual satisfaction in all path models with sexual satisfaction as the outcome; see Figures 5, 10, 11, and 12). However, the data suggest the associations between CVO and sexual satisfaction in romantic relationships are mediated (fully for women; partially for men) by individuals' reported sexual communication with their romantic partner. Similarly, Ledbetter found that the relationship between CVO and friendship closeness was mediated by relational maintenance behaviors within the friendship (i.e., FCPs predict relational maintenance, and relational maintenance predicts friendship closeness). Current results suggest that individuals' satisfaction in their romantic relationships is indirectly (and directly for men)

associated with the beliefs about communication in their family of origin, with the mediating variable being sexual communication in their romantic relationship.

Men's CVO significantly predicted both their own sexual communication and their partners' sexual communication (i.e., actor and partner effect). Significant effects were not detected for women's CVO. Also, an examination of the correlation matrices (see Tables 2 and 3) indicates that the association between CVO and sexual communication is slightly stronger for men than it is for women (this is true for both actor and partner associations). Results echo past research that has looked at intergenerational transmission of communicative behaviors from the family-of-origin to romantic relationships. Specifically, other scholars have found that men's family communication environments tend to have stronger effects on relational communicative processes in romantic relationships compared to women (see Johnson, Nguyen, Anderson, Liu, & Vennum, 2015; Story, Karney, Lawrence, & Bradbury, 2004; Whitton et al., 2008). Whitton et al. state "This supports the notion that, at least for men, experiences in family-of-origin conflicts are important to later marital adjustment because of the ways in which they shape patterns of interaction around conflict" (p. 283). It is important to note that the previous mentioned studies (Johnson et al., 2015; Story et al., 2004; Whitton et al., 2008) found significant associations for men between negative family communication constructs (i.e., family dysfunction, family negatively, and family hostility, respectively) and communicative/relational outcomes (i.e., negative interaction within the romantic dyad, negative marital interaction and discussion, and martial adjustment, respectively). The current analysis demonstrates similar associations, but for a positive family communication construct (i.e., conversation-orientation).

Conformity orientation. Significant negative associations between conformity orientation (CFO) and sexual communication were not found in the current analyses, as hypothesized (H2 not supported; although the correlation was in the right direction, it was nonsignificant; $r = -.08$, $p > .05$ for the entire sample; yet, the association was significant for women, $r = -.13$, $p < .05$). In their FCP meta-analysis, Schrodt and colleagues (2008) found that CFO shares weaker associations with psychosocial and behavioral outcomes compared to similar associations with CVO. Also, Koesten (2004) and Ledbetter (2009) found weaker, often nonsignificant, associations between CFO and behavioral outcomes (i.e., communication competence and relational maintenance behavior, respectively) in romantic relationships and friendships, respectively. Scholars have speculated that these weaker associations between CFO and outcomes could be the result of methodological, not theoretical, limitations (Koerner & Schrodt, 2014; Koesten, Schrodt, & Ford, 2009; Schrodt et al., 2008; this is addressed further in methodological implications). Future work is required to tease out the influences of CFO on behavioral outcomes in relationships outside of the family. Although CFO did not share a direct association with sexual communication in romantic relationships, the interaction between conversation and conformity was significantly associated with sexual communication.

Interaction between CVO and CFO. Results indicate that the interaction between CVO and CFO has a significant association with individuals' reported sexual communication. An interaction effect between two continuous independent variables on a continuous dependent variable indicates that the association between an independent variable and a dependent variable is moderated (i.e., strengthened or weakened) by another continuous independent variable; in this case, the association between CVO and

sexual communication is moderated by CFO (i.e., the four family typology; Koerner & Fitzpatrick, 2002b). In particular, both women and men in the romantic dyad reported more sexual communication when the woman in the dyad is from a pluralistic family (high CVO, low CFO; actor and partner effects). Additionally, men report more sexual communication when they are from a pluralistic family (actor effect). Also, women report less sexual communication when the man in the dyad is from a laissez-faire family (low CVO, low CFO; partner effect). These findings are similar to Young's (2014) results with regard to the influence of FCPs on confirmation in romantic relationships. Young found that conformity moderated the positive association between CVO and reported acceptance (i.e., a form of confirming behavior that involves demonstrating openness and understanding of one's partner) in romantic relationships. In particular, individuals from pluralistic families reported greater acceptance of their partner compared to other family types. Items were added to the sexual communication measure in the current study, which assessed individuals' ability to listen actively and take the perspective of their romantic partner regarding discussions related to sexual intimacy. Young's (2014) finding that individuals from pluralistic families are more accepting of their romantic partner relates to the current finding that individuals from pluralistic families attempt to understand and accept their partner's views regarding sexual aspects of the relationship. Moreover, Koerner and Fitzpatrick (1997) note that pluralistic families tend to approach conflict episodes within the family with ease, reporting higher levels of positivity and support. Individuals from pluralistic families may experience ease when discussing taboo topics with relational partners, such as sexual matters.

Results from the interaction effects also indicate that individuals from laissez-faire families (i.e., low in both CVO and CFO) report lower sexual communication in their romantic relationships compared to other family types, especially for men. According to Koerner and Fitzpatrick (2002b), individuals from laissez-faire families "learn that there is little value in family conversation and that they have to make their own decisions. Because they do not receive much support from their parents, however, they come to question their decision-making abilities" (p. 45). Individuals from laissez-faire families may transfer the belief that conversation is unnecessary to their romantic relationship, opting to make decisions individually instead of with their partner. More specifically, results indicate that individuals from laissez-faire families are more likely to avoid discussions with their romantic partner about sexual matters, which leads to decreased satisfaction, both relationally and sexually.

Family communication patterns and self-concept. The next series of path analyses (see Figures 10, 11, and 12) sought to test the associations between FCPs, general self-schema (i.e., self-esteem and social anxiety), and sexual self-schema (i.e., sexual self-esteem and sexual anxiety). Koerner and Fitzpatrick's (2002a) theory suggests that FCPs shape individuals' self-schema, which are in turn, associated with procedural knowledge; accordingly, procedural knowledge influences interactional decisions, and subsequently, relational outcomes. Results of path analyses indicate that FCPs are associated with both general self-schema (i.e., general self-esteem and social anxiety) and sexual self-schema (i.e., sexual self-esteem and sexual anxiety); and in turn, both general and sexual self-schema are significantly associated with sexual communication. These findings can be interpreted in conjunction with axiom one of Koerner and Fitzpatrick's

(2002a) theoretical model; "Relationship schemas contain declarative knowledge, procedural knowledge, and interpersonal scripts linking cognition about the self, other, and the relationship" (p. 75). In particular, individuals' general and sexual self-concepts, which represent distinct dimensions of the self (Oattes & Offman, 2007), are associated with FCPs and sexual communication. Moreover, path analyses indicate current data fit models that demonstrate relationships between FCPs, self-schema, and sexual communication (i.e., FCPs → self-schema → sexual communication). Because data are cross-sectional, no causal relationships can be inferred and relationships between variables remain under question. However, results help to expand current understanding of the antecedents to sexual communication, which involve communicative norms learned in families.

FCPs and general self-concept. Results show significant associations between FCPs and general self-schema constructs. That is, CVO is positively associated with general self-concept; individuals from high conversationally-oriented families tend to have higher self-esteem and less social anxiety (support for H7). Findings also show that CFO is negatively associated with general self-concept; that is, individuals from high conformity-oriented families tend to have lower self-esteem and higher social anxiety (support for H8). These results replicate previous findings that have linked FCPs to individuals' general self-schema (see Elwood & Schrader, 1998, and Hsu, 1998, for association between FCP and social anxiety; see Huang, 1999, for association between FCP and self-esteem). Interaction effects between CVO and CFO on general self-concept were not found (support not found for H9). Overall, CVO and CFO explained approximately 20% of the variation in men's and women's general self-concept, which is

a moderate to large effect. This is noteworthy, as it further supports the idea that family communication shapes cognitions about the self (i.e., self-esteem and social anxiety), which are components of the relationship schema. Furthermore, cognitions about the self are associated with procedural knowledge and interpersonal scripts, which influence behavioral decisions in close relationships like romantic relationships.

Furthermore, general self-concept was associated with sexual communication for both men and women, which supports past findings that have linked self-esteem (see Oattes & Offman, 2007) and social anxiety (see Montesi et al., 2013) with sexual communication (support for actor effects in H10). In fact, general self-concept explained approximately 25% of the variation in sexual communication for men and women, which is a large effect. Findings demonstrate a mediated relationship, in so much that that FCPs are associated with sexual communication through the self-schema.

FCPs and sexual self-concept. Results show significant associations between FCPs and sexual self-schema constructs. CVO is positively associated with sexual self-esteem, which implies that individuals from conversationally-oriented families tend to have more positive cognitions about their sexual selves. However, CVO was not associated with sexual anxiety (partial support for H11). CFO was significantly associated with sexual anxiety, which implies that individuals from high conformity-oriented families tend to be more anxious regarding sexual aspects of their relationship. However, CFO was not significantly associated with sexual self-esteem (partial support for H12). Also, the interaction-effect of CVO and CFO only shared a significant association with men's sexual anxiety (i.e., CVO is negatively associated with sexual anxiety when men are from a low-conformity family; however, the association is

reversed—CVO is positively associated with sexual anxiety—when men are from a high-conformity family) with all other associations being nonsignificant.

Unlike the associations between FCPs and general self-schema, CVO and CFO tend to associate with the sexual self-schema differently; that is, CVO facilitates a healthy sexual self-esteem, whereas CFO tends to lead to increased sexual anxiety. An examination of the correlation tables indicate that CVO tends to share stronger associations with self-esteem variables (i.e., general self-esteem and sexual self-esteem), whereas CFO shares stronger associations with anxiety variables (i.e., social anxiety and sexual anxiety). The stronger associations between CVO and self-esteem (general and sexual) suggest that individuals who are raised in family environments that foster open communication, participation in family decision-making, and unrestricted expression of feelings and opinions tend to have a higher perception of self-worth, both globally and sexually. As Schrodt and Ledbetter (2007) claim, "…when parents create a family communication environment that encourages open discussion on a variety of topics, participatory decision-making, and freedom to express concerns, such environments tend to facilitate healthier childhood development and well-being" (p. 349). Current findings illustrate that this line of reasoning also translates to sexual aspects of one's development and well-being. Conversely, individuals from families that rigidly stress power structures and homogeneity of beliefs, attitudes, and values tend to experience more anxiety, both globally and sexually. Hsu (1999) found a similar finding, detecting a slightly larger correlation between CFO and communication apprehension compared to the association between CVO and communication apprehension.

Finally, sexual self-esteem and sexual anxiety were both significantly associated with men's and women's sexual communication (support for actor effects of H14 and H15). Only men's sexual self-esteem was significantly associated with women's sexual communication. The same result was not obtained for the partner effect of women's sexual self-esteem on men's sexual communication (see Figure 11) (partial support for partner effects of H14). However, there were partner effects for men and women with regard to the effect of sexual anxiety on sexual communication (see Figure 12) (support for partner effects of H15). In fact, approximately 30—40% of the variance in sexual communication was explained by sexual self-esteem and sexual anxiety for men and women, which are large effects.

FCPs are associated with individuals' general and sexual self-schemas, with stronger associations found between FCPs and general self-concept compared to associations between FCPs and sexual self-concept. In addition, sexual self-esteem and sexual anxiety were both significantly associated with sexual communication. Path analyses (see Figures 10, 11, and 12) indicate that general and sexual self-schemas are influenced by FCPs, with the self-schema (both general and sexual) significantly predicting sexual communication. Koesten, Miller, and Hummert (2002), via qualitative analyses, found that young girls from conversationally-oriented families tended to have more positive social identities (i.e., they were better able to express themselves with family members and peer groups), which in turn led to decreased engagement in risk behaviors (e.g., drinking, smoking, engagement in sex). Similarly, current data support the notion that associations between family communication and behavioral outcomes in relationships outside of the family may be mediated by self-schema.

Theoretical Implications

Findings of the current investigation expand the theoretical scope of FCPT (Koerner & Fitzpatrick, 2002a) and raise questions for discussion. Koerner and Fitzpatrick argue that their theoretical model of family communication offers a general theory that is broad in scope:

> …we have developed a model of family communication that is based on a general theory of relational schemas that emerged from recent advances in the field of cognitive social psychology. As communication scholars, we have paid special attention to making apparent the connections between relational schemas and communication behaviors, both in regard to the dependence of relational schemas on communicative behaviors and in regard to the dependence of communicative behaviors on relational schemas. (p. 88)

By casting a large net over the discipline of family communication, the theory meets the criterion of theoretical scope by helping to explain a wide range of communicative behaviors (Littlejohn & Foss, 2010), as influenced by communicative norms within the family. Current findings add to this idea, but extend it; specifically, results illustrate the utility of FCPs in helping scholars understand how family communication is associated with individuals' communicative choices regarding taboo, difficult, and uncertainty-inducing topics. FCP research has predominantly examined how FCPs are associated with bright side communicative behaviors (e.g., confirmation, affection, relational maintenance, self-disclosure). Less attention has been given to the role of FCPs in how individuals approach challenging conversations, which is an important avenue for researchers working within this theoretical framework to explore. Results indicate that

FCPs are associated with conversations about sexual intimacy in romantic relationships, which can be a taboo, avoided topic in close relationships (Theiss, 2011). This suggests that FCPs may also be associated with individuals' likelihood to engage in other challenging conversations. In fact, research has found that open, high quality (i.e., perceived quality from the children's perspective) family communication regarding a number of challenging topics is helpful and valued by children, including: conversations with a terminally ill loved one (Keeley & Generous, 2014), communication between mothers and daughters after the death of a father (Shaprio, Howell, & Kaplow, 2014), quality of communication regarding finances and financial well-being (Serido, Shim, Mishra, & Tang, 2010), and communication following parental divorce (Cohen, Leichtentritt, & Volpin, 2012). It stands to reason that conversation- and conformity-orientations, as well as their interaction, would help explain variation in how individuals approach these difficult conversations. These explorations will help expand the scope of Koerner and Fitzpatrick's (2002a) theoretical framework.

Additionally, current findings illustrate a need to further parse out the ideas addressed in axioms three ("More abstract relational schemas are less likely to change in response to concrete relationship experiences than more concrete relationship schemas") and four ("In utilizing social knowledge stored in different schemas, persons will always access specific relationship schemas first, relationship type schemas second, and the general social schema third") within the theoretical model (Koerner & Fitzpatrick, 2002a, p. 82). In particular, findings demonstrate the interdependent influences of romantic partners' general social schemas, as shaped within their families of origin, on behavioral decisions within romantic relationships. This offers empirical support for axiom three

while also raising questions regarding axiom four. That is, the theory does not currently address how the three levels of relational schema (i.e., relationship-specific, relationship-type, and general social) are potentially influenced by one another. It stands to reason that individuals initially interpret new messages in romantic relationships within the general social schema (i.e., having a particular conversation for the first time with a romantic partner, such as a conversation about sex), as relationship-specific and relationship-type schemas may not yet be developed. Consequently, the communicative decisions one makes in a romantic relationship, as influenced by the general social schema, may subsequently impact the relationship-specific and relationship-type schema for future conversations. These inferences are beyond the scope of current data, and longitudinal tests are required to provide evidence for such claims. As previously mentioned, however, scholars have longitudinally demonstrated significant associations between family communication environments and behavioral decisions in marriages (see Whitton et al., 2008). Although not framed via a FCPT framework, these findings highlight the influence of family communication in a close, developed relationship like marriage, which indicates potential interrelatedness between general social, relationship-type, and relationship-specific schemas.

Methodological Implications

Current findings have methodological implications for researchers who study communicative antecedents and outcomes within close relationships, both within and outside the FCPT theoretical framework. To begin, Koerner and Schrodt (2014) acknowledge a potential methodological issue with regard to the operationalization of CFO: "…we believe that the current measure of conformity orientation may need

revision so as to capture more fully all of the subtle nuances associated with creating homogeneity of attitudes, beliefs, and values within a family" (p. 12). Additionally, these scholars note that the current operationalization of conformity could potentially measure outdated cultural norms and behaviors regarding homogeneity of beliefs, attitudes, and values. Schrodt and colleagues (Schrodt & Ledbetter, 2007; Schrodt et al., 2009) made similar claims, arguing that the conformity construct neglects individuals' attributions for family conformity, which could explain inconsistent findings with this particular construct:

> …one possible explanation for these contradictory findings may be that the influence of conformity orientation on children's resiliency, coping skills, and well-being depends on whether the influence of the primary authority figure is positive or negative…. it could be that a lack of conformity reflects great freedom or complete entropy, whereas total conformity could reflect order and structure or stifling rigidity. Future researchers might extend this line of inquiry, then, by exploring possible interaction effects of family communication patterns and parenting styles on children's well-being, as well as by examining more closely the subtle nuances (and behavioral manifestations) of family conformity. (Schrodt & Ledbetter, 2007, p. 349)

Future FCP research should consider elaborating the conformity construct to account for these attributional nuances, which could help advance understanding of the general theory of family communication (Koerner & Fitzpatrick, 2002a).

Also, current findings underscore the need to explore dyads as the unit of analysis when researching the association between FCPs with behavioral outcomes in

relationships like romantic relationships (Kenny et al., 2006). This is the first study to employ a dyadic methodological approach to understand the interdependent influences of dyadic partners' FCPs on communication within the relationship. Findings provide evidence of both actor and partner effects for FCPs on sexual communication, as well as actor and partner effects of self-concept on sexual communication. Consequently, it is argued that relational scholars need to consider dyadic approaches to understanding communicative processes within romantic relationships (for similar arguments see Domingue & Mollen, 2009; Guerrero, 2014; Kenny et al., 2006; Millings, Walsh, Hepper, & O'Brien, 2012).

Clinical Implications

Findings have implications for therapists, counselors, and romantically involved individuals. Family and relational therapists and counselors can use the current findings to help facilitate dialogue between romantic couples about potential communication deficits related to sexual intimacy. In particular, therapists and counselors can help romantic partners' enhance understanding of one another via dialogue with regard to possible antecedents to communicative choices, such as family communication environments. Enhancing understanding is an important practice, as perceived understanding is significantly associated with feelings of intimacy and satisfaction in romantic relationships (Andersen, Guerrero, & Jones, 2006). Current findings support this notion, as romantic partners tend to be more relationally and sexually satisfied when they believe they and their partner understand each other's sexual needs and desires.

Pedagogical Implications

Results of the current investigation have pedagogical implications for instructors of interpersonal, relational, and family communication courses. In particular, pedagogy regarding family communication should emphasize the formative role family communication has on communicative behavior in later relationships (Noller, 1995), such as romantic relationships (Koerner & Fitzpatrick, 2002c; Koesten, 2004; Whitton et al., 2008; Young, 2014) and friendships (Ledbetter, 2009). Interpersonal scholars have emphasized the importance of interpersonal skill development in the classroom (Sanders, 2010), as well as the importance of understanding and applying interpersonal theory to real life situations (Suter & West, 2011).

With regard to sexual communication, Pawlowski (2006) argues that "A classroom of peers is an effective way to get students talking about the topic of sexual communication" (p. 100). Current findings offer instructors a way for students to use theory (i.e., FCPT) to understand their own communicative skills and understanding with regard to sexual communication. In particular, pedagogical practices should ask students to critically evaluate the way their family of origin, with specific attention paid to communicative norms, influence their behavioral decisions in relationships outside of the family. Introducing these practices can help students better understand family communication and interpersonal theory via a direct application to their own life experiences. Also, the implementation of these pedagogical practices will help increase students' self-reflexivity (Franks, 2015; Mezirow, 1996), as students are asked to reflect on their own communicative behaviors as potentially influenced by communication within their families.

Limitations and Future Directions

This section outlines the methodological limitations of the current study and then identifies potential areas of future study.

Limitations. First, a major limitation of the current research is the reliance on cross-sectional data. Cause-effect relationships cannot be established with cross-sectional data; instead, only associations can be inferred. While necessary, correlations are not sufficient evidence for cause-effect claims (Farrell, 1994). Also, whereas the models indicated good to excellent fit with regard to the relationships between variables, the associations between FCPs, self-concept, sexual communication, and relational outcomes remain underdetermined without experimental or longitudinal data (see Koerner & Schrodt, 2014 for more on this argument). FCPs research has employed longitudinal data to determine the effect of adolescents' communication on reported FPCs (i.e., FCPs as an outcome variable; see Saphir & Chaffee, 2002). However, longitudinal data have not been employed to test the effects of FCPs on individuals' behavioral outcomes in relationships outside of the family, which is necessary to establish cause-effect relationships with regard to the influence of FCPs on self-schema and behaviors (Farrell, 1994).

With regard to relational outcomes (i.e., sexual and relationship satisfaction), couples tended to have moderate to high levels of satisfaction, which is a result consistently found in other studies employing dyadic data to examine relational outcomes (see Guerrero, 2014; MacNeil & Byers, 2009). As Guerrero (2014) notes, "…it is possible that people in highly satisfying relationships tended to see their behavior in overly positive terms" (p. 608). Therefore, it would be beneficial to acquire a sample that

has more variability in relational and sexual satisfaction scores, as this may provide a more complete understanding of the relationship between communicative behavior and relational outcomes.

Another limitation is the lack of cultural diversity in the sample, which was a majority Caucasian (similar demographics have been reported in other FCP research, see Schrodt et al., 2008). Previous research has indicated that family communication influences individuals differently based on culture (see Campos, Fernando, Perez, & Guardino, 2016; Shearman & Dumlao, 2008). Culture was not controlled for in this analysis. However, previous findings suggest that culture may moderate the effect of FCPs on particular outcomes (e.g., Shearman and Dumlao found a significant, negative association between conformity-orientation and communication within families for individuals from the United States, but not for individuals from Japan). Therefore, future research could seek to account for cultural variation, which could help expand the theory's explanatory and heuristic power.

Finally, another potential limitation is the length of the online survey, which potentially influenced response set and study fatigue for participants. Completion time for the survey took, on average, 23 minutes to complete (M = 23.01 minutes, SD = 10.09, *median* = 22 minutes, *range* = 5 - 53 minutes). Although the consent form clearly indicated that participation would take 20 to 30 minutes to complete the survey, participant fatigue might still have been an issue. In order to help mitigate this potential limitation, scholars might consider using shortened versions of the instruments used in this analysis. Before this can be done, however, empirical investigations should be

conducted to establish the validity and reliability of shortened instruments (see Rodrigues & Lopes, 2013, for an example).

Future directions. Although limitations exist, the shortcomings of this investigation offer new directions for future research within the areas of family and relational communication.

To begin, longitudinal methods should be employed to further understand the effect of FCPs on self-schema and behavioral outcomes in relationships outside of the family. To date, an overwhelming majority of FCPs research employs cross-sectional study designs (only one longitudinal study was found, Saphir & Chaffee, 2002; no experiments have been conducted with FCPs). With this, only associations and tendencies can be claimed with regard to the effect of FCPs on psychosocial and behavioral outcomes (Farrell, 1994). Researchers should couple dyadic with longitudinal methods to truly capture the influence of FCPs on dyadic behavioral and relational outcomes. Longitudinal effects of family communication has been documented, however, as Whitton et al. (2008), in their 17-year longitudinal study, found that family hostility behavior significantly predicted both marital hostility behaviors and marital adjustment. Moreover, future work should seek to further understand the interaction of biological sex on the effect of family communication and communication within the relationship (Story et al., 2004; Whitton et al., 2008).

Additionally, future work should seek to explore the effect of FCPs on other conversational-topics within romantic relationships. Current evidence suggests that FCPs, specifically CVO and the interaction between CVO and CFO, are associated with individuals' openness regarding sexual matters. Other scholars have found that FCPs are

associated with self-disclosure (Koesten, 2004), conflict avoidance (Koerner & Fitzpatrick, 2002c), and confirmation (Young, 2014) behaviors in romantic relationships. Accordingly future research should explore how CVO and CFO are associated with how relational couples handle certain conversational topics, including: money and finances, relational stage and progress (nature of the relationship), cohabitation, autonomy versus connection, integrating social networks, jealousy, and conflict. In addition, an examination of how FCPs are associated with decisions of topic avoidance (Guerrero & Afifi, 1995) would be warranted. Current findings also suggest that family communication shapes individuals' self-schema, which influence behavioral decisions in romantic relationships (Noller, 1995; Longmore, Manning, & Giordano, 2013); thus, future research into the mediating role of self-schema (i.e., FCPs→self-schema→communication) is warranted. Continuing with this claim, research should also begin to explicate the unique influences of mothers' and fathers' communication orientations on individual's behavioral outcomes, as research has indicated differing effects when examining mothers and fathers communication separately (see Schrodt et al., 2009; Taniguchi & Thompson, 2015).

Although not examined in this investigation, associations between family communication and health-related communicative behaviors could be hypothesized. For instance, Keating (2011) found that individuals from high conversationally-oriented families were more likely to intend to comply with parents' safe-sex messages. Additionally, scholars have documented associations between family communication with risk behaviors, demonstrating that individuals are less likely to engage in risky behavior when they come from families that encourage open communication (see

Hutchinson, Jemmott, Jemmott, Braverman, & Fong, 2003; Koesten & Anderson, 2004; Koesten et al., 2002). Future work is still required to understand these associations; however, current evidence suggests that family communication plays a role in how individuals make decisions about engaging in high-risk behavior, which could be explored further.

Future work should seek to understand the potential moderating effects of sex and gender on the associations between family communication and general relational schema. As Bussey and Bandura (1999) note, gender development is complex and nuanced, often operating via different pathways (e.g., family, peers, media) for men and women. Inferences to gender development are beyond the scope of the data, however, current findings illustrate a need for scholars to consider sex and gender as possible factors that influence the associations between family communication and general relational schema.

Scholars should seek to further understand the associations between CVO, CFO, self-esteem, and anxiety. As previously mentioned, the associations between CVO and self-esteem variables tended to be slightly stronger than the associations between CFO and esteem. On the other hand, the associations between CFO and anxiety variables tended to be stronger than the associations between CVO and anxiety. Further understanding these associations and their directions is an important scholarly and practical endeavor, as anxiety and self-esteem have been associated with important psychosocial outcomes such as mental health (Gren-Landell, Aho, Carlsson, Jones, & Svedin, 2013), fear of intimacy (Marsh, Norvilitis, Ingersoll, Li, 2012), and relational outcomes (Bigras et al., 2015).

Furthermore, the nature of family communication is nuanced, with scholars contending that one theory cannot fully capture and explain the complexities of family communication (see Fine & Fincham, 2013). With this in mind, it would be beneficial for scholars to explore how other family communication theoretical frameworks explain the influence of family communication on individuals' behavioral decisions and cognitive processing in relationships outside of the family. For instance, Campos and colleagues (2016) found that familism, which is conceptualized "as a strong identification with family characterized by loyalty, reciprocity, and solidarity among family members" (p. 82), is significantly and positively associated with perceived partner closeness in romantic relationships. Future work might seek to understand how familism is associated with particular communicative behaviors (e.g., self-disclosure, confirmation) that facilitate relational closeness. Also, family scholars have argued for the use of social control frameworks to understand family communication phenomenon (see Longmore et al., 2013). According to this framework, control is conceptualized as the inhibition of adolescent behavior via parental care (i.e., demonstrating support for the child as he/she makes decisions) and constraint (i.e., an attempt to control the child's behavior via rules and compliance), both communicative constructs. Scholars have found that parental care typically leads to more positive outcomes (e.g., more positive self-concept, greater communication between parent and child), whereas constraint typically leads to negative outcomes (Longmore et al., 2013). In addition, an attachment perspective might help scholars understand the intergenerational transmission of communicative behaviors in the family of origin to romantic relationships. This is by no means an exhaustive list of

potential theoretical frameworks, and scholars with various theoretical commitments are encouraged to explore these questions.

Finally, the conformity-orientation (CFO) construct should undergo reconceptualization and reoperationalization. A reevaluation of this construct could help advance the theory with regard to how CFO influences behavioral and psychosocial variables inside and outside of the family. As Schrodt and colleagues (2008) established in their meta-analysis, CVO is more strongly associated with behavioral and psychosocial variables compared to CFO. The findings of this study and others (Koesten, 2004; Ledbetter, 2009; Young, 2014) demonstrate stronger associations between CVO and behavioral outcomes in relationships outside of the family compared to associations with CFO. Additionally, the CFO construct may be culturally outdated (Koerner & Schrodt, 2014) and neglect to distinguish between different types of familial conformity (Koesten et al., 2009; Schrodt & Ledbetter, 2007). Therefore, more careful attention should be paid to explicating the various underlying constructs of CFO, as well as their associations with behavioral and psychosocial outcomes.

Conclusion

The current study has established that family communication is associated with how individuals communicate regarding sexual matters in their romantic relationships. Findings offer support for Koerner and Fitzpatrick's (2002a) theoretical model, and provide evidence of the formative role of family communication on individuals' general social schema and self-schema. Although further longitudinal work is necessary to establish cause-effect evidence of FCPs on romantic relational functioning, current

results offer initial support that family communication influences communicative processes in relationships outside of the family.

Koerner and Schrodt (2014) argued that "FCPT [family communication patterns theory] is an extremely well developed and useful theory of family communication that can be fruitfully applied to an almost unlimited range of family communication phenomena" (p. 11). Current findings support this notion, and researchers are encouraged to further explore the influence of family communication on behavioral processes in romantic relationships, specifically with attention paid to dyadic influences.

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APPENDIX A

IRB APPROVAL FORM

EXEMPTION GRANTED

Paul Mongeau
Human Communication, Hugh Downs School of
480/965-3773
Paul.Mongeau@asu.edu

Dear Paul Mongeau:

On 11/25/2015 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	The Influence of Family Communication Patterns on Sexual Communication in Romantic Relationships
Investigator:	Paul Mongeau
IRB ID:	STUDY00003534
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• IRB Protocol and Application, Category: IRB Protocol; • Recruitment Script, Category: Recruitment Materials; • Letter with Point-by-Point Response to Requests for Clarification, Category: IRB Protocol; • Consent Form, Category: Consent Form; • Instrumentation, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 11/25/2015.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator
cc: Mark Generous

Mark Generous

APPENDIX B

RECRUITMENT SCRIPT

Family Communication Patterns and Sexual Communication

Recruitment Script

Hello!

You are invited to participate in a research study conducted by Mark Generous, under the guidance of Dr. Paul Mongeau in the Hugh Downs School of Human Communication at Arizona State University. In order to participate, you must currently be engaged in a romantic relationship that is sexually active. We will ask both you and partner to complete the survey.

The survey will take approximately 20-30 minutes to complete. Please remember: **complete the survey separately from your partner, and do not share your survey responses with your partner.**

Your participation will remain completely anonymous, as no identifying information (e.g., name) will be collected; thus, please be as honest as possible when responding to each question. Your participation is completely voluntary, and you may terminate your participation at any time. Participation in the survey should take approximately 20-30 minutes.

You will access the survey via the following URL: _____. When you access the survey, you will be asked to input a five-digit access code. Your five-digit access code for the survey is: _____. You and your romantic partner will use the same five-digit access code.

If you and your partner both complete the survey, you may receive extra credit from your instructor (this is up to the instructor's discretion). After you and your partner have completed the survey online, **please turn this sheet into your instructor as an indication that both you and your partner have completed the survey**. The researcher will check to confirm that you and your partner have completed the survey – this will be done by checking the five-digit access code. Once the researcher has confirmed that both you and your partner completed the survey, you will be awarded extra credit at the discretion of your instructor.

If you have questions or need additional assistance, please contact Mark Generous at mark.generous@asu.edu.

Thank you,

Mark Generous
Paul A. Mongeau
Hugh Downs School of Human Communication
Arizona State University

APPENDIX C

PARTICIPANT CONSENT FORM

Consent Form

Dear Participant:

My name is Mark Generous, and I am a graduate student working under the direction of Professor Paul Mongeau in the Hugh Downs School of Human Communication here at Arizona State University.

I am conducting a research study to gain information about how partners communicate in sexually-active romantic relationships. You may be in a casual dating relationship, a serious dating relationship, engaged, or married. The important thing is that you are currently engaged in a romantic relationship and you have engaged in some form of sexual interaction with your partner (i.e., genital touching, oral sex, penetrative intercourse). In addition to you completing the survey, your partner must also fill out the survey – I am interested in collecting data from both you and your partner.

I am inviting you and your romantic partner's participation, which will involve you both completing the survey *separately*. This is very important – you and your partner must fill out the survey separately and not together. Both you and your partner will fill out the same survey, which will include demographic questions, questions about your communication behaviors with your partners, and perceptions of your relationship. The survey should take approximately 20 – 30 minutes to fill out for each individual in the romantic relationship. We expect approximately 250 romantic partners (i.e., 500 participants total) to participate in this research study.

Your participation in this study is voluntary. You can skip questions if you wish. If you choose not to participate or to withdraw from the study at any time, there will be no penalty. You must be 18 or older to participate in the study.

Your responses on the questionnaire will be used to gain a better understanding of romantic relationships, and the contextual influences on communication within these relationships. Although there is no benefit to you, possible benefits of your participation are that we can learn more about romantic relationships.

Student participants recruited from participating courses may receive extra credit for participation in this research study. Refer to your course instructor for specific details regarding the amount of credit offered. To receive extra credit, both you and your romantic partner must fill out the survey. Equitable, alternative extra credit assignments may be offered in your course if you choose not to participate in this research study. This will be in the form of alternative research studies that you can participate in at the discretion of your instructor.

There are no foreseeable risks or discomforts to your participation. However, because you are answering questions about a potentially sensitive topic, it is possible you may become distressed. For confidential, personal counseling and crisis services, please

contact ASU Counseling Services at 480-965-6146. After hours, call the ASU crisis hotline at 480-921-1006.

Your responses will be anonymous, and no identifying information will be collected or attached to your responses (e.g., your name). No one will be able to determine which responses are yours. The results of this study may be used in reports, presentations, or publications; but, your name will not be known.

If you have any questions concerning the research study, please contact me at mark.generous@asu.edu, or Paul Mongeau at 480.965.3773. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

Clicking the 'next' button will be considered your consent to participate in this study.

Sincerely,
Mark Generous
Paul Mongeau

APPENDIX D

SURVEY MEASURES

MEASURES

Revised Family Communication Patterns Instrument

9-point Likert scale (1 = *strongly disagree;* 9 = *strongly agree*).

Directions: The following set of questions will ask you about **how you and your parents communicate with each other**. When responding to the questions, think about how you and your parents communicate nowadays. Please read each statement and use the scale to indicate how much you agree/disagree with each statement with regards to how you and your parents communicate.

Conversation Orientation

In our family we often talk about topics like politics and religion where some persons disagree with others.

My parents often say something like "Every member of the family should have some say in family decisions."

My parents often ask my opinion when the family is talking about something.

My parents encourage me to challenge their ideas and beliefs.

My parents often say something like "You should always look at both sides of an issue."

I usually tell my parents what I am thinking about things.

I can tell my parents almost anything.

In our family we often talk about our feelings and emotions.

My parents and I often have long, relaxed conversations about nothing in particular.

I really enjoy talking with my parents, even when we disagree.

My parents like to hear my opinions, even when they don't agree with me.

My parents encourage me to express my feelings.

My parents tend to be very open about their emotions.

We often talk as a family about things we have done during the day.

In our family we often talk about our plans and hopes for the future.

Conformity Orientation

My parents often say something like "You'll know better when you grow up."

My parents often say something like "My ideas are right and you should not question them."

My parents often say something like "A child should not argue with adults."

My parents often say something like "There are some things that just shouldn't be talked about."

My parents often say something like "You should give in on arguments rather than risk making people mad."

When anything really important is involved, my parents expect me to obey without question.

In our home, my parents usually have the last word.

My parents feel that it is important to be the boss.

My parents sometimes become irritated with my views if they are different from theirs.

If my parents don't approve of it, they don't want to know about it.

When I am at home, I am expected to obey my parents' rules.

Self-Schema Variables

General Self-Concept Variables

9-point Likert Scale (1 = *strongly disagree;* 9 = *strongly agree*)

Directions: The following sets of questions will ask you about perceptions you have regarding your self. Read each statement and use the scale to indicate how much you agree/disagree each statement is reflective of your perceptions of yourself.

General Self-Esteem

I feel that I'm a person of worth, at least on an equal plane with others.

On the whole, I am satisfied with myself.

I certainly feel useless at times.

At times I think I am no good at all.

I feel that I have a number of good qualities.

All in all, I am inclined to feel that I am a failure.

I am able to do things as well as most other people.

I feel that I do not have much to be proud of.

I take a positive attitudes toward myself.

General Social Anxiety

I get nervous if I have to speak with someone in authority (teacher, boss, etc.)

I have difficulty making eye-contact with others

I become tense if I have to talk about myself or my feelings

I find difficulty mixing comfortably with the people I work with

I tense-up if I meet an acquaintance in the street

When mixing socially, I am uncomfortable

I feel tense if I am alone with just one other person

I am at ease meeting people at parties, etc.*

I have difficulty talking with other people.

I find it easy to think of things to talk about*

I worry about expressing myself in case I appear awkward

I find it difficult to disagree with another's point of view

I have difficulty talking to attractive persons of the opposite sex

I find myself worrying that I won't know what to say in social situations

I am nervous mixing with people I don't know well

I feel I'll say something embarrassing when talking

When mixing in a group I find myself worrying I will be ignored

I am tense mixing in a group

I am unsure whether to greet someone I know only slightly

Sexual Self-Concept Variables

9-point Likert-type scale (1 = *not at all characteristic of me;* 9 = *extremely characteristic of me*)

Directions: The following sets of questions will ask you about perceptions you have regarding yourself. Read each statement and use the scale to indicate how much you believe each statement is either characteristic or not characteristic of you.

Sexual Self-Esteem

I derive a sense of self-pride from the way I handle my own sexual needs and desires.

I am proud of the way I deal with and handle my own sexual desires and needs.

I am pleased with how I handle my own sexual tendencies and behaviors.

I have positive feelings about the way I approach my own sexual needs and desires.

I feel good about the way I express my own sexual needs and desires.

I expect that the sexual aspects of my life will be positive and rewarding in the future.

I believe that in the future the sexual aspects of my life will be healthy and positive

I do not expect to suffer any sexual problems or frustration in the future

I would rate my sexual skill quite highly

I think of myself as a very good sexual partner

I am confident about myself as a sexual partner

Sexual Anxiety

Thinking about the sexual aspects of my life often leaves me with an uneasy feeling.

I feel nervous when I think about the sexual aspects of my life.

I feel anxious when I think about the sexual aspects of my life.

I'm concerned about how the sexual aspects of my life appear to others.

I worry about the sexual aspects of my life.

I will probably experience some sexual problems in the future.

I anticipate that in the future the sexual aspects of my life will be frustrating.

I'm concerned with how others evaluate my own sexual beliefs and behaviors.

Sexual Communication

9-point Likert scale (1 = *strongly disagree*; 9 = *strongly agree*)

Directions: The next sets of questions will ask you about your romantic relationship with your partner; specifically, you will be asked questions regarding how you and your partner communicate. Below are items that assess how you and your romantic partner communicate about sexual aspects of your relationship. Please read each statement and indicate how much you agree/disagree about that statement in terms of how it applies to your current romantic relationship.

I tell my partner when I am especially sexually satisfied

I am satisfied with my partner's ability to communicate his/her sexual desires to me.

I do not let my partner know things I find pleasing.

I am very satisfied with the quality of our sexual interactions.

I do not hesitate to let my partner know when I want to have sex with him/her

I do not tell my partner whether or not I am sexually satisfied

I am dissatisfied over the degree to which my partner and I discuss our sexual relationship

I am not afraid to show my partner what kind of sexual behavior I find satisfying

I would not hesitate to show my partner what is a sexual turn-on for me

My partner does not show me when she/he is sexually satisfied

I show my partner what pleases me during sex

I am displeased with the manner in which my partner and I communicate with each other during sex

My partner does not show me things she/he finds pleasing during sex

I show my partner when I am sexually satisfied

My partner does not let me know whether sex has been satisfying or not

I do not show my partner when I am sexually satisfied

I am satisfied concerning my ability to communicate about sexual matters with my partner

My partner shows me by the way she/he touches me if he/she is satisfied

I am dissatisfied with my partner's ability to communicate his/her sexual desires to me

I have no way of knowing when my partner is sexually satisfied

I am not satisfied in the majority of our sexual interactions

I am pleased with the manner in which my partner and I communicate with each other after sex

I am interested to hear about my partner's feelings regarding the sexual aspects of our relationship

My partner's communication with me about sex is important

I actively listen to my partner when he/she is talking with me about our sex life

My partner's thoughts about our sex life are important to me.

I try and understand how my partner feels about the sexual aspects of our relationship.

When we talk about sex, I attempt to understand the perspective of my partner.

Relational Outcomes

Sexual Satisfaction

9-point Likert-type scale (1 = *not at all satisfied;* 9 = *extremely satisfied*)

Directions – Each of the following questions will ask you about how satisfied you are with various components of the sexual aspect of your romantic relationship. Read each statement and use the scale to indicate how satisfied you are with that aspect of your sexual relationship.

The quality of my orgasms

My "letting go" and surrender to sexual pleasure during sex

The way I sexually react to my partner

My body's sexual functioning

My mood after sexual activity

The pleasure I provide to my partner

The balance between what I give and receive in sex

My partner's emotional opening up during sex

My partner's ability to orgasm

My partner's sexual creativity

The variety of my sexual activities

The frequency of my sexual activity

General Relationship Satisfaction

9-point Likert-type Scale (different for each question; see below)

Directions: The following sets of questions will assess your general perceptions of your relationship with your partner. Read each question and use the respective scale to indicate how you feel regarding your relationship with your romantic partner.

How well does your partner meet your needs? (1 = *not very well at all*; 9 = *very well*)

In general, how satisfied are you with your relationship? (1 = *not at all satisfied*; 9 = *very satisfied*)

How good is your relationship compared to most other relationships? (1 = *not very good at all*; 9 = *very good*)

How often do you wish you had not gotten into this relationship? (1 = *never*; 9 = *very often*)

To what extent has your relationship met your original expectations? (1 = *not very much at all*; 9 = *very much*)

How much do you love your partner? (1 = *not at all;* 9 = *very much*)

How many problems are there in your relationship? (1 = *not a lot at all*; 9 = *a lot*)

Demographic Questions

What is your biological sex?
- Male
- Female

What is your age?

How would you characterize the nature of your relationship?
- Casually dating
- Seriously dating
- Engaged
- Married
- Other

How long have you and your current partner been romantically involved?
- Years:
- Months:

How would you describe your living situation with your partner?
- We live together
- We do not live together, but we live close to one another
- We do not live together, and we live far away from one another (i.e., we're in a long-distance relationship)

What ethnicity do you most closely identify with?
- African American

Asian
Hispanic
Caucasian
Native American
Pacific Islander
Alaskan Native
Mixed
Other