TO DISCLOSE OR NOT DISCLOSE: THE PROPOSITION AND TEST OF THE SEXUAL SELF-DISCLOSURE DECISION MODEL (SS-DDM)

by

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ABSTRACT

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Under the Supervision of Professor Erin Ruppel, Ph.D.

The positive personal and relational outcomes of sexual self-disclosure (SS-D) in the context of current sexual partner have received considerable scholarly attention in the context of current sexual partners. Despite the numerous benefits, SS-D is difficult for partners to perform, and current literature does not fully explain, nor predict, why and when SS-D is likely to occur. This dissertation was conducted to formalize the propositions of the Sexual Self-Disclosure Decision Model (SS-DDM), a novel theoretical model to explain the factors leading up to, or away from, SS-D. The SS-DDM proposes a three-phase disclosure decision process including antecedent, assessment, and decision. The proposed theoretical causal chain begins with antecedents (phase 1) such as psychological dispositions (approach-avoidance motives and goals) leading to the individual's assessment. Their assessment phase (phase 2) includes disclosure efficacy and positive or negative outcomes for themselves, their partner, and their relationship. The decision to disclose (phase 3) is based on the individual's belief they can effectively disclose (i.e., efficacy) and the expectation of more positive than negative outcomes for themselves, their partner, and the relationship. A cross-sectional survey collected data from a large (N = 390) and demographically diverse sample of current sexual partners using Amazon Mechanical Turk. Structural equation modeling was used to conduct the initial test of the three phases. Results

supported the antecedent, hope for affiliation and fear of rejection motives, manifesting into approach and avoidance goals and the subsequent assessment phases. In this model goals acted as a proximal psychological disposition to disclosure efficacy, where disclosure efficacy effects lead to more positive than negative outcome assessments for themselves, their partner, and their relationship. The final decision phase included support for disclosure efficacy as the key factor driving the decision to disclose; however, this study did not find outcome assessments to impact the participant's intent to reveal their sexual desires. The present study offers initial support for the SS-DDM and suggests modifications to prior self-regulation theories. For example, disclosure efficacy was found to fully mediate the association between approach and avoidance goals with SS-D intent, suggesting the disclosure process model (DPM, Chaudoir & Fisher, 2010) has oversimplified the complex disclosure process. Furthermore, the SS-DDM provides practical value being the first theoretical model sex and relationship practitioners can use with their patients in coordinating interventions.

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To

Nicole Lauhon,

KJ Kelly,

and especially Tammy Hansen

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Introduction

Effective sexual communication, the ability to express oneself and have one's partner understand them, is the cornerstone of developing and maintaining a positive sexual relationship (Byers, 2011; MacNeil & Byers, 2005; Masters & Johnson, 1966, 1970; Montesi et al., 2010; Rosier & Tyler, 2017; Theiss, 2011; Theiss & Estlein, 2014) and can include being clear, detailed, positive, sensitive to partner feelings, and realistic (Rosier & Tyler, 2017). In comparison ineffective sexual communication is conceptualized as beating around the bush and/or otherwise avoiding the topic. Ineffective sexual communication and sexual topic avoidance proves problematic in relationship development and lowers sexual and relational satisfaction (e.g., Theiss, 2011; Theiss & Estlein, 2014), defined as the degree an individual is happy with aspects of their sexual and non-sexual relationship, respectively (Sprecher & Cate, 2004). Openly and effectively discussing sexual topics between partners not only improves relationship development, relationship quality (e.g., Brown & Weigel, 2018; Byers & Demmons, 1999; Coffelt & Hess, 2014; Jones et al., 2018; MacNeil & Byers, 2009), and sexual health (e.g., Horan & Cafferty, 2017; Khoury & Findlay, 2014; for a meta-analysis see Mallory et al., 2019) but also creates more satisfying sexual experiences (e.g., Jones et al., 2018; Lawsin & Ballard, 2017; MacNeil & Byers, 2005, 2009; Montesi et al., 2010; Rehman et al., 2011, 2013).

In particular, sexual self-disclosure (SS-D), defined as revealing one's sexual preferences to a current sexual partner, seems to be the best construct for predicting and improving sexual satisfaction (e.g., Brown & Weigel, 2018; Byers & Demmons, 1999; Coffelt & Hess, 2014; Jones et al., 2018; MacNeil & Byers, 2009). SS-D's effect on sexual satisfaction can be seen when partners use SS-D to overcome common sexual problems (Merwin et al., 2017; Rehman et al., 2011; Rosier & Tyler, 2017). Nearly 50-70% of sexual partners experience one or more

forms of sexual dysfunction at some point in their lifetime (MacNeil & Byers, 1997; Masters & Johnson, 1970), such as experiencing pain during sex, premature ejaculation and problems with keeping an erection, low desire for sex or difficulty becoming sexually aroused, and difficulty experiencing orgasm (Rehman et al., 2011, p. 3109). These problems often drain individuals of their well-being, and relational intimacy and satisfaction, in and out of the bedroom (McCarthy, 2001, 2003). Sexual problems for either partner often lead to lower satisfaction and higher rates of depression (Merwin et al., 2017; Rehman et al., 2011).

Unfortunately, SS-D often does not occur between partners (for a review see Byers, 2011). Communication about sexual topics has been described as "a virtual minefield" (Lo et al., 2009, p. 264) due to cultural, relational, and intrapersonal implications (e.g., Anderson et al., 2011; Baxter & Wilmot, 1985; Bezreh et al., 2012; Knobloch & Carpenter-Theune, 2004; Rehman et al., 2019; Vrij et al., 2002). SS-D leaves the actor vulnerable to a multitude of potential positive and negative outcomes (Montesi et al., 2010). Further, prior literature lacks a theoretical framework to understand and predict when and why SS-D occurs.

This dissertation first acknowledges the limitations of current sex communication theories and models, making the initial argument for why a new theoretical model is necessary. Second, to remedy former theoretical limitations I propose the Sexual Self-Disclosure Decision Model (SS-DDM). The SS-DDM provides a novel theoretical model to explain the antecedents to partners revealing and concealing their sexual preferences to their partner. Understanding the facilitators and inhibitors of SS-D will help sex communication scholars and practitioners improve sexual partner's sexual and relationship satisfaction. The proposition is informed by previous biopsychological, cognitive psychology, social exchange communication theories, and sex communication findings to argue for the propositions of the SS-DDM. Third, the current

study was conducted as the initial test of the SS-DDM. Finally, the results of the current study are analyzed and discussed to determine the validity of the SS-DDM.

Review of Literature

Prior Sex Communication Theories

Prior SS-D research is largely based on two theoretical pathways. MacNeil and Byers (2005) produced a testable version of Cupach and Metts (1991) original instrumental and expressive pathway framework. The instrumental and expressive pathways both focus on the role SS-D plays in the formation, maintenance, and enhancement of an actor's sexual satisfaction. The instrumental pathway proposes individuals disclose sexual preferences to instruct their partner on the actor's sexual preferences, increasing the partner's knowledge of the actor's preferences. The partner then can adequately engage in sexual episodes the actor finds sexually enjoyable, leading to an increase in the actor's sexual satisfaction. Assuming the receiving partner understood the sender's SS-D. Alternatively, the expressive pathway removes sexual knowledge and behavior from the equation and instead suggests that as sexual partners share sexual information, the shared experience brings partners closer together (i.e., increased relationship quality; for a review see Byers, 2011; MacNeil & Byers, 2005, 2009).

Currently, SS-D literature lacks a theoretical framework to understand and predict when SS-D occurs. The disclosure process includes antecedents, disclosure event, and the outcome of disclosure (e.g., Chaudoir & Fisher, 2010; Crowley, 2017). Given the pre-existing instrumental and expressive pathways of SS-D (Cupach & Metts, 1991; MacNeil & Byers, 2005, 2009) including the communication event and outcome, the antecedents of SS-D are missing for the full three-part process of disclosure. Three recent models, the sexual communication during sex model (Babin, 2012), post-sex disclosure model (Denes, 2018), and contextual model of sexual

self-disclosure and sexual satisfaction (Brown & Weigel, 2018), are related but do not completely explain, the antecedents of SS-D.

The sexual communication during sex model describes the effect of sexual communication apprehension (general sexual communication apprehension, negative disclosure apprehension, and safer sex communication apprehension) and sexual self-esteem on verbal and nonverbal communication during sex, ultimately predicting sexual satisfaction (Babin, 2012). The model includes sexual excitement but does not include direct information about sexual preferences. A partner may infer from verbal or nonverbal excitement that a current sexual activity is preferred, or that a lack of excitement infers a non-preferred sexual activity. Due to the ambiguity of individuals having inadequate knowledge of their partner's sexual preferences and the lack of verbal communicating during sexual events (Byers, 2011; Miller & Byers, 2004), direct verbal communication is more appropriate.

The post-sex disclosure model (Denes, 2018) illustrates that an orgasm during sex increases a positive risk-benefit ratio toward revealing positive relational emotions (e.g., positive feelings, thoughts) after sex. The positive emotions disclosure then predicts an increase in relationship satisfaction. The model focuses on generic emotional disclosure instead of SS-D, thus falling outside the scope of the current study.

The contextual model of sexual self-disclosure and sexual satisfaction (Brown & Weigel, 2018), predicts sex communication by the relationship context factor, which includes a mixture of relationship qualities (e.g., relationship satisfaction, relationship uncertainty) and partner evaluation (e.g., relationship responsiveness). The model examines the disclosure of sexual preferences in addition to sexual health, past experiences, sexual problems, porn consumption, among other sexual related topics. The initial reporting of the model did not include

supplemental testing and reporting of individual sexual topics. Thus, it is not possible to deduce if relationship context had an association with disclosure of sexual preferences or alternatively measured sexual topics (e.g., health, porn).

Understanding when and why SS-D occurs is theoretically valuable to explain the missing piece of the three-part disclosure chain. Further, this understanding has practical value for both relationship practitioners and relationship partners. Relationship and sex counselors often report feeling inadequate when helping their patients with sexual problems (Byers, 2011; Haboubi & Lincoln, 2003; Harris & Hays, 2008; Hinchliff & Gott, 2011; Hipp & Carlson, 2019). One possible reason is these practitioners do not have a framework to understand the factors facilitating and hindering their client's sexual communication. Additionally, if sexual partners know these same facilitating and hindering factors, they will be better equipped to encourage openness and reduce fear they or their partner have surrounding SS-D. This understanding should lead to an increase in positive sexual and relational outcomes.

Overview of SS-DDM

As previously reviewed, sexual partners mutually need SS-D to promote satisfactory relationships and sexual experiences but might be reluctant to do so. Pre-existing sex communication theories do not fully account for when SS-D will, or will not, take place. Based on these limitations, the purpose of this dissertation is to outline and test the Sexual Self-Disclosure Decision Model (SS-DDM), to explain when and why SS-D will occur. The SS-DDM includes three phases: antecedent, assessment, and decision (see Figure 1). The three phases are reflective of and proceed from psychological dispositions to behavioral intention. The first phase, antecedents, is reflective of stable psychological dispositions and represents findings from biopsychological and cognitive psychology. Assessments, the second phase, largely reflect self-

disclosure findings which have been found to change more frequently in relation to the previous antecedent phase. The assessment phase leads to the third phase, SS-D intention. The three phases are constructed to represent a time order procedure. As in, the antecedent phase lead to the assessment phase and the assessment phase leads to the decision phase. The following provides an initial overview of the SS-DDM before fully elaborating on the theoretical propositions.

First, the antecedent phase of SS-DDM includes motives and goals, where motives are defined as higher-order human needs (for reviews see Elliot, 1999, 2006), such as the desire to connect with other humans (Baumeister & Leary, 1995; Deci & Ryan, 2000). Self-disclosure is often goal-oriented and is one means to obtain goals (T. Afifi & Steuber, 2009; Caughlin, 2010; Crowley, 2017; Derlega & Grzelak, 1979; Masur, 2019; Palomares, 2014). Additionally, individuals have developed a fear of rejection to further support their hope for connection (Elliot et al., 2006; Gable, 2006). The distinction between positive (i.e., hope for connection) and negative (i.e., fear of rejection) motives is established within the individual's central nervous system, specifically, the Behavioral Activation System (BAS) and Behavioral Inhibition System (BIS; Gray, 1987).

The BAS and BIS and associated motives lead individuals to adopt certain goals, defined as desired end states (for reviews see Elliot, 2006; Palomares, 2014). Within the BAS and BIS distinctions, goals can be further separated into approach and avoidance goals (for reviews see Elliot, 2006; Elliot & Gable, 2019). An individual has positive desired end states, which they can move toward or *approach*. Simultaneously, an individual can recognize negative end states, which they can move away from or *avoid* (for reviews see Gable, 2012, 2013, 2015). Based on prior motivation theories, motives provide distal influence on proximal goals; therefore, goals

provide a psychological orientation (Elliot et al., 1999) influencing an individual's behavior assessment (Sideridis, 2005).

Second, the assessment phase includes disclosure efficacy and outcome assessment. Disclosure efficacy is based on an individuals' perception of their ability to effectively verbally disclose their sexual preferences. The SS-DDM joins a long line of behavioral (e.g., Ajzen, 1991; Bandura, 1977, 1991; Deci & Ryan, 2012; Higgins, 1997) and communication (e.g., T. Afifi & Steuber, 2009; W. A. Afifi & Morse, 2009; W. A. Afifi & Weiner, 2006; Altman & Taylor, 1973; Greene, 2009; Omarzu, 2000) theories arguing that if an individual does not perceive they have the skill set to communicate, they will not communicate. Alternatively, if an individual perceives they can effectively disclose information, they are more likely to disclose than a low disclosure efficacy individual. Efficacy beliefs increase over time as individuals perform, completely or partially, the assessed behavior (Arenas et al., 2006; Kearney & Bussey, 2015). Due to the low rates of disclosure across various sexual topics (e.g., MacNeil & Byers, 2005, 2009; Metts & Spitzberg, 1996; Parker & Ivanov, 2012; Rehman et al., 2019), individuals may not have the opportunity to build their efficacy beliefs over time. Thus, SS-D efficacy is believed to be one of two factors individuals consider before verbally expressing their sexual preferences.

"Will disclosing my sexual preferences to my partner result in a positive or negative outcome?" This is the central question individuals consider within the SS-DDM. Expected outcomes are the second factor individuals consider before revealing their sexual desires. Expected outcomes, positive and negative, resulting from disclosure are equally assessed. Outcome assessment is a staple within relational disclosure research (e.g., Altman & Taylor, 1973; Omarzu, 2000) and, therefore, is not unique to SS-D. Prior theories have conceptualized outcome assessment globally. The SS-DDM differs from prior disclosure theories and models by

separating expected outcomes for self, partner (i.e., receiver), and the relationship (e.g., Rehman et al., 2018). It is argued below that this separation will provide fruitful theoretical and practical implications.

Lastly, the decision phase is dependent on the assessment phase. This assumption is founded largely in perceiving individuals as rational decision-makers (Kahneman, 2003), a common assumption across functional communication theories (e.g., Derlega & Grzelak, 1979; Omarzu, 2000). As such, the decision phase assumes that individuals are consciously aware of their abilities (i.e., disclosure efficacy) and that they desire to maintain or enhance themselves, their partner, and their relationship rather than reducing or hurting themselves, their partner, and the relationship. Along with prior disclosure theories and models, it is expected an individual who expects more positive (i.e., benefit) than negative (i.e., cost) outcomes will disclose.

In summary, the SS-DDM argues approach and avoidance motives and goals serve as psychological dispositions influencing an individual's expectations for effective communication and the potential for positive and negative outcomes. The SS-DDM differs from prior psychology self-regulation theories in its focus on how expected outcomes and perceived ability determine an individual's self-regulation process of behavior. In comparison, prior self-regulation theories assert goals as the only factors in behavioral control.

Antecedent Phase

Communication has long been argued to be a relational goal ranging from persuasion (e.g., Dillard, 1990), to information seeking (e.g., W. Affifi & Morse, 2009; W. Afifi & Weiner, 2004), and basic human survival (e.g., Berger, 1997; Floyd, 2006). Interpersonal goals are frequently pursued via communication (Berger & Palomares, 2011; Caughlin, 2010; Palomares, 2014), particularly self-disclosure (Chaudoir & Fisher, 2010; Derlega & Grzelak, 1979).

However, the catalyst for forming interpersonal goals is largely unaddressed within the communication literature. Self-regulation psychological theories have a long history of connecting motives, the catalyst, to interpersonal goals (Elliot, 1999, 2006; Elliot & Gable, 2019; Higgins, 1997, 2009). To build off prior self-regulation theories and expand upon prior communication theory (e.g., Chaudoir & Fisher, 2010), the antecedent phase includes motives and goals.

Over time, individuals have developed a cognitive system to assess and react to potential positive and negative stimuli (Gray, 1987, 1990). Gray's theory of motivation is founded on the biology of the brain's nervous system. The motivation theory includes a Behavioral Activation System (BAS) and a Behavioral Inhibition System (BIS). The BAS is triggered by and focused on the potential or positive rewards while the BIS focuses on the potential for negative stimuli (e.g., threat, punishment, etc.). Originally, Gray argued that the two systems regulate behavior by assessing stimuli. Specifically, the BAS facilitates behavior toward positive outcomes while the BIS restricts behavior toward negative outcomes. Gray (1987, 1990) further suggested that the BAS and BIS could function as a stable psychological framework, beyond the immediate response to a stimulus. Thus, the BAS has been associated with a sense of hope and the BIS with a sense of failure (also referred to as anxiety).

More recent work in academic achievement (e.g., Elliot & Fryer, 2008; Elliot et al., 1999; Elliot & Murayama, 2008) and social relationship (e.g., Elliot et al., 2006; Gable, 2006, 2012; Gable & Gosnell, 2013; Gable & Strachman, 2008; Impett, Peplau, et al., 2005) domains has adapted the BAS and BIS to explain dispositional motives (here forward referred to as motives). Motives collectively include an individual's hopes and desires (Higgins, 2000), and reflect higher human needs (for reviews see Elliot, 1999, 2006; Kleinginna & Kleinginna, 1981). One

common assumption is individuals have an innate desire to connect; therefore, it is no surprise they adopt social motives (e.g., Baumeister & Leary, 1995; Deci & Ryan, 2000, 2012; Epley et al., 2008; Ryan & Deci, 2020). The desire to connect is so strong, it is considered one of few basic human needs (Baumeister & Leary, 1995; Deci & Ryan, 2000). The desire to connect manifests in one's hope for affiliation and fear of rejection motives, reflective of BAS and BIS, respectively (Elliot et al., 2006; Elliot & Gable, 2019; Gable, 2006, 2008). The hope for affiliation is inclusive of the desire to share activities with others and build/maintain interpersonal relations, while the fear of rejection includes the desire to avoid negative outcomes of social interaction (e.g., judgement, ridicule).

Goals (i.e., desired future outcomes) are the second factor within the self-regulation process (e.g., Elliot & Fryer, 2008, p. 245; Gable, 2006). Goals as a construct have been heavily debated within psychology and communication (for reviews see Caughlin, 2010; Elliot & Fryer, 2008; Palomares, 2014). Both fields have debated if a goal is an aim of an action (i.e., what action leads to) or the desired endpoint (i.e., outcome; Caughlin, 2010; Elliot, 2006; Locke & Latham, 2002; Palomares, 2014). Previous reviews have deduced that classifying goals broadly, incorporating both motivations for goal attainment and behavior performed for goal attainment, proves to be conceptually, theoretically, and empirically problematic (for reviews see Elliot & Fryer, 2008; Palomares, 2014). Furthermore, following previous communication production theories (Berger, 1997, 2005; Dillard, 1990, 2004; Wilson, 2002; Wilson & Feng, 2007), it stands to reason to separate the two, goal and behavior. Thus, an important distinction must be made and clearly stated. "Goals are not behavior" (Palomares, 2014, p. 79). Goals are the psychologically desired outcome (also referred to as end-states).

Goals can further be deconstructed into approach (also referred to as appetitive) and avoidance (also referred to as aversive), based on the BAS and BIS respectively (Elliot, 2006; Elliot & Gable, 2019; Gable, 2006). Approach goals encompass positive stimuli to orient desired outcomes toward either keeping or gaining a positive state/outcome. In comparison, avoidance goals involve negative stimuli resulting in the desire to move away from potential negative stimuli and outcomes. Approach and avoidance goals would then serve different behavior to obtaining positive and avoiding negative outcomes, respectively (Elliot, 2006; Elliot & Gable, 2019; Gable, 2006). In relational communication situations, these goals manifest as maintaining or strengthening the relationship and avoiding relationship dissolution and conflict (Chaudoir & Fisher, 2010; Elliot et al., 2006; Gable, 2006, 2015; Gable & Strachman, 2008; Strachman & Gable, 2006).

Self-disclosure research includes approach-avoidance goals; however, the literature does not use the same terminology. For example, functional theories of self-disclosure (Derlega & Grzelak, 1979; Omarzu, 2000) have included approach self-disclosure goals such as social approval (increase liking/acceptance) and intimacy (increase closeness in the relationship, i.e., relationship development), while avoidance self-disclosure goals are limited to the relief of distress (i.e., catharsis). Avoidance goals are more prevalent in the topic avoidance literature, such as evading disclosure to avoid judgment or hurting the recipient's feelings (e.g., T. Afifi & Steuber, 2009). Within health disclosure research, approach goals include seeking help, while avoidance goals include fears of hurting the recipient, the recipient telling others, and the recipient rejecting the individual disclosing (e.g., Derlega et al., 2000, 2002, 2004; Greene et al., 2003).

The motives, goals, and behaviors performed to obtain sexual outcomes have been heavily debated (for reviews see Hatfield et al., 2012; Tiefer, 1991), likely due to diverse disciplinary emphases. However, the discussion can be separated into individual and relational (e.g., Metts et al., 1998) and approach and avoidance (e.g., Cooper et al., 2011) focus.

Initial theoretical perspectives include only individually centered sex goals. For example, Freud proposed that individuals are driven to release sexual energy, while Masters and Johnson (1966) further conceptualized Freud's sexual release as an individual's "inborn drive to orgasm" (Tiefer, 1991, p. 5). The inborn drive to achieve satisfaction has been represented by self-focused approach goals to release bodily urges (Cooper et al., 1998; Jenkins, 2004) in addition to experiencing fun and enjoyment from sexual behavior (Chulef et al., 2001; Hill & Preston, 1996; Jenkins, 2004). Additionally, these goals support one's identity as a sexual partner, a sense of attractiveness, and feelings of affection and love (Chulef et al., 2001; Cooper et al., 1998). In contrast, self-focused avoidance goals include coping with threats and stress and minimizing negative emotions (Cooper et al., 1998; Hill & Preston, 1996; Jenkins, 2004).

More recent theoretical perspectives argue sex goals are also tied to relational goals (Aron & Aron, 1991; Brunell & Webster, 2013; Sprecher, 2006). Relational approach goals include using sex to increase intimacy, closeness, and the overall bond with ones' partner (Cooper et al., 1998; Cooper et al., 2011; Hatfield et al., 2012; Hill & Preston, 1996; Jenkins, 2004). Relational avoidance goals include using sex to avoid disapproval and punishment from one's partner (Cooper et al., 1998, 2011; Impett et al., 2005), likely arising from anticipated feelings of shame, anxiety, and guilt (Jenkins, 2004).

Cooper and colleagues (Cooper et al., 1998, 2008, 2011) recognized the inborn approach-avoidance and intentional self-relational sex goals distinction. Cooper and colleagues presented

the original four-quadrant model of approach and avoidance and self and relationship sex motives. However, Cooper and colleagues' (1998) description and classification of motives more closely aligns with the current studies conceptualization of goals. Thus, I refer to Cooper and colleagues four-quadrant model as goals instead of motives. Across three different samples the approach-avoidance goals dimension significantly fit their data better than the self-relational goals dimension: however, the use of both dimension (i.e., the four-quadrant model) significantly fit the data better. Suggesting traditional psychological perspectives from Freud, Masters, and Johnson and more recent perspectives in various social sciences on self and relational goals interact to form individual's sex goals.

Following the original logic of BAS and BIS within the nervous system, the approach-avoidance literature suggests that approach motives (i.e., hope for affiliation) and approach goals operate separately from avoidance motives (i.e., fear of rejection) and avoidance goals (Elliot, 2006; Elliot & Gable, 2019; Gable, 2006). That is, each motive acts as an individually dependent disposition and are independent of one another. Being individually based and independent constructs, a person may have motives at different levels such as: being high in hope and low in fear, high in hope and high in fear, low in hope and high in fear, and low in hope and low in fear. Countless studies within the achievement and social domain have supported the argument for this separation (for reviews see Elliot, 1999, 2006; Elliot & Gable, 2019; Gable, 2008, 2013, 2015; Strachman & Gable, 2006). Motives reflect a dispositional state that indirectly affects behavior through goals. Goals proceed motives and are proximal factors explaining behavior and outcomes (Elliot, 1999, 2006; Elliot & Fryer, 2008; Elliot & Thrash, 2002).

Chaudoir and Fisher (2010) present their Disclosure Process Model (DPM) largely based on the work of approach and avoidance social and achievement goals. The DPM positions a

disclosure event as a mediator between approach-avoidance goals and interpersonal outcomes, wherein disclosure is the behavior performed to either acquire approach goals or move away from undesirable outcomes (i.e., avoidance goals). However, based on the original framework of hierarchical motivation, goals do not exist without motives (Elliot, 2006, p. 113). Thus, motives operate distal as a psychological profile (e.g., BAS and BIS) and give rise to goals. Goals provide a feasible representation of motives and give rise to behavior. Behavior is then performed to gain or move away from approach-avoidance goals. The following hypotheses are given based on prior evidence discussed above and to correct for the above limitation.

H1: Hope for affiliation is positively associated with approach goals.

H2: Fear of rejection is positively associated with avoidance goals.

Two additional limitations exist within the motives, goals, and communication literature. The hierarchical model of approach-avoidance social motivation (HMAASM) suggests that approach-avoidance goals orient behavior leading to an outcome (Gable, 2006). However, the behavior performed to achieve the desired outcome (i.e., goal) is not considered. When behavior in the HMAASM is considered, the behavior is often lumped together with the goals (also referred to as a goal complex; Elliot, 2006). For example, sample items in measuring approach social goals include, "I am trying to share many fun and meaningful experiences with my friends" (Elliot et al., 2006, p. 382) and "I will be trying to deepen my relationship with my romantic partner"(Impett et al., 2008, p. 811). These sample items violate the distinction between goals (desired end states, e.g., fun experiences with friends, deepening romantic relationship) and goal-directed behavior (for reviews see Elliot & Fryer, 2008; Palomares, 2014).

In addition to the measurement issue, a practical limitation is prevalent. Having a desired end state does not always result in performed behavior. Rather, an individual must believe the

performed behavior will result in the desired outcome to perform the behavior. For example, previous qualitative findings overwhelmingly support the notion that partners wish to discuss their sex life (e.g., Cleary et al., 2002; Coleman & Ingham, 1999; Parker et al., 2016; Parker & Ivanov, 2012); however, they report not knowing their ability to successfully express themselves and if the conversation will result in the desired end state. Similarly, individuals may wish to discuss a relational topic to fix a relational problem, yet they actively avoid the topic with their partner nonetheless (e.g., Jang & Yoo, 2009). In fact, the desire for an outcome (i.e., goal) appears to be the weakest predictor among others to explain human behavior (for a meta-analysis see Armitage & Conner, 2001).

The SS-DDM argues individuals' motives and goals (i.e., antecedent phase) shape their psychological focus (also referred to as orientations; Elliot et al., 1999). Individuals energized to pursue approach outcomes focus on the potential for positive while individuals energized by avoidance focus on the potential for negative outcomes (Derryberry & Reed, 1994). This orientation influences their assessment, and that assessment is the true catalyst for behavior. In other words, the assessment phase mediates the association between the antecedent and decision phases.

Assessment Phase

Based on the earlier reviewed work on approach-avoidance motives and goals, the SS-DDM proposes that motives and goals orient individuals by creating a psychological focus point; subsequently, this state of mind is likely to affect their assessment. Following numerous self-disclosure and behavior theories (e.g., Ajzen, 1991; Bandura, 1977; Greene, 2009; for a review see Masur, 2019; Richards, 2016), an individual must believe they can complete the behavior to achieve the goal (i.e., self-efficacy). Additionally, the individual must believe that the behavior

will lead to more positive than negative outcomes (i.e., outcome assessment). Both factors contribute to an individual choosing to reveal their preferences to their partner.

Efficacy Assessment

One of the missing connections between the desired end state and the performed behavior to obtain the desired end state is efficacy. Self-efficacy is the belief an individual has the capability to successfully perform a referenced behavior (Bandura, 1977, 1991, 1997, 2001, 2004, 2019). Prior work has shown a direct link between approach-avoidance orientations and diverse internal effects. Individuals high in approach orientation have more positive emotions and social interaction than avoidance focused individuals over five days (originally measured as BAS/BIS; Gable, Reis, & Elliot, 2000). The association can be understood as approach-avoidance as an overall psychological orientation (Elliot et al., 1999). Individuals focused on avoidance motives and goals perceive themselves as less overall (i.e., lower self-esteem; Heimpel et al., 2006). At the relational level, the approach-avoidance distinction serves as a dispositional framework affecting the subsequent cognitive chain of behavior decisions (Laurenceau et al., 2010; Worley & Aloia, 2018). For example, individuals with avoidance orientation are less likely to call attention to their own communication errors as they believe they are not capable of improving (i.e., low communication self-efficacy; Arenas et al., 2006).

Communication self-efficacy is the "individual's perception that they possess the skills to complete successfully the communication task" (W. Afifi & Weiner, 2004, p. 178). To be conceptually, and empirically, concise the present study focuses on disclosure self-efficacy. Disclosure self-efficacy is the perceived ability to reveal (via communication) the topic under consideration, in the case of the present study, one's sexual preferences.

Communication self-efficacy has provided prior empirical support of when communication occurs or when communication is likely to occur. Communication self-efficacy has successfully explained and predicted counselors' ability to treat sexual issues for couples (for a review see Hipp & Carlson, 2019). Within relationships, communication self-efficacy has successfully explained when individuals have disclosed secrets (e.g., T. Afifi & Steuber, 2009; Richards, 2016), sexual health status (e.g., Dillow & Labelle, 2014; Greene et al., 2012; Kalichman & Nachimson, 1999; for a meta-analysis see Noar et al., 2006), and sexual preferences (e.g., Seidler et al., 2016) to partners. Communication efficacy appears to be the highest facilitator of sexual communication and other difficult relational issues (Makoul & Roloff, 1998; Roloff & Ifert, 2000; Seidler et al., 2016). Prior perspectives have emphasized human behavior's dependency on feeling efficacious toward the behavior. In other words, if an individual does not feel they can perform a behavior, the behavior will not be performed, no matter what other factors are considered (e.g., social cognition theory, Bandura, 1977, 1991, 2001).

Disclosure self-efficacy as a cognitive assessment should be affected by the individual's state of mind. Those who adopt an approach orientation rate higher in self-efficacy (e.g., Worley & Aloia, 2018), while those who are avoidance oriented rate lower across various communication ability assessments (Arenas et al., 2006; Dwyer & Fus, 2002; Worley & Aloia, 2018; Worley & Samp, 2018a, 2018b). Thus, motives and goals provide a perception (e.g., Hill & Preston, 1996; Nikitin et al., 2019) affecting an individual's assessment of their ability to effectively communicate. Based on these associations, the following hypotheses are given.

H3: Approach goals are positively associated with disclosure self-efficacy.

H4: Avoidance goals are negatively associated with disclosure self-efficacy.

Outcome Assessments

Evaluation and outcome assessments can relate to a social exchange perspective. Social exchange theory, and other associated social exchange perspectives, are based on an economic model suggesting individuals seek to maximize rewards and reduce/avoid costs (Kelly & Thibaut, 1978; Thibaut & Kelly, 1959). Social exchange theories are numerous, however social penetration theory (SPT; Altman & Taylor, 1973; Taylor & Altman, 1975) is the most relatable to the SS-DDM. SPT argues individuals maintain and pursue relationships and communication if the individual expects more rewards than costs. Expanding the social exchange perspective of SPT to SS-D results in a conceptualization of outcome assessment as an individuals' expected reward minus expected cost.

Prior approach-avoidance goal theories follow similar assumptions to social exchange theories, as individuals are likely pursuing approach goals (i.e., rewards) and not avoidance goals (i.e., costs; Elliot, 2006; Elliot & Gable, 2019; Elliot et al., 2006; Gable, 2015; Higgins, 2000, 2009; Strachman & Gable, 2006). This outcome assessment has been a prevalent and significant indicator for communication in the contexts of information management (W. Afifi & Morse, 2009; W. Afifi & Weiner, 2004), disclosing secrets (T. Afifi & Steuber, 2009; Richards, 2016), generic positive relational disclosure (Denes, 2018), and SS-D (Brown & Weigel, 2018).

Until now, the application and measurement of outcome assessment have been acontextual (e.g., W. Afifi, Dillow, & Morse, 2004; W. Afifi et al., 2006; Denes, 2018; Denes & Afifi, 2014; Dillow & Labelle, 2014). Few disclosure topics carry the same minefield of personal, relational, and societal implications and socialization that sexual topics do (Anderson et al., 2011; Baxter & Wilmot, 1985; Bezreh et al., 2012; Chapleau et al., 2008; Hertzog, 2008; J. L. Kim, 2009; Knobloch & Carpenter-Theune, 2004; Lo et al., 2009; Rehman et al., 2019;

Rubinsky, 2018; Vrij et al., 2002). Thus, it is likely necessary to consider a context-specific assessment, both for theoretical development and practitioner application. Decades of research have outlined, expanded, and refined the potential outcomes individuals consider concerning sex communication (Anderson et al., 2011; Derlega et al., 2008; Jones et al., 2018; Ménard & Offman, 2009; Montesi et al., 2013; Nichols, 2012; Parker & Ivanov, 2012; Seidler et al., 2016). Based on prior work in sex communication (for reviews see Paine & Hansen, 2002; Rehman et al., 2019) and criteria for revealing a secret (e.g., T. Afifi et al., 2005; T. Afifi & Steuber, 2009), the SS-DDM expects individuals to make self-, partner-, and relationship- outcome assessments before deciding to disclose.

Metts and Cupach (1989) were the first to theorize the barriers to sexual communication, acknowledging that the communication act places the actor at risk of vulnerability; however, SS-D is an effective means to gain numerous individual-level benefits, as previously discussed. Thus, SS-D holds potential positive and negative outcomes for the individual. Prior acontextual self-disclosure and topic avoidance (T. Afifi & Steuber, 2009; W. Afifi & Guerrero, 2000; Knobloch & Carpenter-Theune, 2004) and SS-D studies have argued the actor assesses their anticipated emotions and anticipated receiver's response to the disclosure, which in turn, also affects their emotions. First, the fear of feeling embarrassed, inadequate, and ashamed by sexual communication has appeared in the study of disclosures of previous partners, sexual fantasies, sexual health status, and sexual preferences (Anderson et al., 2011; Bezreh et al., 2012; Lo et al., 2009; Lucchetti, 1999; Montesi et al., 2013; Theiss & Estlein, 2014). Second, the fear of revealing one's preferences has been tied to standard social norms such as revealing less common sexual preferences, resulting in discrimination or feeling inferior to ones' partner (Gagnon & Simon, 2017; Noorishad et al., 2019; Simon & Gagnon, 1986; S. Wright, 2006). For

example, individuals with more sexual experiences are viewed as less desirable for a romantic relationship (Garcia, 2006; Lucchetti, 1999) and as more sexually promiscuous, suggesting they are more likely to transfer an STD/STI (Horan, 2016). The anticipated partner's response to viewing the actor as undesirable manifests into emotions such as shame and embarrassment. Similarly, the actor may expect to feel positive (e.g., confident, valuable, etc.) from disclosing their preferences. Prior SS-D topic avoidance scholarship has only studied low self outcome assessment; rather, high self outcome assessment should relate to SS-D.

The very nature of self-disclosure presents a conceptual focus on the actor disclosing; however, such actions also have a significant impact on the receiver. Partner outcome assessment closely aligns with self outcome assessment; the actor considers if the disclosure will result in their partner feeling vulnerable-secure, inadequate-adequate, and incompetent-competent. Metts and Cupach (1989) theorized that new knowledge of a partner's desires may reflect how the individual is not currently meeting the sexual needs of their partner. Whether true or simply internalized, self-reflection of inadequacy creates feelings of hurt or jealousy (e.g., Anderson et al., 2011; Metts & Cupach, 1989). It is assumed an individual does not wish to cause emotional harm for their partner, thus the actor performs an outcome assessment for their partner's emotions due to the actors' SS-D.

The third factor in outcomes assessment is the relationship. Relationship outcome assessment hinges on the potential gain and loss for the dyad, which likely includes non-sexual and sexual aspects. For the non-sexual context, outcome assessment is based on if a disclosure "will reveal core differences" or "bring up past issues" between partners (Rehman et al., 2019). Additionally, sexual communication may result in damaging or developing the relationship (Theiss & Estlein, 2014, p. 412). Within the sexual context, outcome assessment is based on if

the disclosure will add or subtract from current sexual episodes. Partners are focused on maintaining the current state of their sexual life and are apprehensive to risk it, even for highly unsatisfied individuals (Coffelt & Hess, 2014). While the current sexual episodes may not be meeting one's preferences, individuals often fear that bringing up new preferences may defer, restrict, or otherwise eliminate one's current sexual episode(s) (Harvey & Weber, 2008). In these scenarios, disclosure may essentially create relational conflict where conflict did not explicitly exist before, threatening the stability of the relationship (e.g., Anderson et al., 2011; Baxter & Wilmot, 1985; La France, 2019; Metts & Cupach, 1989; Parker & Ivanov, 2012).

In summary, the outcome assessment of the SS-DDM includes expected outcomes for the self, partner, and relationship. These factors are expected to be highly related based on similar previous findings (e.g., T. Afifi et al., 2005; Theiss & Estlein, 2014), yet each factor holds unique descriptive value. Considering all three factors together is unique to the SS-DDM while prior sex communication research has only studied one or two at a time. Including all three allows for more theoretical and practical implications to be drawn.

Effects of Efficacy Assessment on Outcome Assessments

The assessment phase includes disclosure efficacy (i.e., ability) and expected outcomes. Numerous theories have explained a positive association between communication efficacy and outcome expectations (for a review see Richards, 2016). However, communication and non-communication theories differ in the direction of the prediction (Richards, 2016), either efficacy beliefs lead to expected outcomes (e.g., Bandura, 1977, 1991, 1997; Omarzu, 2000) or expected outcomes lead to efficacy beliefs (e.g., T. Afifi & Steuber, 2009; W. Afifi & Morse, 2009; W. Afifi & Weiner, 2004; Greene, 2009). The SS-DDM presumes efficacy leads to expected outcomes. The assumption for this direction is based on three reasons.

First, the ample evidence discussed above stems from theoretical and empirical work on social cognitive theory (Bandura, 1977, 2001, 2019). Social cognitive (SCT) theory argues that efficacy beliefs drive expected outcomes. Furthermore, efficacy beliefs are the driving force of behavior, while expected outcomes partially mediate the effect from efficacy to behavior. Otherwise stated, "self-efficacy beliefs shape the outcomes people expect their efforts to produce" (Bandura, 2004, p. 145).

Second, communication efficacy beliefs hold over time in both one- and multiple-year studies (e.g., Falanga et al., 2014; Kearney & Bussey, 2015). Individuals with higher efficacy generally adopt a prosocial mindset (e.g., Bandura, 1997, 1999, 2001, 2004; Caprara et al., 2000). This prosocial and stable mindset is believed to change how individuals perceive opportunity and risk. For example, high efficacy individuals see challenges they can overcome, while low efficacy individuals believe their behavior will only lead to negative outcomes (i.e., self-fulfilling prophecy, Bandura, 1977).

Third, recent cross-sectional evidence has found the effect of communication efficacy on expected outcomes is stronger than the effect of expected outcomes to communication efficacy (Richards, 2016). Based on findings of social cognitive theory, the disclosure decision model, efficacy beliefs as a longitudinal construct, and strong empirical effects from efficacy to outcome assessments than outcome assessments to efficacy, the following hypothesis is given.

H5: Disclosure efficacy positively relates to (a) self-, (b) partner-, and (c) relationship-outcome assessment.

Decision Phase

The decision to reveal highly personal information is not done casually (W. Afifi & Guerrero, 2000; Derlega et al., 2000b, 2002, 2004, 2008; Metts & Cupach, 1989). The SS-DDM

argues that disclosure efficacy and outcome assessments lead individuals to the decision to disclose. The following outlines these arguments before presenting the current study.

Effects of Efficacy on Disclosure

Efficacy has been a strong predictor of behavior across various theories of human behavior (e.g., Ajzen, 1991; Ajzen & Kruglanski, 2019; Bandura, 1977, 2019) and disclosure (e.g., W. Afifi & Morse, 2009; W. Afifi & Weiner, 2004; Greene, 2009; Omarzu, 2000). Findings from these theories have generated a breadth of knowledge, illustrating efficacy beliefs' key role in predicting disclosure of both sexual health and sexual preferences (Dillow & Labelle, 2014; Greene et al., 2012; Kalichman & Nachimson, 1999; Noar et al., 2006; Seidler et al., 2016). For example, communication efficacy has been a strong predictor for families disclosing plans to donate organs (W. Afifi et al., 2006) and individuals to reveal secrets (e.g., T. Afifi & Steuber, 2009; Caughlin et al., 2005). Communication efficacy not only positively relates to the willingness to reveal a secret but also predicts future disclosure (e.g., T. Afifi & Steuber, 2009; Caughlin et al., 2005).

Similar trends are found within the sexual health literature, where communication efficacy has been a staple (for meta-analyses see Allen et al., 2002; Mallory et al., 2019; Noar et al., 2006). Overwhelmingly, studies provide evidence that as an individual increases the belief they can perform an action, they are more likely to follow through with that action. For example, sexual communication efficacy has been linked to adolescents delaying first sexual intercourse (Guzman et al., 2003) and partner condom usage (Halpern-Felsher et al., 2004). Additionally, efficacious individuals are more willing to reveal their sexual health status (e.g., Brannon & Rauscher, 2018) and do so in the future (e.g., Dillow & Labelle, 2014). Findings within the

sexual health communication literature strongly support the previously reviewed behavior theories.

Within the relationship-focused sex communication literature, low communication efficacy has been reported mostly after the decision not to disclose. As in, individuals have not discussed nor disclosed sexual topics with their partner due to having low communication efficacy. For example, they feel negative feelings (e.g., embarrassment, sadness) and mental states (e.g., fear, guilt) related to their inability to communicate about sexual topics (e.g., Montesi et al., 2013; Parker, Ivanov, & Cohen, 2016; Seidler et al., 2016; Theiss & Solomon, 2007). When combined the negative feeling and mental state represent low communication efficacy (Parker et al., 2016; Parker & Ivanov, 2012). Alternatively, low communication efficacy leads to negative evaluation feelings and mental states as previously discussed above (see effects of efficacy assessment on outcome assessments section). Although less documented, when individuals perceive feeling confident about their sexual communication (i.e., high efficacy), more sex communication occurs (e.g., Cleary et al., 2002; Seidler et al., 2016).

In a similar line of research, communication efficacy has been linked to a lack of topic avoidance. Here, topic avoidance is considered the active and cognitive choice to evade the topic under consideration. A commonly misunderstood distinction (e.g., Jang & Yoo, 2009, p. 124), please note that topic avoidance is not a lack of disclosure; however, disclosure is a lack of topic avoidance (for a review see Uysal, 2020). Perceived communication efficacy is negatively related to topic avoidance of parents' divorce (W. Afifi & Afifi, 2009), partners' conversation of condom use (Brannon & Rauscher, 2019), relational complaints (Worley & Aloia, 2018), and topics believed to cause conflict (e.g., money, sex, etc.; Jang & Yoo, 2009). Additionally, the negative association between communication efficacy and topic avoidance holds over two weeks

(Merrill & Afifi, 2012). Overall, uncertain (i.e., low efficacy) individuals adopt avoidance tactics (Dailey et al., 2016), while individuals high in communication efficacy do not actively avoid disclosure.

Overall, efficacy beliefs play a crucial point in the decision to SS-D. Individuals high in communication efficacy self-disclose sexual information at higher rates (e.g., Sterren & Verheij, 2009), while those low in efficacy self-disclose sexual information less (e.g., Parker & Ivanov, 2012), if they disclose at all. Beyond verbally revealing sexual preferences, individuals high in efficacy also physically show their partner what they find pleasing (Mastro & Zimmer-Gembeck, 2015). Although SS-D literature has not measured nor studied SS-D efficacy, work by Greene and colleagues (Checton & Greene, 2012; Choi et al., 2016; Greene et al., 2012; Magsamen-Conrad et al., 2015; Venetis et al., 2015) have presented numerous studies linking sexual health disclosure efficacy to the likelihood to disclose and subsequent disclosure of sexual health status. Lastly, Byers (2011) argues that communication efficacy is one means to end the silence around sexual communication. Prior work between communication efficacy, low topic avoidance, disclosure of sexual health communication and sexual preferences leads to the following hypothesis.

H6: Sexual self-disclosure efficacy is positively associated with intent to disclose sexual preferences.

Effects of Outcome Assessment on Disclosure

Having the ability and confidence to effectively communicate does not always result in communication. When perceived risks are made more prevalent through experimentation, the predicted outcome supersedes efficacy beliefs on behavior (e.g., Rimal & Real, 2003). Prior work has demonstrated individuals higher in disclosure outcome assessment reveal more

personal and private (e.g., T. Afifi & Steuber, 2009; Denes, 2018; Denes & Afifi, 2014), and sexual health information (e.g., Dillow & Labelle, 2014; Landor & Winter, 2019), and sexual content (Sirianni & Vishwanath, 2012). In comparison, individuals low in outcome assessment actively avoid disclosure across a variety of relational topics (e.g., W. Afifi et al., 2004; Jang & Yoo, 2009; Worley & Aloia, 2018). These studies are based on global assessment; focusing on potential outcome assessments of the self, partner, and relationship may provide more fruitful results.

An individual's sexual preferences are closely tied to their true self (e.g., Rehman et al., 2019). Accordingly, individuals do not wish to feel negative feelings (e.g., disapproval, embarrassment, rejection, etc.) toward their true identities. Prior accounts of these negative feelings are reasons why individuals did not discuss sex with their parents as adolescents (for a review see Flores & Barroso, 2017), additionally why partners did not reveal their sexual health status (Zea et al., 2003), previous sexual experiences (Anderson et al., 2011), and sexual preferences (Bezreh et al., 2012; Parker et al., 2016). Specifically, individuals feared their partner's reaction would hurt them emotionally or that their partner would leave them due to revealing their sexual preferences. Overall, low self outcome assessment results in topic avoidance (e.g., Caughlin et al., 2009; Lucchetti, 1999; Theiss & Estlein, 2014; Vangelisti, 1994; Vrij et al., 2002), while higher self outcome assessment results in more disclosure (e.g., Caughlin et al., 2005).

Actors also consider the impact their SS-D will have on their partner. Actors who anticipate a partner being jealous or otherwise emotionally upset (i.e., low partner outcome assessment) from disclosing previous and current sexual preferences disclose less (e.g., Anderson et al., 2011; Bezreh et al., 2012; Quina et al., 2000; Seidler et al., 2016). In

comparison, albeit limited, the absence of negative partner outcome assessment perceive their partner will not suffer negative emotions, resulting in more SS-D (e.g., Bezreh et al., 2012; Herold & Way, 1988). For example, Herold and Way (1988) found SS-D to be positively related to their perceived partner's comfort with discussing sexual topics while Bezreh and colleagues (2012) found no presence of negative, nor positive, partner expected outcomes within the interviews of individuals who have disclosed sexual preferences. It can be assumed that the comfortability factor in Herold and Way's (1988) study is at least the absence of negative expected partner outcome if not the potential for positive partner expected outcome. However, it is unknown if a lack of negative emotions and anticipated positive emotions will have a similar or stronger effect on SS-D. Unfortunately, no known work has clearly documented partner outcome assessment to the actor's SS-D. The few studies that separate the different factors of outcome assessment only measure expected negative outcome assessments (Rehman et al., 2019) and related to the self and relationship (Theiss & Estlein, 2014). Thus, partner outcome assessment toward SS-D is unique to the SS-DDM. Due to the link between low outcome assessments for the partner and sexual topic avoidance across studies, it is reasoned that perceived higher partner outcome assessment should also result in more SS-D.

Lastly, actors conduct an outcome assessment for the relationship. Metts and Cupach (1989) originally described the potential threats and negative outcomes sex communication could cause for a relationship. For example, the conversation might create conflict where conflict did not previously exist. Adolescents often avoid discussing their sex lives with their parents in fear it will strain their relationship or each individual will see the other differently (for a review see Flores & Barroso, 2017). Furthermore, partners avoid discussing their sex lives, current and prior, when relationship outcome assessment is low (e.g., Anderson et al., 2011; Theiss &

Estlein, 2014), while those who perceive positive relationship outcome assessment engage in SS-D more (e.g., La France, 2019; La France & Hall, 2012; Parker et al., 2016).

In summary, I argue that individuals perform outcome assessments for themselves, their partners (i.e., the receivers), and their relationships related to disclosing their sexual preferences. Numerous cognitive (e.g., Ajzen, 1991; Bandura, 1997; Higgins, 1997), information control (e.g., T. Afifi & Steuber, 2009, 2010; W. Afifi & Morse, 2009; W. Afifi & Weiner, 2004), and self-disclosure theories (e.g., Altman & Taylor, 1973; Denes, 2018; Petronio, 2002; Richards, 2016; Sunnafrank, 1986, 1988, 1990; Sunnafrank & Ramirez, 2004; Taylor & Altman, 1975) argue and find that believing their behavior (e.g., self-disclosure) will result in a beneficial outcome leads individuals to perform the behavior (for reviews see Masaviru, 2016; Masur, 2019). Thus, the following hypothesis is given.

H7: (a) Self-, (b) partner-, and (c) relationship- outcome assessments are positively associated with the intent to disclose sexual preferences.

Methods

Procedure and Participants

The present study included three participant criteria. Most of the studies discussed in proposing this theoretical model were based in the United States; it stands to reason, then, the model should first be tested on a U.S. sample – the first participant criterion. Second, participants had to be involved with a current sexual partner and expect to have future sexual interactions with this partner. Sexual interactions were defined for the participants as "at least one instance of oral, vaginal, or anal sex" (Dillow & Labelle, 2014, p. 680). In the event individuals are involved with more than one sexual partner, they were asked to report on the individual with the longest sexual history. Finally, to participate in this study individuals had to be at least 18 years of age.

Recently, communication and sex scholars have critiqued studies for relying on university student samples and have called for a more diverse representation (Mallory et al., 2019; Maxwell et al., 2017; McEwan, 2020; Muise et al., 2018). Scholars have advocated for using anonymous survey methods when studying "potentially sensitive or controversial" foci in hopes of lowering the chance of a socially desirable response (e.g., Manning & Kunkel, 2014, p. 201). Furthermore, self-administered surveys have been found to be more reliable than face-to-face interviews in terms of obtaining accurate information regarding the participants sex life (Durant & Carey, 2000). Survey designs have been a predominant method in sex research (for reviews see Maxwell et al., 2017; Muise et al., 2018). To meet previous calls for survey research using diverse samples, a U.S. national survey was conducted on Amazon Mechanical Turk (MTurk). MTurk has been previously validated to include a more diverse population than other online recruitment methods (Chandler & Shapiro, 2016; Mortensen & Hughes, 2018). For all intents and purposes, MTurk functions as a job board for one-time jobs/tasks (for a review see Mason & Suri, 2012), where requesters can post tasks (also referred to as jobs) for workers (also referred to as Turkers) to fulfill. Prior sex communication studies have successfully used MTurk to recruit nationally diverse individuals (e.g., Coffelt et al., 2019; Merwin et al., 2017; Merwin & Rosen, 2020) . Participants were compensated $1.00 (USD) for successfully completing the survey. This compensation amount was based on two reasons. First, pilot testing resulted in an average of 15 minutes to complete; this time requirement and compensation falls within MTurk members expected hourly wage (Mason & Suri, 2012). Second, the $1.00 compensation has been used by prior sex communication studies with similar time requirements (Merwin & Rosen, 2020).

A priori power analysis for the current study resulted in a desired sample size of $N = 400$. Kline (2016) argues for 5-20 cases (i.e., participants) per parameter (p. 16). The proposed model includes 20 parameters (11 effects and 9 variances/covariances). Prior structural equation models have been based on shockingly low samples needed to achieve statistical power within the communication (for reviews see Holbert & Stephenson, 2002, 2008) and outside disciplines (for a review see Westland, 2010), thus the current study appealed to the upper limit of Kline suggestion (20 participants x 20 parameters = 400).

A total of 759 participants entered the survey. Participants were self-screened by indicating their responses to two screening questions. Individuals were screened out for the second participant criteria: being in a sexual relationship but not expecting future sexual relations ($n = 160$), expecting future sexual relations but not with a current sexual partner ($n = 36$), or for both not being in a sexual relationship and not expecting future sexual interactions ($n = 17$). Additionally, 17 participants met the screen criteria but did not start the survey. A total of 525 participants made it through the initial screening process. Twenty-three responses were removed for missing over 60% of data. Lastly, responses failing a majority of the attention checks ($n = 40$) and self-identifying as inaccurate data ($n = 4$) were removed (for a review of these procedures see Musch & Klauer, 2002). Structural equation modeling is highly sensitive to missing data (Kline, 2016). Thus, only full data was retained (see preliminary analysis below for details). The final sample included 390 adults in the United States.

The participants ranged in age from 19 to 78 ($M = 39.67$, $SD = 11.14$) and included a simple majority of males ($n = 205$, 52.6%) over females ($n = 185$, 47.4%). Ethnicity was highly oriented toward Caucasian ($n = 295$, 75.6%) followed by Asian ($n = 42$, 10.8%), African-American ($n = 24$, 6.2%), Hispanic/Latino ($n = 20$, 5.1%), and one participant did not identify

their ethnicity. They were mostly well-educated, included graduating with a bachelor's degree (*n* = 190, 48.7%), graduate degree (*n* = 72, 18.5%), high school diploma (*n* = 59, 15.1%), and associate degree (*n* = 52, 13.3%). Their annual income was common for U.S. adults $50,001-$100,000 (*n* = 164, 42.1%) and $10,001-$50,000 (*n* = 148, 37.9%).

Most of the participants self-identified as heterosexual (*n* = 349, 89.5%) followed by bisexual (*n* = 25, 6.4%), lesbian (*n* = 6, 1.5%), gay (*n* = 5, 1.3%), pansexual (*n* = 3, 0.8%), and queer (*n* = 2, 0.5%). Many participants responded about their marriage (*n* = 208, 53.3%) followed by dating and committed (*n* = 137, 35.1%), dating and not committed (*n* = 19, 4.9%), engaged (n = 15, 3.8%), and friends with benefits (*n* = 10, 2.6%). One participant did not respond to this question.

Measures

Descriptive statistics, reliability, and zero-order correlations of measured variables are included in Table 1. The composite scores for variables reported in Table 1 are based on the data used in the primary and secondary analysis. The preliminary analysis includes an in-depth explanation of how the data was cleaned and treated. For example, how missing data was handled and how model fit was improved.

Hope for Affiliation. The Need to Belong Scale (Leary et al., 2013) was used to measure hope for affiliation. The need to belong scale included 10 items on a five-point Likert scale but was adapted to a seven-point Liker scale (1 = not at all true, 7 = extremely true) to correspond to the other measures included in this study. Example items include, "I want other people to accept me" and "I seldom worry about whether people care about me" (reverse coded). The measure previously shows good reliability within the nine studies conducted to test its initial reliability and validity (Leary et al., 2013). Six items were included in the final analysis and showed good

reliability. All four reverse coded items were removed and placed emphasis on the participant's evaluation of another person evaluating the participant. In comparison, items focused on the participant and intrapersonal evaluation were retained. The final scale was reliable α = .89 (*M* = 3.74, *SD* = 1.40).

Fear of Rejection. Downey and Feldman's (1996) Rejection Sensitivity Questionnaire (RSQ) was designed to measure an individual's sensitivity to rejection in personal situations. Items were adapted from the original boyfriend/girlfriend scenario to partner to be inclusive of participants responding on a sexual partner and not romantic partner. Additionally, items were adapted from "he/she" to "they/them" to be inclusive of all gender pronouns. The measure included eight scenarios that may induce personal rejection (e.g., "you ask your partner if they really love you"). Participants responded to eight scenarios each for their rejection concern (e.g., "how concerned or anxious would you be over whether or not your partner would say yes?") and acceptance expectancy (e.g., I would expect that my partner would answer yes sincerely"). Both questions were answered on a seven-point Likert scale (e.g., very unconcerned-very concerned, very unlikely-very likely). Acceptance expectancy is reverse coded, to represent expectations of rejection, and then multiplied by the corresponding rejection concern item, resulting in a possible range from 7 to 56. Lastly, the resulting eight scores were averaged to create the participants' overall fear of rejection. The short version, eight scenarios, was picked over the long version, 18 scenarios, to reduce participant fatigue. The measure has been shown to be reliable (Ayduk et al., 2008; Leary et al., 2013). Three scenarios were included in the final analysis. Five scenarios were removed to increase model fit and all were based on scenarios that are expected to induce lower fear than the retained high fear scenarios. The scale was reliable α = .67 (*M* = 7.54, *SD* = 6.02).

Approach and Avoidance Goals. The Approach Goals and Avoidance Goals measures were developed for this study and was used to measure self, partner, relationship goals. Items were generated from previous social (Elliot et al., 2006; Gable, 2006) and sexual (Cooper et al., 1998; Hill & Preston, 1996; Impett et al., 2005; Muise et al., 2013) goal measures to build the approach and avoidance measures used in the current study. Impett and colleagues (2005, p. 480) called for future approach and avoidance goal measures to balance items across self and partner focused orientations. Following Impett and colleagues' call, 18 items were selected and equally balanced across approach and avoidance and their respective three sub-factors: self, partner, and relationship. Items were measured on a seven-point Likert scale (1 = not at all important, 7 = extremely important). The approach measure consisted of self (e.g., pursuing your sexual desires), partner (e.g., your partner feeling good about themselves), and relationship (e.g., promote and/or enhance emotional connection in your relationship) goals. In comparison, the avoidance measure consisted of self (e.g., avoid reducing the amount of sexual pleasure you currently experience), partner (e.g., prevent your partner from becoming upset with you), and relationship (e.g., prevent anything bad happening in your relationship) goals. Items were selected to tap into sexual, personal, and relational goals. Items were scored so a higher score represents more of the related construct. The final measure in analysis included six items from the approach measure included one item for self, two for partner, and three for relationship goals. Additionally, the avoidance measure included eight items and included two items from the self and all three for partner and relationship goals. The items removed from the approach and avoidance goals measures placed emphasis on sexual experiences and please in comparison to the items retained that placed emphasis on the emotional intimacy of sexual experiences and the

relationship. The approach (*M* = 5.91, *SD* = 1.12, α = .94) and avoidance (*M* = 4.80, *SD* = 1.47, α = .93) goals measures were both reliable.

Sexual Self-Disclosure (SS-D) Efficacy. Six items were generated from previous communication efficacy scales (T. Afifi et al., 2005; Caughlin et al., 2005; Derlega et al., 2002; Greene et al., 2012; Worley & Aloia, 2018), to measure SS-D efficacy. This SS-D efficacy measure follows previous self-efficacy measure construction suggestions (Bandura, 2006). The six items include three positive (e.g., "I am confident in finding the right words to share my sexual preferences with my partner") and three negative, or reverse coded, items (e.g., "I don't know how to begin explaining my sexual preferences to my partner"). Items were measured on a seven-point Liker scale (1 = strongly disagree, 7 = strongly agree), and scored so a higher score represents a larger belief in effectively disclosing sexual preferences. The final measure included three items, as three of the six items appeared to be redundant to other items tapping into the same construct, for additional details see preliminary analysis section. The measure was reliable (*M* = 5.39, *SD* = 1.33, α = .86).

Outcome Assessments. Rehman and colleagues' (2019) barriers to communication questionnaire (BCQ) was adapted for the current study. The original BCQ measure includes three subscales: the threat to self, threat to partner, and threat to the relationship, with 6-7 items per subscale. The BCQ only includes items on potential negative outcomes (i.e., threat) from discussing sexual topics, while the present study includes outcome assessment as positive and negative. Items were adapted from the original focus on the discussion to disclosure and from Likert style (1 = not at all true, 5 = very true) to seven-point semantic differential scale. For example, an original item "the discussion will make my partner feel vulnerable" was adapted to "disclosing my sexual preferences will make my partner feel" (1) vulnerable-secure (7). The

outcome assessment measures included seven items for self, seven items for partner, and five items for relationship. Two original threat to relationship items, "the discussion will make me feel frustrated" and "the discussion will make me feel angry", were not adapted to the relational outcome due to face validity concerns. The two items are conceptually closer aligned with the threat to self subscale, however, both items did statistically load on the relationship threat factor in Rehman and colleagues' study. The partner outcome assessment measure included six items and the relationship outcome assessment measure included four items. Both the only reverse coded item on partner outcome assessment, and the only sex focused item pertaining to relationship outcome assessment were removed. The self (M = 5.60, SD = 1.23, α = .94), partner (M = 5.70, SD = 1.26, α = .95), and relationship (M = 5.31, SD = 1.33, α = .91) outcome assessment measures were reliable.

Intent to SS-D. Snell and colleagues (Snell et al., 1989) original and revised SS-D scale is commonly used but focuses on a breadth of sexual topics (for a review see Snell, 2011). For example, the original consists of 24 topics and 72 items while the revised version includes 12 topics and 36 items. Coffelt and Hess (2014) recent factor analysis of the measure resulted in a more stable sexual preference factor. Coffelt and Hess's sexual preferences factor includes nine items from Snell's original factors of sexual fantasies, preferences, and sensations. Further, Snell's original SS-D measure and Coffelt and Hess's version asks participants to respond about previous disclosures. The present study asked participants to respond on their intent to disclose in the future. Sample items included "the kinds of touching that sexually arouse me" and "what I would desire in a sexual encounter." Responses were based on a seven-point Likert type (1 = highly unlikely, 7 = highly likely), and coded so a higher score represents more intent to disclose

than to not disclose. All nine items were included in the final analysis. The measure was reliable (M = 5.40, SD = 1.45, α = .97).

Previous SS-D. A measure of previous SS-D is included in the present study as a potential control measure. This measure consisted of the same nine items in the intent to SS-D measure, but the scale points were changed to "have not fully disclosed this topic" (1) – (7) "have fully disclosed this topic." Items were scored so a higher score represents more previous disclosure. The measure was not used in this study but was still reliable (M = 4.96, SD = 1.54, α = .96).

Data Analysis

Data generated from this cross-sectional survey using a U.S. national sample was analyzed using Structural Equation Modeling (SEM). SEM includes factor and path analysis (for reviews see Kaplan, 2009; Kline, 2016), which is why this method was chosen.

The first part of all SEM analysis is testing for the factor structure of the latent variables using the measured indicator items (Kline, 2016). Items generated for the present study were highly adapted from previous work. As such, the measured constructs are open to psychometric validity concerns. Using factor analysis on the measured constructs before path analysis should produce more factorial validity (i.e., internal consistency; for a review see Levine, 2005), or otherwise reduce the variance between items in the measure to produce a more reliable construct (i.e., homogeneity of items; DeVellis, 2017). Furthermore, SEM allows for controlling for measurement error (i.e., 1 – α; Bollen, 1989b, 1989a), also referred to as correcting for attenuation (Schmidt & Hunter, 2015). In sum, due to some of the measured scales having limited previous reliability, SEM is advantageous for both measurement reliability (i.e.,

confirmatory factor analysis) and controlling for what cannot be explained by the measured indicators (i.e., controlling measurement error).

Path analysis within SEM is driven first and foremost by theory (Boster, 2002). The statistical method allows for testing pre-existing theory (i.e., theory confirmation) and theory construction (Hayduk et al., 2007; Holbert & Stephenson, 2002, 2008; Kline, 2016). The former is done through a priori specification of effects and association (e.g., X leads to Y, Y leads to X, X and Y are related but do not affect each other, and/or X and Y mutually affect each other), while data collected are then tested against the specified model. As such, the method allows for analysis of direct and indirect relationships among measured variables, while simultaneously controlling for all other paths (Pearl, 2012). When the former does not result in the anticipated effect (i.e., poor model fit; see Levine, 2005), the researcher then can perform the latter and test alternative models and/or generate a new model which should be theoretically valid, parsimonious, and related closely to the data it is tested on (Kline, 2016, p. 11). In fact, Kline argues that no SEM study is finished until alternative models are tested and reported. The present study represents the first test of the proposed SS-DDM. Selecting a method that allows for both theory confirmation and theory re-specification allows for more fruitful results than standard null hypothesis significance testing.

Results

Preliminary Analysis

Descriptive statistics and zero-order correlations for full continuous variables (using the final items generated from the preliminary analysis described below in the third confirmatory factor analysis [CFA]) are reported in Table 1. All measures included multiple items to operationalize the construct. Thus, all measured indicators of unobserved variables were subject

to CFA. Good model fit for a CFA and structural model were based on $\chi^2/df < 3.0$, comparative fit index (CFI) > 0.90, and root mean square error of approximation (RMSEA) < 0.10 (Bollen, 1989a, 1989b; Kline, 2016). Of the 456 participants, 392 had no missing data. To ensure enough data were retained to meet the prior power analysis, data was cleaned and retained in the following steps. First, the full 456 case data file was used to conduct Little's missing completely at random (MCAR) to test if the missing data could be explained by the included data. The MCAR test was nonsignificant ($p > .05$) across all missing data points. A nonsignificant MCAR test suggests data was missing at random and not due to some other bias (Little, 1988; Little & Rubin, 2002). Second, an initial CFA measurement model was tested on the full 456 cases file within Amos (v. 26) using maximum likelihood and collecting estimates for means and intercepts for missing data. The results indicated questionable model fit: $\chi^2 = 6696.97$, $df = 2309$, $p < .001$; $\chi^2/df = 2.90$; CFI = .83; RMSEA = .065.

The following steps were taken to improve model fit and retain as many participants as possible for statistical power purposes. Amos is not capable of reporting modification indices when estimated means and intercepts are included in the CFA. Thus, a second CFA was conducted using the same measurement model in the first CFA but with a reduced sample size of 395, all of which had no missing data. As expected, the second CFA also resulted in questionable model fit: $\chi^2 = 6552.60$, $df = 2309$, $p < .001$; $\chi^2/df = 2.84$; CFI = .82; RMSEA = .068. However, the modification indices suggested poor model fit because items were either cross-loading onto the other measured variables or not loading onto their own factor (i.e., $b < .6$). Specifically, all three reverse coded items in the hope for affiliation and all four reverse coded items in the outcome assessment scales were the largest issues. Additionally, two items from the efficacy,

three items from the approach goals, and five combined scenarios from the fear of rejection scale were removed due to cross loadings.

The removal of these items was performed for both empirical and conceptual perspectives. First, the hope for affiliation and fear of rejection measure have secured prior reliability; however, no known study has reported results of a CFA for either measure. Thus, the present study suggests initial evidence the measures may need to be further developed or refined. From a conceptual standpoint, the removed hope for affiliation measures all seem to place emphasis on another person (e.g., "If other people don't seem to accept me, I don't let it bother me") when compared to the retained items focusing on oneself (e.g., "I need to feel that there are people I can turn to in times of need"). The retained fear of rejection scenarios are heightened states or a more sensitive situation when compared to the removed situations. For example, asking a partner if they really love you (Scenario 7) is likely to result in more anxiety or fear of rejection than instances such as asking a parent for advice on what jobs to apply to (Scenario 1). As it relates to the present study of SS-D to a sexual partner, the partner related scenarios carry more merit than scenarios related to situations with parents.

Second, the outcome assessment measures included four reverse coded (two self, one partner, and one relationship), and all four were removed from further analysis. The one self and one partner items are expected to have been breezed over by participants. Each measure included seven items, and only the reverse coded items did not load onto their respective factors. As for the one relationship outcome assessment item, it was the only reverse coded item and was the only sexual-based question, while the others placed emphasis on the non-sexual part of the relationship.

Third, the efficacy items were generated from prior SS-D literature and self-efficacy measure guidelines set by Bandura. Unfortunately, items were not pre-tested before being used in the present study. It is possible the items are redundant as participants were asked to respond to an example that was already asked. For example, "I don't know how to begin explaining my sexual preferences to my partner" was asked prior to "I know how to start telling my partner about my sexual preferences." In the analysis from the CFA, the first item was retained, and the second item was rejected. Broadly speaking, after reverse coding one of the items, both items should load onto the same factor; however, that did not occur. This suggests the efficacy measure needs further investigation, a point I further explore in the limitations section.

Approach goals, the last measure adapted by the CFA, placed emphasis on the participants' partner and relationship with them regarding emotions over sexual emphasis. For example, two self approach goals items ("pursing your sexual desires" and "feeling good about yourself) were removed but the one item focused on their emotions to their partner was retained. Additionally, the one sex focused partner approach goal ("pleasing your partner sexually") was removed while the emotion items ("your partner feeling good about themselves" and "your partner feeling closer to you") were retained and one sex based item was removed. Ideally, for model fit, an additional efficacy and fear of rejection indicator would be dropped due to their low factor loadings. However, doing so would result in an unidentified measurement model (Kline, 2016, p. 203). All retained items are noted in Appendix B.

After reducing the aforementioned items, the data file was cleaned of all missing cases from the original 456 total sample. Additionally, kurtosis was evident in the first and second CFAs. Mahalanobis distance (also referred to as MD) d^2 was used to detect outliers causing the kurtosis. The MD utilizes the multivariate sample mean and covariance matrix to estimate how

far (i.e., distance) each unique response is from the sample mean adjusting for correlations (Leys et al., 2018). Sixteen participants were removed for being outliers based on values 5-119 higher than majority of the sample on Mahalanobis d^2. A d^2 value of five or higher is considered to be an outlier and should be removed (Penny, 1996). Additionally, five correlated disturbances were added based on the modification indices of the second CFA. The correlated disturbances were for the SS-D intent and avoidance goal variables. Specifically, three items were from the original fantasy sub-scale of Snell's original SS-D measure were allowed to correlate. I theoretically reasoned and allowed the disturbances to correlate due to the similarity in wording and that the revised SS-D scale has not been re-verified since Coffelt and Hess's (2014) re-specification. Additionally, the added disturbance correlations for the avoidance measure were added due to similarity in wording.

After the modifications discussed above were performed, a third CFA measurement model was conducted and indicated acceptable model fit: $\chi^2 = 2299.11$, $df = 1134$, $p < .001$; $\chi^2 / df = 2.03$; CFI = .938; RMSEA = .051. Although non-significant χ^2 is desirable, due to the large number of degrees of freedom it is likely not possible without reducing unobserved variables to single indicator observed variables. Otherwise global fit indices, like χ^2, are highly impacted by sample size (Kline, 2016; Lei & Lomax, 2005). The third CFA resulted in a final sample size of 390, just shy of the a priori power analysis. Although the power analysis was on the high end of Kline's (2016) recommendation, the 390 does satisfy the low end, 200, of the power analysis. All descriptive and inferential statistics are based on the reduced sample and third CFA measurement model.

Primary Analysis

All analysis, primary and secondary, was conducted using maximum likelihood estimation in Amos. Additionally, all analysis was done using a fully latent structure. The fully latent structure was used, over a mean structure, to account for measurement error. The measurement model of the third CFA was adapted to the structural portion of the SEM analysis. Additionally, the exogeneous variables were allowed to correlate across all models to account for any unmeasured variables and based on Amos using covariances matrices. The initial model (Figure 1) predicted positive associations between approach and avoidance motives and goals (H1 & H2). Approach and avoidance goals should then be, respectively, positively and negatively associated with disclosure efficacy (H3 & H4). In the assessment phase, H5a-H5c predicted disclosure efficacy positively associating with self, partner, and relationship outcome assessments. Lastly, disclosure efficacy (H6) and the three outcome assessments (H7a-H7c) were expected to positively associate with SS-D intent.

The hypothesized SS-DDM resulted in acceptable model fit ($\chi^2 = 2672.60$, $df = 1158$, $p < .001$; $\chi^2/df = 2.31$; CFI = .919; RMSEA = .058; RMSEA $_{90\%\ CI}$ [.055, .061]; see Figure 2). As expected, hope for affiliation was positively associated with approach goals ($\beta = .16$, $p = .004$), supporting H1. Additionally, fear of rejection was positively and significantly related to avoidance goals ($\beta = .22$, $p < .001$), thus H2 was supported. Approach ($\beta = .59$, $p < .001$) and avoidance ($\beta = -.15$, $p = .001$) goals related as predicted to SS-D efficacy, thus H3 and H4 were supported. A positive association with SS-D efficacy was found for self ($\beta = .94$, $p < .001$), partner ($\beta = .86$, $p < .001$), and relationship ($\beta = .82$, $p < .001$) outcome assessment variables, supporting H5a-H5c. Additionally, a positive association between disclosure efficacy and SS-D intent ($\beta = 1.28$, $p < .001$) was found, supporting H6. A negative association ($\beta = -.44$, $p = .05$) was found between self outcome assessment and SS-D intent, not supporting H7a. Finally, no

significant relationship was found between partner ($\beta = -.13$, $p = .245$) and relationship ($\beta = -.16$, $p = .093$) outcome assessment and SS-D intent, thus, H7b and H7c were not supported. Overall, the model predicted 42.9% variance of SS-D intent.

Overall, motives (hope for affiliation and fear of rejection) predicted goals (approach and avoidance, respectively), which predicted disclosure efficacy. Disclosure efficacy then predicted self, partner, and relationship outcome assessment and SS-D intent. Self, partner, and relationship outcome assessment did not positively predict SS-D intent. In the case of self outcome assessment, it negatively predicted SS-D intent. Partner and relationship outcome assessment did not significantly relate to SS-D intent.

Despite acceptable model fit (Figure 2), two sets of estimates were problematic. First, the standardized estimate from disclosure efficacy to SS-D intent ($\beta = 1.28$) was beyond its theoretical range (-1 to +1). Second, self, partner, and relationship outcome assessment negatively related to SS-D. The negative association was the opposite of the predicted direction. Additionally, it was not anticipated based on the positive zero-order correlation with SS-D intent and self ($r = .52$, $p < .001$), partner ($r = .47$, $p < .001$), and relationship ($r = .44$, $p < .001$) outcome assessment (see Table 1). Taken together, there appeared to be issues with multicollinearity. In inspection of the VIF, self outcome assessment ranged from 3.4 to 4.0. The estimates fell below the usual cutoff VIF score of 10, but still hinted at multicollinearity (i.e., above 3.0). Based on this inspection, self outcome assessment was dropped from the tested SS-DDM and rerun. Removing self outcome assessment slightly reduced model fit ($\chi^2 = 2255.29$, $df = 930$, $p < .001$; $\chi^2/df = 2.43$; CFI = .918; RMSEA = .061; RMSEA $_{90\%\ CI}$ [.057, .064]; see Figure 3) but seemed to resolve the issue of multicollinearity. Specifically, the association from efficacy to SS-D intent ($\beta = .63$, $p < .001$) was within the theoretical range. Additionally, the

association between SS-D intent and partner and relationship outcome assessments changed from negative to positive. The directional change is aligned this study's predictions and prior social exchange theories. Thus, self outcome assessment was removed from all further analysis. The potential for additional multicollinearity is discussed further below in the secondary analysis and discussion. Removing self outcome assessment reduced the SS-D intent explained variance from 42.9% (Figure 2) to 37% (Figure 3).

Secondary Analyses

Although the hypothesized SS-DDM fit the data moderately well, no SEM analysis is complete until competing models are tested (Kline, 2016). Several competing theoretical propositions and empirical interpretations were identified in the literature review and thus were tested within the current study. The secondary analysis was conducted to evaluate three competing ideas. First, the analysis evaluated the necessity of motives in the manifestation of goals. Second, these tests verified the role of disclosure efficacy in the mediation of effects from goals to disclosure intent. Third, secondary analysis resolved the directional effects between disclosure efficacy and outcome assessment.

Motives Do Not Predict Goals

First, the disclosure process model (DPM; Chaudoir & Fisher, 2010) is focused on the disclosure of stigmatized topics and identities (e.g., suicidal thoughts, HIV status, sexuality). The DPM includes four major components: approach and avoidance goals, disclosure event, mediating processes (alleviation of inhibition, social support, and changes in social information), and long-term outcomes (pp. 238-239). The former component leads to the later, meaning approach and avoidance goals lead to disclosure, disclosure to mediating process, and so on. Past outcomes are believed to create a feedback loop leading to a change in approach and avoidance

goals. The DPM proposes both one's approach and avoidance goals and outcomes from previous disclosures to be the antecedents of future disclosure. If the individual has no past outcomes related to the considered disclosure topic, then approach and avoidance goals are the sole antecedent of disclosure. This means one's goals are the start of the time-ordered chain; specifically, approach goals that initiate the individual to disclose. Theses theoretical assumptions and propositions are contradictory to the hierarchical theories (Elliot, 2006; Gable, 2006) the DPM is based on. Prior hierarchical theories have argued goals do not become salient without motives, as motives are the true antecedent of the behavior chain, not goals.

To determine if motives are necessary for goals to exist, a controlled variation of the SS-DDM was conducted. To complete the model comparison (see model comparison below), the observed and latent factors must maintain the same number of indicators and structure; however, parameters can be added or dropped (Kline, 2016). In the "motives do not predict goals" model (Figure 4), all paths remained the same as in the SS-DDM (Figure 3), however the paths from hope for affiliation to approach goals (i.e., H1) and fear of rejection to avoidance goals (i.e., H2) were restricted to 0 (zero). The "motives do not predict goals" model indicated good model fit ($\chi^2 = 2275.62$, $df = 932$, $p < .001$; $\chi^2/df = 2.44$; CFI = .917; RMSEA = .061; $\text{RMSEA}_{90\%\ \text{CI}}$ [.06, .06]; SRMR = .13; see Figure 4). Like other tested models, approach goals positively ($\beta = .57$, $p < .001$) and avoidance goals negatively ($\beta = -.14$, $p = .003$) related to disclosure efficacy. Disclosure efficacy positively predicted partner ($\beta = .79$, $p < .001$) and relationship ($\beta = .76$, $p < .001$) outcome assessment and SS-D intent ($\beta = .63$, $p < .001$). Partner ($\beta = .03$, $p = .734$) and relationship ($\beta = -.06$, $p = .426$) outcome assessment did not significantly relate to SS-D intent. The "motives do not predict goals" model explained 37% variance of SS-D intent, the same as

the non-restricted model (Figure 3). Initial findings of the "motives do not predict goals" model is not adequate to assess if motives are necessary or not. A model comparison is needed.

Disclosure Efficacy Mediates Goals and Disclosure Intent

Second, the DPM (Chaudoir & Fisher, 2010) proposes that approach and avoidance goals have a direct effect on disclosure. This proposition of the DPM is contradictory to social cognitive theory (Bandura, 1977, 1991, 2001, 2019) and decades of self-disclosure studies using various communication theories. Two models were conducted to determine if approach and avoidance goals directly or indirectly affect disclosure intent. To isolate the effect in question, only goals, efficacy, and disclosure intent were used in both models instead of the full SS-DDM model. The first model, the "disclosure efficacy partially mediates goals and SS-D intent" model, was conducted using disclosure efficacy as a partial mediator between approach and avoidance goals and disclosure intent. Results indicted acceptable model fit (χ^2 = 711.85, *df* = 288, $p < .001$; χ^2 /*df* = 2.47; CFI = .958; RMSEA = .062; $\text{RMSEA}_{90\%\ \text{CI}}$ [.056, .067]; SRMR = .056.; see Figure 5). Approach goals positively related to efficacy (β = .53, $p < .001$) but not to SS-D intent (β = .08, p = .134). Avoidance goals negatively related to efficacy (β = -.16, p = .007) but not to SS-D intent (β = -.05, p = .288). Efficacy maintained a positive association with SS-D intent (β = .54, $p < .001$). Collectively, the model explained 33.9% variance of SS-D intent.

Based on the insignificant paths from approach and avoidance goals to SS-D intent when efficacy is included in the "disclosure efficacy partially mediates goals and SS-D intent" model (Figure 5), a second model was needed to determine the impact the insignificant paths had on the overall model. Thus, in the "disclosure efficacy fully mediates goals and SS-D intent" model (Figure 6), the goals to disclosure intent parameters were restricted to 0 (zero) and the model re-run. The results included acceptable model fit (χ^2 = 714.079, *df* = 290, $p < .001$; χ^2 /*df* = 2.46;

CFI = .958; RMSEA = .061; $RMSEA_{90\%\ CI}$ [.056, .067]; SRMR = .058; see Figure 6). Approach goals positively (β = .54, $p < .001$) and avoidance goals negatively (β = -.16, $p = .005$) related to efficacy. Efficacy positively related with SS-D intent (β = .58, $p < .001$). Collectively, the model explained 34.1% variance of SS-D intent, a small increase from the partial mediation model. Results indicate that disclosure efficacy fully mediates the association from approach and avoidance goals to SS-D intent, supporting H3 and H4.

Outcome Assessments Predicts Disclosure Efficacy

Third, the direction between efficacy and outcome assessment has been questioned theoretically and empirically (Fallon et al., 2019; Richards, 2016; Williams, 2010). The SS-DDM takes the position that efficacy leads to outcomes assessment instead of the inverse. To that aim, a competing variation of the SS-DDM was conducted by changing the direction of prediction from disclosure efficacy predicting outcome assessment to outcome assessment predicting disclosure efficacy. Results of the "outcome assessments predicts disclosure efficacy" model indicated acceptable fit ($\chi^2 = 2544.40$, $df = 930$, $p < .001$; $\chi^2/df = 2.74$; CFI = .901; RMSEA = .067; $RMSEA_{90\%\ CI}$ [.064, .07]; see Figure 7). Hope for affiliation led to approach goals (β = .16, $p = .003$) as did fear of rejection to avoidance goals (β = .22, $p < .001$). Approach goals positively related to efficacy (β = .20, $p < .001$). However, avoidance goals were no longer a significant (β = -.08, $p = .078$) predictor of efficacy. Partner (β = .53, $p < .001$) and relationship (β = .29, $p < .001$) outcome assessment were positive predictors of efficacy. In comparison to the original direction (Figure 3), disclosure efficacy to outcome assessment, the associations were reduced in the revised model (Figure 7). The change in size in partner (β = .79 to β = .53) and relationship (β = .76 to β = .29) outcome assessment to efficacy appears to be significant. Lastly, efficacy maintained as a positive predictor of SS-D intent (β = .45, $p < .001$), but the effect was

reduced from the original prediction ($\beta = .63$, $p < .001$). Although the results are based on cross-sectional data, results provide further support for prior studies (i.e., Richards, 2016) finding similar directional effects. I further test Richards's notion in the model comparison below. Overall, the results of the "outcome assessment predicts disclosure efficacy" model suggest that efficacy leads to outcome assessments instead of the inverse which further supported H5a-H5c.

Model Comparison

The majority of the tested models resulted in acceptable model fit based on the a priori global and local model fit indices. Descriptive differences can be seen between the individual models and their associated model fit indices. Additionally, nested models can be statistically compared by the chi-square difference test. Nested, also referred to as hierarchical, models are "a proper subset of the other" model (Kline, 2016, p. 280). For example, the "motives do not predict goals" model (Figure 4) is a subset of the "hypothesized SS-DDM without self outcome assessment" (Figure 3). However, the "outcome assessment predicts disclosure efficacy" model (Figure 7) is not nested within the amended SS-DDM (Figure 3) because of the different structural parameters (Kline, 2016, p. 281). Similarly, the "disclosure efficacy partially mediates goals and SS-D intent" model (Figure 5), and "disclosure efficacy fully mediates goals and SS-D intent" model (Figure 6) are not nested models of the "hypothesized SS-DDM without self outcome assessment" (Figure 3) because the hypothesized SS-DDM without self outcome assessment does not include direct paths from approach and avoidance goals to SS-D intent, the two sets of models have different structural parameters. Predictive fit indexes such as Akaike Information Criterion (AIC) and Bayes Information Criterion (BIC) are useful in comparing non-nested models. Both AIC and BIC do not have cut off scores of acceptable model fit like the previously reviewed absolute model fit indices (e.g., RMSEA and CFI). In both cases a lower

score suggests "the one most likely to replicate" and is referred to as the preferred model (Kline, 2016, p. 287). A summary of the global and local fit indices and AIC and BIC from the primary and secondary analysis is included in Table 2.

The following provides an overview of chi-square difference test process before conducting the tests. The chi-square difference test is based on two input equations: $\chi^2_{diff} = \chi^2_s - \chi^2_l$ and $df_{diff} = df_s - df_l$. In both equations s and l represents the smaller (i.e., fewer parameters) and larger models, respectively (Schermelleh-Engel et al., 2003; Werner & Schermelleh-Engel, 2010). The results of the two equations are then used as a traditional chi-square inferential statistical test. If the chi-square test is significant, then the larger of the two models is preferred. Likewise, if the chi-square test is not significant, then the smaller model is preferred. Generally, *df* will deviate by one or two depending on if the model comparison is model building or trimming by adding or removing paths (Kline, 2016, p. 280).

The following paragraphs conduct the chi-square difference test between nested models. Additionally, I provide some initial interpretation of the non-nested model fit indices (also reported in Table 2) before moving into the overall discussion of results.

Due to the multicollinearity caused by the self outcome assessment, the "hypothesized SS-DDM without self outcome assessment" (Figure 3) can be used as a base model instead of the original hypothesized SS-DDM (Figure 2). Figure 3 can be used as a full model to test the nested "motives do not predict goals" model (Figure 4). When comparing the "motives do not predict goals" model to the "hypothesized SS-DDM without self outcome assessment" model, the results indicated a significant chi-square: $\chi^2(2) = 20.33$, $p < .001$ ($\chi^2_{diff} = 2275.62 - 2255.29 = 20.33$; $df_{diff} = 932 - 930 = 2$), suggesting that the inclusion of the motives is the preferred model. The

inclusion of the estimated motive-to-goals paths significantly added to the model and fits the data better than restricted paths (i.e., motives do not predict goals).

The second set of comparisons was to determine if disclosure efficacy partially or fully mediates the effect from approach and avoidance goals to disclosure intent. This distinction is helpful to clarify previously reviewed theoretical differences. The "disclosure efficacy fully mediates goals and SS-D intent" model (Figure 6) is nested in the "disclosure efficacy partially mediates goals and SS-D intent" model (Figure 5). The comparison was not significant: $\chi^2(2) = 2.23$, $p > .05$ ($\chi^2_{\text{diff}} = 714.08 - 711.85 = 2.23$; $df_{\text{diff}} = 290 - 288 = 2$), suggesting the inclusion of the estimated approach and avoidance goals to disclosure intent direct paths when efficacy is included does not significantly add to the model fit. Based on the non-significant paths from approach and avoidance goals to disclosure intent (Figure 5) and the reduced explained SS-D intent variance, disclosure efficacy fully mediates the effect from goals to disclosure intent. Collectively, these results support H3 and H4.

The third, and final, set of model comparison is focused on the direction of the outcome assessment phase; specifically, whether disclosure efficacy leads to outcome assessment or outcome assessment leads to disclosure efficacy. Unlike the previously conducted model comparisons, the "outcome assessment predicts disclosure efficacy" model (Figure 7) is not nested in the "hypothesized SS-DDM without self outcome assessment" model (Figure 3) because of the different structural parameters (Kline, 2016, p. 281). As in, Figure 3 suggests disclosure efficacy leads to outcome assessment while Figure 7 suggest the opposite. The local, also referred to as parsimony, fit indices such as the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) are applicable when comparing non-nested models.

The AIC and BIC are both tests of parsimony in the model, also referred to as local fit. That is, the score of both tests represents the difference between the true unknown likelihood and the estimated likelihood fitted to the model. For both tests, a lower score (closest to zero) represents the fitted model being the preferred and one more likely to replicate in a different sample (Hu & Bentler, 1995). The tests differ based on their calculation (for a review see Brewer et al., 2016): AIC = $-2 \cdot \log L + 2 \cdot p$ and BIC = $-2 \cdot \log L + p \cdot \log(n)$. Where L is the likelihood, p is the number of estimated parameters, and n the number of observations. As a reminder, observations refer to the number of observed (i.e., measured) variables in the "sample covariance matrix" (Kline, 2016, p. 127). The total matrix is identified as $(v \cdot [v + 1]/ 2)$, where v is the number of observed variables; the present study and analysis utilized a fully latent structure therefore the observed variables are the indicators items of each measure. For reference, the "hypothesized SS-DDM without self outcome assessment" model (Figure 3) has 48 measured indicators and 1,176 observation ($48 \cdot [48 + 1] / 2 = 1{,}176$). When the number of observations in a model is 100 the AIC and BIC scores will be identical [log (100) = 2). When the number of observations in the model is more than 100, as it is in this study, than the BIC imposes a more severe penalty than the AIC. Overall, as the model grows in complexity with more observations the BIC is more severe compared to the AIC which only grows to be more severe when the number of parameters is increased.

The "hypothesized SS-DDM without self outcome assessment" model, (Figure 3; AIC = 2465.29; BIC = 2881.73) is more likely to replicate than the "outcome assessment predicts disclosure efficacy" model (Figure 7; AIC = 2754.40; BIC = 2782.57) based on the AIC but not the BIC. The BIC suggests the outcome assessment predicts disclosure efficacy model is more likely to replicate than the disclosure efficacy predicts outcome assessment in the original SS-

DDM. Based on the discrepancy between the local fit statistics and having no way to statistical test the difference (i.e., AIC and BIC are descriptive statistics) I assessed the model at the path level. The inferential statistics at the path level were stronger in the proposed SS-DDM with disclosure efficacy predicting outcome assessment (Figure 3) than the "outcome assessment predicts disclosure efficacy" model (Figure 7). Collectively, the results support H5b and H5c and previous disclosure efficacy to outcome assessment findings (e.g., Richards, 2016).

Discussion

Sexual communication is important to maintain sexual desire and sexual satisfaction for sexual partners, but partners do not often discuss such topics (Anderson et al., 2011; Bezreh et al., 2012; Byers, 2011; Lo et al., 2009; Rehman et al., 2019; Vrij et al., 2002). The SS-DDM was proposed in an effort to identify a theoretical framework for when and why partners will choose to reveal their sexual desires. The present study conducted the first empirical test of the SS-DDM and provided mixed support for the theoretical propositions. The supported proposition (i.e., paths) were first the distal hope and fear of rejections motives were positively associated with proximal approach and avoidance goals, respectively. Second, approach and avoidance goals provided a psychological orientation for individuals' disclosure efficacy as represented by their respective positive and negative associations. Third, an individual's disclosure efficacy was essential in predicting their perceived partner and relationship outcome assessment. Additionally, disclosure efficacy was the key factor related to individuals' intent to disclose, or refrain from disclosing, their sexual preferences. Surprisingly, the three SS-DDM propositions from self, partner, and relationship outcome assessments did not associate with the individuals' intent to disclosure their sexual preferences. Overall, results supported the antecedent phase and provided mixed support for the assessment and decision phases. The following discussion summarizes and

explains these findings and presents theoretical and practical implications, limitations, and future directions.

Findings

Antecedent Phase

The SS-DDM was built on, and extends, the fields of biological and cognitive psychology to explain and predict the internal factors contributing to how and why individuals disclose their sexual preferences. In other words, there must be either an internal or external force motivating the initiation of the disclosure decision process. The antecedent phase is focused on the internal factors stemming from the central nervous system (e.g., BAS and BIS) resulting in goal adoption. Specifically, the antecedent phase predicted hope for affiliation would positively lead to approach goals (H1) and fear of rejection would positively lead to avoidance goals (H2).

Participants' who reported higher hope for affiliation also reported higher approach goals; similarly, participants who reported higher fear of rejection also reported higher avoidance goals, supporting H1 and H2. The small to moderate association between motives and goals is in line with prior motives and goals research within the social, personal, and academic research contexts (for a review see Elliot & Gable, 2019; Elliot & Thrash, 2002; Gable, 2006; Heimpel et al., 2006). The impact of the association between motives and goals is not related to its effect size but the effect it has on theoretical specification and prior findings.

The majority of the previously aforementioned studies base their theoretical assumptions on the hierarchical model of approach-avoidance motivation (Elliot, 2006). Elliot and colleagues (Elliot, 1999, 2006; Elliot et al., 2006; Elliot & Fryer, 2008; Elliot & Murayama, 2008; Elliot & Thrash, 2002) have claimed goals do not exist without motives. However, the claim has never

been tested only theoretically argued. To test the theoretical assumption, I compared the hypothesized SS-DDM without self outcome assessment (Figure 3) which includes motives predicting goals to the motives do not predict goals model (Figure 4). Results indicated the inclusion of the two motive to goal paths significantly added to the overall model, further supporting H1 and H2. Although the direct statistical paths were small from a theoretical standpoint, excluding motives reduces our understanding of the underlying phenomenon. The current study findings solidify Elliot and colleagues' long-standing argument that motives are necessary both to understand goals, and for proximal goals to manifest. Furthermore, the understanding of motives and goals has implications for disclosure and SS-D theories. This is a point I further develop in the theoretical implications section.

The antecedent phase results also clarified prior context isolation and empirical confusion. Motives and goals research when applied to sexual related contexts have been siloed into three themes: sexual activity motives (e.g., Gebhardt et al., 2003; for a review see Hatfield et al., 2012) goals (e.g., Impett et al., 2008, 2010; Impett, Gable, et al., 2005; Impett, Peplau, et al., 2005) and sexual goals pursued via communication (e.g., Coffelt, 2018; Coffelt & Hess, 2015). No known source has provided clear connection between sexual motives and goals (Cooper et al., 1998, 2008, 2011; Impett et al., 2005, 2008; Muise et al., 2013). When prior sexual behavior research has incorporated motives (BAS and BIS) as theoretical underpinnings to the study of approach and avoidance goals; both concepts are collapsed into the same measure, removing the ability to test the association. Thus, the present study extends previous studied contexts by illustrating an accurate empirical connection between motives and goals instead of the previously understood isolated utilization of the robust motives-goals connection.

Assessment Phase

The SS-DDM predicted the antecedent phase would predict the assessment phase. The assessment phase includes disclosure efficacy and three outcome assessments: self, partner, and relationship. The SS-DDM assumes that individuals wish to obtain (approach goals) or avoid (avoidance goals) a certain sexual and/or relational outcome but that this desire does not necessarily mean the individual will pursue or avoid an action that will result in the desired outcome (Armitage & Conner, 2001; Jang & Yoo, 2009). Specifically, I argue that an individual must believe they can successfully perform the action (e.g., disclosure efficacy) before doing so. Approach and avoidance goals then function as psychological orientations affecting individuals' disclosure efficacy beliefs (H3 & H4). Increased disclosure efficacy beliefs orient individuals' perception of whether disclosure will lead to more positive than negative outcomes for themselves, their partner, and their relationship (H5a-c).

Participants' who reported stronger approach goals and weaker avoidance goals perceived that they had more disclosure efficacy, supporting H3 and H4. Across most of the tested models (Figures 2, 3, and 4) approach goals had a strong relationship with disclosure efficacy while avoidance goals had a weak relationship with disclosure efficacy. These findings are in line with previous findings in the contexts of self-esteem (e.g., Elliot & Thrash, 2002; Heimpel et al., 2006) and self-efficacy to cope with stress (e.g., Arenas et al., 2006). Furthermore, the present study's findings and related previous communication research extend the approach-avoidance goals system to more concrete behavior than previous social psychology studies. Previously, Worley and colleagues (Worley & Aloia, 2018; Worley & Samp, 2018b) found that approach and avoidance goals, and communication efficacy, consistently related to an individual's ability to complain to their romantic partner. Complaining can take many forms, for example the disclosure of "displeasure toward an action of a relational partner" (Worley &

Aloia, 2018, p. 555). Worley and colleagues' studies did not restrict the complaints to specific topics; thus, the present studies topical focus on disclosure of sexual preferences should not be confused with their research on relational complaints. The present study and Worley and colleagues' research are only examples of how the approach and avoidance goals has been applied to interpersonal communication. The new context of approach and avoidance goals within interpersonal communication and the related findings from H3 and H4 have important theoretical implications discussed below.

In addition, to supporting prior findings across social psychology and communication contexts, results of the assessment phase aid in our understanding of communication theory. One such theory is the DPM (Chaudoir & Fisher, 2010). The DPM argues approach and avoidance goals, for the individual and their relationship with the person they may disclose information to, "underlie disclosure behavior" (p. 238), suggesting approach and avoidance goals directly predict disclosure. However, based on decades of reviewed literature on disclosure efficacy and self-disclosure, the SS-DDM argues that disclosure efficacy mediates the association between approach and avoidance goals and disclosure. The SS-DDM asserts approach and avoidance goals still underlie the disclosure process, as Chaudoir and Fisher suggested, but the decision to disclose ultimately depends on the individual's belief that they can successfully disclose the information. To solve this theoretical contradiction, I compared the "disclosure efficacy partially mediates goals and SS-D intent" model (Figure 5) and the "disclosure efficacy fully mediates goals and SS-D intent" model (Figure 6; see the model comparison section). Results indicated disclosure efficacy fully mediated the relationship between approach and avoidance goals and SS-D intent. Notably, even when participants reported high approach or avoidance goals, the decision to disclose was based on the participants' disclosure efficacy and not their goals.

Beyond our increased theoretical understanding, this finding further reinforces current (Rosier & Tyler, 2017), and hopefully future, scholarship on the importance of sexual communication training and development. Overall, these results suggest, an individuals' approach and avoidance goals serve as psychological orientation toward the individuals' disclosure efficacy (supporting H3 and H4); however, for partners to disclose, efficacy appears to be the key factor determining whether partners will reveal their sexual desires.

Participants who reported high disclosure efficacy also believed that disclosure would lead to a positive outcome for themselves, their partner, and their relationship (H5a-H5c, respectively). This positive association between disclosure efficacy and positive outcome assessment has been well documented in previous findings related to social psychological and communication theories (e.g., W. Afifi & Morse, 2009; W. Afifi & Weiner, 2004; Altman & Taylor, 1973; Bandura, 1977, 2001, 2019; Taylor & Altman, 1975). The current study further supports prior findings, but the importance of the current study's findings related to efficacy and outcome assessment is not that it is similar in strength to prior findings, but that the current study further contextualizes the association.

The SS-DDM is novel in separating the outcome assessments related to the individual, their partner, and the relationship. Prior studies have not differentiated or are non-specific; for example, "a lot more positives than negatives" (W. A. Afifi & Afifi, 2009, p. 496). Despite the novel and practical rigor of separating and contextualizing the outcome assessments, the results included mixed findings. At first, participants who reported high disclosure efficacy also reported high (i.e., more positive than negative) outcome assessments for themselves, their partner, and their relationship (Figure 2), supporting H5a, H5b, and H5c. Preliminary results supported social cognitive theory; however, upon closer inspection, disclosure efficacy and self

outcome assessment were so closely related (i.e., multicollinearity) that any further understanding of the results would be questionable based on the reduced statistical power. A strong relationship between disclosure efficacy and self outcome assessment was predicted based on previous theories and related findings; however, self outcome assessment had to be removed from the model in further analysis to remove doubt that the association estimates were correct and not artificially inflated. I discuss this methodological limitation in the later limitations and future directions sections.

After removing self outcome assessment from the model, results stayed the same with participants who reported high disclosure efficacy also reported high outcome assessments for their partner and their relationship. Despite the multicollinearity issue caused by the self outcome assessment, the partner and relationship outcome assessments and disclosure efficacy provided fruitful results. The directional association between efficacy and outcome assessments has been heavily debated (for a review see Richards, 2016). Richards provided initial support for efficacy predicting outcome assessment but called for further testing beyond their own findings. Afterall, "there is no substitute for replication for increasing one's confidence in the findings" (J. Cohen et al., 2003, p. 475).

Results comparing the SS-DDM where "disclosure efficacy predicted outcome assessment" (Figure 3), and the inverse "outcome assessment predicts disclosure efficacy" model (Figure 7), found that the SS-DDM where disclosure efficacy predicted outcome assessment to be the preferred model. Unlike prior nested model comparisons, the "disclosure efficacy predicts outcome assessment" (Figure 3) and "outcome assessment predicts disclosure efficacy" (Figure 7) are not nested within one another therefore the results of the model comparison did not determine the preferred model based on inferential statistics, but by understanding of the model.

As Cohen and colleagues (2003) encouraged the need for replication, the local fit statistics (AIC and BIC) are designed to suggest the likelihood a model will replicate in a different sample. The AIC showed favor of replication for the disclosure efficacy predicts outcome assessment model (Figure 3) while the BIC showed favor for the outcome assessments predicts disclosure efficacy (Figure 7). Thus, the local fit statistics did not provide a clear solution. Going one step deeper into the model and comparing the strength of the relationships between the variables indicated a stronger effect in the "disclosure efficacy predicts outcome assessment" (Figure 3) than the "outcome assessment predicts disclosure efficacy" (Figure 7). The results support both prior findings (e.g., Richards, 2016) and theory (e.g., Bandura, 1977, 2001, 2019; Omarzu, 2000).

Additionally, these findings add to the contextualization of outcome assessment. Prior disclosure theories and operationalization (T. Afifi & Steuber, 2009; W. Afifi et al., 2004; Denes, 2018; Denes & Afifi, 2014; Dillow & Labelle, 2014) have kept outcome assessment as a general construct, and few sex communication studies have separated outcome assessments related to the self and the relationship (Theiss & Estlein, 2014). The recent self, partner, and relationship outcome assessment scales (Rehman et al., 2019) were adapted to fit the study. To date, the current study is the first study to use the new scale beyond initial studies conducted to create the measures. Thus, results provide further support for contextualizing outcome assessment and further add to the psychometric validity of the outcome assessment scales.

Decision Phase

The last phase of the SS-DDM, the decision phase, fulfills the primary goal of the SS-DDM. The SS-DDM was originated to explain when and why sexual partners will reveal their sexual desires. The final phase predicted that disclosure efficacy (H6) and self-, partner-, and relationship- outcome assessment would positively relate with disclosure intent (H7a-c).

Across the SS-DMM and its model variations, a strong positive effect from disclosure efficacy to SS-D intent was found, supporting H6. Participants who reported high disclosure efficacy also reported a high intention to disclose their sexual desires and preferences. This aligns with prior findings that point to communication efficacy as the strongest facilitator of sexual communication (Makoul & Roloff, 1998; Roloff & Ifert, 2000; Seidler et al., 2016). The current study's results from H6 further support prior theories and findings linking efficacy to behavior, specifically the disclosure of secrets (T. Afifi & Steuber, 2009; Richards, 2016) and sexual health (Dillow & Labelle, 2014; Greene et al., 2012; Kalichman & Nachimson, 1999; Noar et al., 2006). In the context of sexual preferences, prior research participants have identified low communication efficacy as the reasoning for why they did not discuss their sexual relationship with their sexual partner(s) (Seidler et al., 2016). Similarly, participants in previous studies attribute discussing their sexual relationship with their sexual partner to high efficacy (Cleary et al., 2002; Seidler et al., 2016). Prior qualitative accounts may not have the predictive capability to explain future behavior; however, the present study's findings further support that efficacy leads to sex communication. Building from prior sexual health disclosure, and the current study of sexual preference disclosure, future research should further test if disclosure efficacy is related to disclosure of other sexual topics.

Arguably the most surprising set of findings, or lack thereof, was the null (i.e., non-significant) association between partner and relationship outcome assessment and SS-D intent. Notably, participants who reported high or low partner and relationship outcome assessments did not also report high or low disclosure intent. The theoretical propositions and hypotheses (H7a, H7b, and H7c) were based on social penetration theory and related social exchange studies. SPT argues that individuals will pursue disclosure when they believe it will result in more benefits

than costs (Altman & Taylor, 1973; Taylor & Altman, 1975). A substantial body of research has supported the SPT proposition in the context of personal and private information (Denes, 2018; Denes & Afifi, 2014) and sexual health (Dillow & Labelle, 2014; Landor & Winter, 2019).

There are four possible reasons why partner and relationship outcome assessment did not statistically relate to disclosure intent in the present study. These include theoretical, conceptual, and both measurement and analysis empirical explanations.

First, it is possible that the SS-DDM argument for outcome expectations partially mediating disclosure efficacy and disclosure intent is theoretically incorrect. Social cognitive theory (SCT; Bandura, 1997) and the disclosure decision model (DDM; Omarzu, 2000) argue for outcome expectations fully mediating efficacy beliefs and disclosure. More specifically, SCT applies to general behavior and the DDM to non-specific topics of disclosure. Neither SCT nor the DDM are specific to the context of SS-D. Prior studies focusing on sexual communication have focused on, or at least measured and reported on, either communication efficacy (e.g., Brannon & Rauscher, 2019; Greene & Faulkner, 2005; Mastro & Zimmer-Gembeck, 2015; Noar et al., 2006) or outcome assessments (e.g., Denes & Afifi, 2014; Zea et al., 2003) with few exceptions reporting in both (Dillow & Labelle, 2014; Theiss & Estlein, 2014). A majority of the aforementioned studies focused heavily on sexual health disclosure (i.e., HIV, STI/STD status) rather than desired sexual episodes. Thus, it is possible self-, partner-, and relationship- outcome assessment truly have no effect on an individuals' intent to disclose sexual desires and preferences to their partner when disclosure efficacy is also considered. If so, then the current study's results offer a clear difference between sex communication theory in the context of interpersonal communication, as found in this study, and the predominate focus of sexual health communication found in a majority of the current literature (for a review see Manning, 2021).

Second, it is possible disclosure efficacy and outcome assessments are academically different concepts but in practice are nearly the same. Following SCT's definition of self-efficacy (Bandura, 1977, 1991, 1997, 2001, 2004, 2019) I conceptually defined disclosure efficacy as an individuals' perception of their ability to effectively verbally disclose their sexual preferences. Additionally, following social exchange theory and SPT (e.g., Altman & Taylor, 1973; Taylor & Altman, 1975), I conceptually defined outcome assessments as individuals' expected reward or expected cost. From a conceptual definition standpoint, it is clear disclosure efficacy and outcome assessments are in fact unique; however, the concepts may be so closely related that separating them causes more conceptual confusion than clarification (Williams, 2010; Williams & Rhodes, 2016).

Third, the content validity of the outcome assessment measures may require additional clarification. The barriers to communication questionnaire (BCQ) was developed to measure the types of threats (self, partner, and relationship) individuals experience during partners' sexual communication events (Rehman et al., 2019). The current study adapted the BCQ to fit the negative-positive outcomes related to SS-D; unfortunately, the current studies measures were not pilot tested. The non-significant findings in the present study suggest either the BCQ is only relevant to sex communication conflict and not SS-D, or can be attributed to how the measure was adapted. Williams and colleagues (Williams, 2010; Williams & Rhodes, 2016) have questioned the content validity of self-efficacy measures. Additionally, the majority of studies applying SCT utilize self-efficacy measures including scale items that also measure similar constructions such as opportunity, in terms of the environmental factors prompting or making a behavior possible (Burrell et al., 2018, p. 601), motivation (Williams et al., 2020; Williams & Rhodes, 2016), and outcome expectations (Williams, 2010). This confounding measurement

issue would explain the multicollinearity between disclosure efficacy and self outcome assessment, but not the null relationship between partner and relationship outcome assessment and disclosure intent.

Fourth, the null findings between disclosure intent and partner and relationship outcome assessment can be understood through the difference between analyses. A strong bivariate correlation was found between self-, partner-, and relationship outcome assessments and disclosure intent (see Table 1); however, no statistical relationship was found in the SEM analysis. This difference is likely due to how the inferential statistics are calculated. Within bivariate (e.g., correlation and regression) tests the independent and dependent ordering of variables does not impact the estimated coefficient. However, within SEM the directionality between the independent and dependent variable is important. Additionally, the coefficient is estimated, holding all other variables within the model constant, thus reporting on unique associations (Bollen & Pearl, 2013; Kline, 2016; Pearl, 2012). Additionally, the reporting of unique associations within the SEM model may provide initial support for the theoretical interpretation that when disclosure efficacy and outcome assessments are included in the model, outcome assessments are no longer statistically relevant to disclosure intent. Furthermore, as it relates to SCT and DDM, the inclusion of the direct path from disclosure efficacy to disclosure intent may suppress the unique association between outcome assessments and disclosure intent.

Regardless of the explanation for the null findings between outcome assessments and disclosure intent, the results suggest important theoretical and practical implications which I cover in the next section.

Theoretical Implications

The primary theoretical focus of this dissertation was to outline the propositions and conduct the initial testing of the SS-DDM. In doing so, the SS-DDM fills the existing theoretical gap connecting disclosure antecedents and the likelihood of a disclosure event. In supporting the goal of this study, SEM was used as an analytical tool, over traditional path analysis and null hypothesis significance testing (NHST), due to its robust capabilities for theory confirmation and theory re-specification (Kline, 2016). The following three questions address the modifications to, and state of, the SS-DDM and related theoretical perspectives.

First, as it relates to model's primary objective, does the SS-DDM predict when a disclosure event will occur? The hypothesized SS-DDM (Figure 2), with self outcome assessment included, accounted 42.9% of the variance in disclosure intent, meaning 42.9% of change in disclosure intent can be accounted for by the overall model. The hypothesized SS-DDM included the highest variance for disclosure intent across the analyzed models (see Table 2). However, the inclusion of the self outcome assessment variable created statistical issues in the overall model fit, so it was removed. The second highest models predicting the most change in disclosure intent were the "hypothesized SS-DDM without self outcome assessment" (Figure 3) and the "motives do not predict goals" model (Figure 4) both accounting for 37% of variance. Although the inclusion of motives predicting goals model (Figure 3) did not aid in predicting disclosure intent, the inclusion did add to the overall model fit. Furthermore, when testing comparable disclosure theories, like the DPM, the models predicted 33.9% and 34.1% of the change in disclosure intent (Figures 5 and 6, respectively). Thus, the SS-DDM is preferred over the DPM, as the primary goal of this dissertation was to predict disclosure intent.

The current study on disclosure intent is unique compared to previous SS-D research focusing on past disclosure. Previous study findings on sexual partners' past SS-D has ranged

from 10% (Frederick et al., 2017) to 67% (Byers & Demmons, 1999) with majority of reports between 20-30% (e.g., Davis et al., 2006; De Rosa & Marks, 1998; Herold & Way, 1988; Khoury & Findlay, 2014). Notably, Byers and Demmons (1999) is an outlier likely due to the inclusion of eleven variables including demographic factors. Specifically, demographic factors and single item measures, within SEM, have been shown to be measured with greater error than multiple item measures, which has led to the overestimation of previous variances (Hayduk & Littvay, 2012). Therefore, the hypothesized SS-DDM without self outcome assessment (Figure 3) falls in line with previous studies on past disclosure.

Second, the present study provided initial support for the SS-DDM but, will future studies replicate the current findings? The individual propositions (i.e., hypotheses) of the SS-DDM were generated from a long line of previous biopsychological and cognitive psychological studies, social exchange communication theories, and sex communication findings. The present study found further support for a majority of previous findings and theories, with the exception of SPT, as the outcome assessments did not relate to the individual's decision to disclose. As discussed in the decision phase above, it is expected the outcome assessment to disclosure intent association is either suppressed or becomes obsolete because of disclosure efficacy. I further discuss the potential for measurement correction in the later future directions section. Finally, based on the AIC and BIC metrics, the overall SS-DDM should replicate in future studies; however, that does not limit areas of improvement I discuss in the next section.

Third, is the SS-DDM theoretically parsimonious? This question can be answered both empirically and theoretically. The inclusion of the motives to goals paths, and the three outcome assessment paths to disclosure intent, did not significantly add to the overall prediction of SS-D intent. Scholars have widely debated the criteria for adding and dropping variables within a

theory (Jaccard & Jacoby, 2010; Kline, 2016). The central argument lies in whether the decision should be based on conceptual or empirical frameworks. Based on pure statistical evidence, the self, partner, and relationship outcome assessments should be dropped due to the measured variables' lack of contribution to the explanation of SS-D intent. However, dropping outcome assessments from the SS-DDM is arguably a premature theoretical conclusion given this dissertation reported on one study. The association between outcome assessments and disclosure intent has proven high in previous studies related to SPT and related disclosure theories. Based on the current study's results and the inconclusive evidence found in previous literature, the SS-DDM is deemed parsimonious, nonetheless future research should further probe this question.

Beyond solely the status of the SS-DDM, the present study has implications for two other disclosure theories. First, analysis conducted during the model comparison suggests the DPM is theoretically over simplified. The DPM proposes a direct association between approach and avoidance goals and disclosure (Chaudoir & Fisher, 2010). Admittedly, the present study did find a moderate positive zero-order correlation between approach goals, past SS-D, and SS-D intent (see Table 1). However, in the secondary analysis and model comparison analysis disclosure efficacy fully mediated the association between approach and avoidance goals and SS-D intent. The full mediation suggests disclosure efficacy is at least one factor missing from the overall DPM. The DPM was designed for stigmatized disclosure and not specifically SS-D. Therefore, future research should investigate if disclosure efficacy fully mediates approach and avoidance goals and disclosure in different contexts. For example, the DPM has been tested on stigmatized disclosure like suicidal thoughts (Love & Morgan, 2021), other mental illnesses and appearance concerns (Chaudoir & Quinn, 2010), and HIV status (Conserve & King, 2014). It is expected if an individual does not believe they can effectively communicate their message, such

as suicidal thoughts, it is not expected they will disclose, regardless of their approach and avoidance goals.

Second, findings in the assessment phase has implications for information control and disclosure theories like the Theory of Motivated Information Management (TMIM; W. Afifi & Morse, 2009; W. Afifi & Weiner, 2004) and the health disclosure decision-making model (Greene, 2009). Both theories argue for outcome assessments leading to disclosure efficacy (for a review see Richards, 2016) while the SS-DDM argue for disclosure efficacy leading to outcome assessments. Results from the present study supported the SS-DDM and indicated disclosure self-efficacy led to outcome assessments, not the inverse based on their compared statistical association strength. The assessment phase results also support the prior empirical evaluation (Richards, 2016) and theory such as the disclosure decision model (Omarzu, 2000) and SCT (Bandura, 1977, 1991, 2001). However, results should be understood as correlation and not causation due to the data being gathered cross-sectionally (i.e., not longitudinal). Across the mentioned theories, SCT is the only theory to explicitly consider time-ordered effects, many communication theories suggest time-ordered effects but are rarely tested (for a review see Richards, 2016). Directional or time-ordered effects between self-efficacy and outcome assessments have been considered in SCT studies related to a variety of behaviors such as providing cardiopulmonary resuscitation (CPR, Dumcke et al., 2021), applying to graduate school (Carter et al., 2016), and increasing one's physical health by eating healthier, increasing physical activity, and self-treating diabetes (Fallon et al., 2019; Hamilton et al., 2015; Wu et al., 2007). Within the aforementioned SCT studies, the results are inconclusive, findings support for both self-efficacy leading to outcome assessment and outcome assessment leading to self-efficacy. Further consideration is needed to determine the directional effects, if any, between

self-efficacy and outcome assessment to fully understand behavior and informational control theories. Future clarification of theoretical propositions of the SS-DDM is needed. Additionally, the present study also offers immediate practical implications.

Practical Implications

The primary goal of this dissertation was theoretical in nature; however, the novel theoretical model and findings also present practical value. Given that the SS-DDM seeks to explain why and when sexual partners will reveal their sexual desires, the results have implications for both current practitioners working to help sexual partners and the sexual partners themselves.

Relational practitioners contend with a double-edged sword – their client's and their own apprehension when discussing sexual topics. First, as previously reviewed, partners are hesitant to discuss sexual topics for a variety of intrapersonal and interpersonal reasons (Anderson et al., 2011; Bezreh et al., 2012; Byers, 2011; Lo et al., 2009; Rehman et al., 2019; Vrij et al., 2002). The inability to communicate about sexual topics could be a contributing factor to infidelity, an event cited as the most common reason for divorce in the United States and Israel (Amato & Previti, 2004; O. Cohen & Finzi-Dottan, 2012; Hawkins et al., 2012; Previti & Amato, 2004). Further, the act of cheating on a monogamous partner is not limited to married couples, but is also present in dating couples (Timmermans et al., 2018). If the inability to communicate about sexual topics is a major cause of infidelity, one or both partners may seek out a practitioner for help. Ironically, these relational and sex counselors often report feeling unequipped when discussing their client's sexual problems (Byers, 2011; Haboubi & Lincoln, 2003; Harris & Hays, 2008; Hinchliff & Gott, 2011; Hipp & Carlson, 2019).

The SS-DDM provides practical suggestions for relational and sexual practitioners to use both in sessions with their clients and when creating an intervention. The SS-DDM provides an initial evaluation of the psychological process leading to SS-D. Practitioners should work from the beginning (antecedent phase) to the end (decision phase) to determine where in the chain of events the partners are having issues. For example, if partners either do not have, or do not understand, their sexual goals, the three-phase process will not function (La France, 2010a, 2010b). Assuming each partner has, and understands, their sexual goals, the practitioner can then assess the partners' current SS-D. Do the partners use indirect or non-specific language, have trouble finding the right words, or otherwise lack confidence during verbal disclosures? If so, the partner(s) may lack disclosure efficacy. Because disclosure efficacy is the key factor predicting when disclosure is likely to occur, the practitioner must determine which of the two goals is impinging on disclosure efficacy. The practitioner may then work with their client to increase approach goals and decrease avoidance goals.

Current sexual partners may also be able to utilize the SS-DDM for their own and their partners' SS-D. The succinct nature of the SS-DDM can act as a conceptual framework to understand why they feel uncertain about verbally expressing their sexual desires. Simply understanding what inhibitors might exist should be advantageous for partners. For example, has the individual experienced abandonment in prior relationships (i.e., high in fear of rejection)? Does the individual focus on the potential for loss rather than the potential for gain (i.e., high avoidance and low approach)? The same questions can be used by an individual to analyze why a current partner may be hesitant to disclose or discuss sexual topics. Essentially, the SS-DDM can be used to holistically analyze partners to better understand where in the process, between goals and disclosure, the disconnect is occurring. Post analysis, partners can become each other's

practitioners. For example, if partners do not understand, or have not thought about, their sexual goals, they can encourage one another and/or practice writing down their goals. Simply the act of journaling sexual fantasies has helped some couples become more open to sharing their sexual thoughts with one another (McCarthy, 2001; McCarthy & Thestrup, 2008; Metz & McCarthy, 2010). McCarthy and colleagues' findings can be interpreted through the SS-DDM. Partners journaling their sexual fantasies likely makes the fantasy more salient. If the partner desires the now salient fantasy, then the fantasy likely becomes an approach goal. The approach goal then positively influences their disclosure efficacy assessment ultimately leading to disclosure of the fantasy to their partner, in hopes of achieving the fantasy. Additionally, if disclosure efficacy is causing problems, the partners can practice self-disclosure outside of the sexual context to build their confidence in their disclosure efficacy. This confidence may then later cross over to the sexual content conversation. Furthermore, the continued act of journaling about fantasies may also build up disclosure efficacy, making the likelihood of disclosure greater (Pennebaker, 1997). Limited research has been published on sex communication training, although the limited findings provide promising findings for sexual partners looking to increase communication surrounding these topics (Rosier & Tyler, 2017).

Limitations

The present study conducted the initial test of the newly proposed SS-DDM. This dissertation partially validates the theory to fill a previously identified gap in the three-step disclosure process. Although the present study adds significantly to the field of sexual and relational communication, it is not without its limitations. Four overarching limitations exist, and all findings and implications should be understood with the limitations in mind.

The first limitation is SS-D of sexual desire is a very narrow context among other sexual topics. Even within the sexual desire context, the SS-D intent measure did not consider what type of sexual desires the individual prefers or would intend to disclose. For example, sample items included "the kinds of touching that sexually arouse me" and "what I would desire in a sexual encounter." The current state of the SS-D measure falls into the same open-ended pitfall I argue against in the outcome assessment measure. It is impossible to know, based on the current data, if participants responded on sexual desires ranging from typical (e.g., "having my clothes taken off"), common (e.g., "being dominated by someone during a sexual encounter"), uncommon (e.g., "wearing costumes during sexual activity"), and unusual (e.g., "inflicting pain for joint pleasure") (Noorishad et al., 2019, pp. 47-49). Future research is needed to further contextualize the present findings and further validate, or find boundary conditions for, the SS-DDM.

The second limitation is how the data were analyzed. SEM was picked specifically for its robust abilities to test theory and control for measurement error. The present study's hypotheses were association-based due to the cross-sectional nature of the data; however, SEM can treat cross-sectional data as causal relationship between variables (Kline, 2016). Specifically, Amos assumes the researcher has indicated the correct unidirectional paths within the model. Partial analysis within the assessment phase supported the initial proposed direction that efficacy leads to outcome assessment. Based on the analysis of assessment phase, the stronger paths aid in the interpretation of the correct direction. However, the comparison between models and paths is tested on the same data collected at the same time (i.e., cross-sectional). No causal links should be assumed without proper experimental and/or longitudinal study design (Winer et al., 1991). Future research is needed to further support the direction of the SS-DDM propositions.

The third limitation is how the measures were constructed and treated. All measures were either pre-existing measures or based on pre-existing measures; however, multiple items were removed to address model fit. The most surprising measure adaptions were the fear of rejection and disclosure efficacy measures. The final data analysis for the fear of rejection measure included three scenarios of the eight measured. Additionally, the analyzed disclosure efficacy measure included three items of the measured six. The modification indices suggest the fear of rejection and disclosure efficacy measures should be further reduced, however, that would have resulted in model specification issues. The results were surprising because the fear of rejection scale has held up across multiple studies in various contexts (Ayduk et al., 2008; Leary et al., 2013). However, the reviewed studies have conducted reliability analysis in comparison to the CFA conducted in the present study. Future research should consider the factor structure of the measure.

The inconsistency of the disclosure efficacy measure is less surprising. Disclosure efficacy items were generated from prior efficacy measures in different contexts (e.g., sexual health, secrets), meaning it is possible the items do not relate to the SS-D context. Furthermore, the inconsistency of efficacy measures has been found in more established lines of research such as studies related to SCT (Burrell et al., 2018; Williams, 2010; Williams & Rhodes, 2016) and TMIM (for a review see W. A. Afifi, 2016). Specifically, in TMIM the efficacy measures have been inconsistent both at the item level and how the items are treated by the researchers (single or multiple factors, W. A. Afifi et al., 2004; W. A. Afifi & Afifi, 2009; W. A. Afifi & Weiner, 2006; Fowler et al., 2018). Results have been stronger when studies have collapsed multiple efficacy measures into one overall assessment. Future research is needed to identify the root cause of the inconsistency in measurement for studies to accurately measure the desired

construct. The primary focus of the dissertation was on the theoretical development of the SS-DDM, but considering TMIM's more recent success with treating efficacy as a larger construct than multiple sub-constructs, the SS-DDM may also benefit from treating the three outcome assessments as one larger construct.

Finally, the fourth limitation is the assumption that SS-D intention will lead to initiating SS-D. No known study has explicitly linked SS-D intent and future SS-D. Behavior intent has been a significant predictor of future behavior in broad contexts such as interpersonal persuasion (Hullett, 2004), academic achievement (Sideridis, 2005), and students confronting their instructor about their grade (Henningsen et al., 2011). In line with the current study, behavior intent has successfully predicted future generic self-disclosure online (e.g., Kim & Dindia, 2011; Lowry et al., 2011; Wang et al., 2017), sexual episodes (e.g., Dai et al., 2018; Patrick et al., 2011), and condom usage (e.g., Albarracín et al., 2001). Based on past evidence across multiple contexts, my current assumption is that SS-D intent will predict future SS-D. However, all assumptions should be further tested to provide additional support for or theoretically refine the SS-DDM.

Future Directions

This dissertation has made significant progress in enhancing sex and relational communication research despite the few limitations. Based on the theoretical, empirical, and practical findings and implications, I suggest the following future directions.

Theoretical Future Directions

First, the advent of the SS-DDM answers prior theoretical questions and opens the field of sex communication to new avenues of research. The sparse use of theory in sex research has been well documented (for reviews see Manning, 2021; Muise et al., 2018; Weis, 2002). When

theory has been used, scholars have adapted psychological (e.g., attachment theory and approach-avoidance social motivation theory) and relational theories (e.g., communal strength theory and implicit theories of relationships) to fit the sexual focus of their study (Muise et al., 2018). Sex communication is a subset of the larger sex research landscape and has primarily focused on the outcome of SS-D related to the instrumental and expressive pathways (Cupach & Metts, 1991; MacNeil & Byers, 2005, 2009). Furthermore, past studies utilizing the instrumental and expressive pathways have not identified why an individual will pursue one pathway over another (for a review, see Byers, 2011). SS-D is the starting point in both the instrumental and expressive pathways. The question then becomes, what comes before SS-D?

The SS-DDM was specifically designed to answer that question. It is expected an individual's approach goals focused on their own sexual gratification would lead to the instrumental pathway. Likewise, an individual focused on relationship approach goals will lead to the expressive pathway. Less is known regarding the impact avoidance goals will have on SS-D. First, for an individual to move away from a negative end state they must perceive themselves to be in a current negative state. While individuals may perceive an unlimited number of negative states within their personal and relational sex lives, one potentially salient state related to the dissertation focus, is the negative state caused by their SS-D. For example, if Partner 1 attempts SS-D but is not successful in articulating or expressing their preferences and desires to their partner (Partner 2), Partner 2 may come to unintentional conclusions about Partner 1's sexual preferences and desires. Partner 1 has a few options to move away from the current negative state of Partner 2's judgement. It is possible partner 1 may further develop their initial SS-D; however, if they could not do it the first time, they may not be able a second time either.

Rather it is expected the BIS and avoidance goals will be more salient due to the current negative state.

Considering avoidance goals are goals focused on moving away from or *avoiding* negative end states (for reviews, see Gable, 2012, 2013, 2015), this leaves two likely choices related to SS-D: indirect disclosure and topic avoidance. Indirect sexual communication has been previously associated with relationship uncertainty and the view of sexual communication as threatening toward themselves and their relationship (Theiss & Estlein, 2014). In this scenario, equivocation, the intentional use of ambiguous or vague communication to avoid being hurt or to deceive others (Bello, 2005, 2006, 2015), may be used to backpaddle the initial disclosure in an attempt to further confuse or redirect partner 2. Further, individuals (e.g., Partner 1) with avoidance goals may initiate SS-D with indirect terminology as a way to test the waters with their partner (e.g., Partner 2) before further disclosing deeper sexual preferences and desires.

Second, for an individual to avoid a negative end state they must perceive a negative end state to be the result of SS-D. Future studies may include determining if the model will predict indirect SS-D and/or the avoidance of sexual communication. Intuitively, disclosure and topic avoidance appear to be opposite; however, that would be incorrect (Uysal, 2020). For example, an actor may have decided to disclose, but have yet to complete the disclosure. They may not yet be ready to reveal that personal information or are unsure of how to initiate the conversation. Both examples represent cases where disclosure has not happened, but neither case implies the actor is actively trying to avoid the conversation or disclosure. Once an actor discloses their sexual preferences, or any information for the matter, the knowledge cannot be taken back, opening the actor to feeling vulnerable and potential negative outcomes (Cupach & Metts, 1991). In comparison, self-disclosure can also change the state of topic avoidance.

Overall, the SS-DDM aids our understanding of the dominate SS-D theoretical instrumental and expressive pathways, but also opens theoretical advances. The SS-DDM and instrumental and expressive pathway may be combined in the future to construct an overall SS-D theory. Such a theory would fully explain the antecedent-disclosure-outcome chain. Additionally, the inclusion of indirect, or equivocation, disclosure and topic avoidance would also provide a full sexual communication theory. Currently, the closest full sexual communication theory would be an adaptation of sexual script theory (Gagnon, 1990; Simon & Gagnon, 1986). Sexual script theory was proposed to explain the steps leading up to a sexual episode with communication being an afterthought (La France, 2010b). Constructing a sex communication theory placing communication as the focus would be a useful tool for the field overall, which currently lacks an overarching theory (Manning, 2021).

Methodological Future Directions

First, as mentioned above in the limitations, the major gap of the present study and the SS-DDM lies in its assumption that SS-D intent will lead to SS-D. Prior research in and out of the sexual relationship context have established a large body of evidence connecting behavior intent to future behavior. Any trusted statistical association relies on valid and reliable measurement; unfortunately, sex research has been haunted by less than accurate measures (for reviews see Muise et al., 2018; Wiederman, 2004). For example, participants' recalled memories of past sexual activity becomes significantly unreliable if the event was more than two months prior (Graham et al., 2003). No known research has considered the measurement accuracy of SS-D. I suspect if individuals cannot accurately recall their recent sexual activity, they will also not be able to accurately recall their SS-D. Additionally, overwhelming prior research has focused on prior SS-D as it relates to other cross-sectional measured variables (Byers, 2011; Maxwell et

al., 2017; Muise et al., 2018; Rehman et al., 2019; Tang et al., 2013). This begs the question, if our measures are less reliable than we believe, what implications does that have for our understanding of the past three decades of research?

To improve these studies of sexual activity and SS-D, and sex communication as a field, we must move beyond cross-sectional surveys. Three potential options are longitudinal studies, dyadic surveys, and in-person lab observations. Surveys still stand as an important method to collect data on sensitive information, and the tool itself can be redesigned (Durant & Carey, 2000; Manning & Kunkel, 2014; Maxwell et al., 2017; Muise et al., 2018; Wiederman, 2004). For example, a simple longitudinal design can be implemented using the SS-DDM, initially measuring the antecedent and assessment phase, then measuring the decision phase at a later point in time. Likewise, if scholars are focused on the outcome of SS-D they can use the expressive and information pathways to first measure a SS-D event, then asses any outcomes during a second session. To improve the accuracy and validity of participant responses, future studies can also use surveys to gather SS-D data from both partners. Lastly, the SS-DDM should also predict SS-D during in-person lab studies and observations. Partners may complete the SS-D intent measure in survey form before coming into a lab to practice SS-D. Observational data will be helpful in verifying the predictability of the SS-DDM, as well as how partners' motives, goals, and assessment phase manifest during SS-D.

Second, the SS-DDM should be extended both in the breadth and depth of disclosure of various sexual topics. As discussed in the limitations, the present study measured generic sexual desires. The sexual desire measure's focus on desires concerning the referenced partner is only one of many sexual topics partners may wish to disclose or discuss. For example, partners may have desires to conduct sexual activity with another person inside (e.g., threesome) and outside

(e.g., open relationship) of the current exclusive sexual relationship (Lehmiller, 2018). Similarly, partners may desire to engage in sexual experiences while their partner observes (e.g., exhibitionism) or observe sexual encounters between their partner with another, without engaging themselves (e.g., cuckolding, cuckquean, voyeurism; Joyal & Carpentier, 2017). Alternatively, partners may wish to disclose sexual desires such as celibacy or abstinence. Collectively, future research is needed to contextualize the content of disclosure in order to deepen our understanding of previous findings and either grow, or set, conditions for when the SS-DDM does and/or does not predict SS-D.

Third, SS-D has been the predominate communication act for researchers to study. However, disclosure is not the only communication act partners may use to obtain (i.e., approach) or avoid sexual goals. No known work has been published on asking partners' their sexual interests, desires, or preferences. The SS-DDM and prior SS-D research has emphasized the actor as the initiator of the conversation, rather than putting them into the hot seat to be judged. It is possible partners may benefit by opening channels of communication with their partner by first asking their partners' preferences. Based on the principle of reciprocity, the conversation will naturally shift to the actors' turn to disclose. The initial propositions of the SS-DDM may be used to further test what other forms of sexual communication it may predict such as an actor asking their partner about their sexual preferences, or the actor requesting a specific sexual event.

Conclusion

I began this dissertation outlining how prior sex communication theories and models did not fully explain SS-D. Specifically, the reviewed literature extensively outlined SS-D as a difficult act with many potential positive outcomes but did not explain when and why SS-D is

likely to occur. The present manuscript presented the SS-DDM, a novel theoretical model, to explain why and when SS-D is likely to occur. The theoretical model proposes that the disclosure decision process begins with distal and proximal psychological dispositions. The individual's central nervous system acts as a motivational force to connect, and fear of rejection, with others, specifically their sexual partner. These motives manifest in the desire to approach or avoid the sexual desire under consideration. Before the individual can approach or avoid their sexual desire(s) via verbal disclosure, they must assess their ability to effectively disclosure their desire, and if that desire will have a positive or negative outcome for themselves, their partner, and their relationship.

Beyond proposing the theoretical framework, the present study conducted the initial test of the SS-DDM. Overall, results support the majority of the proposed paths in the model. Motives and goals acted as proximal and distal psychological dispositions affecting their expected ability to effectively disclose their desires. As expected, disclosure efficacy positively led to SS-D intent and one's expectations for positive outcomes from their partner and relationship. Surprisingly, the measured outcome assessments did not predict SS-D intent. This null relationship was identified as either a conceptual or methodological issue and several directions were suggested to identify the cause and correct for it in the future.

The results of the current study provided important theoretical and practical implications. First, the SS-DDM fulfills the prior literature gap in the three-phase disclosure process. Additionally, the SS-DDM may be used by practitioners and current sexual partners to encourage more productive SS-D. Second, the SS-DDM supports and corrects faults in the prior self-regulation theory. Results supported motives as a necessary proximal factor in understanding distal goals. Thus, prior hierarchical goals theory was supported and argued to add to the DPM.

Additionally, results assert, contrary to prior self-regulation theories, an individual must believe they can carry out the behavior before a behavior is enacted. This suggests the prior self-regulation theory has oversimplified the process between goals and behavior.

In summary, the SS-DDM argues approach and avoidance motives and goals serve as psychological dispositions influencing an individual's expectations for effective communication and the potential for positive and negative outcomes. The presented and tested SS-DDM sought to fix prior theoretical limitations and provide a framework for future theoretical and practical use. This dissertation presented and tested the initial propositions of why and when partners are likely to disclosure their sexual desires. Initial results show theoretical promise, and I can only hope researchers, practitioners, and partners can contribute, benefit, and further refine the theory. Lastly, as with all beginnings, the SS-DDM and present study findings are not without their limitations; however, as with all foundational studies, this is only the beginning of the SS-DDM.

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Appendix A:

IRB Approval Letter

UNIVERSITY of WISCONSIN
UWMILWAUKEE
Department of University Safety & Assurances

Leah Stoiber
IRB Administrator
Institutional Review Board
Engelmann 270
P. O. Box 413
Milwaukee, WI 53201-0413
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New Study - Notice of IRB Expedited Approval

Date: April 16, 2020

To: Erin Ruppel, PhD
Dept: Communication

CC: Riley Richards

IRB#: 20.282
Title: Sexual Communication UW-Milwaukee

After review of your research protocol by the University of Wisconsin – Milwaukee Institutional Review Board, your protocol has been approved as minimal risk Expedited under Category 7 as governed by 45 CFR 46.110. Your protocol has also been granted approval to waive documentation of informed consent, as governed by 45 CFR 46.117 (c).

This protocol has been approved on **April 16, 2020** for one year. IRB approval will expire on **April 15, 2021**. Before the expiration date, you will receive an email notifying you how to keep the study open or close it.

This study may be selected for a post approval review by the IRB. The review will include an in person meeting with members of the IRB to verify that study activities are consistent with the approved protocol and to review signed consent forms and other study related records.

Any proposed changes to the protocol must be reviewed by the IRB before implementation, unless the change is specifically necessary to eliminate apparent immediate hazards to the subjects. It is the principal investigator's responsibility to adhere to the policies and guidelines set forth by the UWM IRB, maintain proper documentation of study records and promptly report to the IRB any adverse events which require reporting. The principal investigator is also responsible for ensuring that all study staff receive appropriate training in the ethical guidelines of conducting human subjects research.

As Principal Investigator, it is also your responsibility to adhere to UWM and UW System Policies, and any applicable state and federal laws governing activities which are independent of IRB review/approval (e.g., FERPA, Radiation Safety, UWM Data Security, UW System policy on Prizes, Awards and Gifts, state gambling laws, etc.). When conducting research at institutions outside of UWM, be sure to obtain permission and/or approval as required by their policies.

Contact the IRB office if you have any further questions. Thank you for your cooperation and best wishes for a successful project.

Respectfully,
Leah Stoiber
Leah Stoiber
IRB Administrator

Appendix B:

Survey

*indicates items that were retained in the final analysis.

Screening Questions

(Q2) Are you currently involved in a sexual relationship? Sexual relationships are considered to include at least one instance of oral, vaginal, or anal sex with another person.

Yes
No

(Q4) Do you expect to have future sexual interactions (e.g., oral, vaginal, or anal) with this person?

No
Yes

Hope for Affiliation (Leary, Kelly, Cottrell, & Schreindorfer, 2013)

Instructions: Please read each statement and consider the extent to which each statement is typically or generally true or characteristic of you.

Not at All True (1) 2 3 Moderately True (4) 5 6 Extremely True (7)

If other people don't seem to accept me, I don't let it bother me. (Q3_1R)
I try hard not to do things that will make other people avoid or reject me. (Q3_2)*
I seldom worry about whether other people care about me. (Q3_3R)
I need to feel that there are people I can turn to in times of need. (Q3_4)
I want other people to accept me. (Q3_5)*
I do not like being alone. (Q3_6)*
Being apart from my friends for long periods of time does not bother me. (Q3_7R)
I have a strong "need to belong." (Q3_8)*
It bothers me a great deal when I am not included in other people's plans. (Q3_9)*
My feelings are easily hurt when I feel that others do not accept me. (Q3_10)*
Are you reading this, then choose not at all true (AC1)

Rejection Sensitivity Questionnaire (Downey & Feldman, 1996)

Instructions: Each of the items below describes things individuals sometimes ask of other people. Please imagine that you are in each situation. You will be asked to answer the following questions.

1. How <u>concerned or anxious</u> would you be about how the other person would respond?
2. How do you think <u>the other person</u> would be <u>likely to respond</u>?

Very Unconcerned (1)	2	3	4	5	6	Very Concerned (7)
Very Unlikely (1)	2	3	4	5	6	Very Likely (7)

You ask your parents for help in deciding what jobs to apply to

How concerned or anxious would you be over whether or not your parents would want to help you? (Q6.1)
I would expect that they would want to help (Q6.2)

You approach a close friend to talk after doing or saying something that seriously upset him/her/them.
How concerned or anxious would you be over whether or not your friend would want to talk to you? (Q7.1)
I would expect that they would want to talk with me to try to work things out. (Q7.2)

After graduation, you can't find a job and ask your parents if you can live at home for a while.
How concerned or anxious would you be over whether or not your parents would want you to come home? (Q8.1)
I would expect I would be welcome home. (Q8.2)

You call your partner after a bitter argument and tell them you want to see them.
How concerned or anxious would you be over whether or not your partner would want to see you? (Q9.1)
I would expect that they would want to see me. (Q9.2)

You ask your partner to come to an event important to you.
How concerned or anxious would you be over whether or not your partner would want to come? (Q10.1)*
I would expect that my partner would want to come. (Q10.2)*

You ask a friend to do you a big favor.
How concerned or anxious would you be over whether or not your friend would do this favor? (Q11.1)*
I would expect that they would willingly do this favor for me. (Q11.2)*

You ask your partner if they really love you.
How concerned or anxious would you be over whether or not your partner would say yes? (Q12.1)*
I would expect that he/she would answer yes sincerely. (Q12.2)*

You go to a party and notice someone on the other side of the room. Then you ask them to dance.
How concerned or anxious would you be over whether or not the person would want to dance with you? (Q13.1)
I would expect that they would want to dance with me. (Q13.2)

Instructions: The remaining parts of the survey will ask you questions about you and your current sexual partner/relationship. If you are involved in more than one current sexual partner, please think of the individual you have the longest sexual history with throughout this survey.

Approach Goals

Instructions: Each of the items below describe potential goals for you, your sexual partner, and your relationship. Please indicate the extent to which each potential goal is important to you.

Not at All Important (1) 2 3 Moderately Important (4) 5 6 Extremely Important (7)

Pursing your sexual desires (Q22.1)
Feeling good about yourself (Q22.2)
Feeling closer to your partner (Q22.3)*
Pleasing your partner sexually (Q22.4)
Your partner feeling good about themselves (Q22.5)*
Your partner feeling closer to you (Q22.6)*
Promoting and/or enhancing physical intimacy in your relationship (Q22.7)*
Promoting and/or enhancing mutual respect in your relationship (Q22.8)*
Promoting and/or enhancing emotional connection in your relationship (Q22.9)*

Avoidance Goals

Instructions: Each of the items below describe potential goals for you, your sexual partner, and your relationship. Please indicate the extent to which each potential goal is important to you.

Not at All Important (1) 2 3 Moderately Important (4) 5 6 Extremely Important (7)

Avoid reducing the amount of sexual pleasure you currently experience (Q24_1)
Prevent feeling embarrassed or hurt by your partner (Q24_2)*
Avoid feeling less emotions towards your partner (Q24_3)*
Prevent your partner from losing sexual interest in you (Q24_4)*
Prevent your partner from becoming upset with you (Q24_5)*
Prevent your partner from getting angry with you (Q24_6)*
Avoid sexual disagreements and/or conflicts with your partner (Q24_7)*
Prevent you and your partner from criticizing each other (Q24_8)*
Prevent anything bad happening in your relationship (Q24_9)*
Prevent rejection and select not at all important (AC3)

Sexual Self-Disclosure Efficacy

Instructions: Each of the items below asks about your ability to communicate your sexual preferences to your partner. Your sexual preferences may include things you like most about sex, sexual fantasies, desired frequency of sexual episodes, and/or how you like to be sexually touched.

Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither agree nor disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)

I am confident in finding the right words to share my sexual preferences with my partner. (Q25_1)*
I don't know how to begin explaining my sexual preferences to my partner. (Q25_2R)*
I know how to start telling my partner about my sexual preferences. (Q25_3)
I am not confident in approaching my partner to reveal my sexual preferences. (Q25_4R)
I know what I would say to my partner to achieve my sexual preferences. (Q25_5)*
I know to pick strongly disagree to prevent rejection (AC2)
I can't think of any way to communicate my sexual preferences to my partner (Q25_7R)

Outcome Assessment

Instructions: Each of the items below asks about different outcomes you expect to happen as a result of verbally communicating your sexual preferences to your partner. Remember that your sexual preferences may include things you like most about sex, sexual fantasies, desired frequency of sexual episodes, and/or how you like to be sexually touched.

Self Outcome Assessment
How do you expect you will feel as a result of disclosing your sexual preferences to your partner?
(Q26.1) Inadequate 1 2 3 4 5 6 7 Adequate
(Q26.2) Failure 1 2 3 4 5 6 7 Successful
(Q26.3) Bad 1 2 3 4 5 6 7 Good
(Q26.4R) Confident 1 2 3 4 5 6 7 Ashamed
(Q26.5R) Normal 1 2 3 4 5 6 7 Abnormal
Q26.6) Weak 1 2 3 4 5 6 7 Strong
(Q26.7) Worthless 1 2 3 4 5 6 7 Valuable

Partner Outcome Assessment
How do you expect your partner will feel as a result of hearing your sexual preferences?
*(Q28.1) Embarrassed 1 2 3 4 5 6 7 Composed
*(Q28.2) Vulnerable 1 2 3 4 5 6 7 Secure
*(Q28.3) Failure 1 2 3 4 5 6 7 Successful
*(Q28.4) Guilty 1 2 3 4 5 6 7 Guiltless
*(Q28.5) Incompetent 1 2 3 4 5 6 7 Competent
(Q28.6R) Adequate 1 2 3 4 5 6 7 Inadequate
*(Q28.7) Worthless 1 2 3 4 5 6 7 Valuable

Relationship Outcome Assessment
What relational outcomes do you expect as a result of revealing your sexual preferences to your partner?
*(Q29.1) Cause us to Argue 1 2 3 4 5 6 7 Cause us to Harmonize
*(Q29.2) Reveal core Differences between us 1 2 3 4 5 6 7 Reveal core Similarities between us
*(Q29.3) Reveal Differences in our personal values 1 2 3 4 5 6 7 Reveal Similarities in our personal values
*(Q29.4) Bring up past issues 1 2 3 4 5 6 7 Fix past issues

(Q29.5R) Increase the amount of sex we have 1 2 3 4 5 6 7 Decrease the amount of sex we have

SS-D Intent

(Q30). Instructions: Below are a number of items addressing things you may or may not desire to reveal to your partner. Please answer each item on **how likely** you are to verbally communicate the following topics in the future to your partner.

Extremely likely (1)	Moderately likely (2)	Slightly likely (3)	Neither likely nor unlikely (4)	Slightly unlikely (5)	Moderately unlikely (6)	Extremely unlikely (7)
The kinds of touching that sexually arouse me. (Q30.1)*						
My private sexual fantasies. (Q30.2)*						
The sexual preferences that I have. (Q30.3)*						
The sensations that are sexually exciting to me. (Q30.4)*						
My "juicy" sexual thoughts. (Q30.5)*						
What I would desire in a sexual encounter. (Q30.6)*						
The types of sexual foreplay that feel arousing to me. (Q30.7)*						
The sexual episodes that I daydream about. (Q30.8)*						
The things I enjoy most about sex. (Q30.9)*						

Previous SS-D

(Q48). Instructions: Below are a number of items addressing things you may or may not have revealed to your partner. Please answer each item on the extent to which **you have** verbally communicated the following topics to your partner.

Have not disclosed this topic (1)	(2)	(3)	Have moderately disclosed this topic (4)	(5)	(6)	Have fully disclosed this topic (7)
The kinds of touching that sexually arouse me. (Q48.1)						
My private sexual fantasies. (Q48.2)						
The sexual preferences that I have. (Q48.3)						
The sensations that are sexually exciting to me. (Q48.4)						
My "juicy" sexual thoughts. (Q48.5)						
What I would desire in a sexual encounter. (Q48.6)						
The types of sexual foreplay that feel arousing to me. (Q48.7)						
The sexual episodes that I daydream about. (Q48.8)						
The things I enjoy most about sex. (Q48.9)						

Demographics

(Q31) How old are you? Please answer with age as a number in years. [Text Entry]

(Q32) What best reflects your gender identity?

1. Male, 2. Female, 3. Non-binary, 4. Transgender, 5. Other, [Text Entry]

(Q33) What best reflects your race/ethnicity?

1. White/Caucasian, 2. Black/African-American, 3. Asian, 4. Hispanic/Latino, 5. Biracial/Multiracial, 6. Other, [Text Entry}

(Q34) What best reflects your highest level of education?

1.Some high school but did not graduate, 2. Graduated with high school diploma/GED, 3. Current undergraduate student, 4. College graduate with Associates degree, 5. College graduate with Bachelors degree, 6. Current graduate student, 7. College graduate with a Graduate degree

(Q35) What is your personal annual level of income?

1. $0 - $10,000, 2. $10,001 - $50,000, 3. $50,001 - $100,000, 4. More than $100,000

(Q36) What best reflects your current sexual orientation?

1.Straight/Heterosexual, 2. Gay, 3. Lesbian, 4. Bisexual/Pansexual, 5. Queer, 6. Asexual, 7. Other, [Text Entry}

(Q43). Instructions: The following items ask you about monogamous relationships. Monogamous relationships are when two partners are having a sexual relationship with only one partner at a time.

Not at All (1) 2 3 4 Completely (5)

(Q43.1) Is your current relationship monogamous?

(Q43.2) How much do you believe in monogamy?

(Q43.3) How much do you desire a monogamous relationship?

(Q46) What best reflects your relationship status with the partner you responded about in this survey?

1. Dating and not committed, 2. Dating and committed, 3. Engaged, 4. Married, 5. Friends with benefits

(Q37) What best reflects your partner's gender identity?

1.Male, 2. Female, 3. Non-binary individual, 4. Transgender, 5. Other, [Text Entry}

(Q38) How old is your partner? Please answer with age as a number in years. [Text Entry]

Quality Control

Instructions: The following questions DO NOT AFFECT if your work will be accepted or rejected on MTurk. We only ask to ensure we report on quality data.

(Q40) How accurate and/or truthful was your responses to this survey?
Not at all accurate (1) 2 3 4 (5) Extremely accurate

(Q42) Should we use your data in our final findings?
1.Yes, 2. Unsure, 3. No

MTurk Code

Thank you for participating.

Your validation code is:
${e://Field/mTurkcode}

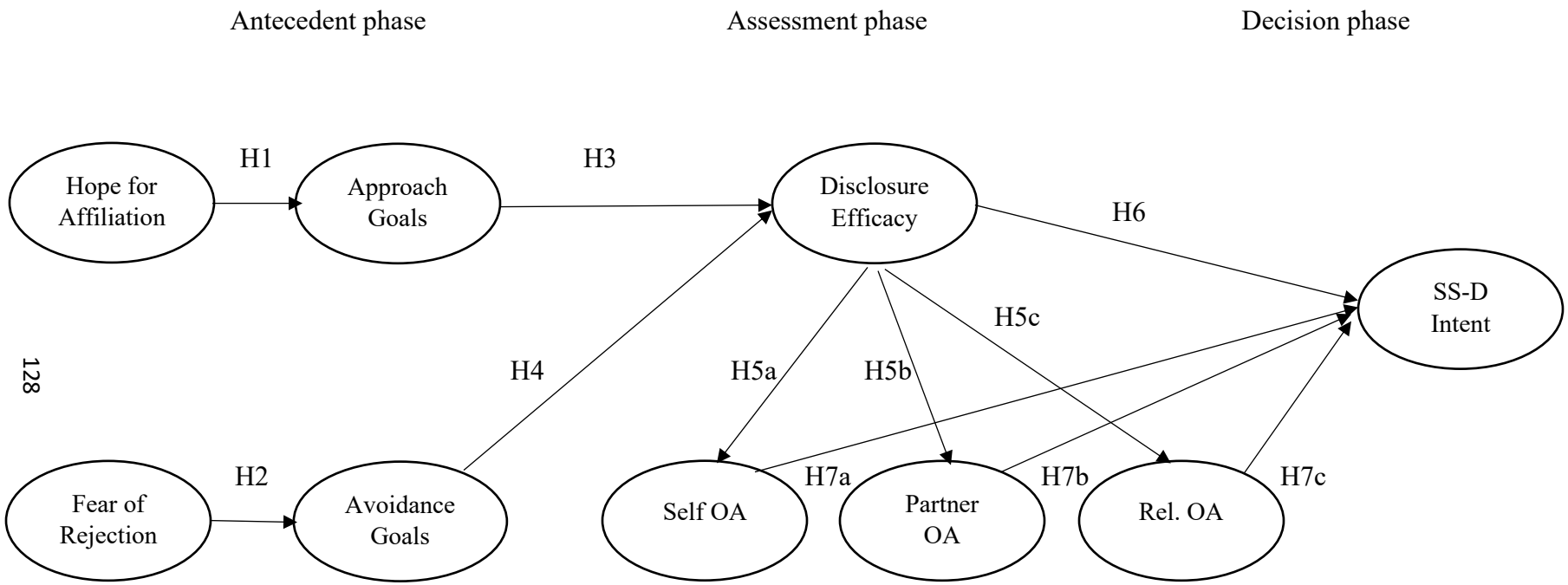
To receive payment for participating, click "Accept HIT" in the Mechanical Turk window, enter this validation code, then click "Submit".

If you click next you will be taken to a rejection page. That page does not apply to you.

Appendix C:
Figures

Figure 1

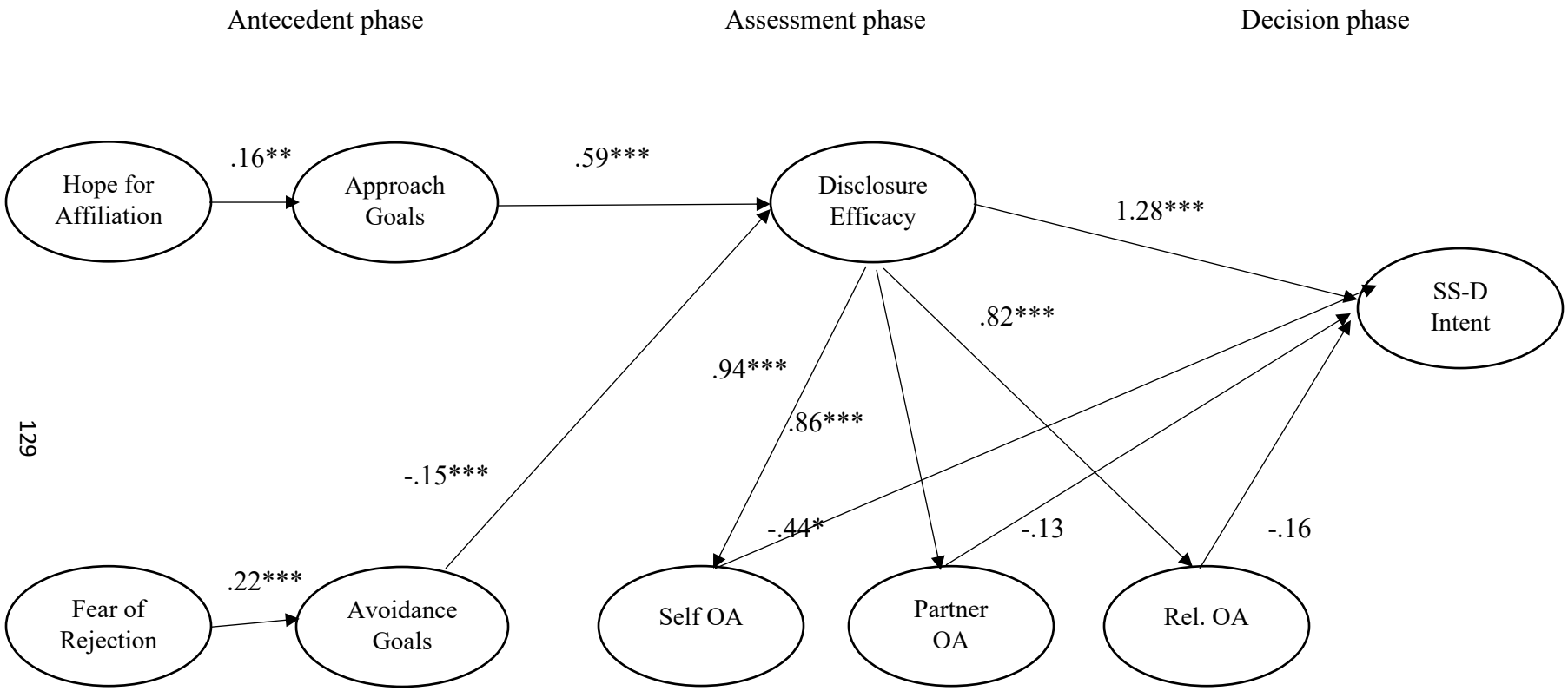
Hypothesized Sexual Self-Disclosure Decision Model (SS-DDM)



Note. OA = Outcome Assessment; Rel. = Relationship; SS-D = Sexual Self-Disclosure.

Figure 2

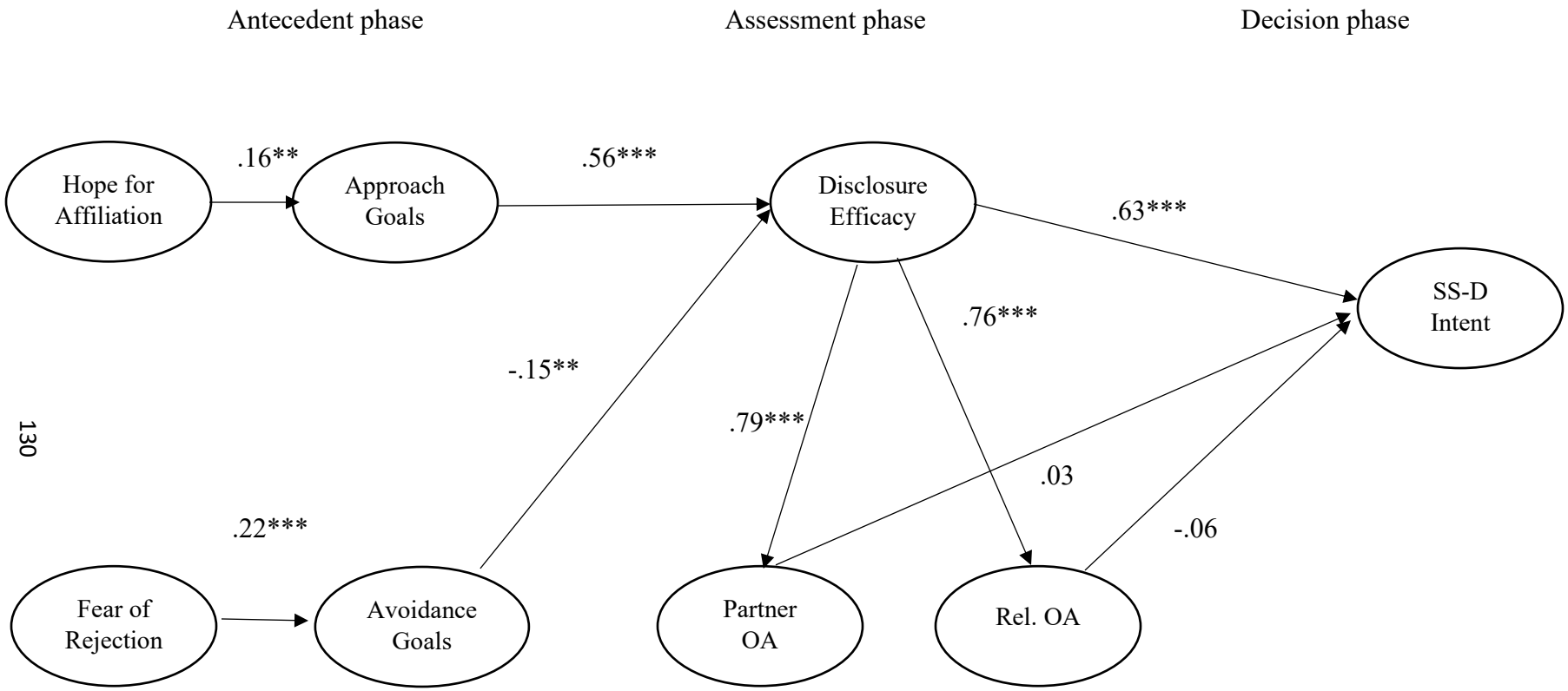
Results of the Hypothesized Sexual Self-Disclosure Decision Model (SS-DDM)



Note. χ^2 = 2672.60, *df* = 1158, $p < .001$; χ^2/df = 2.31; CFI = .919; RMSEA = .058; $\text{RMSEA}_{90\%\ \text{CI}}$ [.055, .061]; SRMR = .12; AIC = 2906.60; BIC = 2941.91; SS-D Intent R^2 = .429. All parameters are standardized estimates. **p* < .05. ***p* < .01. ****p* < .001. OA = Outcome Assessment; Rel. = Relationship; SS-D = Sexual Self-Disclosure.

Figure 3

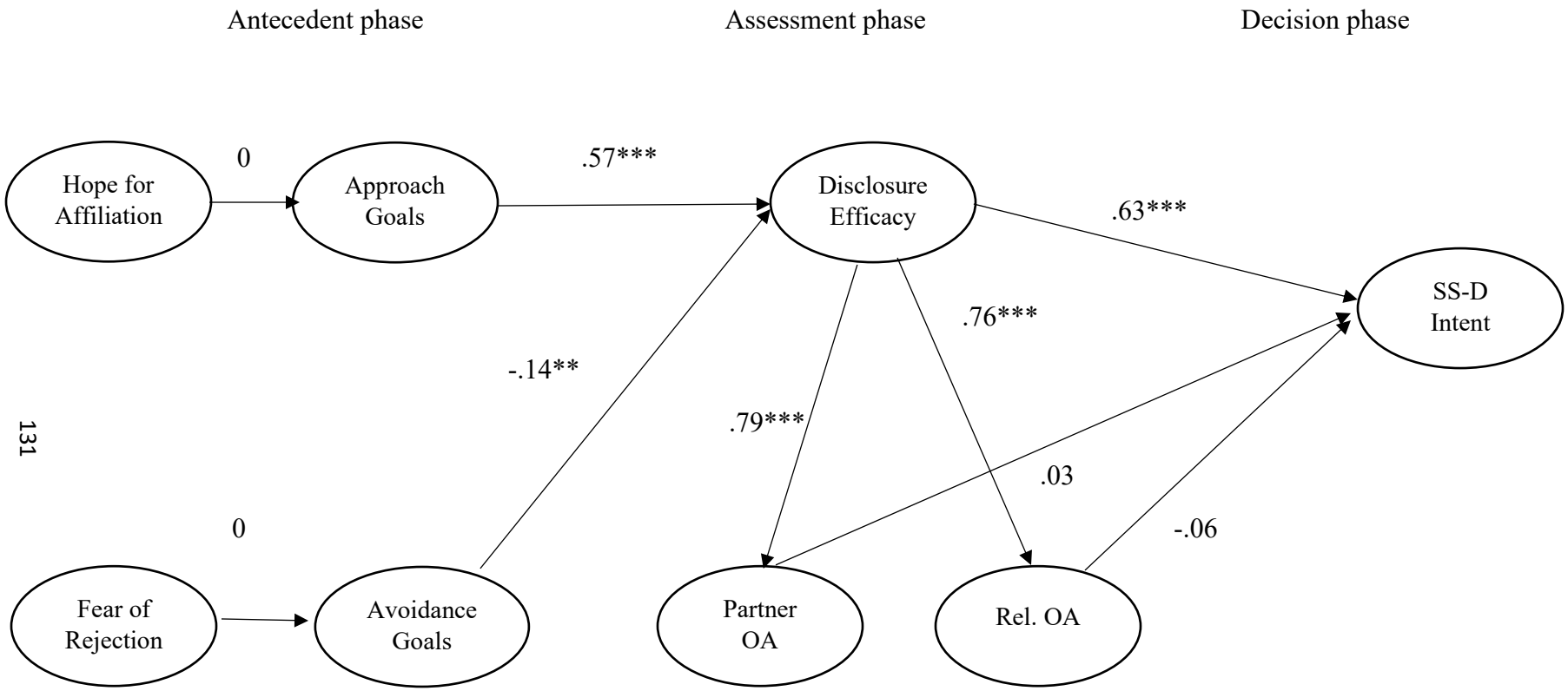
Results of the Hypothesized Sexual Self-Disclosure Decision Model (SS-DDM) Without Self Outcome Assessment



Note. χ^2 = 2255.29, *df* = 930, *p* < .001; χ^2 /*df* = 2.43; CFI = .918; RMSEA = .061; $RMSEA_{90\%\ CI}$ [.057, .064]; SRMR = .128; AIC = 2465.29; BIC = 2881.73; SS-D Intent R^2 = .37. All parameters are standardized estimates. **p* < .05. ***p* < .01. ****p* < .001. OA = Outcome Assessment; Rel. = Relationship; SS-D = Sexual Self-Disclosure.

Figure 4

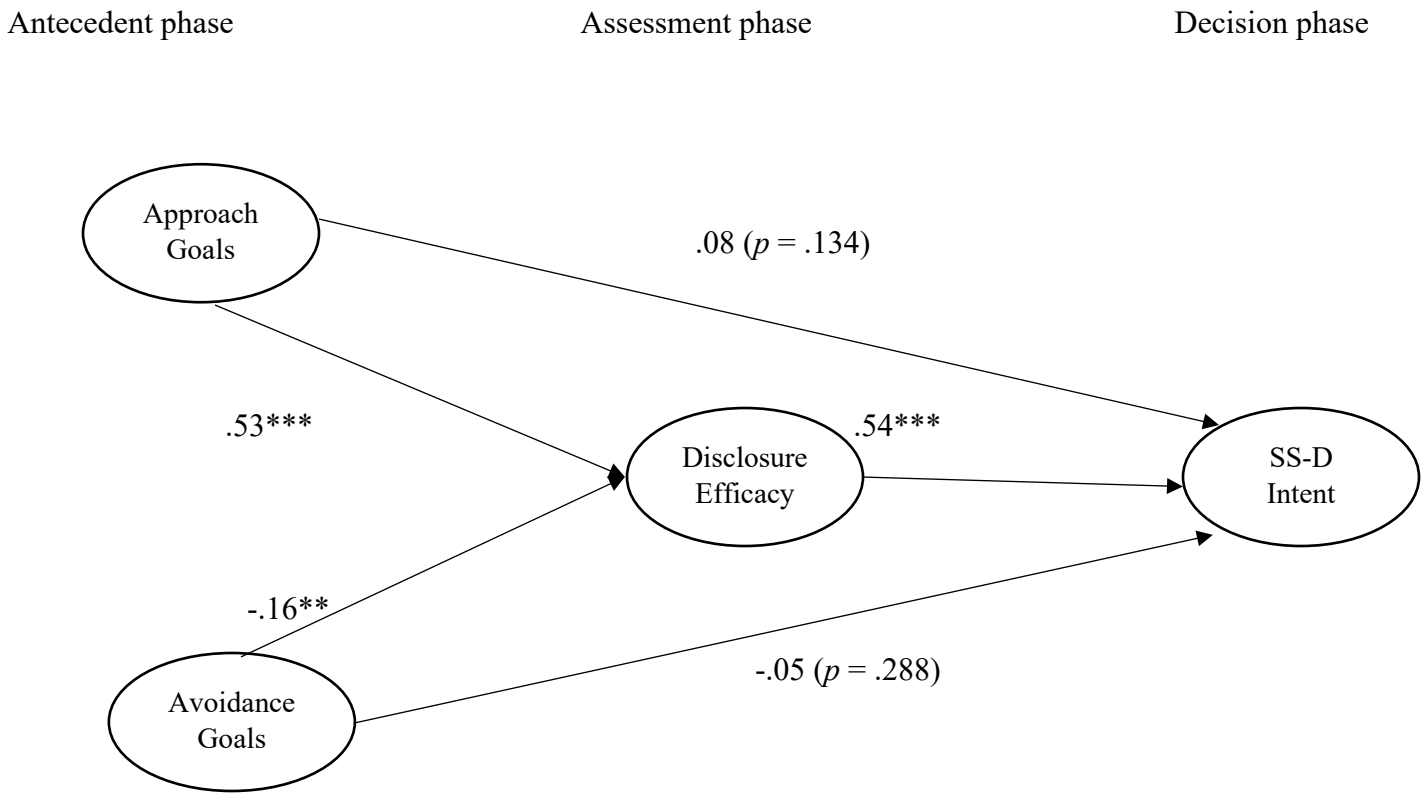
Results of the Motives do not Predict Goals Model



Note. χ^2 = 2275.62, *df* = 932, *p* < .001; χ^2 /*df* = 2.44; CFI = .917; RMSEA = .061; $RMSEA_{90\%\ CI}$ [.058, .064]; SRMR = .13; AIC = 2481.63; BIC = 2890.14; SS-D Intent R^2 = .37. All parameters are standardized estimates. **p* < .05. ***p* < .01. ****p* < .001.OA = Outcome Assessment; Rel. = Relationship; SS-D = Sexual Self-Disclosure.

Figure 5

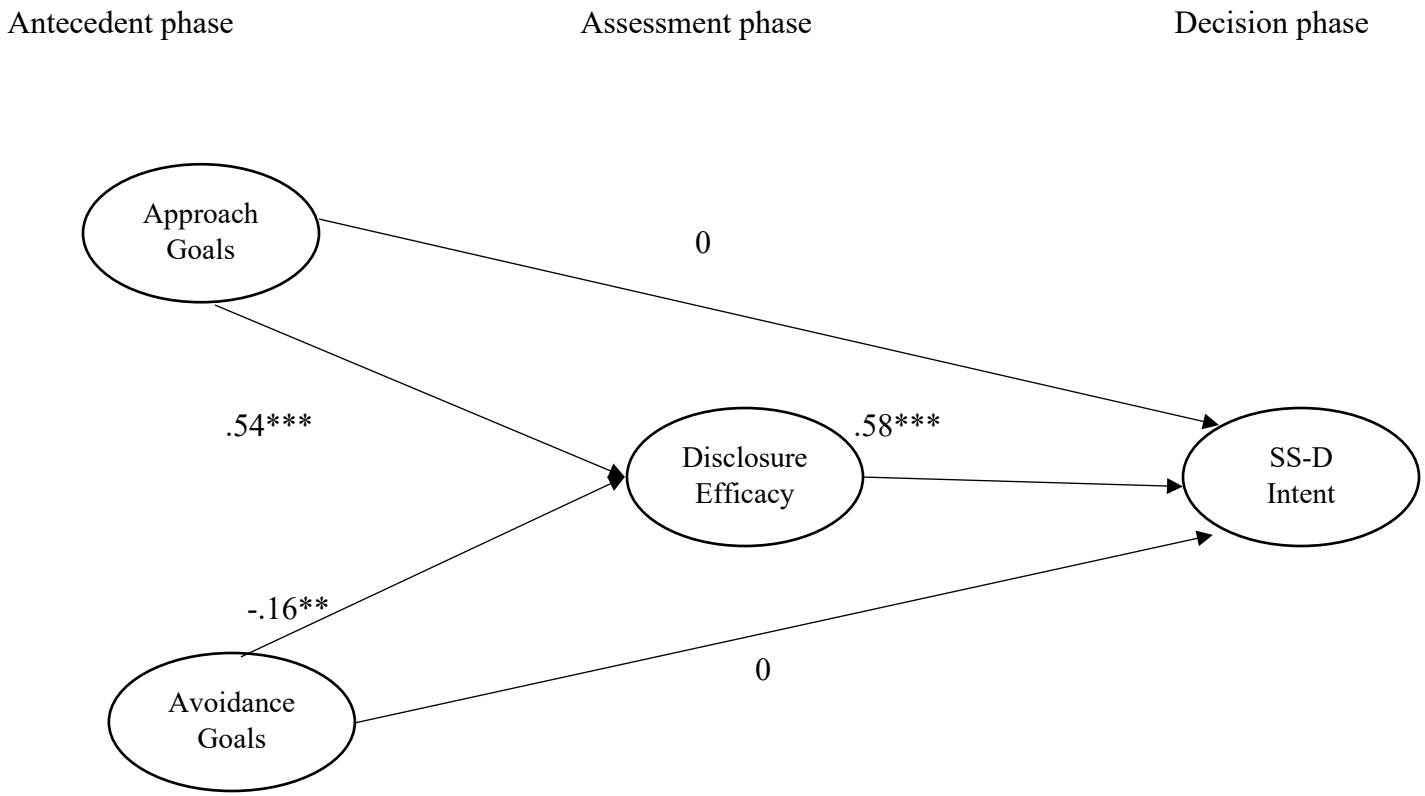
Results of the Disclosure Efficacy Partially Mediates Goals and SS-D Intent Model



Note. χ^2 = 711.85, *df* = 288, *p* < .001; χ^2 /*df* = 2.47; CFI = .958; RMSEA = .062; $RMSEA_{90\%\ CI}$ [.056, .067]; SRMR = .056.; AIC = 837.85; BIC = 1087.72; SSD Intent R^2 = .339. All parameters are standardized estimates. **p* < .05. ***p* < .01. ****p* < .001. OA = Outcome Assessment; Rel. = Relationship; SS-D = Sexual Self-Disclosure.

Figure 6

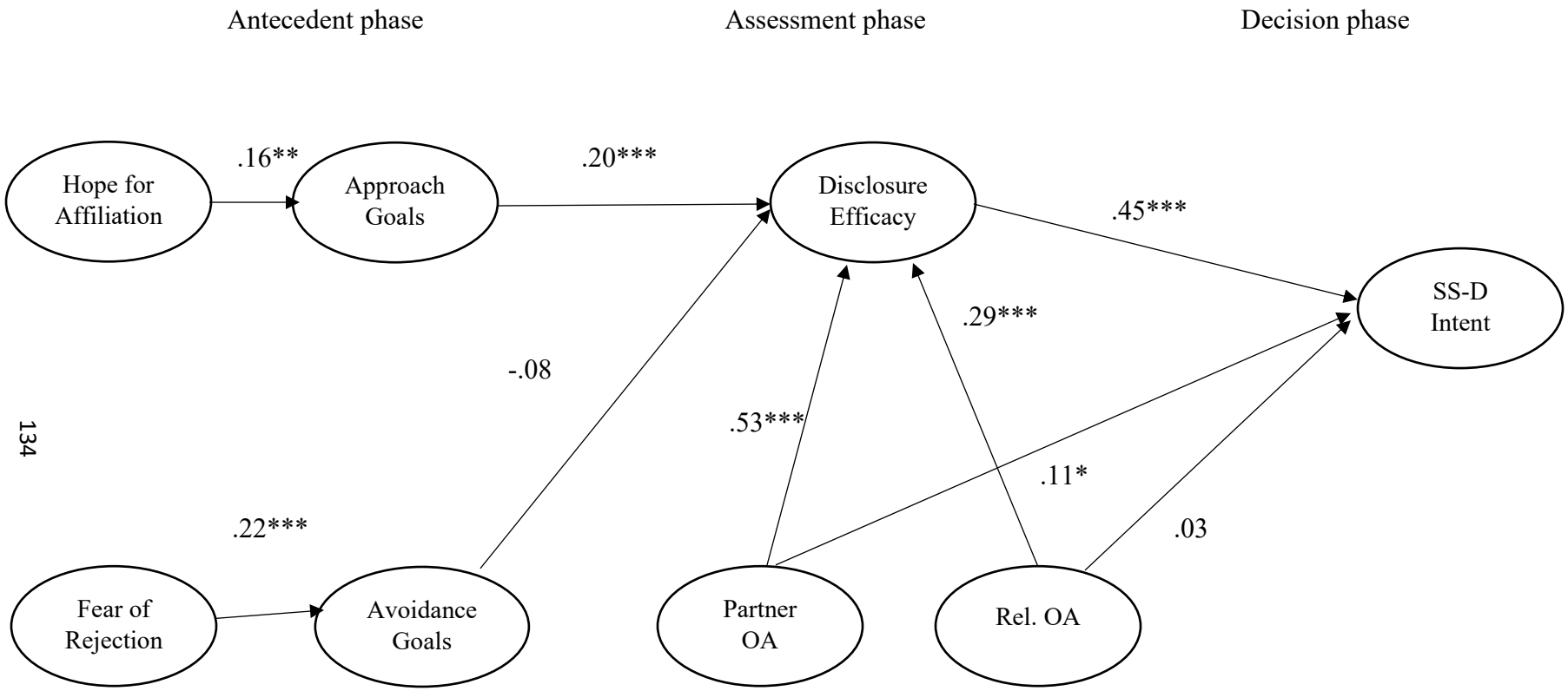
Results of the Disclosure Efficacy Fully Mediates Goals and SS-D Intent Model



Note. χ^2 = 714.08, *df* = 290, *p* < .001; χ^2 /*df* = 2.46; CFI = .958; RMSEA = .061; $RMSEA_{90\%\ CI}$ [.056, .067]; SRMR = .058; AIC = 836.08; BIC = 1078.01; SSD Intent R^2 = .341 All parameters are standardized estimates. **p* < .05. ***p* < .01. ****p* < .001. OA = Outcome Assessment; Rel. = Relationship; SS-D = Sexual Self-Disclosure.

Figure 7

Results of the Outcome Assessment Predicts Disclosure Efficacy Model



Note. χ^2 = 2544.40, *df* = 930, *p* < .001; χ^2 /*df* = 2.74; CFI = .901; RMSEA = .067; $RMSEA_{90\%\ CI}$ [.064, .07]; SRMR = .19; AIC = 2754.40; BIC = 2782.57; SSD Intent R^2 = .269. All parameters are standardized estimates. **p* < .05. ***p* < .01. ****p* < .001. OA = Outcome Assessment; Rel. = Relationship; SS-D = Sexual Self-Disclosure.

Appendix D:

Tables

Table 1.

Correlations, Means, and Standard Deviations for All Continuous Variables

Variable	*M* (*SD*)	1	2	3	4	5	6	7	8	9	10
1. Hope	3.74 (1.40)	.89	.18***	.19***	-.07 (.16)	-.05 (.28)	-.06 (.28)	-.06 (.25)	.02 (.67)	-.08 (.09)	-.10*
2. Fear	7.54 (6.02)		.67	-.34***	.15**	-.32***	-.30***	-.32***	-.27***	-.28***	-.23***
3. Approach	5.91 (1.12)			.94	-.38***	.44***	.51***	.45***	.49***	.31***	.28***
4. Avoid	4.80 (1.47)				.93	.08 (.12)	.07 (.16)	.07 (.17)	.11*	-.01 (.87)	.06 (.26)
5. Efficacy	5.39 (1.33)					.86	.75***	.64***	.62***	.53***	.53***
6. Self OA	5.60 (1.23)						.94	.79***	.73***	.52***	.50***
7. Partner OA	5.70 (1.26)							.95	.73***	.47***	.47***
8. Rel OA	5.31 (1.33)								.91	.44***	.41***
9. SS-D Intent	5.40 (1.45)									.97	.40***
10. Past SS-D	4.95 (1.54)										.96

Note. Cronbach's alpha appears on the diagonal. Zero order two tailed Pearson correlations appear above the diagonal. Non-significant *p* values appear in the parentheses. **p* < .05. ***p* < .01. ****p* < .001.OA = Outcome Assessment; SS-D = Sexual Self-Disclosure.

Table 2.

Summary and Comparison of Model-Fit Indices

Figure & Model	χ^2				RMSEA		SRMR	CFI	AIC	BIC	SS-D Intent R^2
	Value	*df*	*p*	χ^2/df	Value	90% CI					
SS-DDM	2672.60	1158	< .001	2.31	.058	[.055, .061]	.12	.919	2906.60	2941.91	.429
SS-DDM without Self OA	2255.29	930	< .001	2.43	.061	[.057, .064]	.128	.918	2465.29	2881.73	.37
Motives Do Not Predict Goals	2275.62	932	< .001	2.44	.061	[.058, .064]	.13	.917	2481.63	2890.14	.37
Efficacy Partially Mediates Goals & SS-D	711.85	288	< .001	2.47	.062	[.056, .067]	.056	.958	837.85	1087.72	.339
Efficacy Fully Mediates Goals & SS-D	714.08	290	< .001	2.46	.061	[.056, .067]	.058	.958	836.08	1078.01	.341
OA Predict Efficacy	2544.40	930	< .001	2.74	.067	[.064, .07]	.19	.901	2754.40	2782.57	.269

Note. RMSEA = Root Mean Square Error of Approximation; SRMR = Standardized Root Mean Square Residual; CFI = Comparative Fit Index; AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; SS-D = Sexual Self-Disclosure; CI = Confidence Interval; OA = Outcome Assessment.

CURRICULUM VITA

Riley Richards – June 2021

I. PROFESSIONAL TRAINING AND EXPERIENCE

Education

Ph.D., Communication Studies, August 2021
University of Wisconsin–Milwaukee, Milwaukee, WI
Dissertation Title: To Disclose or Not Disclose: The Proposition and Test of the Sexual Self-Disclosure Decision Model (SS-DDM)
Advisor: Erin Ruppel, Ph.D.

M.A., Communication Studies, May 2016
Western Michigan University, Kalamazoo, MI
Thesis Title: The Role of Sexual Self-Disclosure in Partner Relational Satisfaction and Uncertainty
Advisor: Autumn Edwards, Ph.D.

B.A., Interpersonal Communication, December 2013
Western Michigan University, Kalamazoo, MI
Capstone Project Title: Motives for Facebook use

A.A., Secondary Education, May 2011
Kalamazoo Valley Community College, Kalamazoo, MI

Part-Time Academic Positions

January - May 2021	**Adjunct Instructor**, Department of Communication Media and Theatre, **Northeastern Illinois University**
August 2020 – Present	**Adjunct Instructor**, Department of English & Speech **Alpena Community College**
August 2020 – Present	**Adjunct Instructor**, Department of Communication Studies **California State University – Long Beach**
August – December 2020	**Adjunct Instructor**, Department of Foreign Language & Communication **Lake Michigan College**
August – December 2020	**Teaching Specialist**, Department of Communication, Media, & Rhetoric **University of Minnesota - Morris**
August 2016 – May 2021	**Graduate Teaching Assistant**, Department of Communication **University of Wisconsin – Milwaukee**

August 2014 – May 2016 **Graduate Teaching Assistant**, School of Communication
Western Michigan University

Other Affiliations

2020 – Present Research Staff, Distance Education and Technological Advancements (DETA)

2016 – Present **Post-Graduate Fellow**, Communication & Social Robotics Laboratory, **Western Michigan University**

Relevant Employment

April – September 2015-2017 **Assistant Director**
4-H Camp Kidwell, Bloomingdale, MI

February – August 2014 **Online Marketing Manager for SEO & PPC**
TAW Global, LLC, Portage, MI

August – December 2013 **Peer Career Coach**
Western Michigan University, Kalamazoo, MI

October 2011 – September 2013 **Social Skills Instructor**
Family & Children Services, Kalamazoo, MI

II. SCHOLARLY ACTIVITY AND ACCOMPLISHMENTS

Refereed Journal Articles

Kahlow, J., Coker, M., & **Richards, R.** (2020). The multimodal nature of Snapchat in close relationships: Toward a social presence-based theoretical framework. *Computers in Human Behavior, 111*. doi: 10.1016/j.chb.2020.106409

Allen, M., Bourhis, J., Burrell, N., Benedict, B., Adebayo, T. O., Cherney, M.,… **Richards, R.** (2017). Evaluation of master's program on the basis of Google citations. *Journal of the Association for Communication Administration*, *36*(2), 51-69.

Richards, R., Coss, C., & Quinn, J. (2017, April). Exploration of relational factors and the likelihood of a sexual robotic experience. *Lecture Notes in Computer Science,* 97-103. doi: 10.1007/978-3-319-57738-8_9

Invited Book Chapters

Richards, R. (forthcoming). Love and sex and robots, oh my! A call for human-machine communication attention. In A. L. Guzman, R. McEwen, and S. Jones (Eds.), *The SAGE Handbook of Human-Machine Communication*. SAGE.

Richards, R. (2018). Research: From the ivory tower and beyond. In T. Rasmussen Lenox and M. Allen (Eds.), *Business and Professional Communication* (3rd ed.) (pp. 143-152). New York: Pearson Education.

Richards, R. (2017). Relationships in the workplace: The good & the bad. In M. Allen (Eds.), *Business and Professional Communication* (2nd ed.) (pp. 105-111). New York: Pearson Education.

Manuscripts Under Review

Sells, A., **Richards, R**., & Allen, M. (under review). Older Americans use of electronic communication: A reexamination of the digital divide issues. *Western Journal of Communication*.

Ruppel, E. K., Quinn, S. F., Cherney, M. R., & **Richards, R.** (revise & resubmit). Effects of mediated communication on relational conflict behavior, subjective physiological arousal, and affect. *Journal of Social and Personal Relationships*.

Adebayo, C. T., Allen, M., & **Richards, R.** (under review). Best practices for training international teaching assistants in the communication discipline. *Journal of Communication Pedagogy.*

Manuscripts in Preparation

Richards, R. (in final write up). The proposition of the sexual self-disclosure decision model (SS-DDM). To be submitted to *Communication Theory* by August 2021 after dissertation defense.

Richards, R. (in final write up). To disclose or not disclose: The initial test of the sexual self-disclosure decision model (SS-DDM). To be submitted to *Journal of Sex Research* by October 2021 after dissertation defense.

Richards, R. (in final write up). Tender loving affection: The dyadic role of multiple channel verbal affection in romantic relationships. To be submitted to the *Journal of Social and Personal Relationships* by July 2021 to the special issue on mediated communication on well-being.

Kim, S.Y., **Richards, R.,** & Cole, A.W. (in final write up). Can CDC say "you, stop drinking soda": Source illegitimacy and psychological reactance. To be submitted to *Communication Research* by September 2021.

Kim, S. Y., Allen, M., Cole, A. W., **Richards, R**., Ko, Y. (in final write up). Counter-attitudinal communication as a cause of psychological reactance: Evidence from the intertwined model of psychological reactance (IMPR). To be submitted to *Communication Research* by September 2021.

Allen, M., **Richards, R**., Kahlow, J., & Davis, B. (in final write up). Humor in persuasion: A meta-analysis. To be submitted to the *Journal of Communication* by December 2021.

Richards, R. & Baker, M. (in data analysis). To disclose or not disclose: A look into the disclosure of former partners to current partners. To be submitted to *Southern Communication Journal* by December 2021.

Conference Paper Presentations

Beattie, A., & **Richards, R.** (2021, November) *CMC, HMC, and confiding in Alexa: Transforming support*. To be presented at 107th annual National Communication Association, Seattle, WA.

Coker, M., & **Richards, R.** (2021, November). *Exploring the relationship between GPS-based hookup applications for men who have sex with men and endorsement of traditional masculine roles*. To be presented at the 107th annual National Communication Association, Seattle, WA.

Richards, R. (2020, November). *The role of multiple channel verbal affection in dyadic romantic relationships*. Presented at the 106th annual National Communication Association, Indianapolis, IN. (**Top Student Paper Human Communication & Technology division**)

Richards, R. (2020, November). *A look into partners' sexual preference communication: A sexual self-disclosure decision model (SS-DDM) perspective*. Presented at the 106th annual National Communication Association, Indianapolis, IN.

Richards, R. (2020, April). *The proposition of the sexual self-disclosure decision model (SS-DDM)*. Presented at the 87th annual Central State Communication Association, Rosemont, IL. **(Em Griffin Award, Top Paper Communication Theory Interest Group)** (Conference canceled due to COVID-19)

Adebayo, C. T., & **Richards, R.** (2020, April). *Pedagogy beyond the borders: Best practices for training international teaching assistants in the communication discipline*. Presented at the 87th annual Central State Communication Association, Rosemont, IL. **(Top Paper Panel Instructional Resource Interest Group)** (Conference canceled due to COVID-19)

Richards, R. (2020, April). *Tender loving affection: The dyadic role of multiple channel verbal affection in romantic relationships*. Presented at the 87th annual Central State Communication Association, Rosemont, IL. (Conference canceled due to COVID-19)

Richards, R., & Quinn, S. (2020, April). *How to scratch your social itch? Using channel affordances to understand interpersonal outcomes*. Presented at the 87th annual Central State Communication Association, Rosemont, IL. (Conference canceled due to COVID-19)

Richards, R., Kahlow, J., & Coker, M. (2019, November). *The interpersonal process model of intimacy: The importance of reciprocity and perceived partner response in romantic relationship sexting*. Presented at the 105th annual National Communication Association, Baltimore, MD.

Sells, A. R., Allen, M., & **Richards, R.** (2019, November). *Older Americans use of electronic communication: A reexamination of the digital divide issues*. Presented at the 105th annual National Communication Association, Baltimore, MD

Kahlow, J., Coker, M., & **Richards, R.** (2019, November). *Snapchat is multimodal: A daily diary examination of closeness in interpersonal relationships*. Presented at the 105th annual National Communication Association, Baltimore, MD.

Beattie, A. J., & **Richards, R.** (2019, November). *Whoa, bots!: Social representations of "Woebot" and supportive human-machine communication*. Presented at the 105th annual National Communication Association, Baltimore, MD.

Richards, R. & Beattie, A. J. (2019, May). *Alexa, why are you so dumb? Exploring empathy towards insulted virtual personal assistants versus humans*. Presented at the 69th annual convention of the International Communication Associations, Washington, D. C.

Richards, R. (2019, May). *One call away: Mediated affection in close relationships*. Presented at the 69th annual convention of the International Communication Association, Washington, D.C.

Richards, R. (2019, April). *Eggplant anyone? The theory of planned behavior applied to unrequested sexts*. Presented at the 86th annual Central States Communication Association, Omaha, NE.

Kim, S.Y., **Richards, R.,** Ko, Y., & Cole, A.W. (2018, November). *Can CDC say "you, stop drinking soda": Source illegitimacy and psychological reactance*. Presented at the 104th annual National Communication Association, Salt Lake City, UT.

Kim, S. Y., Allen, M., Cole, A. W., **Richards, R**., Ko, Y. (2018, November). *Counter-attitudinal communication as a cause of psychological reactance: Evidence from intertwined model of psychological reactance (IMPR).* Presented at the 104th annual National Communication Association, Salt Lake City, UT.

Richards, R. (2018, November). *Sexting as playful sexual communication: An investment model perspective*. Presented at the 104th annual National Communication Association, Salt Lake City, UT.

Ruppel, E. K., Quinn, S. F., Cherney, M. R., & **Richards, R.** (2018, July). *Effects of mediated communication on relational conflict behavior, subjective physiological arousal, and affect*. Presented at the International Association for Relationship Research, Fort Collins, CO.

Richards, R. (2018, July). *Sexting as affectionate communication in romantic relationships*. Presented at the International Association for Relationship Research, Fort Collins, CO.

Richards, R. & Beattie, A. J. (2018, May). *The role of social presence in human-robot interaction research: A meta-analysis*. Presented at the 68th annual International Communication Association, Prague, Czech Republic.

Beattie, A. J. & **Richards, R.** (2018, May). *Welcoming our robot confidants: Expectations of interactions with socially supportive robots*. Presented at the 68th annual International Communication Association, Prague, Czech Republic.

Richards, R., & Reyes, E. (2018, April). *The role of emotional intelligence in romantic partner satisfaction, depression, and demand withdraw*. Presented at the 85th annual convention of the Central States Communication Association, Milwaukee, WI. (**Top Paper Panel Graduate Student Caucus**)

Peck, B. S., & **Richards, R.** (2018, April). *Sexting through the ages: A critical review of sexting in romantic relationships research*. Presented at the 85th annual convention of the Central States Communication Association, Milwaukee, WI.

Richards, R., Coss, C., & Quinn, J. (2016, December). *Exploration of relational factors and the likelihood of a sexual robotic experience*. Presented at the 2nd annual International Congress of Love and Sex with Robots, London, UK.

Richards, R. (2016, April). *Baxter & Watzlawick: Interpersonal legends*, Presented at the 83rd annual convention of the Central States Communication Association, Grand Rapids, MI.

Mishne, E., **Richards, R.**, Stoll, B., & Davidson, J. (2016, April). *Examining the motives and styles of online flirting*, Presented at the 83rd annual convention of the Central States Communication Association, Grand Rapids, MI.

Mishne, E., **Richards, R.**, Stagner, C., & Attar, N. (2016, March). *Student motivation for attending college and the impact on academic success*, Presented at the annual convention of the Michigan Academy of Science, Arts, & Letters, Saginaw Valley, MI.

Richards, R. (2014, April). *Communication expression and management of romantic jealousy*. Presented at the 81st annual convention of the Central States Communication Association, Minneapolis, MN.

Conference Discussion Panels

Theories for technology-mediated communication, Graduate Student Caucus, presented at the 87th annual Central State Communication Association, Rosemont, IL. (Conference canceled due to COVID-19)

Online communication: Are we thriving, hiding, or simply surviving? Student Section, presented at the 105th annual National Communication Association, Baltimore, MD.

Learning via Theory: Sneaking Theory into Content Specific Courses, Communication Theory Interest Group, presented at the 86th annual convention of the Central States Communication Association, Omaha, NE.

Being Feminist Graduate Students during the #Metoo Movement, Women's Caucus, presented at the 86th annual convention of the Central States Communication Association, Omaha, NE.

Collaboration in Graduate School: A Crucial Dialogue, Graduate Student Caucus, presented at the 86th annual convention of the Central States Communication Association, Omaha, NE.

Communication Theories in the Technology-Mediated Virtual World, Communication Theory Interest Group, presented at the 86th annual convention of the Central States Communication Association, Omaha, NE.

What doesn't kill you makes you stronger? Discussing the mental health crisis among graduate students, Graduate Student Caucus, presented at the 86th annual convention of the Central States Communication Association, Omaha, NE.

Beyond Publications: Making a Difference beyond the Ivory Tower, Graduate Student Caucus, presented at the 85th annual convention of the Central States Communication Association, Milwaukee, WI. (**Top Panel**)

When the Experts Don't Agree: Navigating Differences in Faculty Advice, Graduate Student Caucus, presented at the 85th annual convention of the Central States Communication Association, Milwaukee, WI.

Typos, Tumbles, and Toilet Paper: Scholarly Mistakes that Can Bite You in the Class, Graduate Student Caucus, presented at the 85th annual convention of the Central States Communication Association, Milwaukee, WI.

Creating a Research Agenda as a Graduate Student, Graduate Student Caucus, presented at the 84th annual convention of the Central States Communication Association, Minneapolis, MN.

Creating Work/Life Balance: Fostering Flexibility, Determination, and Self-Empathy, Graduate Student Caucus, presented at the 84th annual convention of the Central States Communication Association, Minneapolis, MN. (**Top Panel)**

How to Not Fall Asleep During Class: A Guide to Creative, Nontraditional Teaching Techniques for the Basic Communication Course, Graduate Student Caucus, presented at the 84th annual convention of the Central States Communication Association, Minneapolis, MN.

Invited Talks

Richards, R. *Will human robots save or destroy our relationships?* Invited class lecture (Human Machine Communication), Western Michigan University, Dr. Autumn Edwards (2019, March).

Richards, R. *Dyadic data collection and analysis*. Invited class lecture (Communication Research Methods). Eureka College, Dr. Maura Cherney (2019, March).

Richards, R. *What's the 4-1-1 on Sex Communication?* Invited class lecture (Gender and Communication). Western Michigan University, Jasmine LaBine (2018, November).

Richards, R. *Press start to download my heart: A lovotics perspective*. Invited department presentation (School of Communication). Western Michigan University (2018, February).

Richards, R. *Lovotics: Love in a digital age*. Invited class presentation (Human Machine Communication). Western Michigan University, Dr. Autumn Edwards & Dr. Chad Edwards (2017, November).

Fellowships

2018 Graduate Student Excellence Fellowship, University of Wisconsin – Milwaukee, Graduate School ($1,500)

2016 Chancellor's Fellowship Award, University of Wisconsin – Milwaukee ($8,000)

Awards

2020 Top Student Paper, Human Communication & Technology Division, National Communication Association ($300)

2020 Em Griffin award (Top Paper), Communication Theory Interest Group, Central States Communication Association ($50)

2020 Top 5 Paper, Instructional Resources Interest Group, Central States Communication Association

2020 Renee A. Myers award (Top Graduate Student), University of Wisconsin – Milwaukee, Dept. of Communication ($2,000)

2019 Research Travel Award, University of Wisconsin – Milwaukee, Dept. of Communication ($500)

2019 30 Under 30, Pi Kappa Phi

2019 Melvin H Miller (Service) Award, University of Wisconsin – Milwaukee, Dept. of Communication ($100)

2018 Melvin H Miller (Service) Award, University of Wisconsin – Milwaukee, Dept. of Communication ($100)

2018 John Paul Jones (Research) Award, University of Wisconsin – Milwaukee, Dept. of Communication ($200)

2018 John Paul Jones (Research Travel) Award, University of Wisconsin – Milwaukee, Dept. of Communication ($300)

2018 Top 5 Paper, Graduate Student Caucus, Central States Communication Association

2018 Top Panel, Graduate Student Caucus, Central States Communication Association ($50)

2017 Graduate Travel Award, University of Wisconsin – Milwaukee, Graduate School ($250)

2017 Research Travel Award, University of Wisconsin – Milwaukee, Dept. of Communication ($200)
2017 Top Panel, Graduate Student Caucus, Central States Communication Association ($50)
2013 Order of Omega, Leadership Honor Society

III. TEACHING EXPERIENCE

F = Fall, S = Spring, M = Summer, W = Winterim

Northeastern Illinois University (2021)
Special Topics in Communication – Taboo Topics in Communication: S21 (online)

California State University – Long Beach (2020 – Present)
Communication Theory: F20, S21 (online hybrid and remote)

University of Minnesota – Morris (2020)
Public Speaking: F20 (online)

Alpena Community College (2020 – Present)
Speech Communication (interpersonal): F20, S21 (remote and online)

Lake Michigan College (2020)
Intro. to Public Speaking: F20 (online hybrid)

University of Wisconsin – Milwaukee (2016 – Present)
Communication in Human Conflict: S21 (Instructor of Record, online)
Human Communication and Technology: F18, S19, F19, S20 (Instructor of Record, online)
Quantitative Research in Communication: F17, S18, F18, S19 (Instructor of Record, face-to-face)
Business & Professional Communication (basic course): F16, S17, M17, F17, W18, S18, M18, M19, F20 (Instructor of Record, face-to-face and online)

Western Michigan University (2014-2016)
Intro to Public Relations: S16 (Teaching Assistant, face-to-face)
Communication Inquiry (research methods): F15, S16 (Teaching Assistant, face-to-face)
Global Media Literacy: F15 (Teaching Assistant, face-to-face)
Communication and Community Engagement (basic course): F14, S15 (Lab Instructor, face-to-face)

IV. PROFESSIONAL SERVICE

Service to the Discipline
Journal Editorial Board
2020 - Journal of Communication Pedagogy (Junior Editorial Board)
2019 - Journal of Future Robot Life
2019 - Transactions on Leading-edge Synergistic Robots

Ad Hoc Journal Reviewer
Journal of Social and Personal Relationships
Human-Machine Communication
Technology, Mind, and Behavior
Communication Studies
Cyberpsychology: Journal of Psychosocial Research on Cyberspace
International Journal of Psychology
Journal of Aging and Health

Conference Reviewer
2020 – Present Human-Machine Communication Interest Group, International Communication Association
2019 – Present Great Ideas For Teaching Students, National Communication Association
2018 – Present Mobile Communication Group, International Communication Association
2018 – Present Communication & Technology Division, International Communication Association
2017 – Present Human Communication and Technology Division, National Communication Association
2017 - 2018 International Congress on Love & Sex with Robots
2016 – Present Communication Theory Interest Group, Central States Communication Association
2016 - 2020 Student Section, National Communication Association
2016 - 2017 Sexual Orientation and Gender Identity Caucus, Central States Communication Association
2015 Basic Course Division, Central States Communication Association

Administrative Positions
2020 Chair, Instructional Resources Division, Central States Communication Association
2019 Vice Chair, Instructional Resources Division, Central States Communication Association
2018 Secretary, Instructional Resources Division, Central States Communication Association
2018 Chair, Graduate Student Caucus Division, Central States Communication Association
2017 Vice Chair, Graduate Student Caucus Division, Central States Communication Association
2016 Secretary, Graduate Student Caucus Division, Central States Communication Association
2016 Local Arrangements Chair Assistant, Central States Communication Association

Conference Panel Organizer/Chair/Respondent
2020 Respondent for *Borders and breakthroughs in small groups, mass media, leadership, and technology*. Paper panel presented at the 87th annual Central State Communication Association, Rosemont, IL. (Conference canceled due to COVID-19)
2020 Chair for *Breaking through the job market: How to survive searching for jobs in Academia*. Discussion panel presented at the 87th annual Central State Communication Association, Rosemont, IL. (Conference canceled due to COVID-19)
2020 Chair for *Instructional Resource Interest Group Top Paper Panel*. Top paper panel presented at the 87th annual Central State Communication Association, Rosemont, IL. (Conference canceled due to COVID-19)

2019 Respondent for *Health's (un)healthy disclosures*. Paper panel presented at the 105th annual National Communication Association, Baltimore, MD.
2019 Organizer & Chair for *Where Should I Work?* at the 86th annual convention of the Central States Communication Association, Omaha, NE.
2019 Respondent for *Graduate Student Caucus Top Paper Panel.* Top paper panel at the 86th annual convention of the Central States Communication Association, Omaha, NE.
2018 Respondent for *Making Sense of Communication: Relation(ships), Identity, and Conversations* at the 104th annual convention of the National Communication Association, Salt Lake City, UT.
2018 Organizer & Chair for *Beyond Publications: Making a Difference beyond the Ivory Tower* at the 85th annual convention of the Central States Communication Association, Milwaukee, WI. (**Top Panel**)
2018 Respondent for *Scars of Survival: A family Perspective on Difficult Times*. Paper panel presented at the 85th annual convention of the Central States Communication Association, Milwaukee, WI.
2017 Chair for *Sexting, Lying, and Creeping: Relational Interactions and Technology (Mis)use*. Paper panel presented at the National Communication Association, Dallas, TX.
2017 Chair & Respondent for the undergraduate honors research conference. Paper panel presented at the 84th annual convention of the Central States Communication Association, Minneapolis, MN.
2017 Judge for the undergraduate honors research poster session. Posters presented at the 84th annual convention of the Central States Communication Association, Minneapolis, MN.
2017 Respondent for *You Want My Thesis Revisions WHEN?! Creating a Dialogue between Media Faculty and Graduate Students*. Panel presented at the 84th annual convention of the Central State Communication Association, Minneapolis, MN.
2017 Respondent for *Paradigms and Pop Culture: Creating New Understandings of Our Modern World*. Paper panel presented at the 84th annual convention of the Central State Communication Association, Minneapolis, MN.
2017 Organizer & Chair for *Creating Work/Life Balance: Fostering Flexibility, Determination, and Self-Empathy*. Panel presented at the 84th annual convention of the Central States Communication Association, Minneapolis, MN. (**Top Panel**)
2017 Respondent for *Top Paper Panel* in the Graduate Student Caucus Division of the 84th annual convention of the Central States Communication, Minneapolis, MN.
2016 Chair & Respondent for *Emerging Graduate Student Scholarship*. Paper panel presented at the 83rd annual convention of the Central States Communication Association, Grand Rapids, MI.

College and Department Service

2019 Ph.D. Graduate Faculty Advisory Committee Representative, Communication Graduate Student Council, Dept. of Communication, University of Wisconsin - Milwaukee
2018 - 2019 President, Communication Graduate Student Council, Dept. of Communication, University of Wisconsin – Milwaukee
2017 - 2020 Mentor to incoming PhD students: Danielle DeRose (2019), Bridgett Brzezinski (2018), Jess Kahlow (2017)

2017 - 2018	Treasurer, Communication Graduate Student Council, Dept. of Communication, University of Wisconsin – Milwaukee
2017 - 2019	Judge, Undergraduate Speaking Showcase, Dept. of Communication, University of Wisconsin – Milwaukee
2017	Ph.D. Faculty Advisory Committee Representative**,** Communication Graduate Student Council, Dept. of Communication, University of Wisconsin – Milwaukee
2016 – 2017	Undergraduate Committee Representative, Communication Graduate Student Council, Dept. of Communication, University of Wisconsin – Milwaukee
2015 – 2016	Public Relations Officer, Graduate Communication Organization, Western Michigan University

University Service

2018, April	Judge, Undergraduate Research Symposium, University of Wisconsin - Milwaukee
2017, September	Facilitator, Common Reading Experience, University of Wisconsin – Milwaukee
2014, December	Member, Fall Welcome Coordinator Interview Committee, Western Michigan University

Extracurricular University Service

2019 -	Academic Advisor, Pi Kappa Phi, George Washington University
2014 - 2019	Housing Advisor, Pi Kappa Phi, Western Michigan University

Community Service

2018, Fall	Wikipedia Fellows Program
2017, March	Career coach guide, My life My plan, Milwaukee Talent Dividend

V. PROFESSIONAL MEMBERSHIPS/AFFILIATIONS

2018 – Present	International Association of Relationship Research
2017 – Present	International Communication Association
2016 – 2020	International Congress of Love & Sex with Robots
2014 – Present	National Communication Association
2013 – Present	Central States Communication Association