

Sexual Communication:
An Exploration of How Couples Communicate and Consent to Sexual Behaviors

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Dedication

To my wife Angie, and to those everywhere who have been affected by sexual violence.

Abstract

Communication is an important aspect of sexual relationships. As relationships change over the course of the lifespan, life events (e.g., birth of a child) and sexual problems (e.g., low sexual desire; erectile dysfunction) affect couple sexuality. Moreover, sexual miscommunication between couples can lead to unhealthy, frustrating and unsatisfying exchanges between partners and in some cases is one potential pathway to sexual assault. Examining how couples communicate and negotiate sexual behaviors may contribute to more effective sex therapy interventions and even sexual assault prevention strategies. The present research examines how couples communicate about sex and aims to understand the cues couples use to signal consent when engaging in sexual intercourse. In order to investigate sexual communication, I first conducted a critical review of the existing empirical literature on how couples communicate and negotiate sexual behaviors. Through this review I found that sex researchers have investigated how anxiety, types of sexual language, and sexual attitudes affect sexual communication. A major finding is that sexual self-disclosure (i.e., sharing one's sexual likes and dislikes with their partner) is highly important for relationship and sexual satisfaction. However, few statements can be made to describe the specific communication patterns that couples use to discuss sexual topics. Based on the review I suggest that this finding may be attributed to the limitations of sexual script theory (one commonly used theory with which to view sexual communication) and the research's historical emphasis on individual, rather than couple-oriented interventions for sexual problems.

To identify how individuals use and interpret cues to engage in sexual intercourse, I conducted a cross-sectional study. Using Amazon Mechanical Turk, I surveyed

individuals on how they indicate and interpret verbal and nonverbal cues to engage in sexual consent. Given that individuals in relationships may be more effective at signaling and reading their partner's sexual cues, analysis of variance and regression equations were used to investigate how relationship length, sexual self-disclosure, and the interaction of the two affected their verbal and nonverbal communication patterns. The models suggest that gender, and not relationship satisfaction affect how individuals communicate consent. Surprisingly, statements about intoxication were also forms of communication that males and females used to signal consent to their partners. Currently, efforts to prevent sexual miscommunication have centered on affirmative sexual consent policies and dating education programs for children in middle school. The results of this study suggest that psychoeducation programs developed to prevent sexual communication should include information about how alcohol is used to signal consent and take into account gender differences that exist for how individuals signal and interpret communication cues.

Implications of these two studies highlight the importance for understanding how couples communicate about sexual behaviors. Identifying specific combinations of verbal and nonverbal cues will address the limitations of sexual script theory and may classify patterns of sexual communication that reduce the chance of sexual assault. Future studies may benefit from diary study designs or the infusion of technology, such as virtual reality, in research designs to answer these questions.

Table of Contents

List of Tables.....	x
Introduction.....	1
Miscommunication as a Possible Connection to Sexual Violence	1
Objectives.....	2
Synopsis 1	3
Healthy Sexuality	4
Interventions to Address Sexual Problems.....	5
Theory	7
Method	8
Study Research Design	8
Study hypotheses and research questions.....	9
Sampling.....	10
Lack of same sex couples	11
Measures	12
Relationship Satisfaction Measures	12
Sexual Communication Measures	14
Discussion of Validity and Reliability of Measures	17
Face validity	18
Content validity	18
Construct validity	18
Lack of measures on sexual negotiation.	18
Internal Validity	19
Analyses	20
Quantitative	20
Results	22
Sexual Self-Disclosure	22
Sexual Transformations	24
Sexual Language	24
Sexual Communication and Relationship Satisfaction	25
Social Anxiety and Sexual Communication	26
Sexual Negotiation	26

Discussion	27
Clinical Implications	27
Limitations and Future Directions for Research and Practice.....	28
Conclusion	29
Synopsis 2	31
Sexual Assaults and Relationships	32
Sexual Script Theory	33
How Consent Is Signaled	33
Consent and Alcohol	35
Couples and Sexual Self-Disclosure	36
Preventing Miscommunication	37
Method	39
Participants	39
Materials and Procedure	40
Demographics	40
Signaling and interpreting consent.....	41
Communicating sexual consent.....	41
Interpreting sexual consent signals	42
Sexual self-disclosure	42
Relationship satisfaction	43
Data Analysis	43
Gender and relationship etatus	44
Relationship Satisfaction and Sexual Self-Disclosure	44
Indicating Consent	44
Gender	45
Relationship length	45
Relationship satisfaction and sexual self-disclosure	45
Interpreting Consent	46
Gender	46
Relationship length	46
Relationship satisfaction and sexual self-disclosure	46
Satisfaction with verbal and nonverbal communication	46

Discussion	47
Communicating Sexual Consent	47
Gender and Relationship Length	47
Interpreting Signals	49
Consent and intoxication	50
Satisfaction with Verbal and Nonverbal Communication	51
Limitations	51
Implications for Clinicians and Sexual Assault Prevention	52
Clinical Implications	52
Prevention Implications	53
Future Research	54
Conclusion	57
Summary Conclusion	58
Summary of Findings	58
Clinical and Prevention Implications	59
Prevention Implications	59
Conclusion	59
Bibliography	61
Appendix A. Consent Form	77
Appendix B. Study Descriptors	80
Appendix C. Measures	81

List of Tables

“b” refers to tables in Article 2

Table 1b. Analysis of Variance for Signals Used to Indicate Sexual Consent 88

Table 2b. Regression Analysis Summary for Relationship Satisfaction and Sexual Self-Disclosure Predicting Female Statements About Intoxication 89

Table 3b. Analysis of Variance for Signals Interpreted as Sexual Consent..... 90

Table 4b. Regression Analysis Summary for Satisfaction with Partner’s Nonverbal Communication 91

Introduction

The way couples communicate about sexual behaviors is important for the health of their intimate relationships. Specifically, problems with communicating about sex can often lead to sexual and relationship dissatisfaction (Byers, 2011). Researchers have found that sexual satisfaction is important to relationship satisfaction (Mackey, Diemer, & O'Brian, 2000; 2004). Communication in general has also been found to be positively associated with relationship satisfaction. Couples that are able to communicate about sexual behaviors are also more likely to report relationship satisfaction (Mackey, Diemer, & O'Brian). Common couples therapy interventions often emphasize increasing open communication and sharing sexual likes and dislikes with their partner (McCarthy & McCarthy, 2009; Schnarch, 1991). Although these interventions appear to address sexual communication problems by encouraging couples to increase their level of sexual self-disclosure, the specific verbal and nonverbal cues used to communicate their sexual wants and needs have not been identified. Identifying the specific patterns of communication used by couples would increase the effectiveness of couple therapy interventions.

Miscommunication as a Possible Connection to Sexual Violence

Sexual violence continues to be a widespread sexual health problem (Black et al., 2012). Untreated “risk factors” among those who perpetrate sexual violence include deviant sexual arousal and untreated mental health or drug abuse problems (Association for the Treatment of Sexual Abuse, 2011). However, miscommunication between partners can also be one way that sexual assault can occur. Recent media cases have highlighted the miscommunication that can occur between dating partners (Sanchez,

2017 June; Stahl, 2016, November 6). Current sexual assault prevention programs have been primarily designed for a middle-school aged audience (Foshee, et al., 1996; Foshee, Bauman, Ennett, Linder, Benefield, T., & Suchindran, 2004; Taylor, Stein, & Mumford, 2011). These programs may not be targeting the population where most sexual violence is occurring. Exploring how adult men and women consent to sex may provide more effective sexual assault prevention strategies.

Objectives

The overall objective of this research project is to add to the current understanding of sexual communication by critiquing the current state of the literature and exploring the cues individuals in relationships use to signal consent. The first study will review empirical articles published in the past 15 years. The articles will be critiqued on their use of theory, design, and analyses. A final section will include recommendations to further study sexual communication. The second study will use a cross-sectional design to explore how men and women signal and interpret cues for sexual consent. Of particular interest is how relationship status affects the cues that are used by individuals to signal consent with others. Both of these studies will add to our understanding of how couples communicate their sexual behaviors and intentions to each other. Additionally, these studies will provide insight into the current gaps in the literature identified above and may inform future interventions to help couples improve their sexual communication and reduce the potential for sexual assault.

Synopsis 1

Introduction: During the life-course development of relationships, events like childbirth, physical ailments (e.g., diabetes), and sexual problems affect couple sexual satisfaction. Contemporary sex therapy interventions emphasize increasing communication between partners to resolve sexual dysfunction. However, many of these interventions have not been empirically tested. In order to improve sexual communication between couples, the phenomenon of how couples communicate and negotiate sexual behaviors needs to be explored. This manuscript reviews and critiques, empirical research on how couples communicate and negotiate sexual behaviors.

Method: Quantitative, qualitative, and mixed-method designs were included for but case studies and theoretical papers were excluded from analysis. Only articles published between 2002 and 2017 were considered for inclusion. A 15-year period was chosen to reflect the most recent developments in the area of sexual communication. A total of 12 articles met inclusion criteria for review.

Results: The current literature on how couples negotiate and discuss sexual behaviors emphasize the importance of disclosing sexual likes and dislikes with partners. Other researchers have identified how anxiety, forms of sexual language, and how sexual attitudes affect sexual communication. Few statements can be made about the specific verbal and nonverbal behaviors that couples use when discussing sex with each other.

Discussion: The majority of the studies included for review utilize sexual script theory as a guiding theory. Although this theory is useful for conceptualizing sexual behaviors, it may be too broad to identify specific combinations of behaviors used to discuss sex. Additionally, the historical focus on individual treatments of sexual problems may also explain why researchers focused on how individuals communicated sexual topics rather than how couples are able to.

Keywords: *communication; couples; sexuality; sexual self-disclosure*

Sexual behaviors and preferences change over time. As individuals age, sexual dysfunction related to a medical condition (i.e., erectile dysfunction, low sexual desire) or changes in the relationship (i.e., child birth, conflict) may alter the sexual desire and sexual behaviors of couples. Currently, little research has been directed at how couples adapt and negotiate their sexual behaviors in response to these life events. The purpose of this study is to review research that has examined how couples negotiate and communicate about sexual behaviors within their relationship. Empirically based articles that have been reviewed for this manuscript (published in the last 17 years) describe how couples communicate with each other about sex.

Healthy Sexuality

Healthy sexuality is an important part of the human condition as sexual satisfaction is associated with psychological health (Dosch, Rochat, Ghisletta, Favez, & Van der Linden, 2016) and relationship satisfaction (Byers, 2005). A positive or negative change in sexual satisfaction is associated with a corresponding positive or negative change in relationship satisfaction and thus an essential characteristic for relationship well-being (Byers, 2005). Broadly, researchers have found that couples who are able to communicate positively about conflict and about physical affection report greater levels of relationship satisfaction over the course of their relationships (Mackey, Diemer, & O'Brian, 2000; 2004). However, little is known about the specific communication patterns couples use to maintain high intimacy levels.

During the course of a relationship, individuals may experience sexual problems such as erectile dysfunction in men or painful orgasms in women. When these conditions occur, medical or pharmacological interventions (e.g., Viagra) and individual therapy are

often prescribed (Rosen, Miner, & Wincze, 2014; Graham, 2014). Other conditions that impact a couple's satisfaction level that may not be physical in nature might include sexual incompatibility or the extent to which one's partner has similar sexual likes and dislikes (Offman & Matheson, 2005). Due to the dynamic nature of human life-course development, the frequency and quality of sexual behaviors is subject to change. For instance, aging, illnesses, and habituation to certain sexual behaviors are variables that researchers have identified that decrease sexual frequency and sexual satisfaction in married couples over time (Schwartz, Diefendorf, & McGlynn-Wright, 2014).

Interventions to Address Sexual Problems

The roots of early treatments of sexual problems can be traced to psychoanalytic theory as it was hypothesized that sexual problems resulted from unidentified childhood experiences (e.g., trauma), and required long-term individual treatment (Wiederman, 1998). The landmark work, *Human Sexual Inadequacy*, by Masters and Johnson (1970), can be seen as the establishment of sex therapy as an intervention for sexual dysfunction (Binik & Meana, 2009).

Since Masters and Johnson's 1970 book, other theories about couple intimacy have been published and are intended for therapists and couples. Schnarch (1991) and McCarthy and McCarthy (2009) also provide therapists interventions to help couples communicate about sexuality. Both Schnarch and McCarthy and McCarthy appear to meet face validity concerns, as assisting couples with identifying and expressing likes and dislikes and improving problem solving skills are associated with increasing relational intimacy (Laurenceau, Barrett, & Rovine, 2005; Egeci & Gençöz, 2006). However, these models proposed by Schnarch and McCarthy and McCarthy have not

been empirically tested nor describe a specific, pattern of verbal and nonverbal behavior that couples should use when communicating about sex.

In order to expand on Schnarch's (1991) and McCarthy and McCarthy's (2009) work for couples, more effective therapeutic interventions such as self-help books and sexual specific couples therapy models are needed. This manuscript will critique the current literature on how couples negotiate sexual behaviors and make recommendations for future studies. Empirical articles included in this review are those that have been published in the past 15 years and have focused on how couples communicate and negotiate sexual activity. Communication about safer sex practices (e.g., using a condom, using birth control) should be considered separately, as these discussions focus on a specific aspect of sexual health, rather than sexual behaviors in general and were thus, excluded from analysis.

Academic Search Premier, PsychInfo, and Google Scholar were utilized to identify articles for review. The search terms of "couples," "communication," "sexuality," and "self-disclosure," yielded over 4,000 results. By combining "couples" and "sexuality" and using "or" statements for "communication" and "self-disclosure," results were reduced to 250 articles. Quantitative, qualitative, and mixed-method designs were included for analysis. However, case studies and theoretical papers were excluded. Only articles published between 2002 and 2017 were considered for inclusion. This 15-year period was chosen to reflect the most recent developments in the area of sexual communication. Final results of this search yielded 12 articles that were examined for their use of theory, study design, instrumentation, unit of observation, and analyses. This

manuscript will conclude with a discussion of the clinical implications, limitations, and recommendations for future research.

Theory

Theory is crucial in explaining and predicting phenomena in research (Sztompka, 1974). Sexual script theory was the most frequently cited guiding theory used by authors in this review (MacNeil & Byers, 2009; Greene & Faulkner, 2009; Fallis, 2014; Litzinger & Gordon, 2009). Developed by Gagnon and Simon (1973), sexual script theory is similar to symbolic interactionism, which focuses on the symbols (shared meanings) and interactions (verbal and nonverbal communication) individuals have with their world (LaRossa & Reitzes, 1993). These symbols and interactions are co-constructed, as they develop through human interaction. Co-constructed messages and experiences about sexuality become a part of an individual's sexual scripts or, set of sexual behaviors that they use with others (Gagnon & Simon).

The strength of sexual script theory is the use of metaphor to conceptualize how individuals create and alter sexual behaviors (Wiederman, 2015). However, the broad nature of this theory makes it difficult for researchers to test sexual script theory's theoretical assumptions. For example, researchers who have attempted to explain how cultures adopt certain sexual scripts and not others have found it difficult identifying variables to measure this phenomenon (Wiederman, 2015). Additionally, sexual script theory has been primarily applied to Western samples of heterosexual, cisgender individuals and may not be appropriate for same sex or transgender individuals.

The Interpersonal Exchange Model of Sexual Satisfaction (IEMS) was also cited (Byers & MacNeil, 2006; Lawrance & Byers, 1995). Influenced by social exchange

theory, this theory posits that partners exchange sexual rewards and costs when they engage in sexual activity (Sabatelli & Shehan, 1993). MacNeil and Byers (2009) utilized this theory to identify two distinct sexual scripts, or pathways, that couples used to negotiate sexual behaviors.

The 12 articles reviewed included a variety of additional theories to explain couple intimacy. Burke and Young (2012) used Kelley's (1979) interdependence theory whereas Theiss (2011) applied relational uncertainty theory in her study of sexual communication and sexual intimacy. Montesi, Conner, Gordon, Fauber, Kim, and Heimberg (2013) cited both Reis and Shaver's 1999 model of emotional intimacy and Fish, Fish, and Sprenkle's (1984) theory on sexual intimacy. Hess and Coffelt (2012) used Dillard's (2008) goals-plans-action theory to investigate a couple's decision making process when having sex.

Four of the 12 articles included in this review were atheoretical and did not provide any theoretical base to explain sexual behavior or intimacy, or discuss the study's findings (Oattes & Offman, 2007; Rehman, Rellini, & Fallis, 2011; Yoo, Bartle-Haring, Day, & Gangamma, 2014; Mark & Jozkowski, 2013). When research is based on a specific theoretical foundation, the researchers have a greater ability to frame the results of their study, control for or explain measurement errors, and limit potential confounds to external validity (Bulcroft & White, 1997).

Method

Study Research Design

All 12 of the studies included in this review employed a cross-sectional design as the data were collected at one point in time during a participant's life. For three of the

studies, researchers administered on-line surveys (Burke and Young, 2012; MacNeil & Byers, 2009; Mark & Jozkowski, 2013) whereas five of the studies used data from paper and pencil surveys (Greene & Falkner, 2009; Hess & Coffelt, 2012; Oatts & Offman, 2007; Yoo, Bartle-Haring, Day, & Gangamma, 2014; Litzinger & Gordon, 2009). Four studies did not include survey methods at all (Rehman, Rellini, & Fallis, 2011; Theiss, 2011; Montesi, Conner, Gordon, Fauber, Kim, & Heimberg, 2013; Fallis, Rehman, & Purdon, 2014).

Study hypotheses and research questions. Six of the 12 articles tested hypotheses or included research questions in their methods sections. The following are descriptions of these. Four research groups tested hypotheses related to how communication about sexual behaviors impacts sexual and relationship satisfaction (Litzinger & Gordon, 2009; Fallis, Rehman, & Purdon, 2014; Greene & Falkner, 2009; Rehman, Rellini, & Fallis, 2011). Theiss (2011) tested hypotheses on how the association between sexual communication and relationship uncertainty (anxiety about the state of the relationship) impacted sexual and marital satisfaction. Hess and Coffelt (2012), on the other hand, asked research questions and tested hypotheses about the specific language couples use to talk about sex. Oatts and Offman (2007) hypothesized about how self-esteem impacted the ability of individuals to communicate with their partners about sex and how this affects relationship quality. Burke and Young (2012) hypothesized that couples who made more sexual transformations (e.g., changes in sexual behavior) would report higher levels of relationship quality. Three author groups tested exploratory models to explain the association between communication and sexual satisfaction and therefore, did not offer hypotheses on the direction of this relationship

(Mark & Jozkowski, 2013; MacNeil & Byers, 2009; Montesi, Conner, Gordon, Fauber, Kim, & Heimberg, 2013).

The hypotheses described above are descriptive and exploratory in nature. None of the researchers included questions about causation. The absence of hypotheses related to causation is appropriate given the cross-sectional designs of the studies that were included in this review.

Sampling

Authors for three of the studies used secondary datasets for their analysis. Yoo, Bartle-Haring, Day, and Gangamma (2014) used data from the first wave of the Flourishing Families Project (Day & Padilla-Walker, 2009) whereas Rehman, Rellini, and Fallis, (2011) and Fallis, Rehman, and Purdon (2014) did not cite the original sample they used for their secondary data analyses. The absence of a description of a dataset harms the external validity of the study as this lack of detail leaves the reader with questions about the overall objective of the original study and therefore the appropriateness of the data source for the current study.

Of the 12 studies reviewed, 10 research groups chose couples as their unit of analysis (Burke & Young, 2012; MacNeil & Byers, 2009; Greene & Falkner, 2005; Rehman, Rellini, & Fallis, 2011; Theiss, 2011; Yoo, Bartle-Haring, Day, & Gangamma, 2014; Litzinger & Gordon, 2009; Montesi, Conner, Gordon, Fauber, Kim, & Heimberg, 2013; Mark & Jozkowski, 2013). The number of couples among the samples ranged from 96 to 698 couples. Oattes and Offman (2007) and Hess and Coffelt (2012) only collected information from individuals; the number of individuals ranged from 123 and 293, respectively.

Two authors recruited participants from Canada (MacNeil & Byers, 2009; Rehman, Rellini, & Fallis, 2011) whereas the other research groups recruited their participants from the United States. The majority of authors recruited participants from universities or communities that have universities (Burke & Young, 2012; MacNeil & Beyers, 2009; Greene & Falkner, 2005; Hess & Coffelt, 2012; Litzinger & Gordon, 2005; Mark & Jozkowski, 2013; Theiss, 2011; Montesi, Conner, Gordon, Fauber, Kim, & Heimberg, 2013). Fallis, Rehman, and Purdon (2014) were the only researchers who did not describe the sources of their participants. Given that most of the researchers recruited participants from university settings in North America, threats to external validity exist. Specifically, the homogeneity of the population may make it difficult to generalize research findings to other populations. Additionally, few statements can be made about how individuals or couples in established relationships negotiate sexual behaviors with their partners as only one research group was able to gather information on sexual behaviors and communication from couples that had been in an average marriage length of 18 years (Yoo, Bartle-Haring, Day, & Gangamma, 2014).

The overreliance on convenience sampling and using participants from universities in North America was addressed by 11 of the 12 of the author groups as a possible threat to external validity. Theiss (2011) was the only researcher that did not specifically address convenience sampling as a threat in the Limitations section of her study.

Lack of same-sex couples. Unfortunately, none of the authors included same sex couples in their studies on how couples negotiate sexual behavior within the relationship. Literature that describes how gay individuals negotiate sexual behaviors with others has

focused on how gay men communicate about safe-sex practices (Eisenberg, Bauermeister, Pingel, Johns, & Santana, 2011; Semple, Patterson, & Grant, 2000) and how gay men communicate about sex after prostate cancer (Rose, Ussher, & Perez, 2017). Although communication about safer sex practices and sex after cancer are important topics, the current literature does not describe the general, every-day, sexual negotiations of same-sex couples. Given the fact that same-sex-couples have similar relationship satisfaction characteristics and reasons for relationship dissolution as heterosexual couples, the ways in which they negotiate sexual behaviors may not be drastically different from their heterosexual peers (Kurdek, 2005). However, due to an overreliance on convenience sampling used to research same-sex couples, researchers may not be certain of this finding (Kurdek, 2005).

Measures

Relationship Satisfaction Measures

Burke and Young (2012) used the Relationship Assessment Scale (RAS) (Hendrick, 1988). This scale consists of eight items on a 7-point Likert scale ranging from 1 (*unsatisfied*) to 7 (*extremely satisfied*). MacNeil and Byers (2009) used the Global Measure of Relationship Satisfaction Scale (GMREL) (Lawrance & Byers, 1998) to measure an individual's overall satisfaction in their relationships. This measure is comprised of five subscales that utilizes a 7-point Likert-type scale ranging from 1 (*low satisfaction*) to 7 (*high satisfaction*). MacNeil and Byers did not provide sample items but reported alphas for males ($\alpha = .94$) and females ($\alpha = .94$).

Greene and Falkner (2005) used a five-item scale developed by Duffy and Rusbult (1986) to assess relationship satisfaction. A sample item was "*My relationship is*

very satisfying.” This scale used a five-point, Likert-type scale with anchors at 1 (*strongly agree*), to 5 (*strongly disagree*) to indicate relational satisfaction ($\alpha = .84$).

Hess and Coffelt (2012) used the five-item Investment Model Scale developed by Rusbult, Martz, and Agnew’s (1998). Sample items cited included, “*Our relationship is much better than others’ relationships,*” and, “*Our relationship does a good job of fulfilling my needs.*” Items were rated on a seven-point Likert-type scale ($\alpha = .95$).

Fallis, Rehman, and Purdon (2014) and Rehman, Rellini, and Fallis (2011) used the Broderick Commitment Scale (Beach & Broderick, 1983) to assess participants’ level of commitment to their current partner. This measure consists of one-item with anchors at, 0 (*Not at All Committed*), to 100 (*Completely Committed*). No reliability statistics were reported by Fallis et al. (2014) or Rehman, Rellini, and Fallis (2011).

Theiss (2011) used the Marital Uncertainty Scale (Knoblauch, 2008) to measure areas of relational and sexual insecurity. Participants were given the sentence stem, “*How certain are you about . . . ?*” and asked to use a 6-point Likert-type scale (*1 = completely or almost completely uncertain, 6 = completely or almost completely certain*) to rate behaviors such as resolving marital conflict and communicating about sex with their partners. Chronbach’s alphas ranged from .80 to .93.

Two research groups (Fallis, Rehman, & Purdon, 2014; Yoo, Bartle-Haring, Day, & Gangamma, 2014) used the Quality of Marriage Index (Norton, 1983). This scale consists of five items on a six-point, Likert-type scale with anchors at 1, *very strongly disagree*, to, 6, *very strongly agree*. Sample items included, “*My relationship with my partner makes me happy,*” and, “*My relationship with my partner is very stable.*” Chronbach’s Alphas were calculated at .89 to .97 respectively.

Litzinger and Gordon (2005) used the Dyadic Adjustment Scale (DAS) (Spanier, 1976). The DAS is a 32-item scale asks participants to what extent they agree or disagree on a variety of topics (e.g., religious matters; household tasks). A six-point, Likert-type scale is used with anchors at, *1, Always Agree*, to *6, Always Disagree*. Litzinger and Gordon did not compute internal consistency statistics for the scale; they stated that the wide use of the DAS and the relatively high Chronbachs Alpha score ($\alpha = .82$) supported their choice of using this measure (Carey, Spector, Lantinga, & Krauss, 1993)

Yoo, Bartle-Haring, Day, and Gangamma (2014) used a subscale of the RELATE assessment (Busby, Holman, & Taniguchi, 2001). This 13-item assessment is based on Gottman's model (1994; 1999) of marriage interaction. Participants rated these statements on a 5-point, Likert-type scale with anchors at *1 (never)* and *5 (very often)*. Chronbach's alphas were .83 and .85 for males and females respectively. Sample items included, "*In an argument, my partner recognizes when he/she is overwhelmed and then makes a deliberate effort to calm down,*" and, "*When my partner gets upset, my partner acts like there are glaring faults in my personality.*"

The DAS (Spanier, 1976) and the Quality of Marriage Index (1997) have both been correlated with other measures of relationship satisfaction, suggesting high internal validity (Busby, Christiansen, & Crane, 1995; Calahan, 1997). Although the other relationship scales used have not been correlated with other scales, they appear to meet face validity. Future studies should use scales that have shown high internal consistency in order to reduce threats to internal validity.

Sexual Communication Measures

A variety of scales were used by researchers to measure how couples communicate about sex. Burke and Young (2012) created their own scales to measure sexual transformations (i.e., changes in sexual behaviors). They used a four-point, Likert-type scale to measure the frequency of transformations with anchors at *0, never*, and *3, very often*. A seven-point, Likert-type scale, with anchors at *1, (never)*, to *7, (very often)* was used to measure how participants felt about asking their partners to make sexual transformations. Chronbach's alphas for frequency of sexual transformations were .79 whereas feelings about transformations were calculated at .74.

Three research groups (Mark & Jozkowski, 2012; Greene & Falkner, 2005; Fallis, Rehman, & Purdon, 2014) used the Dyadic Sexual Communication Scale (DSCS) (Catania, 2011). This 13-item measure is comprised of a seven-point, Likert-type scale with anchors at *1 (Disagree Strongly)*, to *6 (Agree Strongly)*. Sample items included, "*My partner rarely responds when I want to talk about our sex life.*" Chronbach's alphas ranged between .79 and .94 for all studies.

Hess and Coffelt (2012) used the Communication Satisfaction Inventory (Hecht, 1984) to measure couple satisfaction with communication. Researchers used this 19-item scale to ask participants to recall the last time they had conversations with their spouse about sex. A seven-point, Likert-type scale was used although the researchers did not indicate the anchors of the scale. Chronbach's Alpha was calculated at .92. To measure the specific words couples use to discuss sex, the authors developed a list of 44 sexual terms (e.g., boobs, oral sex, blowjob). Then, participants were presented this list and, using a 4-point, Likert type scale (*0, never*, to *4, often*) participants indicated how often they used each word with their partner.

Litzinger and Gordon (2005) used the Communications Patterns Questionnaire (CPQ) (Christensen and Sullaway, 1984). This measure assesses three forms of communication: (1) constructive, (2) avoidant, and (3) demand/withdrawal. Participants rated statements about communication using a 9-point, Likert-type scale where higher scores indicated constructive communication patterns. Chronbach's Alphas were not provided by the researchers.

MacNeil and Byers (2005) used the Self-Disclosure Sexual Questionnaire (Byers & Demmons, 1999). This 12-item questionnaire assesses the extent to which participants share their sexual likes (i.e., touching, kissing, intercourse) to their partners using a 7-point, Likert-type scale to indicate the extent of their disclosure; the anchors of this measure were not described by the researchers. Chronbach's Alphas were reported at .94 for males and .92 for females.

Montesi, Conner, Gordon, Fauber, Kim, and Heimberg (2013) used the Sexual Communication Satisfaction Inventory (SCSI) (Wheeles, Wheeles, & Baus, 1984). This 22-item scale was comprised of a 7-point, Likert-type scale to rate their level of agreement (*1, strongly disagree, to, 7, strongly to agree*) on satisfaction with sexual communication. Sample items included, "*I am pleased with the manner in which my partner and I communicate with each other after sex,*" and, "*I would not hesitate to show my partner what is a sexual turn-on for me*" ($\alpha = .94$). Montesi et al. (2013) scored the SCSI using a coding strategy developed for the Index of Sexual Satisfaction (ISS) to measure sexual satisfaction (Hudson, Harrison, & Crosscup, 1981). They reasoned that this method improved the internal validity of their measure.

Oattes and Offman (2007) used the Sexual Assertiveness Scale (Shafer, 1977) to

measure sexual communication. This 28-item scale uses a 5-point, Likert-type scale to rate the percentage of time that they communicated about a particular sexual behavior with their partner (1, 0-20%, to 5, 81-100%). Sample items include, “*What percent of the time do you feel free to ask your partner to try sexual things you want to do?*” and, “*When you try something different in sex, what percent of the time is it your idea?*” Chronbach’s Alpha was computed at .82.

Rehman, Rellini, and Fallis (2011) used Wheelless, Wheelless, and Baus’ (1984) Sexual Communication Satisfaction Scale (SCSS). The SCSS is a 22-item measure that uses an 8-point, Likert-type scale to assess sexual communication satisfaction (1, *Strongly Disagree*, 7, *Strongly Agree*). Rehman et al. only used the 10 items that have to do with sexual assertiveness. Sample items include “*I tell my partner when I am especially sexually satisfied.*” Chronbach’s alphas were .86 for females and .88 for males.

Theiss (2011) created her own, five-item scale to measure indirectness of communication regarding sexual intimacy. Participants used 6-point Likert-type scale to rate their level of agreement (1 = *strongly disagree*, 6 = *strongly agree*). Sample items included, “*I have never openly discussed my sexual desires with my spouse,*” and, “*I have never been direct with my spouse about sexual behaviors I find satisfying.*” Chronbach’s Alpha was computed at .80.

Yoo, Bartle-Haring, Day, and Gangamma (2014) developed a one-item measure of sexual satisfaction, “*I am satisfied with my sex life with my partner.*” Participants rated this measure on a 7-point, Likert-type scale with anchors at, 1, *strongly disagree*, to, 7 *strongly agree*. Reliability statistics were not calculated for this item.

Discussion of Validity and Reliability of Measures

Researchers who address internal and external validity are able to accomplish two things: (a) discuss the degree to which the independent variable has an effect on the dependent variable and (b) generalize their results to a larger population (Sullivan, 2001). The following sections will discuss how researchers addressed these two forms of validity.

Face validity. Face validity appears to be addressed by all researchers, as the measures they used appear to reasonably assess relationship satisfaction and sexual communication. However, few researchers discussed content and construct validity.

Content validity. Two groups of researchers addressed content validity. Yoo, Bartle-Haring, Day, and Gangamma's (2014) addressed content validity as they discussed how their scale is based on Gottman's (1994; 1999) model of couple interaction. Fallis, Rehman, and Purdon (2014) addressed content validity of their relationship and sexual satisfaction measures by describing the frequency of their use and the correlation of their relationship satisfaction measure with other, similar measures (Heyman, Sayers, & Bellack, 1994).

Construct validity. Two groups of researchers addressed construct validity of their measures. Montesi et al., (2013) validated their use of Sexual Communication Satisfaction Inventory by using the coding strategy used with the Index of Sexual Satisfaction (Hudson, Harrison, & Crosscup, 1981) whereas Greene and Falkner (2005) used a factor analysis to identify the factors measured by the Dyadic Sexual Communication Scale (Catania, 2011).

Lack of measures on sexual negotiation. Greene and Falkner (2005) used the Dyadic Sexual Regulation scale (Catania et al., 1992) to measure couples' level of

negotiation efficacy or the degree to which someone feels they can get their partner to meet their sexual needs. This five-item scale was comprised of a five-point, Likert-type scale with anchors at, *1 Strongly agree*, to, *5 Strongly disagree*. Although this measure was able to describe sexual negotiation, this scale lacked the specificity to describe the verbal and nonverbal strategies used to negotiate sexual behaviors. As described earlier, a weakness of sexual script theory is its broad nature, making it difficult for researchers to identify variables for sexual scripts (Wiederman, 2015). This may explain why researchers have been unable to measure the complex process of sexual negotiation.

The lack of literature directed at how couples negotiate sexual behaviors may be related to the unit of analysis historically used in sex therapy research. Traditionally, sex therapy researchers have viewed couples therapy as mechanism to augment treatment for individual etiological factors for sexual dysfunction as opposed to identifying the couple as the unit of treatment for sexual disorders (Wiederman, 1998). Future researchers looking to expand couples treatment for sexual problems may benefit from including a relationship intervention as the level of analysis.

Internal validity. Self-report data are subject to bias as participants may not report behaviors or attitudes they hold accurately and may harm internal validity. Given the taboo nature of sexuality topics, discussing these issues with others may be difficult. Sex researchers who are interested in collecting information about sexuality have found that volunteer bias exists for participants who choose to participate in sexuality research. For example, participants who participate in sex research tend to hold more liberal attitudes towards sexual behaviors than subjects who participate in nonsexual research (Greenhill & Sergeant, 2013; Wiederman, 1999). Three groups of researchers identified

general, self-report bias in their limitations sections (Theiss, 2011; Hess & Coffelt, 2012; Mark & Jozkowski, 2013) whereas only three research groups (Rehman, Rellini, & Fallis, 2011; MacNeil & Byers, 2009; Fallis, Rehman, & Purdon, 2014) acknowledged the selection bias that is inherent to sexual report data.

Another form of report bias exists for dyadic units of observation. Couples who shared their answers with one another or, individuals, anxious about the possibility of their partner reading their answers, may not respond honestly to survey questions, thus, harming internal validity. Given that 10 of the 12 research groups used couples as their unit of analysis, it is surprising that only Mark and Jozkowski (2013) acknowledged this threat to validity in their paper.

Analyses

Quantitative

Seven research groups generated descriptive statistics such as means and standard deviations (Burke & Young, 2012; Fallis, Rehman, & Purdon, 2014; Litzinger & Gordon, 2005; MacNeil & Byers, 2009; Montesi, Conner, Gordon, Fauber, Kim, & Heimberg, 2013; Rehman, Rellini, & Fallis, 2011; Theiss, 2012). T-tests were used by seven research groups (Burke & Young, 2012; Fallis, Rehman, & Purdon; Hess & Coffelt, 2012; Litzinger & Gordon, 2005; Oattes & Offman, 2007; Rehman, Rellini, & Fallis; Theiss) and correlations were utilized by 11 of the research groups (Fallis, Rehman, & Purdon; Greene & Falkner, 2005; Hess & Coffelt; Litzinger & Gordon; MacNeil & Byers; Mark & Jozkowski, 2013; Montesi, Conner, Gordon, Fauber, Kim, & Heimberg; Oattes & Offman; Rehman, Rellini, & Fallis; Theiss; Yoo, Bartle-Haring, Day, and Gangamma). Green and Falkner were the only researchers to utilize ANOVAs and

MANCOVs in their analyses whereas Mark and Jozkowski were the only researchers to compute Chi-square tests. These analyses appear appropriate given that they were used to describe the sample by looking for group differences between participants and identifying associations between independent and dependent variables.

Individuals in relationships are often affected by their partners' behaviors, cognitions, and emotional affect. Analyzing data from both partners, dyadic data, requires statistical techniques that account for the interdependence of data. In the current review, 10 of the 12 research groups analyzed couples as the unit of analysis and, therefore, used statistical techniques that accounted for interdependence of data. Developed by Cook and Kenny (2005), the Actor Partner Independence Model (APIM) was used most frequently to account for dyadic data. (Burker & Young, 2012; Rehman, Rellini, & Fallis, 2011; Theiss, 2012; Yoo, Bartle-Haring, Day, & Gangamma, 2014). Other researchers used different statistical techniques to account for relationship interdependence. Fallis, Rehman, and Purdon (2014) used multilevel modeling whereas Oattes and Offman (2007) used hierarchical linear modeling to address dyadic data. Three research groups (MacNeil & Byers, 2009; Mark & Jozkowski, 2013; Montesi, Conner, Gordon, Fauber, Kim, & Heimberg, 2013) used path analysis to test models about how sexual communication impacts relationship satisfaction. Two researcher groups ran separate, multiple regression equations for both males and females (Greene & Falkner, 2005; Litzinger & Gordon, 2005). Hess and Coffelt (2012) used hierarchical, agglomerative cluster analysis to identify the sexual vocabulary that their sample used to talk about sex.

Mark and Jozkowski (2013) were the only authors to address the use of maximum likelihood estimation (MLE) in their analyses, whereas Yoo, Bartle-Haring, Day, and

Gangamma (2014) were the only authors to describe using Little's (1988) Missing Completely at Random test in their analyses. The lack of a discussion of using MLE for analyses is surprising given the fact that eight authors used structural equation modeling. According to Kline (2015), MLE is the most widely used estimation theory in SEM statistical packages. Additionally, the lack of attention paid to missing data is surprising given that some of the authors used samples with greater than 100 subjects. Researchers who intend to continue to research how couples negotiate sexual relationships should include a more detailed strategy for handling missing data in their data analysis plan. This is especially important for researchers who use SEM techniques as missing data affects the parameter estimates of SEM models, threatening the external validity of findings (Allison, 2003). Strategies such as expectation maximization (Little & Rubin, 1987) may also be utilized to reduce missing data and increase a study's power level.

Results

Sexual Self-Disclosure

Sexual self-disclosure (SSD), or sharing one's sexual likes and dislikes with a partner, was the most commonly investigated behavior by researchers in this review. Rehman, Rellini, and Fallis, (2011) investigated how sexual self-disclosure affects relationship satisfaction. They found that individuals who reported higher levels of SSD also reported greater satisfaction with their sexual relationships for both males and females. They also found an interaction between SSD and gender as a partner's high level of SSD predicted sexual satisfaction for men whereas women who reported sexually disclosing with their partners were less likely to report sexual dysfunction.

MacNeil and Byers (2009) used path analysis to investigate the relationship

between SSD, sexual rewards and costs, and sexual satisfaction in married partners. Their path analyses revealed that greater SSD was associated with greater sexual satisfaction for both partners, but was particularly important for male sexual satisfaction. A gender difference was also discovered, such that relationship satisfaction mediated the relationship between SSD and sexual satisfaction for male participants. They hypothesized that SSD between couples enhances partner understanding of sexual rewards (i.e., increase in level of affection), that subsequently contributes to greater satisfaction, suggesting that an instrumental pathway to enhance sexual relationships exists. Additionally, they found that understanding one's partner's sexual costs was not associated with relationship satisfaction suggesting that understanding sexual rewards is more important to sexual, and relationship satisfaction.

Yoo, Bartle-Haring, Day, and Gangamma (2014) also used the APIM to explore how communication impacts sexual and relationship satisfaction. They found that for both husbands and wives, the perceived communication patterns by one partner (i.e., the actor) predicted their own relationship satisfaction and was mediated by their level of emotional intimacy. Additionally, they found that men and women were more likely to report higher levels of emotional and sexual intimacy with their partners when they felt their partners' communication was more positive. This relationship increased intimacy and also increased relationship satisfaction. However, given the cross-sectional design, Yoo et al. could not identify the direction of this relationship.

Fallis, Rehman, and Purdon (2014) used sexual script theory to investigate how partners perceived each other's level of sexual satisfaction. They found that participants had accurate perceptions of their partner's sexual satisfaction level. Additionally,

participants who reported higher levels of positive communication were less biased in their perceptions of their partner's sexual satisfaction levels. For individuals who reported lower levels of sexual communication but who also scored higher in their emotion recognition reported more accurate perceptions of their partner's sexual satisfaction, suggesting that higher emotion recognition ability may compensate for poor sexual communication.

Sexual Transformations

Burke and Young (2012) investigated sexual transformations of changes in sexual behaviors in an undergraduate university sample. They found that men and women who reported greater relationship satisfaction had partners who reported making more sexual transformations and in turn, their partners were more likely to engage in sexual transformations with them. Conversely, participants reported less relationship satisfaction when their partners engaged in less frequent sexual transformations.

Sexual Language

Hess and Coffelt (2012) were the only researchers to study the specific language that couples use to talk about sexual behaviors. Using a cross-sectional design, they found that the sexual language used by couples fell into five distinct categories: clinical terms (i.e., copulate, fellatio), slang related to oral sex (i.e., give head, go down), standard erotic language (i.e., erection, vagina), cruder slang (i.e., balls, tits), and every-day language (i.e., penis, boobs). Hess and Coffelt found that for males, their use of all sexual terms was related to relational satisfaction and emotional closeness with their partners whereas their use of erotic terms was associated with emotional closeness only. For women, their use of every-day and slang terms was associated with communication

satisfaction and relational satisfaction; female use of all of the five vocabulary categories was positively associated with emotional closeness. Hess and Coffelt reported that the gender differences they found were small in effect size and were to be interpreted with caution. When exploring differences between sexual vocabularies used by married individuals, they found that married individuals reported using sexual vocabulary less than single individuals, suggesting that married individuals may rely more on nonverbal forms of communication than verbal. Additionally, they found that individuals who reported higher levels of relationship and communication satisfaction used a greater variety of words to describe their sexual behaviors, as the type of sexual terms was not associated with any relationship outcomes.

Sexual Communication and Relationship Satisfaction

Research on sexual communication has focused primarily on how sexual communication affects relationship satisfaction. Litzinger and Gordon (2005) found that husbands and wives who reported higher rates of sexual satisfaction and productive communication patterns were more likely to report higher levels of marital satisfaction. They also found that for men and women who reported lower levels of communication and higher levels of sexual satisfaction were, in turn, more likely to report higher levels of marital satisfaction suggesting that sexual satisfaction may act as a buffer for poor communication. The authors suggested that for couples who communicated well also prioritized sexual activity in their relationship. Mark and Jozkowski (2013) also found that sexual and nonsexual communication mediated the relationship between sexual and relationship satisfaction.

Oattes and Offman (2007) investigated self-esteem and sexual communication for

people in relationships. They found that higher levels of general or global self-esteem were associated with high levels of sexual self-esteem (i.e., acceptance of one's own sexual beliefs and behaviors) and that higher global self-esteem was related to higher rates of sexual communication. Higher global self-esteem levels were related to higher levels of sexual communication. However, higher levels of sexual communication were only related to higher levels of sexual self esteem, suggesting that sexual communication is a separate construct from general communication.

Social Anxiety and Sexual Communication

Montesi, Conner, Gordon, Fauber, Kim, and Heimberg (2013) studied how social anxiety and intimacy affects couple communication and sexual satisfaction. Using structural equation modeling (SEM), they found that higher levels of social anxiety and fear of intimacy were related to dissatisfaction in sexual communication, which in turn predicted low sexual satisfaction. Theiss (2011) used SEM to explore relationship uncertainty, or anxiety over one's relationship, and sexual satisfaction. She found that relationship uncertainty (e.g., anxiety about the status of the relationship) was positively associated with indirect communication about sexual intimacy and negatively associated with sexual satisfaction for both males and females. Additionally, she found that, regardless of gender, relational uncertainty and sexual satisfaction were mediated by indirect communication, such that individuals who were high in relationship uncertainty, struggled to communicate with their partners which, in turn, decreased sexual satisfaction.

Sexual Negotiation

Greene and Falkner (2005) explored how gender and attitudes towards sexuality

affected sexual communication between couples. They found that men in their sample reported higher levels of sexual negotiation (i.e., degree to which someone can get their partner to meet their sexual needs) compared to women. Couples who reported higher levels of communication were more likely to engage in discourse over sexual likes than dislikes. They also found that holding a sexual double-standard (e.g., the belief that women are only supposed to have sex within a committed relationship and men are permitted to have sex in all types of relationships) is associated with lower levels of dyadic communication and less sexual negotiation efficacy.

Discussion

Clinical Implications

The studies reviewed in this manuscript confirm the importance of helping individuals communicate with their partners about their sexual likes and dislikes in order to improve relationship and sexual satisfaction. However, few statements about how therapists can address sexual negotiation with couples can be made. Only Montesi et al. (2013) suggested Emotionally Focused Couples Therapy (EFCT) as an intervention for couples struggling with sexual and relationship communication. Developed by Susan Johnson (2004), EFCT is a structured, couples intervention designed to help couples expand and reframe emotional responses in order to “shift” interactions from conflict, to resolution. EFCT would be one way of engaging couples in a discussion of their sexual likes and dislikes as they share their feelings about their sexual behaviors. This recommendation should be interpreted with caution, as EFCT was not originally developed to treat sexual dysfunction specifically but has been validated as an evidence-based couple treatment modality (Burgess, Johnson, Dagleish, Wiebe, & Tasca, 2014;

Burgess, Johnson, Dalglish, Lafontaine, Wiebe, & Tasca, 2016).

Limitations and Future Directions for Research and Practice

Given the preponderance of cross-sectional designs included in this review, few statements can be made about specific life-course events (e.g., aging, sexual problems related to a medical condition) that affect sexual communication and relationship outcomes. Additionally, the external validity of these findings is harmed by a lack of a heterogeneous sample as almost all of the studies rely on heterosexual, cisgender individuals and monogamous couples. No researchers in this review investigated how transgender individuals or individuals engaged in polyamorous relationships negotiate sexual behaviors with their partner(s), further limiting the external validity of results to all populations. These areas would be ripe for future empirical inquiry.

A number of other factors common to sexuality research limit the findings of this review. First, individuals who volunteer to participate in sexuality studies often hold less traditional sexual attitudes, score higher on sexual self-esteem and sexual sensation seeking, thus, harming external validity of results and was cited by some of the authors (Wiederman, 1999). Second, relying on sexual script theory may act as a powerful metaphor to describe how couples negotiate sexual behaviors; however, it may also make it difficult for researchers to measure the complexities of verbal and nonverbal communication involved in sexual communication. Finally, publication bias also limits the external validity of results as inclusion criteria only included articles published in journal articles. Unpublished dissertations and studies that did not reject the null hypothesis were not included for review. Academic journals often select studies that indicate significant findings rather than publishing studies that did not identify significant

results (Ferguson & Heene, 2012). By not including these studies, the full picture of couple sexual communication is not complete.

In order to address these limitations, scales that measure a variety of communication, such as verbal and nonverbal communication, may capture how couples decide to engage in certain sexual behaviors. Another possibility is the use of mixed method designs. A study that uses quantitative measures to measure the frequency and types of sexual behaviors individuals use with their partners in addition to qualitative interviews would allow us to better understand sexual communication used by couples. Utilizing an electronically activated recording (EAR) application would allow conversations about couples sexual activity to be recorded on a smartphone/tablet application, or other electronic device (Smith, Maxwell, & Johnson, 2014). Mehl and Pennebaker (2003) used EAR technology to record daily conversation of undergraduates during their every-day lives. EAR devices were activated at 12-minute intervals to record their conversations. Sex researchers could program EAR devices to be activated during times, prior to sexual activity. However, using this technology for data collection raises ethical concerns about confidentiality and sensitivity and requires careful review by an institutional review board. Additionally, longitudinal designs would allow for researchers to track how couples change their sexual behaviors over time and how changes in the family impact communication about sex. Employing a diary method would be particularly useful when collecting longitudinal data to provide context of the change in sexual behaviors.

Conclusion

The current literature on how couples negotiate sexual behaviors describes the importance of disclosing sexual likes and dislikes with partners. Additionally, research groups have explored how anxiety, types of sexual language, and sexual attitudes affect sexual communication. Few statements can be made about the specific verbal and nonverbal strategies couples use. The limitations of sexual script theory and the historical focus on individual treatments for sexual dysfunction may be partially responsible for the lack of knowledge concerning the specifics of sexual negotiation. In order to continue to expand the knowledge base in this area, studies that include mixed-method and longitudinal designs are recommended.

Synopsis 2

Introduction: Sexual assault is a pervasive public health problem. Although miscommunication between individuals is not the only pathway to sexual assault, identifying the cues that are used to signal mutual sexual consent may contribute to the development of interventions for sexual assault prevention. Presumably, if couples could be better communicating verbally and nonverbally about sex they could reduce miscommunication from occurring. This study explores how single and partnered men and women communicate and interpret signals for sexual behaviors.

Method: Using a cross-sectional design, a sample of 309 participants was recruited using Amazon Turk. Two, Analysis of variance (ANOVA) analyses were used to test how gender, relationship status, and the interaction of gender and relationship status affect how individuals use, and interpret direct and indirect cues (verbal and nonverbal communication) for sexual consent. Linear regression was used to test how relationship satisfaction, sexual self-disclosure (SSD) and the interaction of relationship satisfaction and SSD also affect direct and indirect cues for sexual consent.

Results: Females were more likely to indicate their sexual consent through direct, nonverbal communication and statements about intoxication whereas males were more likely to indicate sexual consent through indirect, nonverbal means. Participants were more likely to use direct verbal signals to indicate consent for males and females in relationships between one and five years. Additionally, males were more likely to interpret indirect verbal and nonverbal signals and statements about intoxication level by their partners as indicative of consent. Females who were more satisfied in their relationship were more likely to indicate their willingness to engage in sex through statements about their intoxication level.

Discussion: Findings from this study suggest that sexual consent behaviors are more influenced by gender differences than relationship differences. Additionally, statements about intoxication level appear important for women (to indicate consent) and for men (to interpret consent). Future sexual assault policies and prevention programs may be more effective by addressing gender differences and exploring how alcohol is used to indicate sexual intentions.

Keywords: *Gender Differences, Sexual Consent, Sexual Script Theory*

Sexual assault is a pervasive public health problem. In 2012, one in five women and one in 71 men are victims of sexual assault (Black et al., 2012). It is estimated that an individual rape costs an average of \$151,423 in victim, criminal justice, and offender productivity costs (Delisi, Kosloski, Sween, Hachmeister, Moore, & Drury, 2010). Recent news events have highlighted the sexual assaults committed on U.S.A. college campuses and the risks posed to college-aged women (Muehlenhard, Peterson, Humphreys & Jozkowski, 2017). Moreover, some of these cases were instances of sexual assault occurred when (1) the perpetrator knew the victim (i.e., date rape) and (2) the perpetrator reported misinterpreting the willingness of their partner to engage in sexual activity (Sanchez, 2017 June; Stahl, 2016).

Sexual Assaults and Relationships

In addition to psychological effects (e.g., depression, posttraumatic stress disorder) suffered by victims of sexual assault, sexual assault can also negatively affect interpersonal relationships. Couples researchers have found that male partners of female rape victims report depression, self-blame, and PTSD symptoms (Smith, 2005). Additionally, male partners of female sexual assault victims report communication problems in their relationships (Connopr & Petrak, 2004; van Wijik & Harrison, 2014). van Wijik and Harrison interviewed the male partners of rape victims in hopes of better understanding their experiences of the relationship after the assault incident occurred. The men in their study identified feeling that their needs were being ignored by their partners, discomfort during subsequent sexual encounters, and physical intimacy problems. Given that sexual assault affects relationship quality and that sexual assault is perpetrated by individuals known to victims, identifying interventions that prevent

miscommunication between partners engaging in sexual activity may be an avenue to prevent sexual assault as well as relationship hardships that may occur as an indirect result of sexual assault.

Sexual Script Theory

A common theory that is used to describe the sexual behaviors of men and women is sexual script theory. Gagnon and Simon (1973) developed sexual script theory to explain human sexual behavior. Similar to symbolic interactionism, sexual script theory begins with the assumption that individuals co-construct their social world through symbols (shared meanings and values) and interactions (verbal and nonverbal communication) (LaRossa & Reitzes, 1993). Gagnon and Simon (1973) theorized that these experiences shape the sexual behaviors (i.e., sexual scripts) of individuals that, in turn, inform their sexual behaviors with others. This aspect of sexual script theory is unique as it allows researchers to conceptualize the complicated behaviors involved in communicating about sex (Wiederman, 2015). Sexual consent researchers have frequently used sexual script theory as a backdrop from which to understand consent behaviors (Hickman & Muehlenard, 1999; Humphreys & Herold, 2007; Jozkowski, Peterson, Sanders, Dennis, & Reece, 2013; Jozkowski & Wiersma, 2014). The following sections describe relevant literature informed by sexual script theory.

How Consent Is Signaled

Sexual consent researchers have generally found that men and women report using more nonverbal strategies to convey consent than verbal strategies (Hall, 1998). Researchers have also found gender differences; females are more likely to rate verbal strategies as more important for consent than men (Humphreys & Herold, 2007), whereas

men are more likely to signal consent through nonverbal behaviors (e.g., removing clothing) (Jozkowski, Peterson, Sanders, Dennis, & Reece, 2013). Researchers have also investigated how men and women interpret behaviors/statements used to signal consent. In a cross-sectional study of university students, Jozkowski, Peterson, Sanders, Dennis and Reece (2013) found that men were more likely to interpret consent through their female partner's nonverbal cues whereas women were more likely to interpret consent when their partners asked them verbally to have sex and were given the opportunity to respond to their partners.

In one of the most thorough studies of sexual consent behavior, Hickman and Muehlenard (1999) created two scales to measure how heterosexual men and women communicate and interpret signals for sexual consent. Through factor analysis, they found that their scales measured five signal patterns used to indicate sexual consent: (a) direct verbal signals (“Will you have sex with me?”), (b), direct nonverbal signals (“You (your partner) begins to take off your clothes”), (c), indirect verbal signals (“You talk about your positive feelings about having sex with her/him;” “She/He talks about her/his positive feelings about having sex with you”), (d) indirect nonverbal signals (“You rub, fondle, and touch her/him sexually;” “She/He rubs, fondles, and touches you sexually”), and (e) statements about intoxication levels, used to indicate willingness to sex (“You say, ‘I’m really drunk’;” “She/He says, ‘I’m really drunk’”). They found that overall, women and men reported using indirect signals of communication to communicate consent. Specifically, women were more likely than men to use indirect verbal signals (e.g., asking if the other person has a condom), whereas men were more likely than women to use indirect nonverbal signals (e.g., touching, kissing, or caressing the other

person). Hickman and Muehlenard (1999) then asked men and women to rate which signal types were most likely to indicate sexual consent. They found that males rated direct verbal signals, direct nonverbal signals, indirect verbal statements, indirect nonverbal statements, and statements about intoxication as more indicative of engaging in sex than females. Hickman and Muehlenard (1999) concluded that the chance for miscommunication is high, given the gender differences they found in their study.

Consent and alcohol. An interesting finding identified by Hickman and Muehlenard (1999) was that males in their study were more likely to indicate sexual consent through statements about their intoxication level. Researchers have found that alcohol consumption can distort the perceptions of sexual consent behaviors for perpetrators and victims of sexual assault (Abbey, 2002; Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004; Davis, Stoner, Norris, George, & Masters, 2009). Miscommunication coupled with intoxication may put individuals at greater risk for engaging in unwanted sexual behaviors. This combination of miscommunication and alcohol induced impairment heightens the risk for young adults and college aged students to be involved in unwanted sexual experiences.

Jozkowski and Wiersma (2014) also investigated the affect alcohol consumption had on giving consent. They asked participants whose last sexual experience occurred after drinking to rate the ways they gave consent, their internal feelings about giving consent, and their level of willingness to engage in sex. Participants who had consumed alcohol before their last sexual experience reported less internal feelings of safety and comfort as well as lower levels of feeling ready for sex. For participants who had not consumed alcohol prior to their last sexual experience, and who reported more alcohol

expectancies (e.g., emotional, relational, or behavioral outcome expectancies when drinking) reported using more direct, nonverbal strategies for communicating consent than individuals who had consumed alcohol, prior to being sexual. Based on their findings, Jozkowski and Wiersma (2014) hypothesized that sober individuals felt more confident in utilizing nonverbal strategies with their partners than those participants who had been drinking.

Couples and Sexual Self-Disclosure

The majority of research on sexual consent has involved single, heterosexual men and women (O'Sullivan & Byers, 1992; Hall, 1998; Hickman & Muehlenard, 1999). To date, only Humphreys (2007) investigated how individuals in committed relationships consent to sexual behaviors. Humphreys recruited both single and partnered undergraduate university students. He then instructed them to read vignettes describing the sexual interactions of a fictional heterosexual couple. Humphreys asked participants to answer questions about the intentions of the couple (e.g., to have sex or not) and the consent signals used while controlling for the relationship length of the fictional heterosexual couple (three months vs. two years). Participants were also asked about "alternative" behaviors the couple may have used to signal consent. Humphreys (2007) found that, for the vignette where the fictional couple had been in a relationship for two years, participants rated their consent cues and intentions as more normative, more consensual, and that the fictional couple were less in need of explicit, verbal consent than the vignette describing the couple in a relationship for three months. Additionally, Humphreys found that female participants rated explicit consent as more necessary for sexual consent than males.

Another way that men and women communicate about sex is through the use of sexual self-disclosure (SSD). SSD is the process of sharing one's sexual likes and dislikes with another (Greene & Faulkner, 2005; MacNeil & Byers, 2009). Consenting to sexual intercourse may involve aspects of SSD (i.e., kissing someone in the hopes that this behavior is reciprocated). Researchers have found that SSD is related to sexual satisfaction (Cupach & Comstock, 1997; Greene & Faulkner ; MacNeil & Byers, 1997). In their 2009 cross-sectional study, MacNeil and Byers (1997) studied SSD by surveying 253 couples in long-term relationships ($M = 14.5$ years). Then, they used path analysis to test different models for SSD. They found that participant SSD led to greater partner understanding of sexual rewards and costs and in turn, leads to greater sexual satisfaction. They also found that increased sexual and nonsexual self-disclosure were associated with increased sexual and nonsexual self-disclosure among males only; nonsexual self-disclosure by females was associated with female sexual satisfaction. Based on their results, MacNeil and Byers (1997) concluded that mutual SSD by partners enhances mutual understanding of sexual likes and dislikes and that different combinations of self-disclosure contributed to relationship and sexual satisfaction.

Preventing Miscommunication

One sexual assault intervention focuses on bystander interventions, encouraging community members to engage in pro-social behaviors if they are witnessing situations where sexual assaults are likely to take place (Banyard, Plante, & Moynihan, 2004). However, this strategy does not address miscommunication that may lead to sexual assault. The Centers for Disease Control and Preventions (CDC) (2014) endorsed two sexual assault prevention programs addressing miscommunication between partners: *Safe*

Dates (Foshee, et al., 1996; Foshee, Bauman, Ennett, Linder, Benefield, & Suchindran, 2004; Taylor, Stein, & Mumford, 2011). However, these psychoeducation programs are designed for middle-school students (not adults).

Currently, the only policies that address miscommunication regarding sex between adults are campus sexual assault policies such as the Antioch College (1996) policy that mandates that university staff and students get their partners consent before engaging in sexual behaviors. Similar policies have been enacted at other institutions of higher learning (Northwestern University, 2017; University of Minnesota, 2015). These policies meet face validity for preventing sexual assault as they encourage partners to gain clear, affirmative responses before engaging in sex, however, these policies may not be practical. Humphreys and Herold (2003) examined college students' beliefs about Antioch College's sexual consent policy. They found that participants had a negative view of this policy, identifying potential problems with enforcing the policy and the functionality of adhering to the policy during a sexual encounter with others. To date, there are no longitudinal studies that have found that these policies have reduced sexual violence on college campuses.

Investigating how individuals in relationships indicate and interpret signals for sex may provide sexual consent researchers more appropriate and effective strategies to reduce sexual miscommunication. Couples who are more effective at sexually disclosing to their partners may also be more effective at signaling to their partners when they want to have sex. By learning how couples consent to sex, better interventions and sexual assault prevention policies may be identified to reduce sexual violence. This study investigated three research questions regarding sexual scripts: (a) How do gender and

relationship status affect behaviors (sexual scripts) used to signal and interpret consent? (b) How do relationship satisfaction and sexual self-disclosure affect how individuals in relationships consent to sex with their partners, and (c), What is the relationship between gender and relationship satisfaction on the satisfaction individuals have with their partners' use of verbal and nonverbal communication?

It is expected that individuals in relationships will report using more nonverbal forms of communication when consenting to sexual behaviors (Hall, 1998; Hickman & Muehlenard, 1999). Additionally, men will report utilizing more nonverbal strategies to signal consent whereas females will report using verbal strategies more than males (Jozkowski, Peterson, Sanders, Dennis, & Reece, 2014; O'Sullivan & Byers, 1991). Being in a relationship, and the length of the relationship, will be associated with more indirect, nonverbal forms of communication (Humphreys, 2007). Individuals who are satisfied in their relationships will report higher levels of satisfaction with their partner's verbal and nonverbal communication.

Method

Participants

Participants were recruited from Amazon Mechanical Turk (MTurk) during an eight-hour period on May 19th, 2017. MTurk is an Internet marketplace that allows companies and researchers to pay subjects to complete surveys for monetary compensation. Typically, compensation is small (five to 10 U.S.A. cents) per task. As a host, Amazon takes a 10% commission from every survey that is completed. Considering the amount of time required for the survey (45 minutes) and the sensitive nature of the questions, participants were reimbursed \$1.00 U.S.A. for completing the survey.

A total of 368 participants started the survey. However, only 350 participants completed the entire survey. Participants who did not successfully answer the validity check correctly were eliminated from the sample, leaving a final total participant number of 309. The average age of participants was 34.6 ($SD = 12.45$) years; males were slightly older ($M = 34.86$; $SD = 12.97$) than females ($M = 34.21$; $SD = 11.75$). 72.2% of the sample identified as Caucasian, 17.5% Asian, 3.6% African-American, 3.6% South Asian or Pacific Islander, and 2.9% identified as 'Other.' 32.3% of the sample reported income greater than \$50,000. 245 participants reported that they were in relationships (Male = 129; Female = 116). Comparing the makeup of this sample to U.S.A. census data, this sample appears similar to U.S.A. census data in terms of age, ethnicity, and household income (Howden & Meyer, 2011; Humes, Jones, & Ramirez 2011).

Materials and Procedures

Once participants selected the survey to complete from Amazon MTurk, they were directed to click on the survey's link and then directed to a website where the instruments were presented using REDCap software. REDCap is a system for data storage and sharing designed initially for multi-site trials. This software administers and collects completed questionnaires and allows for the data to be stored confidentially and safely. Upon completing the study, subjects were given a unique ID code, which they entered in Amazon MTurk to verify that they completed the survey before they received their payment.

Demographics. Demographic information was collected such as date of birth, gender, income, relationship status, and relationship length.

Signaling and interpreting consent. Hickman and Muehlenard's (1999) scales were used to measure how individuals signaled and interpreted consent. These measures included gender specific versions for males and females. Their original scales had 33 items, however, after conducting a factor analysis, they dropped three items from their measure to improve "conceptual clarity." Based on the recommendations of the authors, the final 27 items were used in the current study (S.E. Hickman, personal communication, April 5, 2017).

Communicating sexual consent. In accordance with Hickman and Muehlenard's (1999) procedures, participants were presented with the following scenario:

"You and your date have been out several times but the two of you have not had sexual intercourse (penile-vaginal intercourse) together before. The two of you are finally alone in a private place. She/he sits close to you, kisses you, and then starts to undress you. In response to her/him sitting close, kissing you, and then starting to undress you . . ."

They were then asked their level of agreement on 27 items, describing various ways that sexual consent can be signaled. Five of the seven subscales identified by Hickman and Muehlenard (1999) were used for this study. The subscales included: Direct Verbal signals (e.g., "I want you") comprised of five items, Direct Nonverbal signals comprised of one item ("You don't say anything-you just start having intercourse with her/him"), Indirect Verbal signals (e.g., "You ask if she/he has a condom") comprised of four items, Indirect Nonverbal signals (e.g., "You help her/him") comprised of 10 items, and statements about Intoxication (e.g., "I'm really drunk") comprised of two items. A seven point Likert-type scale was used with anchors at 0, *does not show your consent to sexual intercourse*, to 6, *definitely shows your consent to sexual intercourse*. Chronbach's Alphas ranged from .52 (female, direct verbal signals) to .95.

Interpreting sexual consent signals. Hickman and Muehlenard's (1999)

interpreting consent scale used a different dating scenario:

“You and your date have been out several times, but the two of you have not had sexual intercourse (penile-vaginal intercourse) together before. The two of you are finally alone in a private place. She/He starts to kiss you and then asks you directly, 'Will you have sex with me?' In response to her/his sexual advance of asking you directly "Will you have sex with me?" . . .

The same 27 communication signals were used and adjusted to reflect the gender of participants and measure the extent that these behaviors indicate sexual consent. The subscales were the same as consenting behaviors: Direct Verbal (e.g., “She/He says, ‘I want to have sex with you’”), Direct Nonverbal (e.g., “She/He doesn't say anything-she/he just starts having intercourse with you”), Indirect Verbal (e.g., “She/He asks if you have a condom”), Indirect Nonverbal (e.g., “She/He rubs, fondles, and touches you sexually”), and statements about Intoxication (e.g., “I’m really drunk”). The same, seven-point, Likert-type scale was used for the interpretation scenarios (anchors at 0, *this behavior does not show his/her consent to penetrative intercourse*, to 6, *definitely shows his/her consent to penetrative intercourse*). Chronbach Alphas ranged from .71 to .95 for male and female subscales.

Sexual self-disclosure. To measure the extent to which partners shared their sexual likes and dislikes with each other, the 12-item, Sexual Self-Disclosure (SSD) scale was used (Lawrence & Demmons, 1999). Six items of the scale measured the extent to which participants have told their partners about how much they liked sexual behaviors (e.g., kissing, oral sex) and six items were used to measure the extent to which participants told their partners how much they disliked the same sexual behaviors ($\alpha =$

.92) A seven-point, Likert-type scale was used with anchors at, 1, *Nothing at all*, and, 7, *Everything*.

Relationship satisfaction. Relationship satisfaction was measured using the Revised Dyadic Adjustment Scale (RDAS). Developed by Busby, Christensen, Crane, and Larson (1995), the RDAS is a 14-item scale that measures the consensus, cohesion, and satisfaction of dyadic couples and has been used in a variety of studies to measure individual attitudes on couple satisfaction. Items included, *How often do you and your partner quarrel?* and, *Do you ever regret that you married (or lived together)?*

Chronbach's Alpha was calculated at .85.

Data Analysis

IBM's v22 SPSS was used for the analysis of the data. Descriptive statistics, boxplots, intercorrelations, and scatterplots were calculated to test assumptions of normality. To address missing data, Little's Completely Missing at Random Test was used to assess the patterns of missing data. This test indicated that the data were missing in a random pattern and were not a result of poorly worded items or scales. Expectation maximization was used to address missing data. This technique uses an algorithm to re-estimate new parameters of the missing data frame. Then, a second iteration is used to re-estimate missing values based on this parameter frame (Little & Rubin, 1989).

Hickman and Muehlenahrd incorporated two accuracy check questions into their scale (e.g., *"he/she yawns-answer this question with a nine,"* and, *"you scratch your arm—answer this question with an eight."* Both of these accuracy checks were included in the self-initiation scale whereas only one of the accuracy checks was included in the interpretation scale. Once surveys were eliminated using the accuracy checks, descriptive

statistics and histograms were used to examine the normality of all of the scale items. Then, log-transformations were used to address positive skewness. Due to the exploratory nature of the study, a correction for experiment wise error was not conducted.

Gender and relationship status To examine the effect of gender and relationship status has on consent behaviors, five two-way factorial analyses of variances (ANOVAs) were analyzed. The outcome signals (Direct Verbal, Indirect Verbal, Direct Nonverbal, Indirect Nonverbal, statements about Intoxication) were entered as dependent variables. Gender consisted of two levels (male and female) and relationship length consisted of three levels (less than a year, 1 year to 5 years, and 5 years or more). The decision to divide the relationship length variable into tertiles was a statistical decision as the distribution of the data was highly skewed. Log-transformations were used to address this, however, even with these transformations, the variable could not be treated as a parametric. ANOVAs were used instead of linear regression in order to test the three levels of relationship length. An additional five, two-way, factorial analysis of variances (ANOVA) was conducted, using the combined subscales for interpreting sexual consent signals, across the same behavior categories.

Relationship satisfaction and sexual self-disclosure Ten regression equations were used to test the relationship between relationship satisfaction, sexual self-disclosure, and the interaction between relationship satisfaction and sexual self-disclosure. Five equations were applied to the male subscales of Direct Verbal, Indirect Verbal, Direct Nonverbal, Indirect Nonverbal signals, and Statements about Intoxication and five were applied to the female subscales.

Indicating Consent

INSERT TABLE 1b HERE

Gender. The results of the ANOVAs are described in Table 1. The main effect of gender was a statistically significant predictor for three types of communication. Direct Nonverbal (e.g., “You don’t say anything—you just start having intercourse with her/him”) signals ($F(1, 239) = 4.86, p < .03$), and statements about Intoxication (e.g., “I’m really drunk”) ($F(1,239) = 18.14, p < .001$) were statistically significant for females whereas males were more likely to indicate consent through Indirect Nonverbal signals (e.g., “You undress her”) signals ($F(1, 239) = 13.08, p < .001$).

Relationship length. The effect of relationship length was a statistically significant predictor only for Direct Verbal signals ($F(2, 239) = 5.08, p < .007$). Participants were more likely to use Direct Verbal signals to indicate consent for males and females in relationships between one and five years ($M = .73$ for males and $M = .76$ for females) and five years and greater ($M = .78$ for males and $M = .80$ for females). The interactions between gender and relationship length were not significant in any of the models describing how individuals signal consent.

INSERT TABLE 2b HERE

Relationship satisfaction and sexual self-disclosure. Intercorrelations were calculated between the predictor variables (Relationship Satisfaction, Sexual Self-Disclosure). A small correlation was identified between Sexual Self-Disclosure and Relationship Satisfaction (.02). Intoxication was the only consent communication variable that was significant for females ($F(3, 115) = 2.78, p < .05$). In this model, relationship satisfaction ($p < .05$) was significant, indicating that females who were more satisfied in their relationship were also more likely to indicate their willingness to engage

in sex through statements about their intoxication level. For males, none of the models were significant, suggesting that the level of Relationship Satisfaction and the amount of Sexual Self-Disclosure do not affect how males in this sample indicate their consent.

Interpreting Consent

INSERT TABLE 3b HERE

Gender. With regard to interpreting consent, the main effect of Gender was a significant predictor for Indirect Verbal signals ($F(1, 239) = 12.35, p < .001$), Indirect Nonverbal signals ($F(1, 239) = 8.23, p < .004$), and statements about Intoxication ($F(1, 239) = 9.23, p < .003$). These analyses suggest that males in this sample were more likely to interpret Indirect Verbal signals (e.g., “She asks if you have a condom”) and Indirect Nonverbal signals (e.g., “She hugs and caresses you”) by their female partners as indicative of consent. Additionally, males were also more likely to interpret their partners’ statements about their intoxication level as indicative of consent.

Relationship length. The main effect of Relationship length was not significant for any of the models regarding interpreting signals to indicate consent.

INSERT TABLE 4b HERE

Relationship satisfaction, sexual Self-disclosure. Relationship satisfaction and *Sexual Self-Disclosure* were not statistically significant in any of the regression models exploring how males and females interpret sexual consent signals. Interestingly, the model for Intoxication signals was significant ($F(3,115) = 2.85, p < .04$). However, the individual predictors were not significant for the individual predictor variables.

Satisfaction with verbal and nonverbal communication

Regression equations were used to gauge the male and female satisfaction levels for their partner's verbal and nonverbal behavior. The model for female satisfaction with their partner's verbal signals was the only significant model ($F(4, 245) = 3.20, p < .01$). However, none of the individual variables of this model was significant.

Discussion

The results of this study provide a complicated picture of how men and women communicate consent for sexual activity. The following sections describe and interpret the results of how individuals communicate sexual and interpret sexual consent.

Communicating Sexual Consent

Gender and relationship length The ANOVAs and linear regression analyses revealed that men and women used nonverbal signals to indicate consent, confirming the first hypothesis of this study. Females were more likely to indicate sexual consent using direct nonverbal (e.g., start removing partner's clothes) and males, through Indirect Nonverbal signals (e.g., taking off shirt). Surprisingly, females were more likely to signal their willingness to engage in sex by discussing how intoxicated they are. These results differ slightly from Hickman and Muhenlenard's (1999) original findings, as they found that females were more likely to indicate sexual consent through indirect verbal signals (e.g., asking about having a condom) and men in their sample were more likely to indicate consent using indirect nonverbal signals (e.g., touching, caressing, kissing) or indicate consent by discussing how intoxicated they are. Although males indicated consent through statements about their intoxication level, these scores were quite low, suggesting that the level males indicated consent through intoxication were small.

Contrary to this study's second hypothesis, individuals in relationships between one and five years, and in relationships greater than five years were more likely to indicate consent using Direct Verbal signals. Communication is important early on, as couples establish a sexual relationship (Byers & Demmons, 1999). As individuals remain with their partners, relationship "maintenance" is needed to continue to maintain the level of intimacy. Relationship maintenance is defined as behaviors used by partners in order to maintain a desired relational quality of their relationship (Dinidia, 2003). The ability to provide "maintenance" in the relationship over time is positively associated with relationship satisfaction. A longitudinal study found that couples who engaged in relationship maintenance were more likely to report higher relationship satisfaction than those couples who reported engaging in less relationship maintenance (Canary, Stafford, & Semic, 2002). Other couples researchers have found that relationship maintenance behaviors by females is related to increased relationship satisfaction reported by males (Weigel & Ballard-Reisch, 1999a; Weigel & Ballard-Reisch, 1999b). This study was unable to replicate this finding, as relationship satisfaction was not a significant variable for any of the communication signals for males.

The use of Direct Verbal signals may be in line with other communication and behavioral strategies that couples employ as maintenance in order to maintain the level of intimacy and relationship satisfaction needed for a healthy relationship. Individuals in the beginning stages of relationships (less than one year) may require less direct verbal communication. As couples begin to age, the direct communication and relationship maintenance may become more important. Having children, differences in libido, and

medical conditions (e.g., erectile dysfunction, low sexual desire) may alter the sexual behaviors of couples, necessitating direct verbal communication about sex.

Interpreting Signals

The hypothesis that individuals in relationships would be more likely to interpret their partner's nonverbal communication was only partially confirmed as men, and not women, rated indirect nonverbal communication as indicative of consent. Males in this study were more likely to interpret Indirect Verbal and Nonverbal signals about intoxication as indicative of consent by their female partners. These findings are similar to those of Hickman and Muehlenard's (1999) who found that males in their sample were also more likely to interpret Indirect Verbal and Nonverbal signals and statements about Intoxication as more indicative of consent, than females. However, in their sample, they found that males rated Direct Verbal signals as more indicative of consent than females. Moreover, relationship length and the interaction between relationship length and gender did not appear significant in the ANOVAs for any of the five behavioral categories, suggesting that interpreting signals for sex is impacted more by gender than relationship length.

The potential for miscommunication is possible as females are more likely to use direct nonverbal communication to signal consent and males are more likely to be attuned to their partner's direct and indirect nonverbal signals. It may be that since women are utilizing direct nonverbal signals to convey consent, males also interpret other nonverbal signals, such as indirect nonverbal signals and statements about intoxication level as also indicative of consent. Potential miscommunication exists when males begin to perceive

all nonverbal communication as consent signals rather than being in tune with direct nonverbal signals.

Consent and intoxication. Although examining how consent is indicated through statements about intoxication level were not a part of this study's hypotheses, these signals were used to indicate and were interpreted as consent cues by both men and women. Hickman and Muehlenard (1999) found that males in their study were more likely to indicate and interpret sexual consent through their statements about intoxication. In this study, females, and not males, were found to indicate consent through their statements about intoxication level. However, none of the individual predictors, such as sexual self-disclosure, relationship satisfaction, or the interaction between sexual self-disclosure and relationship satisfaction were significant.

Other researchers have found that alcohol can play an important part in sexual consent scripts. Abbey, Zawacki, and Buck (2005) used a confederate to examine how alcohol affects sexual consent perceptions in men. They found that male participants, who had consumed alcohol prior to their interaction with a female confederate, rated higher levels of attraction towards the confederate and were more likely to rate that the confederate was sexually attracted to them than participants who had not consumed alcohol. Farris, Treat, and Viken (2010) also used an experimental design to measure the affects of alcohol consumption on sexual perception. They randomly assigned college males to drink or abstain from alcohol. Then, they were shown a variety of college aged women and were asked whether or not the woman was conveying sexual interest. They found that males who had consumed alcohol prior to this task were more likely to rate that the women were showing sexual interest. The results of this study support the idea

that males may be more sensitive to the statements of intoxication by their female partners. Males who are sensitive to sexual scripts that involve alcohol are also more likely to signal to their partners, their willingness to engage in sex through their own statements about intoxication.

Satisfaction with Verbal and Nonverbal Communication

Female satisfaction with their partner's verbal communication was the only model that was significant. This suggests that some combination of relationship satisfaction and the level of self-disclosure are important factors for verbal communication for females. Given that males were more likely to communicate their sexual consent nonverbally, females may have rated their male partner's verbal communication as especially important when consenting to sex.

Limitations

This study had several limitations. First, the cross-sectional design limits statements about causality. Second, the various sexual scripts that individuals use to consent to sex may be difficult to measure in a survey given the variety of different ways consent can be shown. Human communication and sexual behaviors are complex and there may be additional forms of communication that were not accounted for, specifically among the indirect, nonverbal and intoxication subscales. For example, pouring a glass of alcohol while smiling seductively is another indirect, nonverbal behavior pattern that may be indicative of sexual consent that was not measured in this study. Third, relying on Hickman and Muehlenard's (1999) scales, limits the ability to make statements about the number of times a particular signal type was used or, the combination it was used with other signals. Fourth, although three items were used as validity checks, it is possible that

participants may have completed their surveys hastily or, were attempting to fake their answers. Fifth, the demographic questions did not include a question about the context of relationships. For example, there may have been individuals in relationships that for religious reasons were not having sex until marriage. By not accounting for relationship context, external validity is harmed.

Although participants in this study indicated their preference for cues used to signal consent, the exact frequency that they are used is still unknown. For example, although females and males indicated that they are likely to indicate their consent to sexual behaviors through statements about how intoxicated they are, it remains unclear whether or not participants are using these statements to indicate their consent. Hickman and Muehlenard's (1999) original study included a third scale that included the same cues used to signal sexual consent and a Likert-type scale (*0, never do this to show consent, to, 6, always do this to show consent*) to measure actual self-consent ratings. They found that females ($M = .26$; $SD = .85$) and males ($M = .65$; $SD = 1.19$) rarely used statements about intoxication to indicate consent. Due to budget constraints, this measure was omitted from this study. The lack of actual consent ratings harms external validity and implications for this study's results should be interpreted with caution.

Implications for Clinicians and Sexual Assault Prevention

Clinical implications. Although this study was unable to measure the actual consent cues individuals in relationships may use with their partners, the results of this study still highlight the importance of communication regarding sexual behaviors. When working with couples—especially couples who have been together greater than 12 months—assisting them in discussing their sexual likes and dislikes may be critical

during these time periods. There are a variety of self-help books (Schnarch, 1991; McCarthy & McCarthy, 2009) that assist couples in exploring and sharing their sexual preferences with each other. These tools can assist couples therapists as they work to increase intimacy between their clients and as they work toward maintaining intimacy levels while experiencing the birth of children, medical conditions, and the effects of aging. Females in relationships that were not satisfactory, were less likely to sexually disclose to their partners and more likely to indicate consent through intoxication. It is important for couples therapists to help these women communicate about their sexual interests without alcohol in order to improve communication and prevent the misinterpretation of sexual consent signals.

Prevention implications. Current affirmative consent policies, such as the ones enacted at Antioch College (1996), Northwestern University (2017), and the University of Minnesota (2015), require individuals to clearly communicate ‘yes’ while refraining from drugs and alcohol in order to signal sexual consent. These remain popular interventions on college campuses despite the lack of research supporting their effectiveness at reducing sexual assault. The results of this study identified cues that individuals were likely to use with their partners. Specifically, gender differences and statements about intoxication level appear important to sexual scripts. However, the current affirmative sexual consent policies do not take into account gender differences that may exist for males and females when signaling consent. Given these gender differences, affirmative consent policies may not be feasible and do not account for these findings. Furthermore, the fact that males and females in this study were likely to report using statements about their intoxication level to indicate consent contradicts an

abstinence-only consent policy. However, these results should be interpreted with caution as the extent to which individuals use their intoxication level to signal consent is unknown. Perhaps sexual consent policies should devote more time to describe the complicated nature of giving sexual consent—especially when alcohol is involved.

Future psychoeducation programs designed for adults, similar to *Safe Dates* and *Shifting Boundaries*, would be ways of teaching individuals more effective ways of consenting to sex (Foshee, et al., 1996; Foshee, Bauman, Ennett, Linder, Benefield, & Suchindran, 2004; Taylor, Stein, & Mumford, 2011). Incorporating the results of this study, future psychoeducation programs could focus on teaching males to ask their partners for reassurance or to communicate verbally to check if their partner's indirect, nonverbal signals are indicative of consent whereas females would be encouraged to increase the frequency of direct communication during dating situations where alcohol is involved. Using pre and posttests, the retention level of the information learned from this intervention could be measured.

Future Research

The complexities of sexual scripts that are used to signal consent require more investigation. Including a variety of statements (“I, he/she says, ‘I am horny;’” “I, he/she/ says, ‘I’m in the mood’”) and different behaviors (“I, he/she smiles seductively;” “I, he/she slowly sips a glass of wine”) may increase the validity of results. Utilizing focus groups—similar to the groups Hickman and Muehlenard (1999) used—will allow for the identification of new statements and behaviors used to signal consent that can be incorporated into future questionnaires. This may be beneficial for identifying sexual consent signals that include alcohol. However, surveys may not be able to answer the

complexities of human behaviors. Observational studies would be advantageous for observing nonverbal behaviors and identifying combinations of behaviors involving alcohol and statements about drinking—including disclosures about how intoxicated a person is—used during sexual consent negotiations. This strategy would allow researchers to measure the actual cues used to signal consent, however, this design prompts ethical questions. Jozkowski and Wiersma (2014) stated that the difficulty with studying alcohol and consent is that alcohol impedes the ability for individuals to give consent freely. Coding this behavior would potentially have researchers observe individuals, unable to give consent, placing researchers in an awkward position and may make it difficult for such a design to be approved by an IRB committee. To avoid this issue, Jozkowski and Wiersma suggest utilizing diary study designs to allow participants to record how they indicated or interpreted the consent of their partners. Additionally, a diary study design would also allow participants to record the number of times they used a particular communication strategy and report on the changes in sexual or relationship satisfaction level with their partners. By using study designs to measure the actual cues that individuals use to signal consent, external validity will be strengthened and interventions to reduce sexual assault may be improved.

Few statements can be made about how the number of children, the number of previous relationships or sexual partners have on the sexual consent scripts of couples. Adding these demographic variables would increase the external validity of future studies. Examining scores of couples individually can lead to measurement error, harming validity of results (Kashy & Snyder, 1995; Kenny, Mannetti, Pierro, Livi, & Kashy, 2002). Future studies should explore statistical techniques such as structural

equation modeling to examine the interdependence of dyadic data. Additionally, the types of sexual behaviors (e.g., oral sex or anal sex) were not included as outcome variables. Investigating how couples consent to these behaviors would increase the external validity of results.

The strength of sexual script theory is that it may provide a strong metaphor to describe the complexities of human sexual behaviors (Wiederman, 2015). On the other hand, sexual script theory may be too broad, making it difficult for sex researchers to isolate and test for sexual script theory's theoretical assumptions. To address this limitation and given the importance that gender differences have on sexual consent strategies, an alternative strategy sex researchers could use is gender schema theory (Bem, 1981). Gender schema theory describes the cognitive processes humans use to develop gender specific views on behaviors and relationships. This theory could better focus research questions on how men and women consent to sex.

Experimental designs, using confederates have been used to explore how alcohol affects the perceptions of participants in dating situations. Abbey, Zawacki, and Buck (2005) used a confederate to examine how alcohol affects sexual consent perceptions in men. They found that male participants, who had consumed alcohol prior to their interaction with a female confederate, rated higher levels of attraction towards the confederate and were more likely to rate that the confederate was sexually attracted to them than participants who had not consumed alcohol. Changing the gender of the confederate and participant to male confederate and female participant would allow researchers to explore the role that intoxication plays in the sexual scripts of females.

A promising way to explore sexual scripts is through the use of virtual reality technology. This technology uses a virtual “proxy” for participants to interact with during dating situations (Abbey, Pegram, Woener, & Wegner, 2016). Abbey et al. (2016) developed a virtual reality program that featured a female virtual character and allowed male participants to interact with the character in a variety of dating scenarios (e.g., using alcohol; saying, “no”). They found that their program demonstrated good convergent and discriminant validity.

Conclusion

Miscommunication between individuals is one possible pathway to sexual violence. To address this, understanding how sexual consent cues are signaled and interpreted is important. This study hypothesized that individuals in relationships would be better at communicating and understanding these cues. The results of this study suggest that gender differences, and not relationship status is more important to how men and women indicate and interpret communication for sexual consent. Interestingly, statements about intoxication level were used by males and females to indicate sexual consent. In order to provide more effective sexual assault interventions, future studies should examine different combinations of statements and behaviors that men and women use to indicate sexual consent.

Summary Conclusion

Global implications of the two studies provide a trajectory for my research and areas for implementation in couples and sexual assault prevention programs. This section summarizes the findings of my research and briefly describes my goals for the future.

Summary of Findings

The goal of this study was to explore how couples communicate and negotiate sexual behaviors. Early interventions to assist couples include helping them share their sexual likes and dislikes with each other (Schnarch, 1991; McCarthy & McCarthy, 2009). However, these strategies have not been empirically tested. The majority of studies included my systemic review (Article 1) used sexual script theory as a guiding theory. Sexual script theory is a useful theory due to the broad range of behaviors that can be incorporated into a sexual script (e.g., the socially informed patterns of sexual behaviors). Based on my findings, the emphasis on sexual self-disclosure or, the sharing of one's likes and dislikes is important for sexual communication and the sexual scripts used by men and women. However, the broad nature of the theory limits the ability to detect specific combinations of behaviors used to communicate sexual behaviors.

Findings from my research study (Article 2) suggest that men and women communicate and interpret cues for sexual consent differently. Originally, I hypothesized that individuals in relationships would rely on more nonverbal strategies to communicate their sexual intentions. The results of my study identified key gender differences rather than relationship differences as more important for indicating sexual consent. Interestingly, a key way that men and women both indicate sexual consent is through statements about their intoxication level. This is surprising given the fact that current

sexual assault prevention policies and programs emphasize abstaining from intoxication as necessary for consent to be given.

Clinical and Prevention Implications

Addressing sexuality concerns should be a part of any clinical, couples intervention. The results of both of these papers highlight the importance of helping couples communicate their sexual likes and dislikes with each other. Couples who have been in relationships for 12 months or more may benefit the most from interventions that encourage partners to talk about their sexual likes and dislikes. When I work with couples, I am cognizant of the different ways men and women signal sexual activity (e.g., women are more likely to use direct nonverbal strategies whereas men are more likely to use indirect, nonverbal strategies).

Prevention Implications Current sexual assault prevention policies, targeting college-aged adults, stress the fact that consent to sexual behaviors cannot be given when participants are under the influence of alcohol (e.g., Antioch College; Northwestern University, 2017). In order to remedy these policies, university officials should acknowledge gender differences and the role that alcohol plays in communicating sexual intent. I am excited at the possibility of attaining a position at a tier one research institution and working with their sexual violence prevention center to explore gender more effective sexual assault prevention and psychoeducation programs by testing the concepts identified in Article 2. To address the limitations identified in both of my articles by proposing studies, I hope to use new technologies such as electronic audio recording devices to record sexual communication and virtual reality software, to identify

Conclusion

My dissertation adds to the understanding of how couples communicate about sex, specifically, how sexual consent is communicated. As I continue to develop as a couples therapist, I aim to continue helping couples share their sexual likes and dislikes a priority in my work. My work with couples struggling to connect sexually influenced my research during the course of this project. I hope to continue to grow as a clinical scholar to further our knowledge of sexual communication.

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Appendix A

Consent Form

CONSENT FORM

Sexual Consent Negotiations Among Couples

You are invited to be in a research study of consent and sexual behaviors. You were selected as a possible participant because of your status as an Amazon Turk member. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Nicholas P. Newstrom, Family Social Science, University of Minnesota. Nicholas is being supervised by Dr. Steven M. Harris, PhD., Family Social Science, University of Minnesota.

Background Information

The purpose of this study is to investigate how single and partnered individuals (individuals in relationships) negotiate consent when engaging in sexual intercourse.

Procedures:

If you agree to be in this study, we would ask you to do the following things:

- You will be asked to provide basic personal information (age, gender, etc.)
- You will be asked to answer questions about your relationships and the communication you have with your partners before sex (*i.e., How much have you told your partner about the ways you like to be kissed?*).
- Finally, you'll respond to two scenarios describing how you would display and interpret consent for sexual intercourse with a partner. This survey should take approximately 45 minutes. (*i.e., In your response to your sexual advance asking your partner, "Would you have sex with me?", they tell you that they love you.*)
- Males will be asked to complete a separate sexual experiences scale (*i.e., Have you had sexual contact by threatening or using some degree of physical force?*)

Risks and Benefits of being in the Study

The study has minimal risks. First, you may be made to feel uncomfortable during this survey as questions about sexuality are taboo. Second, answering questions about sex may also make you recall memories of past sexual trauma. You can stop the survey at any time. If you would like to learn more about sexual abusive behaviors or have questions about treatment for sexual trauma, you are strongly encouraged to contact The Rape, Abuse & Incest National Network (RAINN) at <https://www.rainn.org>.

The individual benefits to completing this survey are minimal. However, the information you provide will add to the body of knowledge used to develop programs that will help educate individuals on ways to improve their ability to negotiate sexual consent.

Compensation:

In accordance with Amazon Mechanical Turk guidelines you will be reimbursed \$.75 for your complete survey.

Confidentiality:

This study is not collecting any identifying information and the records of this study will be kept private. We will not include any information in publications or presentations that will make it possible to identify you. Data will be collected electronically using REDCap software, a secure online data collection tool. To these extents, confidentiality is not absolute. Study data will be encrypted according to current University policy for protection of confidentiality.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

If you have questions about research appointments, the study, research results, or other concerns contact the researchers. You may ask any questions you have now, or if you have questions later, **you are encouraged to** contact them:

Researcher Name(s): Nicholas Newstrom, Dr. Steven M. Harris

Phone Number: Nicholas can be reached at 763-370-8619. Dr. Harris can be reached at 612-625-1900

E-mail Address: Nicholas can be contacted at newst038@umn.edu and Dr. Harris can be reached at smharris@umn.edu

To share feedback **privately** about your research experience, including any concerns about the study, call the Research Participants Advocate Line: 612-625-1650 or give feedback online at www.urb.umn.edu/report.html. You may also contact the Human Research Protection Program in writing at D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455.

Please print a copy of this form to keep for your records.

Statement of Consent:

I have read the above information. I have asked questions and have received answers. By reading this form and proceeding to the study questionnaire, it indicates that I have consented to participate in the study.

Appendix B

Study Descriptors

Amazon MTurk advertises human intelligence tasks (HIT) through titles, descriptions, and key words. The following presents the language used to describe the study:

Title: Answer a survey about how you consent to sexual behaviors.

Description: This survey is interested in examining how heterosexual, cisgender (when one's gender matches their biological sex) individuals convey and interpret verbal and nonverbal signals to engage in sexual intercourse. Additional questions will ask you about your relationship status and relationship satisfaction.

Key words: survey, sexuality, consent behaviPatient Health Questionnaire 9-item (PHQ-9)

Appendix C

Measures

Demographics

1. What is your identified gender?
1. Male, 2., Female, 3. Transgender
2. Date of birth
3. Ethnicity
1, Caucasian, 2, African-American, 3, Asian, 4, South Asian or Pacific Islander,
5, Other
4. How long have you been in your current relationship?
1, Less than 6 months, 2, 6 months to a year, 3, 1 year to 5 years, 4, Over 5 years
5. How do you identify?
1, Heterosexual, 2, Gay, 3, Queer, 4, Bisexual, 5, Lesbian
6. How many people have you had consensual penetrative intercourse with throughout your lifetime?

Self-Initiation Scenario

“You and your date have been out several times but the two of you have not had sexual intercourse (penile-vaginal intercourse) together before. The two of you are finally alone in a private place. She/he sits close to you, kisses you, and then starts to undress you. In response to her/him sitting close, kissing you, and then starting to undress you . . .

”

A seven-point Likert-type scale is used with anchors at 0, *this behavior does not show his/her consent to penetrative intercourse*, to 6, *definitely shows his/her consent to penetrative intercourse*.

1. they say, "I want you."
2. they say, "I want to have sex with you."
3. 3. they say, "I would like to sleep with you."
4. 4. they ask, "Do you want to have sex?"
5. they say, "No."
6. they say, "I want to feel you."
7. they talk about the importance of using birth control (i.e., oral contraceptive, condoms) if you do have sex.
8. they suggest you should get a condom out.
9. In response to your sexual advance asking him/her directly, "Will you have sex with me..."
10. they tell you that he/she loves you.
11. they talk about his/her mixed feelings about having sex with you.
12. they talk about his/her positive feelings about having sex with you.
13. He/she asks if you have a condom or are using oral contraceptions.
14. they don't say anything--they just start having intercourse with you.
15. He/she touches and kisses you in return.
16. they help you undress them.
17. they undress you.
18. they yawn--answer this question with a seven.

19. they put their hands down your pants.
20. He/she rubs, fondles, and touches you sexually.
21. they start having dry sex with you (humping with clothes on).
22. they pull a condom out.
23. they smile at you.
24. they kiss you in return.
25. they don't stop you from kissing them and touching them sexually.
26. they do not say no.
27. they do not resist your sexual advances.
28. they let you take their clothes off.
29. they hug and caress you.
30. they hug and caress you they get physically close to you.
31. they say, "I'm feeling a little drunk."
32. they say, "I'm really drunk."
33. they put their hand on your leg.
34. they suggest that you go into the bedroom.
35. they say, "I consent to sexual intercourse."
36. How satisfied are you with your partner's verbal strategies to show consent?

Date Initiation Scenario

“You and your date have been out several times, but the two of you have not had sexual intercourse (penile-vaginal intercourse) together before. The two of you are finally alone in a private place. She/He starts to kiss you and then asks you directly, 'Will you

have sex with me?" In response to her/his sexual advance of asking you directly "Will you have sex with me?" . . .

37. you say, "I want you."
38. you say, "Yes."
39. you say, "I want to have sex with you."
40. you say, "I would like to sleep with you."
41. you ask, "Do you want to have sex?"
42. you say, "No."
43. you say, "I want to feel you."
44. you talk about the importance of using birth control (i.e., oral contraceptive, condoms) if you do have sex.
45. you suggest you should get a condom out.
46. In response to their sexual advance asking you directly, "Will you have sex with me..."
47. you tell them that you love them.
48. you talk about your mixed feelings about having sex with them.
49. you talk about your positive feelings about having sex with them.
50. you ask if they have a condom or are using oral contraceptives.
51. you don't say anything--you just start having intercourse with them.
52. you touch and kiss them in return.
53. you help them undress you.
54. you undress them.
55. you put your hands down their pants.

56. you rub, fondle, and touch them sexually.
57. you start having dry sex with them (humping with clothes on).
58. you scratch your arm--answer this question with a '7.'
59. you pull a condom out.
60. you smile at them.
61. you kiss them in return.
62. you don't stop them from kissing you and touching you sexually.
63. you do not say no.
64. you do not resist their sexual advances.
65. you let them take your clothes off.
66. you hug and caress them.
67. you get physically closer to them.
68. you say, "I'm feeling a little drunk."
69. you say, "I'm really drink."
70. you slide your hand over their leg.
71. you suggest that you go into the bedroom.
72. you say, "I consent to sexual intercourse."

Sexual Self-Disclosure

In a relationship, partners may communicate with each other about what they like and dislike about their sexual interactions. Think of your sexual relationship with your partner. For each question below, select the number that best describes how much you communicated to your partner about your sexual likes and dislikes.

How much have you told your partner about:

All questions use seven point, Likert-type scale with anchors at *1, Nothing at all*, to *7, Everything*.

1. The way(s) you like to be kissed?
2. The way(s) you don't like to be kissed?"
3. The way(s) you like to be touched sexually?
4. The way(s) you don't like to be touched sexually?
5. The way(s) you like to have intercourse?
6. The way(s) you don't like to having intercourse?
7. The way(s) you like receiving oral sex?
8. The way(s) you don't like receiving oral sex?
9. The way(s) you like giving oral sex?
10. The way(s) you don't like giving oral sex?
11. What you like about the amount of variety in your sex life?
12. What you don't like about the amount of variety in your sex life?

Revised Dyadic Adjustment Scale

Most people have disagreements in their relationships. Please indicate below the extent of agreement or disagreement between you and your partner for each item.

A six point, Likert-type scale is used with anchors at *5, Always Agree*, and *0, Always Disagree*.

1. Religious matters
2. Demonstrations of affection

3. Making major decisions
4. Sex relations
5. Conventionality (correct or proper behavior)
6. Career decisions
7. How often do you discuss or have you considered divorce, separation, or terminating your relationship?
8. How often do you and your partner quarrel?
9. Do you ever regret that you married (or lived together)?
10. How often do you and your mate "get on each other's nerves"?
11. Do you and your mate engage in outside interests together?
12. Have a stimulating exchange of ideas
13. Work together on a project
14. Calmly discuss something

Satisfaction With Communication on Consent.

1. How satisfied are you with your partner's nonverbal strategies to show consent?

A seven point Likert-type scale with anchors at, *1, I strongly dislike my partner's nonverbal ways of indicating they want to have sex with me*, to, *7, I strongly like my partner's nonverbal ways of indicating that they want to have sex with me*.

2. How satisfied are you with your partner's verbal strategies to show consent?

A seven point Likert-type scale with anchors at, *1, I strongly dislike my partner's nonverbal ways of indicating they want to have sex with me*, to, *7, I strongly like my partner's nonverbal ways of indicating that they want to have sex with me*.

⊕ **Table 1b** Analysis of Variance for Signals Used to Indicate Sexual Consent

	Male (n = 129)			Female (n = 116)			η^2
	Total	< 1 year	1-5 years	< 5 years	1-5 years	< 5 years	
Direct Verbal	.77 (.11)	.79 (.06)	.73 (.15)	.78 (.09)	.78 (.07)	.77 (.05)	.80 (.06)
Direct Nonverbal*	.66 (.26)	.66 (.26)	.65 (.29)	.66 (.25)	.74 (.18)	.73 (.17)	.77 (.16)
Indirect Verbal**	.45 (.13)	.49 (.08)	.41 (.16)	.46 (.13)	.52 (.18)	.55 (.25)	.53 (.18)
Indirect							
Nonverbal**	.67 (.18)	.71 (.11)	.64 (.24)	.66 (.16)	.58 (.22)	.52 (.26)	.58 (.21)
Intoxication**	.30 (.29)	.26 (.27)	.33 (.33)	.30 (.27)	.13 (.23)	.10 (.15)	.13 (.23)

** < .001
* < .05

Table 2b Regression Analysis Summary for Relationship Satisfaction and Sexual Self-Disclosure Predicting Female Statements About Intoxication

<i>Variable</i>	<i>B</i>	<i>SEB</i>	<i>β</i>	<i>p</i>
Sexual Self-Disclosure	.12	.08	.75	.16
Revised DAS	.24	.13	.65	.05
RDAS x Sexual Self-Disclosure	-.04	.02	-1.17	.07

Table 3b Analysis of Variance for Signals Interpreted as Sexual Consent

	Male (n = 129)				Female (n = 116)				η^2
	Total	< 1 year	1-5 years	< 5 years	Total	< 1 year	1-5 years	< 5 years	
Direct Verbal	.77 (.10)	.78 (.06)	.74 (.16)	.79 (.06)	.78 (.07)	.78 (.05)	.76 (.08)	.79 (.07)	.002
Indirect Verbal**	.69 (.16)	.72 (.11)	.66 (.19)	.70 (.16)	.61 (.21)	.55 (.23)	.62 (.17)	.61 (.22)	.05
Direct Nonverbal	.71 (.22)	.74 (.21)	.68 (.25)	.72 (.21)	.76 (.16)	.72 (.25)	.74 (.16)	.78 (.15)	.004
Indirect									
Nonverbal*	.65 (.20)	.69 (.13)	.63 (.25)	.65 (.18)	.58 (.22)	.51 (.29)	.59 (.18)	.58 (.23)	.03
Intoxication*	.28 (.30)	.25 (.30)	.30 (.31)	.27 (.30)	.15 (.24)	.14 (.22)	.15 (.25)	.14 (.25)	.04

** < .001 * < .05

Table 4b Regression Analysis Summary for Satisfaction With Partner's Nonverbal Communication

<i>Variable</i>	<i>B</i>	<i>β</i>	<i>t</i>	<i>p</i>
Gender	-.04	-.13	-2.06	.04
Sexual Self-Disclosure	.08	.81	2.20	.03
RDAS (Relationship Satisfaction)	.09	.39	-.04	.13
RDAS x Sexual Self-Disclosure	-.02	-.80	-1.77	.08