

**PURDUE UNIVERSITY  
GRADUATE SCHOOL  
Thesis/Dissertation Acceptance**

This is to certify that the thesis/dissertation prepared

By Allyson L. Dir

Entitled

Effects of Sexting on Perceptions of Sexual Intent, Sexual Consent, and Responsibility in Sexual Encounters

For the degree of Doctor of Philosophy

Is approved by the final examining committee:

Melissa A. Cyders

Chair

Leslie Ashburn-Nardo

Adam T. Hirsh

Tamika Zapolski

To the best of my knowledge and as understood by the student in the Thesis/Dissertation Agreement, Publication Delay, and Certification Disclaimer (Graduate School Form 32), this thesis/dissertation adheres to the provisions of Purdue University's "Policy of Integrity in Research" and the use of copyright material.

Approved by Major Professor(s): Melissa A. Cyders

Approved by: Nicholas J. Grahame

Head of the Departmental Graduate Program

5/19/2016

Date

EFFECTS OF SEXTING ON PERCEPTIONS OF SEXUAL INTENT, SEXUAL  
CONSENT, AND RESPONSIBILITY IN SEXUAL ENCOUNTERS

A Dissertation

Submitted to the Faculty

of

Purdue University

by

Allyson L. Dir

In Partial Fulfillment of the

Requirements for the Degree

of

Doctor of Philosophy

May 2017

Purdue University

Indianapolis, Indiana

*For my mom and dad.*

## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	vi
LIST OF FIGURES .....	viii
ABSTRACT .....	ix
INTRODUCTION .....	1
Sexual Intent, Consent, and Attribution of Responsibility and Blame .....	3
The Important Role of Alcohol in Sexual Assault .....	8
The Current Study .....	10
METHOD .....	13
Participants .....	13
Design .....	13
Measures .....	13
Vignette .....	13
Dependent Variable Measures .....	15
Sexual Intent Measures .....	15
Sext Measures .....	16
<i>Sext/Text meaning</i> .....	16
Sexual Consent Measures .....	16
<i>Perceptions of sexual consent</i> .....	16
<i>Sexting as a cue of consent</i> .....	16
<i>Appropriateness of sexual encounter</i> .....	17
<i>Perception of sexual assault</i> .....	17
Attributions of Responsibility Measures .....	17
<i>Attributions of responsibility and blame</i> .....	17
Procedure .....	17

	Page
Statistical Analyses .....	18
Analytic Plan .....	18
Power Analyses .....	19
RESULTS .....	21
Data Cleaning.....	21
Analyses .....	22
Preliminary Analyses.....	22
Sexual Intent Hypotheses .....	22
Hypothesis 1a. ....	22
Hypothesis 1b.....	23
Hypothesis 1c. ....	23
Non-hypothesized sexual intent findings. ....	24
Sexual Consent Hypotheses.....	24
Hypothesis 2a. ....	24
Hypothesis 2b.....	24
Hypothesis 2c. ....	24
Attributions of Responsibility/Blame Hypotheses .....	25
Hypothesis 3a. ....	25
Hypothesis 3b.....	25
Hypothesis 3c. ....	26
DISCUSSION .....	27
Sexual Intent.....	28
Sexual Consent.....	30
Attributions of Responsibility/Blame .....	31
Alcohol's Influence on Perceptions of Sexual Intent, Consent, and Responsibility....	34
Implications of Vignette Design .....	35
Sexting: Risks and Normalcy Discourse.....	38
Sexual Communication: Normative Discourse vs. Misperception of Sexual Consent	38

	Page
Sexting: Sexual Double Standard or Tool for Gender Equality?.....	40
Implications for Social Media, Sexual Communication, and Sexual Gender Roles....	41
LIMITATIONS.....	45
Statistical Power and Multiple Analyses.....	46
Construct Measurement .....	47
Sampling Limitations .....	48
CONCLUSION.....	50
TABLES .....	53
FIGURES.....	76
REFERENCES .....	78
APPENDICES	
Appendix A. Pilot Vignette.....	97
Appendix B. Preliminary Data.....	98
Appendix C. Vignette Condition 1: Sexting, Alcohol .....	99
Appendix D. Vignette Condition 2: Sexting, No Alcohol .....	105
Appendix E. Vignette Condition 3: No Sexting, Alcohol.....	111
Appendix F. Vignette Condition 4: No Sexting, No Alcohol .....	117
VITA.....	123

## LIST OF TABLES

Table	Page
Table 1 Overview of Vignette Studies Measuring Sexual Intent, Sexual Consent, and Attributions of Responsibility .....	53
Table 2 Sample Demographics .....	55
Table 3 Measures of Sexual Intent, Sexual Consent, and Responsibility/Blame Used Across Studies .....	58
Table 4 Summary of Proposed Analyses .....	61
Table 5 Data Cleaning Breakdown .....	63
Table 6 Means of Dependent Variables across Vignette Conditions. ....	64
Table 7 Correlations among Dependent Variables .....	66
Table 8 Full Factorial MANOVA for Perceptions of John and Jennifer's Sexual Intent .....	67
Table 9 Full Factorial ANOVA for the Perceived Likelihood of a Sexual Encounter .....	68
Table 10 Full Factorial MANOVA for Perceptions of John's and Jennifer's Messages .....	69
Table 11 Full Factorial ANOVA on Perceptions of Sexual Consent .....	70
Table 12 Full Factorial ANOVA on Perceptions of the Sext Message as a Sexual Consent Cue .....	71

Table	Page
Table 13 Full Factorial ANOVA for the Perceived Appropriateness of the Sexual Encounter .....	72
Table 14 Repeated Measures ANOVA on Attributions of Responsibility and Blame for John and Jennifer: Within-Subjects Effects .....	73
Table 15 Repeated Measures ANOVA on Attributions of Responsibility and Blame for John and Jennifer: Between-Subjects Effects .....	74
Table 16 Full Factorial ANOVA for Perceptions of Sexual Assault.....	75



## LIST OF FIGURES

Figure	Page
Figure 1 .....	76
Figure 2 .....	77
Figure 3 .....	99

## ABSTRACT

Dir, Allyson L. Ph.D., Purdue University, May 2017. Effects of Sexting on Perceptions of Sexual Intent, Sexual Consent, and Responsibility in Sexual Encounters. Major Professor: Melissa A. Cyders.

Sexting has been linked to a range of sexual behaviors, including sexual assault; however, the mechanism through which sexting increases the risk for sexual assault is unknown. One explanation for the role of sexting in sexual assault could be due to gender differences in sexting and sexual communication. The current study examined men's and women's perceptions of sexting as a form of communicating sexual intent and sexual consent, and how sexting influences attributions of responsibility and blame in sexual encounters and alleged sexual assault. Additionally, considering the role of alcohol in sexual assault, the study also examined how both sexting and alcohol influenced individuals' perceptions of a sexual scenario. *Method:* Using a factorial vignette design,  $N = 525$  college students (48.6% women; 71% Caucasian) were randomly assigned to one of four vignettes regarding a sexual scenario between a man and woman (John and Jennifer), with sexting and/or alcohol involved. *Results:* Significant differences in sexting vs. texting conditions were seen for perceptions of sexual intent ( $F = 147.28, p < .01$ ) and sexual consent ( $F = 105.86, p < .01$ ). Men were more likely to perceive that sexual consent was exchanged ( $F = 9.16, p < .01$ ) and to interpret the sext as a consent cue ( $F = 7.82, p < .01$ ). John was attributed more responsibility/blame across all conditions ( $F = 154.58, p < .01$ ); however, Jennifer was attributed more blame in the sexting conditions ( $F = 9.16, p < .01$ ). *Conclusion:* Results suggest that despite sexting as a signal of sexual interest, there are differences in how men and women perceive sexting as sexual consent, which may influence the risk for sexual assault. Additionally, there are differential effects of sexting for men vs. women, such that women may be judged more harshly for sexting,

suggesting evidence of the sexual double standard. Results offer important implications for sexual assault prevention and sexual gender roles.

## INTRODUCTION

Sexting, defined as the exchange of sexually suggestive picture or text messages via mobile phone or social media (e.g., Facebook, Twitter, Snapchat), is an increasingly prevalent behavior among adolescents and young adults. It is estimated that between 46.6% and 80.3% of college students report sexting at least once (Dir, Coskunpinar, & Cyders, 2013a; see Klettke, Hallford, & Mellor, 2014 for meta-analytic review) and sexting is viewed as a normative behavior, often used as a mechanism to “flirt” (Drouin, Vogel, Surbey, & Stills, 2013) and to initiate sexual activity (Burkett, 2015; Lenhart, 2009; Dir, Steiner, Coskunpinar, & Cyders, 2013b). Although direct negative consequences from sexting have been highlighted in the media (e.g., sexts shared with others, social humiliation, legal consequences), they are infrequently experienced (e.g., Dir et al., 2013b; Dir & Cyders, 2015; Döring, 2014). Nevertheless, there are indeed risks associated with sexting, particularly negative outcomes related to risky sexual encounters (e.g., Dir & Cyders, 2015; Dir et al., 2013a-b). Indeed, sexting is associated with a number of sexual behaviors (see Klettke et al., 2014 for review) including unprotected sex, sex with multiple partners, alcohol-related sexual encounters, casual coital and noncoital hookups, and sex with a new partner (Benotsch, Snipes, Martin, & Bull, 2012; Dake, Price, Maziarz, & Ward, 2012; Dir et al., 2013a; Dir & Cyders, unpublished)

Of particular interest to the current study is the combination of alcohol use and sexting, which may further increase the chance of a sexual encounter (Dir et al., 2013a), particularly those that are nonconsensual (e.g., see Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004 for review of the link between alcohol and sexual assault). In fact, sexting is associated with sexual assault history among college women, and recent longitudinal results suggest a prospective relationship between sexting at the beginning of the year predicting unwanted sexual encounters at the end of the year (Dir & Cyders, unpublished). One potential explanation is that sexting may lead to nonconsensual or

unwanted sexual encounters because men and women have different beliefs and motives for sexting and differentially interpret sext messages. Importantly, these differences in interpretation could lead to misinterpretations about sexual intent and consent, especially when alcohol is involved (e.g., Abbey et al., 2004; Abbey, 2011). The current study examined the hypothesis that one reason negative outcomes associated with sexting occur is because sexting is differentially interpreted by men and women and can be misperceived as intent and/or consent for sexual activity.

There are striking differences in how men and women view sexting. While women more often report sexting to get attention from a dating partner or because they feel pressured or coerced to do so by a sexting partner (Englander, 2012; Lippman & Campbell, 2014; Walker, Sanci, & Temple-Smith, 2013; Walrave, Heirman, & Hallam, 2014), men more often report sexting as a means to initiate sexual activity (Lippman & Campbell, 2014; Walker et al., 2013). Thus, while men may use and interpret sexting as a means of initiating sex, women's sexting intentions appear to be much different.

Men and women also hold different beliefs about what they expect will happen when they sext. Among college students, women report more negative expectations about sexting, such as beliefs that sexting leads to feelings of regret or makes one feel dirty (Dir et al., 2013b). On the other hand, men endorse more positive and sex-related expectations, such as beliefs that sexting makes it easier to flirt or that sexting leads to sex or "hooking up" (defined as casual, non-committed sexual experiences; Dir et al., 2013b). Consequently, men's and women's divergent interpretations and motives for sexting may provoke miscommunication or conflict. In particular, a man might send a sext message in order to initiate sex, and a woman might sext only because she feels pressure to respond, even if she does not want to engage in a sexual encounter.

These gender differences in motives and beliefs about sexting parallel long-established findings on gender differences in how men and women interpret sexual cues and communicate sexual interest (e.g., Farris, Treat, Viken, & McFall, 2008). Gender differences in sexual communication have been implicated in a range of negative outcomes, including unwanted sexual attention and sexual assault (see Farris et al., 2008 for review). Thus, I hypothesized that sexting is a modern form of sexual communication

that could serve as a point of miscommunication of sexual intent and consent, as well as influence judgments of responsibility and blame regarding sexual encounters.

### **Sexual Intent, Consent, and Attribution of Responsibility and Blame**

*Sexual intent* is defined as one's interest, desire, and willingness to engage in sexual activity. Perceptions of sexual intent are individuals' assessments of another's interest in sexual activity (Lindgren, Parkhill, George, & Hendershot, 2008) and play a critical role in sexual communication. Men and women differentially interpret others' sexual intent (Farris et al., 2008; Lindgren et al., 2008); men tend to perceive more sexuality in their own others' behavior (Abbey, 1982), and tend to overestimate a woman's sexual interest and her willingness to engage in sex (e.g., Abbey, 1987; Abbey, Cozzarelli, McLaughlin, & Harnish, 1987; Abbey & Harnish, 1995). These patterns have been shown in both experimental studies and self-report studies (see Farris et al., 2008, and Lindgren et al., 2008, for reviews): Women often report experiences in which their friendly, non-sexual behavior was misperceived by the opposite sex as sexual in nature (Abbey, 1987; Koss & Oros, 1982), and similar patterns are seen in social interactions between men and women in experimental settings (Abbey, 1987; Abbey & Harnish, 1995; Koss & Oros, 1982).

Importantly, misperceptions of sexual intent have been linked to sexual assault risk (e.g., Beres, Senn, & McCaw, 2014; Farris et al., 2008). For example, when Muehlenhard and Linton (1987) asked college men and women to describe a past date experience with and without sexual assault, men were more likely to report feeling "led on" by their partner on dates that resulted in sexual assault, and further, women were more likely to acknowledge that their partners had felt "led on" on dates resulting in sexual assault, even though they did not intend to portray sexual interest. Approximately half of young men report that it is acceptable to initiate or even force sex on a woman when they have been "led on" or "sexually aroused" (Bondurant & Donat, 1999; Goodchilds & Zellman, 1984); thus, if men are already more likely to overperceive others' sexuality, this heightens the risk of miscommunication leading to sexual assault (Abbey, McAuslan, & Ross, 1998; Abbey, Ross, McDuffie, & McAuslan, 1996). Still, not all situations lead to sexual assault and there may be a subset of men who are particularly more prone to sexual aggression in response to sexual cues (e.g., see Muehlenhard &

Linton, 1987 for discussion). Nonetheless, rates of sexual assault on college campuses are high (e.g., Abbey, 2002; Danielson & Holmes, 2004) and considering men's tendency to overperceive cues as sexual, it is important to further investigate how sexual intent misperceptions may lead to sexual assault, and particularly how sexting is interpreted as sexual intent. I hypothesized that men are more likely to interpret sexting as a communication of sexual intent than are women.

*Sexual consent* is broadly understood as verbal or nonverbal communication of agreement to engage in sexual activity (Beres, 2007, 2010; Hickman & Muehlenhard, 1999). Most legal definitions of sexual assault mention sexual consent; however, clear guidelines for what constitutes sexual consent are lacking, and definitions for both sexual consent and sexual assault vary across state laws (Rape Abuse and Incest National Network, 2009). Recent legislative trends, such as those seen in California, have moved towards enacting "yes means yes" policies which delineate that only "affirmative consent" (a clear 'yes' to a sexual advance) is considered consent. Thus, a lack of resistance or protest (i.e., no response) in response to a sexual advance does not constitute communication of consent. Furthermore, this more stringent policy requires that consent be an ongoing process throughout a sexual encounter and communicated at each level of sexual contact (e.g., kissing to penetration or other increased physical contact), and that consent cannot be communicated if a person is mentally incapable of communicating consent, is incapacitated by drugs or alcohol, or sleeping (Chappell, 2014). While many colleges have started to adopt these laws, state laws on sexual consent remain more ambiguous. For example, Indiana law defines sexual assault as:

Knowingly or intentionally having sexual intercourse with another person or knowingly or intentionally causing another person to perform or submit to other sexual conduct when (1) the other person is compelled by force or imminent threat of force; (2) the other person is unaware that the sexual intercourse is occurring; or (3) the other person is so mentally disabled or deficient that consent to sexual intercourse cannot be given. (Indiana Code 35-42-4-1 since July 1, 2014).

There are no further specifications for what is considered or not considered consent and this gray area can create controversy in cases of alleged assault. Despite legislative

attempts to clearly define consent, there is a gap between legal definitions of consent and social norms for how individuals actually communicate and interpret consent in sexual encounters.

Young adults and college students report that consent is most often communicated nonverbally (Beres, 2007, 2010; Burt, 1980; Hickman & Muehlenhard, 1999; Humphreys, 2007; Jozkowski & Peterson, 2013) or with no response at all (e.g., “just letting it happen”; Hickman & Muehlenhard, 1999; Jozkowski, Peterson, Sanders, Dennis, & Reece, 2014). While this seems to be the general trend, there may still be important gender differences in how men and women interpret and communicate consent. Recent studies show that women use more *verbal* strategies (e.g., a verbal ‘yes’ or verbally expressing desire) while men use more *nonverbal* strategies (e.g., not saying anything in response to sexual advance; flirtatious body language) for communicating consent; moreover, men more often interpret *nonverbal* cues as consent (Jozkowski et al., 2014). Since men are more likely to interpret verbal *and* nonverbal cues as consent, the potential for unwanted sexual advances is increased. Therefore, I hypothesized that men are more likely to interpret sexting as sexual consent than are women.

Most of the literature on sexual intent and consent has focused on face-to-face interactions and research has identified a number of contextual and individual characteristics (e.g., presence of alcohol, female clothing; see Lindgren et al., 2008 for review) that influence men’s and women’s perceptions of sexual intent and consent (see Table 1 for overview of studies); however, it is unknown how mobile and digital communication affects sexual communication (e.g., the role of sexting in sexual communication and how individuals interpret sexts as cues of sexual consent and intent). Given the increasing integration of digital communication with everyday life, it is important to understand how this emerging communication style affects judgments of sexual intent and consent. Face-to-face communication is seen as the most clear and effective means of communication (e.g., Baym, Zhang, & Lin, 2004). In contrast, texting – regardless of the nature of the content – often leads to miscommunication (Baym et al., 2004); thus, it seems likely that miscommunication and misperception of *sexual* content is worsened in digital communication. If men are more likely to interpret sexting as sexual intent and consent, this would suggest that misperception of sexual intent and



consent via sext messages could be a viable path contributing to sexual assault and a prime target for prevention strategies.

Additionally, it is likely that sexting differentially affects *attributions of responsibility and blame following a sexual encounter*. In legal cases of sexual assault, juries, the general public, and law enforcement look to signs of sexual intent and consent to determine whether or not a sexual assault occurred and to whom responsibility for the sexual encounter lies (Alderden & Ullman, 2012; Grubb & Turner, 2012). Research has examined how men and women retrospectively perceive and attribute responsibility and blame for sexual encounters, particularly in cases of alleged sexual assault, as well as situational and individual factors that influence attributions (e.g., alcohol, provocative clothing; see Table 1 for review of studies). There are gender differences in how men and women perceive and judge (1) the appropriateness of the sexual encounter based on the actions of the victim and perpetrator; (2) the nature of the sexual encounter (e.g., sexual assault vs. consensual encounter); (3) the extent of responsibility attributed to the victim and perpetrator for the situation based on their actions; and (4) whether or not legal actions should be taken (e.g., Alderden & Ullman, 2012; Whatley, 1996).

One common phenomenon that occurs in judgments of alleged sexual assaults is “victim blaming,” where individuals hold the victim partially or fully responsible for the incident (Edwards, Turchik, Dardis, Reynolds, & Gidycz, 2011; Muehlenhard & Rodgers, 1998; Whatley, 1996). In general, women attribute less responsibility to the female victim and more responsibility and blame to the perpetrator, while men are more likely to attribute responsibility to the female victim (Bridges, 1991; Grubb & Harrower, 2008, 2009; Kanekar, Kolsawalla, & D’Souza, 1981; Schutte & Hosch, 1997) and to perceive the victim as having wanted to have sex (Bridges, 1991; Lonsway & Fitzgerald, 1994). Further, men are more likely to endorse rape myths (Blumberg & Lester, 1991; Grubb & Turner, 2012; Suarez & Gadalla, 2010; Ward, Chapman, Cohn, White, & Williams, 1991), including beliefs that ‘she asked for it’ or ‘he didn’t mean to’ (Burt, 1980). However, other evidence suggests that there are no gender differences in attributing blame and responsibility to the victim versus the perpetrator (Acock & Ireland, 1983; Grubb & Harrower, 2008; L’Armand & Pepitone, 1982; Shotland & Goodstein, 1983). This is often seen in cases when alcohol is involved: Intoxicated victims are often judged

more harshly by men and women, attributed more blame for putting themselves at risk (Richardson & Campbell, 1982; Sims, Noel, & Maisto, 2007), and are even perceived as more promiscuous, flirtatious, and sexually seductive than non-drinking women (Scronce & Corcoran, 1995). Therefore, attributions of responsibility likely depend on a number of situational and individual factors.

Sexting may indeed influence individuals' attributions of blame and responsibility for sexual assault. Since men are more likely to hold expectations that sexting leads to sex, they may be more likely to attribute responsibility to a female victim if sexting is involved. For instance, men may be more likely to perceive that (1) the woman led the man on by sending sexual signals, or that (2) the man believed the woman was communicating intent and consent to engage in a sexual encounter. On the other hand, since women are more likely to sext for non-sexual reasons (e.g., because they are pressured by a partner), they may be less likely to attribute responsibility to the female victim and not see the sext as communication of sexual intent and consent.

Another possibility is that a woman who sexts may be blamed more harshly by men *and* women compared to her non-sexting counterpart. There is a sexual double-standard, such that sexual activity is more socially acceptable and even rewarding for men, while for women, there are more negative connotations of being seen as promiscuous and violating female gender roles (e.g., Aubrey, 2004; Brady & Halpern-Felsher, 2007; Crawford & Popp, 2003). This sexual double-standard also concerns sexting behaviors. Women are more subject to negative judgment from sexting, such as being seen as more provocative or as a "slut" for sexting, and even being seen as a "prude" for not sexting (Lippman & Campbell, 2014), while men are more often rewarded for sexting (Walker et al., 2013). Therefore, it is plausible that sexting influences men's and women's attributions of responsibility in situations of alleged sexual assault.

Still, whether or not gender differences hold, it is crucial to examine how men and women interpret sexting and other forms of digital communication. To date, research on sexual attribution and blame has focused on face-to-face communication and related cues; judgments about digital communication – such as sexting – have not been examined. However, given (1) the strong possibility of sexual miscommunication, (2) the emerging use of digital communication for sexual communication, and (3) the ubiquitous nature of

mobile and social media content that can serve as digital footprints in sexual assault cases, a better understanding of the role of digital communication in sexual communication and perceptions of sexual intent, consent, and influences on perceptions of responsibility is warranted.

There are recent examples of sexual assault cases in which texting, sexting, and other social media communications were prominent factors relating to attributions of responsibility and blame. For example, text messages and social media posts documenting the Steubenville, Ohio, rape incident served as important evidence in the trial (Dissell, 2013). Moreover, the public also made harsh victim-blaming judgments based on pictures and posts on social media that showed an intoxicated and semi-conscious teen victim. One individual posted on Twitter: "I honestly feel sorry for the boys in that Steubenville trial. That whore was asking for it." Even though the content from the Steubenville case was not in the form of sexting, others' judgments suggest the potential impact that mobile content, including sexting, may have on attributions of blame in cases of alleged sexual assault. Therefore, I hypothesized that a woman who sexts is more likely to be perceived as more responsible for the sexual encounter by both men and women compared to a non-sexting woman.

### **The Important Role of Alcohol in Sexual Assault**

Any study of sexual assault would be remiss if it did not include the role of alcohol consumption prior to or during a sexual assault encounter, as intoxication affects sexual intent perceptions, the ability to give consent, and attributions of responsibility and blame. Importantly, alcohol use is one of the strongest predictors of sexual assault: At least 50% of reported sexual assault cases among college students involve alcohol consumption by the victim, perpetrator, or both (Abbey, 2011; Benson, Gohm, & Gross, 2007; Ross et al., 2011). Alcohol increases the risk for sexual assault because (1) alcohol is assumed to enhance sexual experiences and lower one's sexual inhibition (e.g., Abbey et al., 2004; Brown, Christiansen, & Goldman, 1987; Dermen & Cooper, 1994); (2) women who are drinking are often misperceived by men and women as more sexually promiscuous and willing to engage in sex compared to non-drinking women (e.g., George, Gournic, & McAfee, 1988; Maurer & Robinson, 2008); (3) men report that it is acceptable to force sex on an intoxicated date (e.g., Farris et al., 2008; Prause, Stanley, &

Finn, 2011); and (4) alcohol makes women less likely to recognize, evade, and resist sexual assault (Testa, Livingston, & Collins, 2000) by reducing one's cognitive ability to acknowledge threats (Davis, George, & Norris, 2004; George et al., 2009) and increasing both men's and women's focus on positive effects of sexual encounters (Cue, George, & Norris, 1996; Gidycz, McNamara, & Edwards, 2006). Therefore, women who consume alcohol are (1) attributed more responsibility in sexual encounters (Bell, Kuriloff, & Lottes, 1994; Richardson & Campbell, 1982; Sims et al., 2007; Wild, Graham, & Rehm, 1998); (2) perceived as more promiscuous, flirtatious, and sexually provocative (Grubb & Turner, 2012; Scronce & Corcoran, 1995; Wall & Schuller, 2000); and (3) targeted for sexual assault more frequently compared to their non-drinking counterparts (Kilpatrick, Resnick, Ruggiero, Conoscenti, & McCauley, 2007).

The combination of alcohol and sexting may be a "perfect storm" for sexual assault risk, especially considering the high prevalence of both mobile phone use (Duggan & Rainie, 2012) and alcohol use on college campuses (Dawson, Grant, Stinson, & Chou, 2004). College students who report sexting more frequently also report more frequent and problematic alcohol use (e.g., Benotsch et al., 2012; Dake et al., 2012; Dir et al., 2013a). Moreover, while drinking already directly increases the chances of a sexual encounter and sexual assault (e.g., Abbey, 2011; Cooper, 2002, 2006), drinking also increases the chances for sexting, which in turn further increases the risk for a sexual hookup (Dir et al., 2013a). Since alcohol already increases the chances for misperceiving others' sexual interest (Abbey, 2002), the added potential for miscommunication via texting may further increase the risk for sexual miscommunication leading to sexual assault. Thus, investigation into how sexting is perceived when alcohol is involved is warranted. I hypothesized that men will perceive women who sext as more sexual when alcohol is involved as compared to women. Also, I hypothesized that women will attribute more responsibility to the female victim only when alcohol *and* sexting are involved.

### **Preliminary Data**

Findings from my recent pilot study offer preliminary support for gender differences in perceptions of sexual intent in situations when alcohol and sexting are involved. College students ( $N = 58$ , 79.3% female) read a vignette in which a man and

woman interacted with each other and ended with the man inviting the woman back to his apartment. Participants were randomly assigned to read one of four vignette conditions that were identical except for the mention of sexting and alcohol: (1) they (both the man and woman) consumed alcohol and exchanged sexts (message with sexual content); (2) they consumed alcohol and exchanged texts (without sexual content); (3) they did not consume alcohol but exchanged sexts; and (4) they did not consume alcohol and only exchanged text messages (see Appendix A for vignette and questions). There was a main effect of vignette condition ( $F(3, 54) = 9.07, p < .001$ ), such that both men and women were more likely to predict that a sexual encounter would occur when both alcohol and sexting were involved (80% of sample reported sexual encounter as *very likely*) than in the condition where neither sexting nor alcohol were mentioned (only 7.7% of the sample rated a sexual encounter as *very likely*; see Appendix A, Figure A1 for results). Further, there was a significant interaction between sexting and gender: Men perceived a greater likelihood of a sexual encounter when the man and woman in the vignette exchanged sext messages, while women rated the likelihood of a sexual encounter similarly across texting and sexting conditions (16.7% of women vs. 66.7% of men said sex was *very likely* in the sexting only condition; see Appendix A, Figure A1). These preliminary findings suggest a further need to study how sexting is interpreted as sexual intent and consent and also how sexting and alcohol affect attributions of responsibility in cases of alleged sexual assault.

### The Current Study

In the current study, I examined how men and women interpret sexting as a means of communicating sexual intent and sexual consent, and how sexting influences others' attributions of responsibility in situations of alleged sexual assault. Using a between-subjects vignette study design, participants read one version of a vignette in which a man and a woman interact with each other and eventually engage in a sexual encounter. Four vignette conditions were used: one in which alcohol and sexting were present, one in which alcohol and texting were present, one in which sexting was present with no alcohol use, and one in which texting was present with no alcohol use. Participants answered a series of questions about the interaction at key points in the vignette (see Method section) regarding their perceptions of sexual intent, sexual consent, and attributions of

responsibility for the sexual encounter. I asked three sets of research questions and proposed the following hypotheses:

### 1. **How are sexts perceived as sexual intent?**

(Do men and women perceive sexts differently? Does alcohol influence how sexts are perceived? Do men and women attribute different meanings to sexts, and are there differences when alcohol is involved?)

**Hypothesis 1a.** Men will rate higher perceptions of sexual intent in sexting conditions as compared to non-sexting conditions, whereas women will rate similar perceptions of sexual intent across sexting and texting conditions.

**Hypothesis 1b.** Men will be more likely to expect the vignette scenario will result in a sexual encounter when sexting is involved as compared to texting whether or not alcohol is involved. Women will rate the likelihood of a sexual encounter similarly across sexting and texting conditions, but only when alcohol is not involved. When alcohol is involved, women will rate the likelihood of a sexual encounter higher in sexting (with alcohol) vs. texting (with alcohol) conditions.

**Hypothesis 1c.** Men as compared to women will perceive the message as more sexual in the sexting conditions.

### 2. **How is sexting perceived as a form of sexual consent?**

(How does alcohol influence the relationship between sexting and perceptions of sexual consent?)

**Hypothesis 2a.** Men will be more likely than women to perceive that sexual consent was exchanged in conditions with sexting as compared to texting conditions.

**Hypothesis 2b.** Both men and women will be more likely to rate that sexual consent was exchanged in the condition with both sexting and alcohol present as compared to other conditions.

**Hypothesis 2c.** Men will be more likely than women to identify sexting as sexual consent.

### 3. **How does sexting influence attributions of responsibility and blame in cases of sexual assault?**

(How does alcohol influence attributions of responsibility when sexting is involved?)

**Hypothesis 3a.** Men will rate the vignette sexual encounter as more “appropriate” (i.e., acceptable, justified) in sexting as compared to non-sexting conditions. Women will rate appropriateness similarly across sexting and non-sexting conditions.

**Hypothesis 3b.** Men will attribute more responsibility/blame for the sexual encounter to the victim compared to women in sexting vs. non-sexting conditions. Women will rate responsibility/blame similarly across sexting and non-sexting conditions, except when alcohol and sexting are involved; both men and women will rate the woman victim as more responsible for the sexual encounter when sexting and alcohol are involved as compared to the other vignette conditions.

**Hypothesis 3c.** Women will be more likely to rate the hypothetical sexual encounter as a sexual assault across all vignette conditions as compared to men.

## METHOD

### Participants

Participants were recruited online from the Amazon Mechanical Turk (MTurk) system. All participants were self-reported college students in the United States who were between the ages of 18 and 30 years old ( $M = 23.89$ ,  $SD = 3.29$ ; 71% Caucasian). Two separate MTurk advertisements were used to recruit men ( $n = 270$ ) and women ( $n = 255$ ). All participants who voluntarily chose to participate were compensated \$0.50 for enrolling in and initiating the study and \$0.75 if they completed the study and provided quality data. See Table 2 for sample demographics.

### Design

I used a 2 (participant gender) x 2 (alcohol vs. no alcohol) x 2 (sexting vs. texting) factorial vignette design. There were a number of dependent variables (see Measures below) measuring participants' perceptions of sexual intent, sexual consent, and attributions of responsibility based on questions regarding the vignette scenario. The use of the factorial vignette design has successfully been used in a number of previous studies measuring participant perceptions of sexual intent, consent, and responsibility (e.g., see Farris et al., 2008 and Lindgren et al., 2008 for reviews; see Table 1 for overview of studies and Table 3 for measurement items used across studies).

### Measures

#### Vignette

The three-part vignette tells the story of two college students, John and Jennifer, who meet and develop a sexual interest in one another. The three parts of the vignette narrate the events that happen between John and Jennifer over one night: Part one ends with John inviting Jennifer back to his apartment, part two ends the next morning after



John and Jennifer have sex, and part three ends with Jennifer discussing the encounter with her Resident Assistant. After each part of the vignette, participants responded to a series of multiple choice questions (see Measures below) assessing their perceptions of the scenario. In order to examine how individuals may interpret events differently when alcohol and sexting are involved, four versions of the vignette were used, all of which were identical except for the mention of sexting and alcohol: (1) in Condition 1, John and Jennifer exchange sexts and are also described as drinking alcohol (Condition 1: sexting/alcohol; see Appendix B); (2) in Condition 2, John and Jennifer exchange sexts but there is no mention of alcohol (Condition 2: sexting/no alcohol; see Appendix C); (3) in Condition 3, John and Jennifer exchange texts (no sexual content) and consume alcohol (Condition 3: no sexting/alcohol; see Appendix D); and (4) in Condition 4, John and Jennifer exchange texts (no sexual content) and there is no mention of alcohol (Condition 4: no sexting/no alcohol; see Appendix E).

The vignette was created based on vignette scenarios used in previous studies measuring perceptions of sexual intent, consent, and responsibility (see Corcoran & Thomas, 1991; George, Cue, Lopez, Crowe, & Norris, 1995; Hynie, Schuller, & Couperthwaite, 2003). A pilot version of the vignette (all four versions) was tested with a sample of undergraduate psychology students ( $N = 56$ ; see Appendix A for vignette and findings). Two additional sections of the vignette (parts 2 and 3) were added in order to assess sexual consent and attributions of responsibility, as was done by Hynie and colleagues (2003). The longer version of the vignette was piloted by undergraduate research assistants ( $N = 10$ ). Based on pilot feedback, photos of sext and text messages were added to the vignette (in place of a written description of the messages) to increase realism and better visualize the scenario (see Appendix B-E for vignettes). Based on research assistants' ratings, photos that were representative of college students and that were also equally explicit and suggestive were chosen from a diverse set of sample photos. The names "John" and "Jennifer" were chosen since these names have been shown to be ethnically and racially neutral (Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman, 2012).

## Dependent Variable Measures

The following dependent variable measures are based on responses to the vignette scenario described above. Questions were adapted from previous studies utilizing a factorial vignette design to measure perceptions of sexual intent, sexual consent, and attributions of responsibility in situations of alleged sexual assault (see Table 3 for review of questions used across studies). There is no gold standard measure for the constructs of sexual intent, consent, and attributions of responsibility (e.g., Lindgren et al., 2008), and there has been no validity testing of many items; however, only questions that have been used across a number of studies and that are explicit measurements of the dependent variables were chosen. Further, studies have used both composite scores (Abbey & Harnish, 1995; DeSouza & Hutz, 1996; Hynie et al., 2003; Lenton & Bryan, 2005) and single item measures (Abbey, 1982; Humphreys, 2007; Lim & Roloff, 1999; Sims et al., 2007); thus, based on previous research, I used a combination of composite and single-item measures of sexual intent, consent, and attributions of responsibility, as well as perceptions regarding the nature of the sexual encounter.

### Sexual Intent Measures.

**Sexual intent perceptions.** The following items measured participants' perceptions of vignette characters' sexual intent (two separate scores were calculated for John and Jennifer): (1) Prior to meeting up, John/Jennifer intends to hookup with Jennifer/John; (2) John/Jennifer is interested in hooking up with Jennifer/John; (3) Jennifer/John is willing to hookup with John/Jennifer; (4) John/Jennifer would be receptive to a sexual advance; and (5) John/Jennifer is sexually attracted to Jennifer/John; responses ranged from 1 (*disagree*) to 4 (*agree*). Scores were calculated based on the sum of the five items, with higher summed scores signifying higher ratings of perceived sexual intent (possible range 5-20). The composite five-item scores for John's sexual intent ( $\alpha = .84$ ) and Jennifer's sexual intent ( $\alpha = .85$ ) showed sufficient reliability in the current sample, similar to previous studies ( $\alpha = .87$  to  $.92$  in Abbey & Harnish, 1995; DeSouza & Hutz, 1996; Lenton & Bryan, 2005).

**Perceived likelihood of sexual encounter.** One item was used to measure participants' ratings of the likelihood that the vignette situation would result in a sexual encounter: "What is the likelihood that John and Jennifer will hook-up (engage in any

sexual/intimate interaction) that night?” Responses ranged from 1 (*unlikely*) to 4 (*likely*) with higher scores indicating a higher perceived likelihood of a sexual encounter. This single item measure has been used in similar vignette studies (e.g., DeSouza & Hutz, 1996; Hynie et al., 2003).

### **Sext Measures.**

***Sext/Text meaning.*** One item each assessed participants’ perceptions of the meaning of John’s and Jennifer’s messages: “Which of the following best describes John’s/Jennifer’s message he/she sent to Jennifer/John?” Participants rated whether the message was sent (1) as an innocent flirtatious message, (2) in response to feeling pressured, or (3) as a way of communicating sexual interest. These response options are based on findings regarding common expectations for sexting (see Dir et al., 2013b). These two items were given across both sexting and texting conditions.

### **Sexual Consent Measures.**

***Perceptions of sexual consent.*** A composite of three items measured perceptions of whether or not sexual consent was exchanged. The three items rated (1) whether Jennifer communicated consent, (2) whether Jennifer voluntarily agreed to have sex, and (3) whether Jennifer meant to give her consent, with response options ranging from 1 (*disagree*) to 4 (*agree*). Higher summed scores indicate stronger agreement that consent was exchanged. This measure showed sufficient internal consistency in the current sample ( $\alpha = .88$ ) similar to that seen in other vignette scenarios ( $\alpha = .80$  to  $.91$  across 12 different vignette scenarios in Lim & Roloff, 1999).

***Sexting as a cue of consent.*** An additional item was used to assess whether participants perceived sext and text messages as a cue of consent: “Jennifer and John’s text messages to each other could be seen as a form of communicating sexual consent.” Responses ranged from 1 (*disagree*) to 4 (*agree*). Similar items have been used in previous studies to assess the extent that behavior cues in a scenario are interpreted as consent (e.g., woman’s alcohol use, woman agreeing to stay the night; Lim & Roloff, 1999).

***Appropriateness of sexual encounter.*** One item assessed participants' ratings of the appropriateness of the sexual encounter: "Based on John and Jennifer's actions throughout the scenario, how appropriate was it for John to initiate sex with Jennifer?" Responses ranged from 1 (*inappropriate*) to 4 (*appropriate*). This single item measure has been used in previous vignette studies to examine participant judgments regarding a hypothetical sexual scenario (e.g., Lim & Roloff, 1999).

***Perception of sexual assault.*** One item assessed participants' interpretation of the sexual encounter: "The outcome of the incident constitutes a sexual assault." Responses ranged from 1 (*disagree*) to 4 (*agree*). This single-item measure has been used in previous studies assessing perceptions of hypothetical sexual scenarios (e.g., Hynie et al., 2003; Lim & Roloff, 1999).

### **Attributions of Responsibility Measures.**

***Attributions of responsibility and blame.*** In order to measure participants' attributions of responsibility and blame for the sexual encounter, two questions (as used in Bridges, 1991) were asked separately for John and Jennifer ("How responsible is John/Jennifer for the incident?"), with responses ranging from 1 (*completely unresponsible*) to 4 (*completely responsible*). The second question was asked this in a different way ("To what extent is John/Jennifer to blame for the incident?"), with responses ranging from 1 (*completely not to blame*) to 4 (*completely to blame*). Scores were summed across the two items with higher scores indicating greater attributions of responsibility and blame for the incident. Both John's ( $\alpha = .63$ ) and Jennifer's ( $\alpha = .79$ ) perceived attributions of responsibility/blame showed sufficient internal consistency.

### **Procedure**

All study procedures were conducted online via Qualtrics, a secure internet survey site. Participants were recruited from the online Amazon Mechanical Turk (MTurk) system, which has been shown to yield high-quality and valid data (Casler, Bickel, & Hackett, 2013). Two separate MTurk advertisements were used to recruit men and women (to ensure equal recruitment of men and women), each describing the study as an investigation of how men and women perceive cues in hypothetical social situations. There was no mention of "sex" in the study advertisement in order to prevent selection

bias. MTurk “workers” were told before agreeing to participate that the study would take between 30 to 60 minutes to complete, and that they could earn up to \$0.75 for completing the study and providing quality data (\$0.50 for attempting the study). Those who agreed to participate were directed from MTurk to the study website on Qualtrics, where they first read over a Study Information Sheet before electronically agreeing to participate. Participants were asked to provide their MTurk worker’s ID in order to award compensation for participation; however, they were told that their responses would be de-identified after being compensated to ensure privacy and confidentiality. The Study Information Sheet explained to participants that they would be asked to read a hypothetical story about a social interaction between a man and woman and would be asked to answer a number of questions regarding their perceptions about the man and woman’s sexual intentions and behaviors. Participants were informed that the story and questions contain sexual content and that they may be exposed to semi-nude images, but that they may choose to discontinue participation at any time without penalty.

Participants were then randomly assigned to read one of the four versions of the vignette; attempts were made for equal numbers of men and women to be assigned to each condition (between 44.6% to 51.9% women across all 4 vignette conditions; see Table 2). They were not informed of the multiple versions of the story in order to prevent hypothesis guessing and response bias. Participants began by reading part 1 of the vignette and answering questions associated with part 1, and were not able to proceed to the next vignette section until all questions for that section were complete in order to prevent response bias. Also, they were not able to return to previous sections and change their responses. After reading all three parts of the vignette and answering questions, participants were debriefed via a form on Qualtrics and compensated within 24 hours of study completion (see Appendix B-E for vignette versions and questions).

## **Statistical Analyses**

### **Analytic Plan**

I ran a series of 2 (participant gender) x 2 (alcohol vs. no alcohol) x 2 (sexting vs. texting) ANOVAS (Huberty & Morris, 1989) to measure main effects and interaction effects of (1) participant gender, (2) alcohol, and (3) message type (independent variables)

on each of the dependent variables related to (1) sexual intent, (2) sexual consent, and (3) attributions of responsibility (see Measures above).

I ran full factorial analyses for each of the hypotheses – as opposed to planned comparisons – in order to examine all main and interaction effects: (1) *gender*, (2) *alcohol*, (3) *message type*, (4) *gender x alcohol*, (5) *gender x message type*, (6) *alcohol x message type*, (7) *alcohol x message type x gender*. Although running a full factorial analysis on each dependent variable ( $n = 9$ ) increased the chance of Type I error and reduced power (Kazdin, 2003), no research to date has examined how men and women interpret sexting as sexual intent and consent; thus, using a full factorial analysis allowed for more exploratory analyses to test for all potential effects as preliminary results for future research questions. I used the Bonferroni correction in order to account for the inflated experiment-wise error rate resulting from multiple comparisons (Bender & Lange, 2001; Kazdin, 2003). Based on the Bonferroni correction, F-ratios for main effects and interaction effects were considered significant at a  $p$ -value of 0.01 (Bonferroni correction at  $p = \alpha/n$ ,  $\alpha = .05$ ,  $n = 10$  analyses; Huberty & Morris, 1989; Kazdin, 2003). Additionally, partial eta-squared values ( $\eta_{\text{partial}}^2$ ) were used to interpret the effect sizes. Partial eta-squared is described as the proportion of variability that can be attributable to a specific factor (main effect or interaction) while controlling for other factors. Based on guidelines, a partial eta-squared of .01 denotes a small effect size, .06 a medium effect size, and .14 a large effect size (Cohen, 1988). See Table 4 for overview of specific analyses by hypothesis.

### **Power Analyses**

Power analyses were conducted for each planned analysis (see Table 4 and Results below) using G\*Power in order to determine the sample size needed to detect significant effects (Faul, Erdfelder, Lang, & Buchner, 2007). Previous vignette studies have shown a range of effect size estimates. For example, findings on main effects of alcohol (independent variable) on sexual intent perceptions ( $d = 0.27$ - $0.28$  in Corcoran & Thomas, 1991) and attributions of responsibility ( $d = 0.21$ - $0.30$  in Richardson & Campbell, 1982 and  $d = 0.35$  in Sims et al., 2007) suggest a medium effect size. Findings for the effects of participant gender (independent variable) on sexual intent ratings ( $d = 0.47$ - $0.50$  in Abbey & Harnish, 1995), attributions of responsibility ( $d = 0.66$  in Davies,

Pollard, & Archer, 2006), and perceptions of sexual consent ( $d = 0.33-0.56$  in Humphreys, 2007 and  $d = 0.06-0.27$  in Hickman & Muehlenhard, 1999) suggest using a medium to large effect size. A conservative effect size estimate ( $d = 0.20$ ) was chosen to determine sample size because of the range of effects found across studies (Faul et al., 2007; Kazdin, 2003). Thus, power analyses were conducted based on an ANOVA design testing both main and interaction effects, assuming a small to medium effect size ( $d = 0.20$ ), 80% power, and a Bonferroni-corrected error probability rate of  $\alpha = .01$  in order to account for multiple comparisons (Faul et al., 2007). Power analyses revealed that a sample size of  $N = 296$  would be necessary to detect significant effects. Power analyses were also calculated based on a MANOVA (hypothesis 1a, 1c) and a repeated measures ANOVA (hypothesis 3b), both of which yielded smaller samples sizes ( $n = 80$  and  $n = 104$ , respectively). Although the power analyses yielded a minimum sample size of  $N = 296$  needed to detect significant effects across all 11 analyses, my final sample size of  $N = 525$  ensured adequate power to detect meaningful interaction effects.

## RESULTS

### Data Cleaning

Data was transferred from Qualtrics to SPSS, 23.0 (IBM, 2015) for cleaning and analyses. The initial sample prior to cleaning was  $N = 688$  ( $n = 367$  men,  $n = 321$  women). First, participants with more than 50% incomplete data (i.e., those who did not finish the survey or complete over 50% of all survey questions; Schafer & Graham, 2002) were excluded ( $n = 43$ ). Based on predetermined exclusion criteria, participants who were not between ages 18-30 ( $n = 9$ ), not current college students ( $n = 4$ ), and not in the US ( $n = 20$ ) as determined through self-report questions were also excluded. Participants who took less than 5 minutes to complete the survey ( $n = 50$ ) and those who missed two or more manipulation checks (question of where John/Jennifer went on their date and what type of message was exchanged) or “bogus items” ( $n = 5$ ) were also removed from analyses (based on suggestions by Meade & Craig, 2012). Additionally, those who completed the survey multiple times ( $n = 11$ ) and those who did not complete the appropriate survey for men / women were excluded ( $n = 9$  men completed the women’s survey and  $n = 7$  women completed the men’s survey). Remaining data was examined for multivariate outliers by examining Mahalanobis distances (Penny, 1996), and cases with a distance  $p < .001$  and with univariate outliers were removed from analyses ( $n = 2$  men,  $n = 3$  women). All other missing data was determined to be missing at random; thus, remaining missing data were replaced using linear interpolation techniques (Enders, 2006). Scores for study variables were normal in terms of skewness and kurtosis (Markus, 2012). A final sample of  $N = 525$  ( $n = 255$  women,  $n = 270$  men) was used for further analyses. Table 5 displays an overview of data cleaning.



## Analyses

### Preliminary Analyses

Preliminary analyses were conducted to calculate the overall means for the dependent variable measures of sexual intent, sexual consent, and attributions of responsibility and blame across gender (Table 2) and across all conditions (Table 6). All dependent variables were normal in terms of kurtosis and skewness (Table 2). Measures of sexual intent, sexual consent, and attributions of responsibility were largely inter-correlated (Table 7).

### Sexual Intent Hypotheses

**Hypothesis 1a.** *Men will rate higher perceptions of sexual intent in sexting conditions as compared to texting conditions, whereas women will rate similar perceptions of sexual intent across sexting and texting conditions (Table 8).*

For the overall full-factorial MANOVA, the *multivariate interaction effect of Gender x Message type* on perceptions of John's and Jennifer's sexual intent was significant ( $F = 4.24, p = .015, \text{partial } \eta^2 = .02$ ), thus, univariate effects were examined.

The *univariate interaction effect of Gender x Message type* on John's sexual intent was significant at the .01 alpha level ( $F = 8.34, p = .004, \text{partial } \eta^2 = .02$ ); however, not in the expected direction. Message type had a significant effect on *women's*, but not men's ratings of John's sexual intent, such that men rated John's sexual intent similarly across texting and sexting conditions, while women rated John's sexual intent significantly higher in the sexting conditions (Figure 1, Table 8).

The *univariate interaction effect of Gender x Message type* on Jennifer's sexual intent did *not* reach the .01 significance level ( $F = 4.01, p = .05, \text{partial } \eta^2 = .01$ ); such that both men's and women's ratings of Jennifer's sexual intent were similar across sexting and texting conditions (Figure 1, Table 8).

In addition to the interaction effect, the *univariate main effects of message type* on both John's sexual intent ( $F = 285.88, p < .001, \text{partial } \eta^2 = .36$ ) and Jennifer's sexual intent ( $F = 226.43, p < .001, \text{partial } \eta^2 = .31$ ) were significant, such that both men and women in the sexting conditions rated both John's and Jennifer's sexual intent higher than those in the texting condition (Jennifer sexual intent: text  $M = 15.45, SD = 2.53$  vs.

sext  $M = 18.41$ ,  $SD = 2.00$ ; John sexual intent text  $M = 16.08$ ,  $SD = 2.65$  vs. sext  $M = 19.13$ ,  $SD = 1.42$ ).

**Hypothesis 1b.** *There will be a three-way interaction effect of alcohol, gender, and message type on the likelihood of a sexual encounter. When alcohol is involved, women will rate the likelihood of a sexual encounter higher in the sexting vs. texting condition. When alcohol is not involved, women will rate the likelihood of a sexual encounter similarly across sexting vs. texting conditions. Men will be more likely to expect the vignette scenario will result in a sexual encounter in sexting vs. texting conditions, regardless of whether or not alcohol is involved (Table 9).*

The three-way interaction effect of Alcohol  $\times$  Gender  $\times$  Message type on the likelihood of a sexual encounter was not significant ( $F = .35$ ,  $p = .55$ , partial  $\eta^2 < .01$ ).

However, the main effect of message type on the perceived likelihood of a sexual encounter was significant ( $F = 133.22$ ,  $p < .001$ , partial  $\eta^2 = .21$ ), such that those in the sexting conditions perceived a greater likelihood of a sexual encounter than in the texting conditions (sexting  $M = 3.78$ ,  $SD = 0.46$  vs. texting  $M = 3.20$ ,  $SD = 0.68$ ).

Although not significant at the .01 alpha level, the main effect of alcohol on perceived likelihood of sex ( $F = 5.75$ ,  $p = .017$ , partial  $\eta^2 < .01$ ) showed a pattern similar to that seen in the literature, such that those in the alcohol conditions rated the likelihood of a sexual encounter as higher than in the non-alcohol conditions (alcohol  $M = 3.56$ ,  $SD = 0.61$  vs. no alcohol  $M = 3.42$ ,  $SD = 0.69$ ).

**Hypothesis 1c.** *Men compared to women will attribute more sexuality to John's and Jennifer's sext messages than women (Table 10).*

Contrary to hypotheses, there were no differences in how men and women perceived John's and Jennifer's messages (multivariate  $F = 1.99$ ,  $p = .08$ , partial  $\eta^2 = .01$ ); however, there was a main effect of message type on perceptions of John's and Jennifer's messages (multivariate  $F = 509.72$ ,  $p < .001$ , partial  $\eta^2 = .66$ ). Men and women perceived both John's message (univariate  $F = 814.69$ ,  $p < .001$ , partial  $\eta^2 = .61$ ) and Jennifer's message (univariate  $F = 829.39$ ,  $p < .001$ , partial  $\eta^2 = .62$ ) as more sexual in the sexting vs. texting conditions, which also suggests a successful manipulation of message type (see Table 10).

**Non-hypothesized sexual intent findings.** There was a *main effect of alcohol* on ratings of Jennifer's sexual intent (univariate  $F = 8.76$ ,  $p = .003$ , partial  $\eta^2 = .02$ ), such that those in alcohol condition rated Jennifer's sexual intent higher than in non-alcohol conditions (alcohol  $M = 17.22$ ,  $SD = 2.59$  vs. no alcohol  $M = 16.64$ ,  $SD = 2.81$ ); however, the *main effect of alcohol* on John's sexual intent was not significant (univariate  $F = 5.44$ ,  $p = .02$ , partial  $\eta^2 = .01$ ; Table 8).

### Sexual Consent Hypotheses

**Hypothesis 2a.** *Men will be more likely than women to perceive that consent was exchanged in sexting compared to texting conditions* (Table 11).

The *interaction effect of Gender x Message type* on perceptions of whether sexual consent was exchanged was not significant ( $F = 1.09$ ,  $p = .30$ , partial  $\eta^2 < .01$ ); however, the *main effect of gender* on perceptions of sexual consent was significant ( $F = 9.16$ ,  $p = .003$ , partial  $\eta^2 = .02$ ), such that men were more likely than women to perceive that sexual consent was exchanged (men  $M = 8.66$ ,  $SD = 2.67$  vs. women  $M = 7.91$ ,  $SD = 3.0$ ). The *main effect of message type* on perceptions of sexual consent perceptions was also significant ( $F = 13.46$ ,  $p < .001$ , partial  $\eta^2 = .03$ ), such that individuals in the sexting conditions compared to the texting conditions were more likely to perceive that sexual consent was exchanged (sexting  $M = 8.74$ ,  $SD = 2.94$  vs. texting  $M = 7.83$ ,  $SD = 2.70$ ).

**Hypothesis 2b.** *Both men and women will be most likely to rate that sexual consent was exchanged in the condition with both sexting and alcohol (i.e., this condition will yield the highest ratings of sexual consent).*

The *interaction effect of Message type x Alcohol* on perceptions of sexual consent was not significant ( $F = .004$ ,  $p = .95$ , partial  $\eta^2 < .01$ ; Table 11).

**Hypothesis 2c.** *Men will be more likely than women to interpret sexting as a cue of sexual consent* (Table 12).

Examining only individuals in the sexting conditions ( $n = 263$ ), the *main effect of gender* on the sext message as a form of consent was significant ( $F = 6.0$ ,  $p = .01$ , partial  $\eta^2 = .02$ ), such that men were more likely than women to interpret sexting as a cue of consent (men  $M = 3.08$ ,  $SD = 1.07$  vs. women  $M = 2.73$ ,  $SD = 1.22$ ).

### Attributions of Responsibility/Blame Hypotheses

**Hypothesis 3a.** *Men will rate the sexual encounter as more appropriate than women in sexting compared to non-sexting conditions. Women will rate the appropriateness of the sexual encounter similarly across sexting and texting conditions (Table 13).*

The *interaction effect of Gender x Message type* on ratings of the appropriateness of the sexual encounter was not significant ( $F = 0.61, p = .43, \text{partial } \eta^2 < .01$ ). However, there was a *main effect of message type* on the perceived appropriateness of the sexual encounter ( $F = 28.37, p < .001, \eta^2 = .05$ ), such that individuals perceived the sexual encounter as more appropriate in the sexting ( $M = 3.52, SD = .70$ ) vs. texting conditions ( $M = 3.17, SD = .81$ ).

**Hypothesis 3b.** *Both men and women will rate Jennifer as more responsible and more to blame for the sexual encounter in the condition with sexting and alcohol (Table 14-15).*

Using a repeated measures ANOVA design, the *interaction effect of Message type x Alcohol* on the difference in participants' attribution of responsibility and blame for John vs. Jennifer was not significant (within-subjects effects  $F = 1.07, p = .30, \text{partial } \eta^2 < .01$ ; Table 14); however, across all conditions, there was a significant difference in ratings of attributions of responsibility and blame for John vs. Jennifer ( $F = 154.58, p < .001, \text{partial } \eta^2 = .23$ ): Individuals attributed significantly more responsibility and blame to John vs. Jennifer across all conditions ( $M = 6.26, SD = 1.20$  vs.  $M = 5.04, SD = 1.56$ ; Table 14).

Also interesting, examining attributions of responsibility for John and Jennifer individually (i.e., the between-subjects effects) revealed that Jennifer was rated as more responsible and to blame in the sexting vs. texting conditions ( $F = 6.11, p = .01, \text{partial } \eta^2 = .01$ ); however, attributions for John were similar across conditions ( $F = 0.42, p = .52, \text{partial } \eta^2 < .01$ ; Table 15 and Figure 2).

Additionally, men compared to women attributed significantly more responsibility and blame to Jennifer across all conditions ( $F = 9.74, p = .002, \text{partial } \eta^2 = .02$ ); however there were no gender differences in ratings for John ( $F = .53, p = .47, \text{partial } \eta^2 < .01$ ; Table 14b).

**Hypothesis 3c.** *Women will be more likely than men to rate the sexual encounter as a sexual assault across all conditions (Table 15).*

The *main effect of gender* on perceptions of the sexual encounter as a sexual assault was significant ( $F = 9.85, p = .002, \text{partial } \eta^2 = .02$ ), such that women were more likely than men to perceive the sexual encounter as a sexual assault across all conditions ( $M = 2.56, SD = 1.09$  vs.  $M = 2.26, SD = 1.06$ ).

## DISCUSSION

The purpose of this study was to examine how men and women interpret sexting as a means of communicating sexual intent and consent, and how sexting influences others' attributions of responsibility in sexual encounters. Overall, results suggest the following:

1. Sexting influenced men's and women's perception of sexual intent. Those in sexting conditions perceived a target man and woman (John and Jennifer) as having higher sexual intent and also perceived a greater likelihood of a sexual encounter in sexting conditions. Both men and women also rated that the sexual encounter was more appropriate in the sexting conditions.
2. Sexting influenced men's and women's perceptions of whether sexual consent was exchanged; however, overall, men were more likely than women to perceive that sexual consent was exchanged, and men were also more likely than women to interpret the sext as a cue of consent. Further, women were more likely than men to perceive the sexual encounter as a sexual assault.
3. Overall, John was attributed more responsibility and blame for the sexual encounter; however, sexting influenced only attributions of responsibility for Jennifer, such that Jennifer was attributed more responsibility in the sexting vs. texting conditions.
4. Contrary to hypotheses, men and women did not differ in their ratings of sexual intent, the likelihood of a sexual encounter, the meaning of the sext, or the appropriateness of the sexual encounter. Across all of these variables, differences were only seen across message type, such that both men and women perceived more sexuality in the sexting conditions.
5. Alcohol had few effects on perceptions of sexual intent, consent, and attributions of responsibility. Alcohol did influence perceptions of Jennifer's sexual intent, such that Jennifer was perceived as more interested in sex in the alcohol conditions

Overall, the results suggest that sexting is interpreted as a form of sexual communication; specifically, sexting appears to communicate sexual intent and consent and influences individuals' attributions of responsibility and blame for a sexual encounter in cases of alleged sexual assault. Next, I will discuss more in depth the findings regarding the influence of sexting, alcohol, and gender on (1) sexual intent, (2) sexual consent, and (3) attributions of responsibility, as well as potential explanations for findings, future directions, and implications.

### **Sexual Intent**

Overall, findings suggest that sexting influenced individuals' perceptions of a target man's and woman's (John and Jennifer) sexual intent. First, participants perceived both John's and Jennifer's sexual intentions higher in the sexting compared to texting conditions. John and Jennifer were each rated as more likely to expect sex, more willing to have sex, more receptive to a sexual advance, more interested in sex, and also more attracted to one another in the sexting vs. texting conditions. Second, individuals rated the likelihood of a sexual encounter as more likely in the sexting conditions. Contrary to hypotheses, there were no significant gender differences in men's and women's perceptions of sexual intent.

Taken together, findings regarding the influence of sexting on ratings of sexual intent demonstrate the implicit messages of sexual interest interpreted from sexting, and corroborate evidence regarding sexting as a form of flirtation and sexual communication (e.g., see Cooper, Quayle, Jonsson, & Svedin, 2016 for review). Importantly, men and women similarly interpret sexting as communicating sexual intent. Further, results suggest that both men and women interpret others' motives for sexting as a means of communicating sexual interest and a way to initiate sex, which is consistent with self-report studies examining motives for sexting (Burkett, 2015; Dir et al., 2013; Drouin et al., 2013; Lenhart, 2009; Renfrow & Rollo, 2014). In a different light, these findings are also consistent with the link between sexting and actual sexual behavior (e.g., see Cooper et al., 2016 and Klettke et al., 2014 for reviews). While most published findings documenting the link between sexting and sexual activity have been cross-sectional, recent findings from a prospective study have shown that among college women, sexting at the beginning of the fall semester predicted sexual hookups (number of partners) at the

end of the spring semester (Dir & Cyders, unpublished). In the current study, individuals rated the likelihood of a sexual encounter higher in the sexting conditions and, taken together with recent prospective findings, this illustrates a temporal model with sexting as an intermediary step in the path to actual sexual encounters.

Contrary to hypotheses, there were no significant differences in men's and women's perceptions of the targets' (John and Jennifer) sexual intent. Across studies of sexual intent, one consistent finding is that men perceive more sexual intent in others' behaviors compared to women (e.g., Farris et al., 2008; Lindgren et al., 2008). However, this was not the case – both men *and* women in the sexting conditions similarly rated John's and Jennifer's sexual intent higher than in the text conditions.

One explanation for this finding is that men and women similarly perceive behaviors that are clearly platonic and friendly, as well as those that are clearly sexual, but behaviors and cues that are more ambiguous are where gender differences arise, such that men are more likely to interpret more ambiguous cues as more sexual compared to women (e.g., see Farris et al., 2008 for review; Fisher & Walters, 2003; Kowalski, 1993). For example, in a similar vignette study, both men and women viewed a photograph of a woman dressed provocatively in sexy clothing as more sexually interested compared to a photograph of a woman dressed conservatively (Cahoon & Edmonds, 1989). Another study also found that both men and women similarly rated a target man and woman's sexual intent in an overtly seductive interaction as more sexual than in a platonic interaction based on nonverbal cues (e.g., interpersonal distance, eye contact, tone of voice, touching); however, men rated targets as more sexual compared to women when these cues were more ambiguous (Sigal, Gibbs, Adams, & Derfler, 1988). This is consistent with the finding that both men and women in the sext condition rated Jennifer (and John) as more sexual than in the text condition, and thus suggests that sexting is perceived similarly among men and women as a signal of sexual intent.

Relatedly, the lack of gender differences reflects recent views of sexting as *normalcy discourse* (Cooper et al., 2016; Döring, 2014). In a recent qualitative study, young adults rated that there is typically a “mutual understanding” of the meaning behind sexting that is communicating sexual interest (Burkett, 2015). Therefore, despite hypotheses that men would rate more sexuality in sexts compared to women, this was not



the case. Results are consistent with findings that men and women perceive sexual intent similarly when cues are clearly sexual or platonic, thus suggesting that sexting is an explicit cue of sexual interest.

While sexual intent is defined as one's desire, interest, and willingness to engage in sexual activity, sexual consent is understood as one's actual agreement to sexual activity. Next I will discuss findings regarding the influence of sexting on men's and women's perceptions of whether sexual consent was exchanged.

### Sexual Consent

Although both men and women were more likely to perceive that sexual consent was exchanged in the sexting vs. texting conditions, overall men were significantly more likely to perceive that consent was exchanged across all conditions. Additionally, men were more likely to interpret the sext as a cue of sexual consent, while women did not perceive the sext as a communication of sexual consent. These results are consistent with evidence of gender differences in the communication and interpretation of sexual consent. For example, women are more likely to use *verbal* signals (e.g., a verbal 'yes' or verbally expressing desire) to communicate consent, while men are more likely to use and interpret *nonverbal* signals (e.g., not saying anything in response to sexual advance; flirtatious body language) as consent (Jozkowski & Peterson, 2013; Jozkowski et al., 2014).

In addition to these gender differences in interpreting sexual consent, women in turn were also more likely to interpret the sexual encounter as a sexual assault across all conditions, which is consistent with previous literature documenting gender differences in perceptions of sexual encounters (Basow & Minieri, 2011; Alderden & Gruber, 2012; Newcombe, van den Eynde, Hafner, & Jolly, 2008; Workman & Freeburg, 1999). Taken together, these gender differences in sexual consent, as well as perceptions of a sexual assault, are consistent with the miscommunication theory that sexual assault or sexual coercion occurs due to differences in how men and women interpret and communicate sexual cues (Beres, 2010; Burkett & Hamilton, 2012; Frith & Kitzinger, 1997; McCaw & Senn, 1998).

Interestingly, although men and women agreed on perceptions of sexual intent, there were gender differences with respect to sexual consent, suggesting that sexual intent

and sexual consent are distinct constructs. To date, there is only one other study that examined both perceptions of sexual intent *and* sexual consent (see Hynie et al., 2003 for study), and although literature has theoretically described sexual intent as a distinct construct from sexual consent, the current study is the first study that quantitatively shows differential patterns in perceptions of sexual intent vs. sexual consent across gender. These differential patterns in findings for perceptions of sexual intent and sexual consent across gender highlight a critical gap in the literature and the need for future studies to examine differences in sexual intent and consent. Literature on sexual consent is sparse compared to that on sexual intent, and further research is necessary in order to (1) further conceptualize distinctions between consent and intent, (2) examine gender differences in the communication and interpretation of sexual consent, and (3) seek to conceptualize the “when” and “how” of consent. To the third point, men perceived the sext as a consent cue, even though it happened well before face-to-face contact. This is particularly important in the context of sexual assault, since one explanation for sexual assault and unwanted sexual experiences is due to sexual miscommunication between men and women. Rates of sexual assault among college women are high, and this research could inform sexual assault prevention, intervention, and education, as well as legal efforts to define sexual consent.

#### **Attributions of Responsibility/Blame**

Overall, individuals attributed more responsibility and blame to John for the sexual encounter compared to Jennifer, which is consistent with literature that participants will typically attribute more responsibility to a male perpetrator than a female victim (Pollard, 1992; van der Bruggen & Grubb, 2014). Although there was overall more blame attributed to John, men attributed more responsibility and blame to Jennifer than did women. This is consistent with some results that have shown that men are more likely to blame a woman victim (Bell et al., 1994; Katz, Moore, & Tkachuk, 2007), although it contrasts other findings that have shown women to be harsher towards a woman victim (White & Kurpius, 2002). Still, most important, sexting influenced only attributions of responsibility and blame for Jennifer – not John.

There are two likely explanations for this finding: (1) differences could be due to a measurement issue, such as a restriction of range, or (2) differences could be due to the

sexual double-standard and traditional sexual scripts that influenced participants' judgments of John and Jennifer.

First, since overall John was attributed more responsibility and blame for the encounter as compared to Jennifer across all conditions, it could be that there was a restriction of range in scores for John, and thus, scores were not variable enough to reach significance across conditions (Alexander, 1988). There is some evidence for restriction of range. For example, one would expect that if John was perceived as being more sexually interested and expecting sex, he would also be attributed more responsibility for initiating the sexual advance; however, scores for John's responsibility/ blame were not correlated with scores for John's sexual intent ( $r = .02, p > .05$ ), while scores for Jennifer's responsibility/ blame were correlated with her sexual intent ( $r = .15, p < .01$ ). Examining this in a different way, men are usually more likely to attribute less blame to other men and more blame to women, while women are more likely to do the opposite. However, whereas gender was not related to John's responsibility/blame, gender *was* related to Jennifer's responsibility/blame ( $r = .03, p = .45$  vs.  $r = .14, p < .01$ ). Still, it is possible that there was not a restriction of range, since as expected, there was a significant, negative correlation between scores for John's responsibility/ blame and scores for Jennifer's responsibility/ blame ( $r = -.31, p < .01$ ). Further, scores for John's responsibility/blame were also correlated with perceptions of sexual assault ( $r = .48, p < .01$ ). Restriction of range would contribute to null results because a lack of variance across scores would make it more difficult to see a meaningful linear relationship between variables that would be expected to relate. It is possible that there was a restriction of range, such that in general, both men and women – regardless of the conditions – attributed more responsibility and blame to John vs. Jennifer. This would limit the variance in range of scores, and thus, would explain why we are unable to see potential differences in perceptions across sexting vs. texting conditions.

Another more plausible explanation is that even though John was perceived as more responsible than Jennifer across all conditions, John's character was not judged differently for sexting, while Jennifer's character was subject to differential judgment. In other words, it may be that sexting is more telling of a woman's behavior than a man's behavior, particularly that this sexual, promiscuous behavior is more inconsistent with

female stereotypes and traditional gender roles (Cowan & Koziej, 1979; Crawford & Popp, 2003; Hynie et al., 2003). In turn, this would explain why sexting (or message type) had a stronger influence on perceptions of how responsible Jennifer was for the sexual encounter.

This idea is congruous with the sexual double standard, or the precept that sexual activity is more socially acceptable and even rewarding for men, while for women, there are more negative connotations of being seen as promiscuous and violating female gender roles (e.g., Aubrey, 2004; Brady & Halpern-Felsher, 2007; Crawford & Popp, 2003; Milhausen & Herold, 1999). This sexual double standard concerns a range of sexual-related behaviors, including sexual motives, sexual initiation, and other promiscuous behaviors (see Crawford & Popp, 2003 and Sagebin Bordini & Sperb, 2013 for reviews). Even more important, this sexual double standard is linked to victim-blaming and rape myths, such as the belief that in cases of sexual assault, the woman “asked for it” because she was acting provocatively (Gurnham, 2016). Similar to the current study findings, studies have shown that women who wear more revealing clothing (i.e., tight clothing, showing more skin) are perceived as not only more sexually interested and promiscuous, but are also attributed more blame and responsibility for a sexual encounter (and potential sexual assault) compared to women wearing less revealing clothing (e.g., Abbey et al., 1987; Maurer & Robinson, 2008). Other factors that also challenge the traditional female sexual script, including the women victim’s condom possession, level of drunkenness, pre-assault behaviors (e.g., studying vs. drinking or dancing at a club, initiating a date, going back to male’s apartment), and previous sexual experience (e.g., virgin vs. non-virgin) have also influenced female victim-blaming (Crawford & Popp, 2003; Grubb & Turner, 2012; Hynie et al., 2003; Jonason & Marks, 2009; Muehlenhard, Friedman, & Thomas, 1985; van der Bruggen & Grubb, 2014; Whatley, 1996).

The sexual double standard also applies to sexting behaviors: Women are more subject to negative judgment from sexting, such as being seen as more provocative or as a “slut” for sexting, and even being seen as a “prude” for not sexting (Lippman & Campbell, 2014), while men are more often rewarded for sexting (Ringrose, Harvey, Gill, & Livingstone, 2013; Walker et al., 2013). Building on these findings, this is the first study to show that these double standards for men and women related to sexting in turn

influence attributions of responsibility and blame in sexual encounters. Therefore, although restriction of range could have been a factor, it seems most viable that Jennifer, as a woman, was subject to differential judgment due to the sexual double standard that influenced individuals' perceptions of Jennifer as straying from the traditional female gender role and resulted in victim-blaming.

### **Alcohol's Influence on Perceptions of Sexual Intent, Consent, and Responsibility**

Contrary to hypotheses, alcohol did not have a significant effect on perceptions of sexual consent and attributions of responsibility and blame for sexual encounters. Alcohol *did* influence individuals' perceptions of Jennifer's sexual intent, consistent with the pattern of findings that have shown that women who are drinking are seen as more promiscuous and sexually-willing compared to non-drinking women (e.g., George et al., 1988; Grubb & Turner, 2012; Maurer & Robinson, 2008; Scronce & Corcoran, 1995; Wall & Schuller, 2000). There was also a trend such that individuals perceived a greater likelihood for a sexual encounter in the alcohol conditions, which is consistent with literature on the link between alcohol and sexual behaviors (e.g., Cooper, 2002, 2006); still, this relationship did not reach significance. Despite these findings, there were no other supported hypotheses regarding alcohol.

The lack of findings for the role of alcohol in perceptions of sexual intent, sexual consent, and attributions of responsibility diverge from the plethora of findings regarding alcohol's role in sexual behaviors and sexual victimization (e.g., Abbey et al., 2004; Cooper, 2002, 2006). One explanation could be that in this particular sample, alcohol was not an important factor. Another explanation is that the relationship between alcohol use and sexual victimization – as well as alcohol and sexual intent and consent – seen in other findings may be spurious and explained by a third, unmeasured variable, such as other situational factors or characteristics of the perpetrator and victim (Abbey, 2002, 2011; Prentky & Knight, 1991). Still, the most plausible explanation is that these results are likely driven by a less than ideal manipulation of alcohol in the vignettes, which I will discuss in more detail in the next section.

### Implications of Vignette Design

There are multiple factors regarding the vignette design that should be considered in interpreting results. First I will discuss the effectiveness of the manipulation of sexting and alcohol in the vignette, and following, I will discuss other factors regarding the vignette design that could have important implications for results.

Taken together, results suggest that the manipulation of message type (sext vs. text) in the vignette was successful. Sexting showed significant differences in perceptions of sexual intent, sexual consent, and attributions of responsibility and blame. However, the manipulation of alcohol was not successful, as seen by the lack of supported hypotheses regarding the effects of alcohol on sexual intent, consent, and attributions of responsibility. One explanation for the difference in effectiveness of the manipulation of alcohol and sexting could be due to how these variables were manipulated. Message type was manipulated by using a visual manipulation (i.e., picture of text vs. picture of sext), while alcohol presence was manipulated by using a verbal manipulation (i.e., mention of Starbucks vs. mention of bar). Some studies have shown that pictorial compared to lexical cues of alcohol are more effective in determining attentional biases (Bruce & Jones, 2004), and may be a more ecologically valid and powerful cue for assessing individuals' attention to alcohol (Bruce & Jones, 2004; Townshend & Duka, 2001). Therefore, if a visual alcohol cue was used similar to the visual sexting cue, the manipulation may have been more successful in demonstrating the archetypal effects of alcohol on perceptions of sexual intent, consent, and attributions of responsibility. Thus, future research should seek to examine the effects of sexting and alcohol using similar manipulation or cue types. In addition to the effectiveness of the manipulation, there are other factors regarding the vignette design that are important to consider when interpreting results that I will discuss next: (1) the idea of self vs. other in the vignette perspective; (2) issues associated with perceptions of John and Jennifer and their characterization; and (3) the nature of the sext exchange used in the vignette.

While previous research has utilized self-report methods for examining sexting behaviors, including individuals' behavior patterns and beliefs, expectancies, and motives for sexting, this is the first study to use a vignette design in order to address judgments and perceptions of *others'* sexting behaviors and judgments of a hypothetical sexting

scenario. The focus on judgments of others' behavior is particularly pertinent to the study considering the potentially pervasive nature of mobile and social media content, the tendency for others to publicly voice judgments over social media, and the importance of attributions of responsibility in alleged cases of sexual assault (e.g., Dissell, 2013; Papp et al., 2015).

Still, despite the relevance of the third person perspective, future research should also utilize a vignette design or similar experimental design that fosters individuals' responding from a first person perspective in order to further determine potential differences in judgment of others' behavior compared to decisions and judgments of one's own behavior in a sexting scenario (O'Dell, Crafter, Abreu, Cline, 2012). For one, this is the first study to examine sexting as a cue of sexual consent, and implementing a first person perspective would allow us to examine whether individuals would use sexting as a way to communicate consent or interpret the cue as consent if they were in a similar situation.

In addition to the third person perspective, the photos used in the vignette may have influenced (1) participants' perceived similarity to targets as well as (2) participants' attraction to or perceived attractiveness of targets. First, there is some evidence that individuals respond to attributions of responsibility and blame based on the extent to which they can relate to or identify with the target characters. For example, women who perceive themselves as more similar or able to relate to the target victim typically attribute less responsibility to the female victim and even empathize with her (Bell et al., 1994; Grubb & Harrower, 2008, 2009; Thornton, 1984). Likewise, men are more likely to blame women victims since they often identify less with the female identity (van der Bruggen & Grubb, 2014). There are two main theories that explain this phenomenon. The *Defensive Attribution Hypothesis* suggests that when individuals' perceived similarity to the victim (or perpetrator) and the situation increases, they attribute less blame in order to protect themselves from being blamed in the future for a similar situation (Cann, Calhoun & Selby, 1979; Kanekar & Vaz, 1988; Shaver, 1970; van der Bruggen & Grubb, 2014). The *Just World Theory* explains that individuals perceive victims that they relate to in a negative light in order to justify the seemingly undeserved act and seek reassurance that the world is just and fair (Lerner & Matthews, 1967; Kleinke & Meyer, 1990). Taken



together, the photos used could have influenced the extent to which participants related to the vignette characters. For example, although target faces were not shown in the photos, the perceived race or age of the targets could have influenced the extent to which participants identified with John and Jennifer (Grubb & Harrower, 2008).

Another implication for the photographs is that the level of attractiveness of the individuals used in the photos could have influenced individuals' perceptions of sexual intent or attributions of responsibility (Calhoun, Selby, Cann, & Keller, 1978; Deitz, Litman, & Bentley, 1984). There is some evidence that victims who are more attractive are blamed more because their characteristics are said to have played a role in the rape (Calhoun et al., 1978). Other evidence suggests that less attractive victims (and perpetrators) are blamed more, and this is due to the physical attractiveness stereotype that those who are more attractive are associated with more "good" qualities (Deitz et al., 1984; Seligman, Brickman, & Koulack, 1977). Similar mixed findings have been shown for the influence of attractiveness level on attributions of responsibility for male perpetrators (Gerdes, Dammann, & Heilig, 1988). Therefore, although findings are mixed, participants' subjective attraction to the targets or perceived level of attractiveness based on the photos (e.g., fitness level of John and Jennifer) could have influenced results, as opposed to if no photographs were used; however, patterns of findings are mixed, and thus, future research should explore these potential factors further in similar studies.

The last implication of the vignette design is that in the scenario, the man initiated the sext and the woman responded. This sequence was used since it corresponds to the heterosexual script of man as initiator and woman as sexual "gatekeeper" (Simon & Gagnon, 1986; Wiederman, 2005); however, this may not completely reflect real-life sexting scenarios. The scenario in the current study can be said to be a "consensual sexting" exchange, such that (1) Jennifer was not described as being surprised or caught off guard by the situation, (2) there was no exchange of John first pressuring Jennifer into sexting, and (3) John initiated the sexting exchange without any mention of pressure from Jennifer. The idea of consensual sexting is that it occurs within a mutual relationship, and is said to be more normative and less risky (Burkett, 2015; Drouin, Ross, & Tobin, 2015). However, recent literature has highlighted consensual but unwanted sexting, such as in the case where the woman feels an intrinsic pressure to comply and sext back (Drouin et



al., 2015). While this is difficult to portray in a vignette scenario, future research should seek to examine how manipulating the initiator of the sext, or manipulating whether or not the sext exchange was consensual and wanted, influences perceptions of intent, consent, and responsibility. For example, John initiated the sext and was also attributed more blame for the sexual encounter; switching who initiated the sext could influence judgments of John's and Jennifer's blame for the encounter. Likewise, even though the sext was portrayed as consensual, Jennifer was judged more harshly for sexting; manipulating whether the sext exchange was consensual or coercive could also influence perceptions of the scenario. Therefore, while the scenario portrays a "consensual" sexting situation that is in line with the traditional heterosexual script, an important question becomes: Is this the most appropriate and realistic scenario to use, and how would manipulating the type of sexting exchange influence perceptions of the scenario and judgment of targets?

### **Sexting: Risks and Normalcy Discourse**

Overall, these findings speak to the debate on the risky nature of sexting. While many have highlighted the risks from sexting, such as sexts being shared with others or sexting leading to unwanted sexual attention (e.g., see Cooper et al., 2016 and Klettke et al., 2014 for reviews), more recent literature argues that sexting is a normative behavior (e.g., Döring, 2014). Next I will discuss two predominant themes from the findings that have important implications in consideration of the debate over the riskiness of sexting: (1) sexting as normalcy discourse as contrasted with current findings suggesting gender differences in perceptions of sexting as sexual consent, and (2) differences in effects of sexting for men and women.

#### **Sexual Communication: Normative Discourse vs. Misperception of Sexual Consent**

On one hand, as discussed previously, similarities in men's and women's perceptions of higher sexual intent in the sexting conditions are parallel with more recent views of sexting seen as a "stereotypical sexualized behavior" and even as *normalcy discourse* (Döring, 2014; Lee & Crofts, 2015). In other words, both men and women share mutual views of sexting as a normative means of flirtation and sexual communication. While there may be some risks associated with unwanted or

nonconsensual sexting, in general, sexting seems to be a normative and non-risky form of flirtation and communication (Burkett, 2015; Döring, 2014; Hasinoff, 2013, 2014; Hasinoff & Shepherd, 2014) that both men and women use as a way to communicate sexual interest. While this could be the case, the data do not completely suggest this, since there were gender differences in sexual consent ratings.

While both men and women share similar views of sexting as communicating sexual interest, women do not appear to share men's perceptions that sexting is a means of communicating sexual consent. Therefore, while men and women may use sexting as a means of flirtation, women are not using this as a tool to communicate their sexual consent, while men may be interpreting this as such. Thus, an inherent risk in sexting may be men misperceiving a sext as sexual intent *and* consent, while women are only meaning to communicate sexual interest.

This pattern of findings is consistent with the miscommunication hypothesis of sexual assault, which asserts that sexual coercion and unwanted sex occur due to a miscommunication of sexual signals between men and women (Beres, 2010; Hickman & Muehlenhard, 1999). Still despite the current study's supportive findings, others have argued against the miscommunication hypothesis, and contend that men and women are capable of accurately reading each other's cues. An alternative explanation for sexual assault related to sexual communication is the selective information processing (SIP) theory, which suggests that individuals' judgment and decision-making process is done by focusing selectively on decision-relevant information and ignoring inconsistent information (Yoon et al., 2012). Linked to cognitive dissonance theory (Festinger & Carlsmith, 1959), individuals reduce dissonance in decision-making by selecting information that aligns with their desire or opinion (Schwarz, Frey, & Kumpf, 1980). Therefore, SIP could be influencing decision-making that results in an unwanted sexual encounter, rather than a complete miscommunication and misinterpretation by the man on a woman's consent cues. This could particularly be the case with nonverbal cues and cues such as sexting (Bollinger, 2014). It could be that men choose to focus on the woman's sext as a consent cue, and potentially ignore other potential refusal cues. Simultaneously, it could also be that women are unaware of how men are interpreting the sext as a sexual signal, and further, women could be reading men's cues that are relevant to their own

decision to refrain from a sexual encounter. Therefore, in accordance with this hypothesis, both men and women are interpreting communication cues that are in line with their own diverging decisions. This would also explain how a consensual sexual encounter could ensue, if both men and women are correctly interpreting each other's cues and share the same "decision" or "goal" for a sexual encounter.

Taken together, these findings suggest that while sexting may be normative, research should take caution in purporting that sexting is an effective means of sexual communication. Further, these results also speak more broadly to the issue of sexual consent beyond sexting, and the need for further research to determine individuals' perceptions of sexual consent as well as construct a clear conceptualization of the what, when, and how of sexual consent.

### **Sexting: Sexual Double Standard or Tool for Gender Equality?**

Another theme from the findings that speaks to the debate over the risky nature of sexting is in regards to differential effects and consequences of sexting for men vs. women. On one hand, some view technology-based sexual communication as beneficial for women (Hasinoff, 2013). Due to traditional gender role stereotypes, many women have difficulty being assertive in sexual situations and expressing sexual desires and needs (Hasinoff, 2013). Recently, women's lifestyle magazines and other media have started to promote sexting as a useful tool for women to explore sexual desires and foster a more open discussion about their sexual needs (Döring, 2014; Hasinoff, 2013; Leshnoff, 2009). Further, mobile communication may aid in more assertive communication compared to face-to-face communication (Cupples & Thompson, 2010) and even allow women to initiate relationships or communication without being stigmatized as "being too forward" (Hasinoff, 2013). In fact, a new mobile dating app, *Bumble*, was created in order to give women more control by giving only women the ability to "make the first move" and initiate contact and communication with a "match" or potential partner (Kosoff, 2015). This highlights how technology is taking active steps in order to challenge some of these traditional gender roles and promote women having a more assertive voice in sexual communication and relationships.

Still, while sexting may in fact be an empowering tool for women to assert their sexual voice and a means for flirting and communicating sexual interest in today's digital

world, findings suggest that the sexual double standard still holds. In other words, sexting is not “gender neutral,” but rather is still shaped by social perceptions and gender-related norms of the broader sexual society (Simpson, 2013). Therefore, there may be more risks from sexting for women compared to men (Dir et al., 2013a), particularly with respect to a woman’s reputation and differential judgments for men vs. women who sext (Lippman & Campbell, 2014; Ringrose & Renold, 2012; Ringrose et al., 2013). As discussed previously and demonstrated in the findings, these differential judgments may lead to victim-blaming in the potential case of sexual victimization. This is the first study to consider sexting as a factor that may influence victim-blaming, and thus, research should seek to further examine how sexting may influence victim-blaming across other populations, including law enforcement.

Taken together, although there is some evidence that sexting is a safe, normative form of sexual communication that may be an empowering tool for women to express their sexuality, it appears that sexting is subject to the sexual double standard and even victim-blaming. Further, there are also important differences in how men and women are using and perceiving sexting as a form of sexual consent. Therefore, it seems as though sexting is not immune to many of the same issues that have been covered over decades of sexual communication and sexual assault research. These findings are important not only for the risk of sexual assault and victim-blaming, but also more broadly within the context of sexual gender roles. It is also important to consider these issues not only for sexting but in regards to other forms of social media.

### **Implications for Social Media, Sexual Communication, and Sexual Gender Roles**

Next I will discuss two further implications for this research by (1) looking more broadly at other forms of social media and sexual communication and (2) discussing beyond sexual assault to traditional sexual gender roles and sexual scripts.

First, there are two considerations regarding findings that have implications for sexual communication via social media (e.g., Facebook, Twitter, Tinder, Snapchat): (1) Sexual content on social media profiles may increase the risk for being “targeted” for sex, and (2) Sexual content may result in harsh judgment of women, such as in the form of slut-shaming, or more seriously, be used as evidence in cases of alleged sexual assault. There are some findings that parallel current study findings to suggest this.

For example, Moreno and colleagues (2011) found that college men perceived women who had more sexual references on their Facebook profiles (pictures with more revealing clothing, provocative, sexually suggestive) as more sexually available and also more likely to initiate sex with them, but less likely to pursue a committed relationship with these women (Moreno, Swanson, Royer, & Roberts, 2011). This is similar to how men misperceived sexting as a cue of sexual consent in the current study, and how both men and women perceived the sext messages as conveying sexual interest. While sexting is usually a private and mutual discourse, it is also important to consider the potential for judgment and misperception of sexual signals in more public displays of sexuality, such as on Facebook, Snapchat, or Instagram. One can imagine on a college campus with social media access and social network connections how women might be at risk for being targeted for sex because of judgments based on social media content.

Another study highlights the risk of women being judged negatively based on sexual content, similar to how Jennifer was attributed more blame for the sexual encounter in the sexting conditions. A recent study had individuals judge both a target man and woman “slut” (portrayed by a suggestive Facebook profile post), as well as a target man and woman “slut-shamer” (portrayed as responding with a negative comment to the slut’s post; Papp et al., 2015). The study findings not only highlighted the issue of female “slut-shaming” and the perpetuation of the sexual double standard, but also the pervasiveness and reinforcement of these negative judgments through social media. Even beyond the issue of victim-blaming, slut-shaming, and the risks of being targeted for sex, there is also the risk that this public social media content could be used in cases of sexual assault, such as the text message and social media evidence used in the Steubenville, Ohio rape trial (Dissell, 2013). The importance of this is paramount, because due to the pervasiveness of digital communication today, digital trails created by social media and mobile phone content are being used as evidence in legal trials (Murphy & Fontecilla, 2013).

Taken together, much of these findings seem to be driven, in part, by long-standing social norms and attitudes regarding sexual gender roles; however, targeted efforts should still be made to prevent negative outcomes, specifically, victim-blaming and miscommunication of sexual consent leading to unwanted sex. First, it is important to

utilize social media as a platform for disseminating intervention, prevention, and education because (1) social media, is, in part, the source of these negative outcomes; (2) social media can also target societal attitudes across a broad population; and (3) social media has been shown to be an effective intervention platform for targeting young adult populations (Cugelman, Thelwall, & Dawes, 2011).

To address the first two considerations above, the aforementioned mobile dating app, *Bumble*, is evidence for the potential use of social media platforms to foster progress and change in societal norms and behaviors. *Bumble* has attempted to challenge norms directly by establishing the “rules” and structure of the dating and matching process. Thus, it is possible that the development of other mobile apps could be effective in directly challenging social norms.

Another useful strategy for addressing both victim-blaming (as well as slut-shaming) and sexual assault risk is through bystander interventions. Bystander interventions targeting sexual violence broadly focus on teaching and encouraging individuals to recognize signs and risks of sexual assault and increasing individuals' willingness and efficacy to engage in behaviors that prevent potential sexual victimization (e.g., walking someone home; Burn, 2009; Banyard, Plante, & Moynihan, 2005). While most bystander interventions are in-person, a recently piloted online bystander intervention program, *TakeCare*, was shown to be more effective than other successful in-person programs, cost-effective, and easily accessible to a wide audience (Kleinsasser, Jouriles, McDonald, & Rosenfield, 2015). Additionally, recent research has shown the potential effectiveness of bystander interventions for cyberbullying through social media platforms (Brody & Vangelisti, 2016), which could also prove promising for targeting sexual assault risk and victim-blaming with bystander interventions via social media.

The issue of sexual consent and sexual communication is also an important avenue for sexual assault intervention and prevention, and recent intervention efforts have started to target sexual miscommunication. For example, based on the miscommunication theory, a recent study piloted a feedback procedure that improved men's ability to detect sexual cues by training them to focus on more affective cues and less on physical characteristics in detecting a woman's sexual interest (Treat, Viken,

Farris, & Smith, 2015). Still, this intervention effort does not target sexual consent in particular, and also does not consider the alternative selective information processing theory as an explanation for sexual assault. Thus, another potential prevention strategy could be to create an educational campaign focused on helping individuals to conceptualize the consent process and understand what constitutes consent and what does not. For example, data from focus groups found that the use of visual images and vignettes depicting potential consent scenarios and a range of verbal and nonverbal cues could be helpful in better understanding sexual communication. Further, the use of social media platforms offers a cost-effective, and appealing vehicle to disseminate information and promote sexual consent through videos, images, and other media content (Bollinger, 2014). For example, this platform could create a grassroots-type movement where individuals could “like,” “post,” or “retweet” educational messages or content that would reach others in their social networks. This strategy may be particularly effective for younger populations, such as high school students. In addition to these interventions targeting sexual communication, further research on sexual consent is warranted in order to better understand and conceptualize the consent process, so that we can create more effective prevention and intervention strategies.

Lastly, considering many of these findings regarding sexting parallel long-standing findings in the study of sexual assault, research should consider sexting and other forms of computer-mediated communication more broadly as normative sexual communication and in the same sphere as traditional face-to-face verbal and nonverbal communication. Thus, efforts should be made to better integrate both online and offline behavior and communication in this line of research.

## LIMITATIONS

Findings should be evaluated in the context of study limitations, including: (1) limitation of sample characteristics; (2) vignette and study design; (3) statistical power with multiple analyses; (4) online data collection and self-report methods; and (5) measurement issues in perceptions of sexual intent, sexual consent, and attributions of responsibility and blame.

There are a few limitations with respect to the vignette design that should be considered. One limitation in using a vignette design is the gap between the hypothetical vignette and reality: Vignettes cannot capture all details and complexities of real life situations, and there are often “grey areas” that can make interpretation difficult and weaken external validity (Barter & Renold, 2000; Finch, 1987; Hickman & Muehlenhard, 1999); however, using a more structured vignette design and isolating specific factors (i.e., sexting, alcohol use) by which individuals had to make decisions (Hughes & Huby, 2004; Keane, Lang, Craven, & Sharples, 2012; van der Pas, van Tilburg, & Knipscheer, 2005) limited some of this ambiguity. A lack of information or content may also make responding difficult and lead to a range of interpretation (Hughes & Huby, 2004; O’Dell et al., 2012). For example, in the study, there were few details given about the actual sexual encounter, and there was no description of John and Jennifer’s verbal and nonverbal behaviors leading up to the sexual encounter that could have influenced interpretation of whether sexual consent was exchanged; however, less content offered less information for participants to use in determining whether consent was exchanged, which allowed for the focus on how sexting influenced individuals’ perceptions of consent.

There is also no standardized design for measuring social perceptions of sexual scenarios and sexual assault attributions; in addition to the vignette method, various other methods have been used to portray sexual scenarios, including mock trials, videotaped



scenarios, newspaper reports, and still photography (Grubb & Harrower, 2008). Therefore, these results can only be compared with other studies utilizing written vignettes, and future research should seek to determine how other study designs may influence results, since this is the first study to utilize sexting as a factor in the scenario.

Also as discussed previously, the manipulation of alcohol in the vignette may have been too weak to see results. There are extensive findings on how the presence of alcohol influences individuals' judgments in similar vignette scenarios (e.g., Corcoran & Thomas, 1991; Maurer & Robinson, 2008; Schuller & Stewart, 2000); however, the current study failed to replicate much of these findings. Thus, use of a visual manipulation of alcohol could be more effective.

Despite these limitations, I developed the vignette in part based on actual scenarios and piloted it with college students and modified it to make the scenario more realistic. The vignette design was particularly advantageous for the proposed project, as there is little research examining judgments and perceptions of *others'* sexting behaviors and sexting scenarios. Additionally, judging someone else's behavior is less threatening than commenting on one's own behavior (Bradbury-Jones, Taylor, & Herber, 2012), and thus, this protected participants from the sensitive nature of sexual assault, and may have lowered response bias due to impression management and social desirability (Barter & Renold, 2000; Hughes, 1998; Hughes & Huby, 2002; O'Dell et al., 2012; Torres, 2009). The vignette design has been used in multiple studies examining perceptions of sexual scenarios (see Grubb & Harrower, 2008 for review). This is the first study to examine judgments of others' sexting behaviors in an experimental scenario such as this one, and thus, this offers usable pilot data for comparing results with future studies utilizing these methodologies.

### **Statistical Power and Multiple Analyses**

Another limitation of the study design is that since participants were only assigned to one vignette condition, within-person differences across conditions (e.g., within-person differences in perceptions with sexting vs. no sexting) and across the entire sample were not measurable, and although there were sufficient sample sizes within conditions, sampling all participants across multiple conditions could have increased

power (Barter & Renold, 2000; Finch, 1987). Nonetheless, assigning participants to only one vignette condition limited the potential for priming effects (Finch, 1987).

Additionally, I conducted multiple statistical analyses to examine a number of comparisons, which not only diminished power but also inflated experiment-wise error (Bender & Lange, 2001; Huberty & Morris, 1989; Kazdin, 2003). However, I had a sufficiently large enough sample size and also used the Bonferroni correction to control for the Type I error rate (Huberty & Morris, 1989).

### **Construct Measurement**

There is also a lack of formal construct definitions and gold standard measures for perceptions of sexual intent (see Lindgren et al., 2008 and Farris et al., 2008 for reviews), sexual consent (Beres, 2010; Jozkowski et al., 2014; Whatley, 1996), and attributions of responsibility and blame (Bridges & McGrail, 1989). As a result, there is significant variability in measurement of these constructs across studies (see Table 3 for overview of items). For example, measures of sexual intent perceptions range from the use of trait ratings (e.g., flirtatious, promiscuous) to more direct items (e.g., how willing is one to engage in sex), and there has been no validity testing of these measures (Lindgren et al., 2008), which threatens the reliability and validity of findings. However, I used items that have been replicated across multiple studies, and that are explicit measures of perceptions of sexual intent, consent, and responsibility (e.g., Harnish, Bridges, & Rottschaef, 2014). Thus, it is important for further research to compare these items in the study against other studies and designs.

Another measurement limitation is the lack of consideration and measurement of individuals' rape myths, which include beliefs that the victim is to blame, denial of rape claims, and beliefs that only certain types of women are raped (e.g., Abbey & Harnish, 1995; Burt, 1980; Hockett, Saucier, Hoffman, Smith, & Craig, 2009; Payne, Lonsway, & Fitzgerald, 1999). Those who endorse stronger rape myth beliefs are more likely to victim-blame and also more likely to endorse the traditional sexual double standard and heterosexual script (Anderson, Cooper, & Okamura, 1997; Lonsway & Fitzgerald, 1994, 1995). In general, men often endorse stronger rape myth beliefs (e.g., "she asked for it") and acceptance of traditional gender roles compared to women (Anderson et al., 1997). Therefore, endorsement of rape myths or traditional gender roles may explain some of the

gender differences seen. Still, other research has shown that traditional gender role attitudes may have a greater influence on blame attributions above gender (Sims et al., 2007); thus, further research with regards to the influence of rape myths on sexting is needed. This is particularly important since rape myths are pervasive in society and have a significant impact not only on how victims are perceived and treated, but also the broader beliefs of society as rape-supportive (Grubb & Turner, 2012). Thus, it would be important in future research to examine rape myths to determine if these are more important than gender in determining perceptions of similar sexting scenarios. Measurement of rape myths would also be important considering findings for the differential judgments of men and women for sexting.

### **Sampling Limitations**

The sample also poses limitations. For one, I utilized a college sample, and this limits generalizability to other populations; however, I targeted college students due to the high rates of sexual assault and alcohol use among this population. Second, I recruited participants from the Amazon Mechanical Turk system instead of using the psychology subject pool as originally proposed. Participants were determined to be in college based on their own self-report, and thus, it is likely that some participants that did not provide accurate personal information in order to meet the minimum criteria (age range, college status), which could influence results. Still, using the MTurk system provided data from a sample more diverse and more representative of the larger college population compared to the IUPUI psychology subject pool, and MTurk samples have been shown to be representative and provide valid data (Casler et al., 2013). Lastly, the participant anonymity that comes with online data collection could have also threatened the accuracy of the data; however, the online data collection method has shown to be reliable, and due to the sensitive nature of the study context, this anonymity was beneficial and may have reduced bias responding due to social desirability (Granello & Wheaton, 2004). I also used manipulation checks to control for and identify potential invalid data and respondents.

Also regarding the target population, the current study focused on heterosexual relations, based on relevant research regarding traditional heterosexual scripts as related to sexual assault. Thus, while this research may not generalize to other relationship

dynamics and communication patterns, future research should seek to examine potential differences in sexual communication and sexual victimization across all sexual preferences.

One final limitation with this area of research more broadly is that technology is constantly evolving, and while many social standards are not, it is difficult to keep up with the relevance of various forms of communication and social media. Thus, while this avenue of research is important, I hope to move into integrating this part of research as only one aspect of a broader program of study. Further, as many of these themes are related to social psychology and societal standards, these behavior patterns may not be feasible to intervene on as a clinical psychologist at an individual level; thus, more systems-level and public health approaches should be considered for intervention and prevention, particularly targeting more vulnerable populations, such as adolescent women.

## CONCLUSION

Overall, this research shows that while sexting may be a normative means of sexual communication in today's increasingly digital world, there are still some important risks that should be considered. These risks are related to gender differences in how sexts are interpreted as a form of sexual consent, and how women may be judged more harshly for sexting compared to men. These points are important for the risk of sexual assault, but also more broadly for the progression of sexual gender roles.

With respect to sexual assault, findings from the current study highlight a gap in research regarding the conceptualization of sexual consent and individuals' perceptions of sexual consent. Thus, one important next step is to better understand the communication of sexual consent, not only in the context of sexting and social media, but more broadly across sexual situations. Results are consistent with the miscommunication theory of sexual assault; however, others have argued against this, and sexual assault may be better explained by the selective information processing theory. These findings should also be incorporated into sexual assault prevention and intervention programs, such as bystander intervention programs, college campus programs, or other sexual assault campaigns. Men and women should be aware and understand how sexting is perceived, and how this contributes to miscommunication of sexual consent, and further, how sexting and other digital trails can contribute to victim-blaming. Moreover, considering the role of sexting and social media in sexual communication and the risk for sexual assault, it may be particularly important to use social media platforms as a means of disseminating education, prevention, and intervention.

Overall, this research shows that while sexting may be a normative means of sexual communication in today's increasingly digital world, there are still some important risks that should be considered.

These risks are related to gender differences in how sexts are interpreted as a form of sexual consent, and how women may be judged more harshly for sexting compared to men. These points are important for the risk of sexual assault, but also more broadly for the progression of sexual gender roles.

With respect to sexual assault, findings from the current study highlight a gap in research regarding the conceptualization of sexual consent and individuals' perceptions of sexual consent. Thus, one important next step is to better understand the communication of sexual consent, not only in the context of sexting and social media, but more broadly across sexual situations. Results are consistent with the miscommunication theory of sexual assault; however, others have argued against this, and sexual assault may be better explained by the selective information processing theory. These findings should also be incorporated into sexual assault prevention and intervention programs, such as bystander intervention programs, college campus programs, or other sexual assault campaigns. Men and women should be aware and understand how sexting is perceived, and how this contributes to miscommunication of sexual consent, and further, how sexting and other digital trails can contribute to victim-blaming. Moreover, considering the role of sexting and social media in sexual communication and the risk for sexual assault, it may be particularly important to use social media platforms as a means of disseminating education, prevention, and intervention.

In addition to considerations for sexual assault, these findings highlight how sexting and other forms of social media are subject to the traditional sexual double standard. While some argue that social media platforms have helped to promote more sexual equality for men and women, the sexual double standard is still prevalent. This is particularly important because of the pervasiveness of social media and digital content. The study findings are parallel with long-standing sexual gender role stereotypes, and due to the influence of social media on social norms and attitudes, it is important to consider whether social media is further perpetuating these attitudes or working to challenge and change them. Social media and digital content can be a powerful sphere of influence that spans populations, and thus, individuals in this area should consider digital communication in research and intervention since it is becoming increasingly streamlined to daily life. To this point, considering the rapid advances in digital technology and

evolving trends in digital communication and social media, research should focus on broader digital trends that are relevant and more stable. Additionally, prevention, intervention, and education efforts may be more effective to approach from a systems-level or public health perspective. Lastly, although much of my research has focused on young adult and college populations, more research and intervention efforts targeting adolescents and youth is paramount, considering the potential role of social media and sexting in sexual experimentation during this important developmental period.

## TABLES



Table 1 Overview of Vignette Studies Measuring Sexual Intent, Sexual Consent, and Attributions of Responsibility

Study	Measurement (DV)	Variables Manipulated (IV)	Gender Findings
Humphreys (2007)	sexual consent	relationship history	M > W perceived signals as consent
Lim & Roloff (1999)	sexual consent	consent type (v/nv), situational (12 total)	Mixed findings
Schuller & Wall (1998)	rape blame	alcohol	M > W blamed victim
Lynch et al. (2013)	rape blame	alcohol, drink purchaser	M=W blame victim when victim drinking
Jimenez & Abreu (2003)	rape blame	race, gender	M > W blame victim
Maurer & Robinson (2008)	sexual intent / rape blame	clothing, alcohol	M > W sexual intent ratings / W > M perceived as rape
Abbey & Melby (1986)	sexual intent	nonverbal cues, gender behavior	M > W ratings sexual intent
Workman & Freeburg (1999)	rape blame	clothing	M > W blame victim
Schuller & Stewart (2000)	rape blame	alcohol, gender behavior	W rated victim more favorably
Whatley (2005)	rape blame	clothing, rape myths	M > W rated victim deserving of SA
Stormo et al. (1997)	rape blame	alcohol, (rape myths covariate)	W > M blamed victim
Abbey et al. (1987)	sexual intent / rape blame	clothing, gender	M > W sexual intent ratings / M > W blame victim

Table 1. continued.

Study	Measurement (DV)	Variables Manipulated (IV)	Gender Findings
Abbey & Harnish (1995)	sexual intent	alcohol, (rape myth covariate)	M > W sexual intent ratings
Hickman & Muehlenhard (1999)	sexual consent	gender	M and W rated nonverbal consent as most common form
Hynie et al. (2003)	sexual intent / rape blame	condom possession	Mixed findings
Koukonas & Letch (2001)	sexual intent	nonverbal cues	M > W sexual intent ratings
Corcoran & Thomas (1991)	sexual intent	alcohol	M > W sexual intent ratings
Abbey (1982)	sexual intent	gender	M > W sexual intent ratings
George et al. (1988)	sexual intent	alcohol	M > W sexual intent ratings
Shotland & Craig (1988)	sexual intent	gender	M > W sexual intent ratings

*Note.* DV = dependent variable. IV = independent variable. M = Men. W = Women.

Table 2 Sample Demographics

	Women ( <i>n</i> = 255)	Men ( <i>n</i> = 270)	Total ( <i>N</i> = 525)	<i>t</i> -test / $\chi^2$	Skew	Kurtosis
Age	23.98 (3.21)	23.8 (3.37)	23.89 (3.29)	0.61	-0.91	0.21
Race				10.65 ( <i>df</i> = 6)	-15.08	237.4
Caucasian	183 (71.8)	190 (70.4)	373 (71)			
African American	22 (8.6)	22 (8.15)	44 (8.4)			
Asian / Pacific Islander	12 (4.7)	29 (10.7)	41 (7.8)			
Latino/Hispanic	19 (7.4)	17 (6.3)	36 (6.9)			
American Indian	3 (1.2)	4 (1.5)	7 (1.3)			
Other	14 (5.5)	8 (3.0)	22 (4.2)			
Sexual Identity				35.06* ( <i>df</i> = 4)	-15.81	252.7
Heterosexual	187 (73.3)	249 (92.2)	436 (83)			
Homosexual	16 (6.27)	7 (2.6)	23 (4.4)			
Bisexual	40 (15.69)	13 (4.81)	53 (10.1)			
Other	10 (3.92)	1 (0.37)	11 (2.1)			
Relationship Status				18.59* ( <i>df</i> = 3)	0.01	-1.45

Table 2. continued.

	Women ( <i>n</i> = 255)	Men ( <i>n</i> = 270)	Total ( <i>N</i> = 525)	<i>t</i> -test / $\chi^2$	Skew	Kurtosis
Single	72 (28.24)	122 (45.19)	194 (37)			
Dating	24 (9.41)	28 (10.37)	52 (9.9)			
Relationship	113 (44.3)	85 (31.5)	198 (37.8)			
Married	46 (18.04)	34 (12.6)	89 (15.3)			
Vignette Condition				1.55 ( <i>df</i> = 3)	0.01	-1.38
Text / No Alcohol	67 (50)	67 (50)	134 (25.5)			
Sext / No Alcohol	58 (44.6)	72 (55.4)	130 (24.8)			
Text / Alcohol	61 (47.7)	67 (52.3)	128 (24.4)			
Sext / Alcohol	69 (51.9)	64 (48.1)	133 (25.3)			
Dependent Variables						
Jennifer Sext Message	2.01 (0.99)	2.12 (0.97)	2.07 (0.98)	-1.30	-0.14	-1.95
John Sext Message	2.03 (0.99)	2.15 (0.98)	2.09 (0.99)	-1.45	-0.18	-1.5
Jennifer Sexual Intent	16.91 (2.88)	16.92 (2.56)	16.92 (2.72)	-0.07	-0.70	0.03
John Sexual Intent	17.39 (2.82)	17.78 (2.39)	17.59 (2.61)	-1.72	-1.10	0.64

Table 2. continued.

	Women ( <i>n</i> = 255)	Men ( <i>n</i> = 270)	Total ( <i>N</i> = 525)	<i>t</i> -test / $\chi^2$	Skew	Kurtosis
Likelihood of Sex	3.51 (0.64)	3.48 (0.66)	3.49 (0.65)	0.56	-1.09	0.76
Appropriateness of Sex	3.30 (0.77)	3.39 (0.78)	3.35 (0.78)	-1.29	-1.08	0.73
Sexual Consent	7.92 (3.0)	8.66 (2.67)	8.30 (2.86)	-2.98*	-0.46	-0.79
Sexual Assault	2.56 (1.09)	2.26 (1.06)	2.41 (1.09)	3.21*	0.08	-1.28
John Responsibility/Blame	6.22 (1.02)	6.30 (1.36)	6.26 (1.20)	-0.77	-0.90	1.78
Jennifer Responsibility/Blame	4.82 (1.64)	5.25 (1.45)	5.04 (1.56)	-3.22*	-0.65	-0.36
Message as Consent	2.26 (1.20)	2.56 (1.17)	2.42 (1.19)	-2.87*	0.08	-1.52

Note. Values displayed are *M* (SD) or *n* (%). \* *p* < .01.

Table 3 Measures of Sexual Intent, Sexual Consent, and Responsibility/Blame Used Across Studies

Dependent Variable	Measurement Items	Study Used
Sexual Intent	Sexual Attraction	Abbey & Melby, 1986; Abbey & Harnish, 1995
	<i>How sexually attracted is the (M/F) to the (M/F)?</i>	
	<i>To what extent does the (M/F) believe the (M/F) is attracted to (him/her)?</i>	
	<i>Rate level of how (1) sexy; (2) promiscuous; (3) flirtatious; (4) seductive the M/F is.</i>	
	Sexual Desire	Abbey & Harnish, 1995; Corcoran & Thomas, 1991; George et al., 1998, 1995
	<i>*How interested is the (M/F) in having sex?</i>	
	<i>How much does the (M/F) want to be seduced?</i>	
	<i>How much does the (M/F) want to seduce the other?</i>	
	<i>What is the likelihood that the (M/F) will initiate sexual activity?</i>	
	<i>*How sexually attracted is the (M/F) to the (M/F)?</i>	
<i>*What is the likelihood that the two will engage in a sexual encounter?</i>		
<i>*How receptive is the (M/F) to a sexual come-on?</i>	Hynie et al., 2003	
Prior Sexual Intentions		
<i>*Prior to meeting up, how much does the (M/F) expect to have sex?</i>		
<i>Prior to meeting up, how much does the (M/F) intend to have sex?</i>		

Table 3. continued.

Dependent Variable	Measurement Items	Study Used
Sexual Consent/ Appropriateness	<p>Communication of Consent</p> <p><i>*Rate the extent to which the (M/F) cues below constitute consent. (list of behavioral cues from situation, usually including manipulated variable – e.g., clothing style, drinking)</i></p> <p><i>Rate the extent to which the (M/F) cues below were interpreted by the (M/F) as consent. (list of behavioral cues from situation, usually including manipulated variable – e.g., clothing style, drinking)</i></p> <p><i>*How confident are you that the (M/F) gave consent?</i></p> <p><i>To what extent did the (M/F) misperceive the other's actions as consent?</i></p> <p><i>*To what extent did the woman give her consent?</i></p> <p><i>*To what extent did the woman voluntarily agree to have sex with the man?</i></p> <p>Appropriateness (of sexual behavior)</p> <p><i>*Based on the man's woman's behaviors, how appropriate was it for the man to initiate sex?</i></p> <p><i>Based on the (M/F) behaviors, should the (M/F) have expected such an outcome?</i></p> <p><i>To what degree, if any, did the man take advantage of the woman?</i></p> <p>Classification of Sexual Encounter</p> <p><i>*Some people would say that the outcome of the incident constitutes a sexual assault. Rate your opinion.</i></p>	<p>Humphreys, 2007; Hynie et al., 2003; Johnson &amp; Lee, 1989; Lim &amp; Roloff, 1999</p> <p>Lim &amp; Roloff, 1999</p> <p>Humphreys, 2007; Hynie et al., 2013; Lim &amp; Roloff, 1999</p> <p>Schuller &amp; Wall, 1997</p> <p>Lim &amp; Roloff, 1999</p>

Table 3. continued.

Dependent Variable	Measurement Items	Study Used
Responsibility / Blame	<p>Attribution of Responsibility</p> <p><i>Who is responsible for the outcome of the incident? (1=M completely responsible to 5=F completely responsible)</i></p> <p><i>*How responsible was the (M/F) for the outcome? (separate questions for each)</i></p> <p><i>*To what extent was the (M/F) to blame for the incident? Assign percentage of responsibility to each the M/F for the incident (sum of 100%).</i></p> <p><i>Rate the extent to which each of the M/F behaviors below contributed to the outcome.</i></p> <p>Consequences</p> <p><i>Do you think the victim had a right to report the incident?</i></p> <p><i>To what extent should the perpetrator be punished for the incident?</i></p>	<p>Hynie et al., 2003; Lim &amp; Roloff, 1999; Wild, Graham, &amp; Rehm, 1998; George, et al., 1995</p> <p>Schuller &amp; Wall, 1997; Wild, Graham, &amp; Rehm, 1998</p>

*Note.* \* Signifies items that will be used in proposed study as dependent variable measures.



Table 4 Summary of Proposed Analyses

Analysis	Hypothesis / Effects	Required Sample Size	Actual Sample Size
1. Full factorial MANOVA predicting sexual intent perceptions of John and Jennifer	1a: gender x message type interaction effect	N = 80	N = 525
2. Full factorial ANOVA predicting perceived likelihood of sexual encounter	1b: gender x message type interaction effect 1c: alcohol main effect	N = 296	N = 525
3. Full factorial MANOVA predicting perceived meaning of John and Jennifer's sexts	1d: gender main effect	N = 80	N = 525
4. Full factorial ANOVA predicting perception of sexual consent	2a: gender x message type interaction effect 2b: message type x alcohol interaction effect	N = 296	N = 525
5. Full factorial ANOVA predicting perception of sexting as consent cue (only sexting conditions)	2c: gender main effect	N = 296	N = 263
6. Full factorial ANOVA predicting perceived appropriateness of encounter	3a: gender x message type interaction effect	N = 296	N = 525
7. Full factorial repeated measures ANOVA comparing attributions of responsibility for John and Jennifer	3b: message type x alcohol interaction effect	N = 104	N = 525
8. Full factorial ANOVA predicting perception of encounter as sexual assault	3c: gender main effect	N = 296	N = 525

*Note.* For each analysis, sexting, alcohol, and gender were entered as independent variables, and all main and interaction effects were calculated using a full factorial analysis. Sample sizes were based on small-medium effect sizes ( $d = 0.20$ ), 80% power, and  $\alpha = .01$  to account for multiple analyses.

Table 5 Data Cleaning Breakdown

	Women	Men	Total
MTurk Initial Sample	321	367	688
Not female/male	7	9	16
Not 18-30	4	5	9
Not college	1	3	4
Time < 5 minutes	21	29	50
Incomplete	15	28	43
Not US	10	10	20
Missed 2 manipulation checks	2	3	5
Duplicate Responses	4	7	11
Multivariate Outlier	2	3	5
<i>Final Sample</i>	255	270	525

Table 6 Means of Dependent Variables across Vignette Conditions.

	Total		Text		Sext		F (df = 3)	$\eta^2_{\text{partial}}$
	N = 525		No Alcohol (n = 134)	Alcohol (n = 128)	No Alcohol (n = 130)	Alcohol (n = 133)		
John's message	2.09 (0.99)		1.26 (0.65) <sup>a</sup>	1.39 (0.77) <sup>b</sup>	2.81 (0.59) <sup>ab</sup>	2.91 (0.42) <sup>ab</sup>	272.39 <sup>*</sup>	.61
Jennifer's message	2.07 (0.98)		1.26 (0.62) <sup>a</sup>	1.35 (0.75) <sup>b</sup>	2.78 (0.60) <sup>ab</sup>	2.87 (0.45) <sup>ab</sup>	271.09 <sup>*</sup>	.62
Jennifer sexual intent	16.92 (2.72)		14.98 (2.38) <sup>a</sup>	15.91 (2.60) <sup>ab</sup>	18.26 (2.18) <sup>ab</sup>	18.53 (1.81) <sup>ab</sup>	79.04 <sup>*</sup>	.31
John sexual intent	17.59 (2.61)		15.60 (2.61) <sup>a</sup>	16.55 (2.61) <sup>ab</sup>	19.15 (1.39) <sup>ab</sup>	19.07 (1.46) <sup>ab</sup>	96.49 <sup>*</sup>	.36
Likelihood of sex	3.49 (0.65)		3.08 (0.69) <sup>a</sup>	3.32 (0.65) <sup>ab</sup>	3.78 (0.47) <sup>ab</sup>	3.79 (0.46) <sup>ab</sup>	48.49 <sup>*</sup>	.22
Appropriateness of sex	3.35 (0.78)		3.14 (0.81) <sup>a</sup>	3.20 (0.81) <sup>b</sup>	3.52 (0.71) <sup>ab</sup>	3.53 (0.69) <sup>ab</sup>	9.45 <sup>*</sup>	.05
Meaning sext (consent)	2.42 (1.19)		1.78 (0.91) <sup>a</sup>	2.06 (1.09) <sup>b</sup>	2.84 (1.15) <sup>ab</sup>	2.99 (1.15) <sup>ab</sup>	39.14 <sup>*</sup>	.18
Sexual Consent	8.30 (2.86)		7.68 (2.74) <sup>a</sup>	8.01 (2.67)	8.61 (3.05) <sup>a</sup>	8.90 (2.83) <sup>a</sup>	5.11 <sup>*</sup>	.03
Sexual Assault	2.41 (1.09)		2.44 (1.06)	2.38 (1.13)	2.32 (1.03)	2.50 (1.12)	0.74	.01
John Responsibility/Blame	6.26 (1.20)		6.28 (1.25)	6.18 (1.28)	5.32 (1.54)	6.27 (1.0)	0.31	.002
Jennifer responsibility/Blame	5.04 (1.56)		4.80 (1.60)	4.95 (1.56)	6.32 (1.28)	5.09 (1.50)	2.67	.02

Note.  $N = 525$ .  $M$  ( $SD$ ) are displayed. <sup>a-b</sup> Significant mean difference between scores containing the superscript at  $p < .01$ . F-values are across all four conditions. \*  $p < .01$ .  $\eta_{\text{partial}}^2$  are partial eta-squared values. Partial eta-squared is calculated as  $\eta_{\text{partial}}^2 = \frac{SS_{\text{effect}}}{SS_{\text{effect}} + SS_{\text{error}}}$

Table 7 Correlations among Dependent Variables

	Jennifer Sexual Intent	John Sexual Intent	Likelihood Sex	Appropriate Sex	Sexual Assault	Sexual Consent	John Resp/Blame	Jennifer Resp/Blame
Jennifer Sexual Intent	1							
John Sexual Intent	.85**	1						
Likelihood Sex	.68**	.65**	1					
Appropriate Sex	.41**	.41**	.36**	1				
Sexual Assault	-.08	-.10*	-.04	-.12**	1			
Sexual Consent	.37**	.31**	.26**	.40**	-.23**	1		
John Resp/Blame	-.02	.02	-.01	-.06	.48**	-.16**	1	
Jennifer Resp/Blame	.15**	.19**	.07	.07	-.55**	.22**	-.31**	1

Note.  $N = 525$ . \*  $p < .05$ . \*\*  $p < .01$ .

Table 8 Full Factorial MANOVA for Perceptions of John and Jennifer's Sexual Intent

	John Sexual Intent			Jennifer Sexual Intent					
	Multivariate F	SS	F	p	$\eta^2_{\text{partial}}$	SS	F	p	$\eta^2_{\text{partial}}$
Gender	4.91*	15.87	3.73*	.001	.01	.02	0.003	.96	.0
Message Type	147.28*	1215.2	285.88*	.001	.36	1144.18	226.43*	.001	.31
Alcohol	4.37*	23.13	5.44	.02	.01	44.25	8.76*	.003	.02
<b>Gender x Message Type<sup>1</sup></b>	<b>4.24*</b>	<b>35.46</b>	<b>8.34</b>	<b>.004</b>	<b>.02</b>	<b>20.26</b>	<b>4.01</b>	<b>.05</b>	<b>.01</b>
Gender x Alcohol	0.79	6.24	1.47	.23	.003	6.66	1.32	.25	.003
Message Type x Alcohol	4.65*	36.83	8.67*	.003	.02	15.89	3.15	.08	.01
Gender x Message x Alcohol	4.72*	39.04	9.18*	.003	.02	20.79	20.79	.04	.01

Note. \*  $p < .01$ . <sup>1</sup>Hypothesis 1a: Men's ratings of sexual intent will be higher in sexting vs. texting conditions, while women's will be similar across conditions. Variable for perceptions of John and Jennifer's sexual intent was sum of the following items: (1) Prior to meeting up, John/Jennifer intends to hookup (have coital/non-coital sex) with Jennifer/John; (2) John/Jennifer is interested in hooking up with Jennifer/John; (3) Jennifer/John is willing to hookup with John/Jennifer; (4) John/Jennifer would be receptive to a sexual advance; and (5) John/Jennifer is sexually attracted to Jennifer/John; (1 = *disagree* to 4 = *agree*).

Table 9 Full Factorial ANOVA for the Perceived Likelihood of a Sexual Encounter

	SS	F	<i>p</i>	$\eta_{\text{partial}}^2$
Gender	0.19	0.58	.45	.001
Message Type	44.62	133.22*	.001	.21
Alcohol	1.93	5.75	.02	.01
Gender x Message Type	0.62	1.83	.18	.004
Gender x Alcohol	0.03	0.08	.78	.001
Message Type x Alcohol	1.79	5.36	.02	.01
<b>Gender x Message x Alcohol<sup>1</sup></b>	<b>0.12</b>	<b>0.35</b>	<b>.55</b>	<b>.001</b>

*Note.* *df* = 1. \* *p* < .01. <sup>1</sup>Hypothesis 1b: There will be a three-way interaction effect of alcohol, gender, and message type on the likelihood of a sexual encounter. Variable for likelihood of sexual encounter was score for the following item: What is the likelihood that John and Jennifer will hook-up (engage in any sexual/intimate interaction) that night? (1 = *unlikely* to 4 = *likely*)



Table 10 Full Factorial MANOVA for Perceptions of John's and Jennifer's Messages

	John Message				Jennifer Message				
	Multivariate F	SS	F	p	$\eta^2_{\text{partial}}$	SS	F	p	$\eta^2_{\text{partial}}$
Gender	2.49	1.73	4.60	.03	.01	1.19	3.23	.07	.01
Message Type	509.72*	306.66	814.69*	.001	.61	304.97	829.39*	.001	.62
Alcohol	2.32	1.72	4.57	.03	.01	0.87	2.37	.13	.01
<b>Gender x Message Type<sup>1</sup></b>	<b>1.99</b>	<b>1.40</b>	<b>3.72</b>	<b>.05</b>	<b>.01</b>	<b>20.26</b>	<b>2.54</b>	<b>.11</b>	<b>.01</b>
Gender x Alcohol	0.66	0.02	0.05	.83	.0	0.39	1.05	.31	.002
Message Type x Alcohol	0.02	0.01	0.03	.86	.0	0.01	0.02	.90	.0
Gender x Message x Alcohol	0.80	0.01	0.02	.90	.0	0.31	0.85	.36	.002

Note.  $df = 1$ . \*  $p < .01$ . <sup>1</sup>Hypothesis 1c: There will be an interaction of Gender x Message type, such that men will perceive John's and Jennifer's messages as more sexual than women in the sexting conditions. Variable for John's and Jennifer's message was the score of the following item: Which of the following best describes Jennifer's/John's picture she/he sent to John/Jennifer? Responses included (1) as an innocent flirtatious message, (2) in response to feeling pressured, or (3) as a way of communicating sexual interest

Table 11 Full Factorial ANOVA on Perceptions of Sexual Consent

	SS	F	<i>p</i>	$\eta_{\text{partial}}^2$
Gender	72.04	9.16*	.003	.02
Message Type	105.86	13.26*	.001	.03
Alcohol	13.68	1.74	.19	.003
<b>Gender x Message Type<sup>1</sup></b>	<b>8.55</b>	<b>1.09</b>	<b>.30</b>	<b>.002</b>
Gender x Alcohol	4.40	.56	.46	.001
<b>Message Type x Alcohol<sup>2</sup></b>	<b>.03</b>	<b>.004</b>	<b>.95</b>	<b>.0</b>
Gender x Message x Alcohol	.94	.12	.73	.0

*Note.* *df* = 1. <sup>1</sup>Hypothesis 2a: There will be an interaction effect of gender and message type on perceptions of sexual consent. <sup>2</sup>Hypothesis 2b: There will be an interaction of message type and alcohol on perceptions of sexual consent. The following summed items measured sexual consent: (1) whether Jennifer communicated consent, (2) whether Jennifer voluntarily agreed to have sex, and (3) whether Jennifer meant to give her consent; (1 = *disagree* to 4 = *agree*).

Table 12 Full Factorial ANOVA on Perceptions of the Sext Message as a Sexual Consent Cue

	SS	F	<i>p</i>	$\eta_{\text{partial}}^2$
<b>Gender<sup>1</sup></b>	<b>7.82</b>	<b>6.0*</b>	<b>.01</b>	<b>.02</b>
Alcohol	1.94	1.49	.22	.01
Gender x Alcohol	.02	.01	.91	.0

Note.  $N = 263$ . \*  $p < .01$ . Analyses only include participants in sexting conditions.

<sup>1</sup>Hypothesis 2c: There will be a main effect of gender on perceptions of whether the sext constitutes communication of consent. The following item measured perceptions of the sext as a consent cue: Jennifer and John's text messages to each other could be seen as a form of communicating sexual consent; (1 = *disagree* to 4 = *agree*).

Table 13 Full Factorial ANOVA for the Perceived Appropriateness of the Sexual Encounter

	SS	F	<i>p</i>	$\eta_{\text{partial}}^2$
Gender	.92	1.61	.21	.003
Message Type	16.29	28.37*	.001	.05
Alcohol	.15	.26	.61	.001
<b>Gender x Message Type<sup>1</sup></b>	<b>.35</b>	<b>.61</b>	<b>.43</b>	<b>.001</b>
Gender x Alcohol	.32	.56	.45	.001
Message Type x Alcohol	.08	.13	.72	.0
Gender x Message x Alcohol	.30	.53	.47	.001

*Note.* <sup>1</sup>Hypothesis 3a: There will be an interaction effect of gender and message type on ratings of the appropriateness of the sexual encounter. The following item measured the appropriateness of the sexual encounter: Based on John and Jennifer's actions throughout the scenario, how appropriate was it for John to initiate sex with Jennifer? (1 = *inappropriate* to 4 = *appropriate*)

Table 14 Repeated Measures ANOVA on Attributions of Responsibility and Blame for John and Jennifer: Within-Subjects Effects

	SS	F	<i>p</i>	$\eta_{\text{partial}}^2$
Overall	390.59	154.58*	.001	.23
Gender	7.70	3.05	.08	.01
Message Type	4.56	1.81	.18	.003
Alcohol	.12	.05	.83	.0
Gender x Message Type	.18	.07	.79	.0
Gender x Alcohol	.003	.001	.98	.0
<b>Message Type x Alcohol<sup>1</sup></b>	<b>2.70</b>	<b>1.07</b>	<b>.30</b>	<b>.002</b>
Gender x Message x Alcohol	.05	.02	.89	.001

*Note.* Results show within-subjects effects based on repeated measures ANOVA.

<sup>1</sup>Hypothesis 3c: There will be an interaction effect of message type and alcohol on the difference between John and Jennifer's attributions of responsibility and blame. The following summed items comprised attributions of responsibility/blame: How responsible is John/Jennifer for the incident? (1 = *completely irresponsible* to 4 = *completely responsible*). To what extent is John/Jennifer to blame for the incident? (1 = *completely not to blame* to 4 = *completely to blame*).

Table 15 Repeated Measures ANOVA on Attributions of Responsibility and Blame for John and Jennifer: Between-Subjects Effects

	Multivariate F			John Responsibility / Blame			Jennifer Responsibility / Blame		
	SS	F	$\eta^2_{\text{partial}}$	SS	F	$\eta^2_{\text{partial}}$	SS	F	$\eta^2_{\text{partial}}$
Gender	6.58*	.53	.47	.78	.53	.001	23.11	9.74*	.02
Message Type <sup>1</sup>	4.24*	.42	.52	.62	.42	.001	14.48	6.11	.01
Alcohol	.35	.47	.49	.69	.47	.001	.12	.05	.83
Gender x Message Type	.06	.13	.72	.19	.13	.0	.03	.01	.92
Gender x Alcohol	.17	.12	.73	.18	.12	.0	.24	.10	.75
Message Type x Alcohol	.88	.06	.80	.09	.06	.0	4.09	1.73	.19
Gender x Message x Alcohol	2.20	1.55	.21	2.27	1.55	.003	3.36	1.42	.24

Note. N = 525. \*  $p < .01$ . Results show between-subjects effects based on repeated measures ANOVA. <sup>1</sup>Non-hypothesized finding showed that there was a main effect of message type on Jennifer, but not John's attributions of responsibility and blame.

Table 16 Full Factorial ANOVA for Perceptions of Sexual Assault

	SS	F	<i>p</i>	$\eta_{\text{partial}}^2$
<b>Gender<sup>1</sup></b>	<b>11.44</b>	<b>9.85*</b>	<b>.002</b>	<b>.02</b>
Message Type	.002	.001	.97	.0
Alcohol	.46	.40	.53	.001
Gender x Message Type	.07	.06	.81	.0
Gender x Alcohol	2.58	2.22	.14	.004
Message Type x Alcohol	1.69	1.45	.23	.003
Gender x Message x Alcohol	.03	.02	.88	.0

*Note.* <sup>1</sup>Hypothesis 3a: There will be a main effect of gender on perceptions of the sexual encounter. The following item assessed for perceptions of the sexual encounter as a sexual assault: The outcome of the incident constitutes a sexual assault. (1 = *disagree* to 4 = *agree*)

## FIGURES



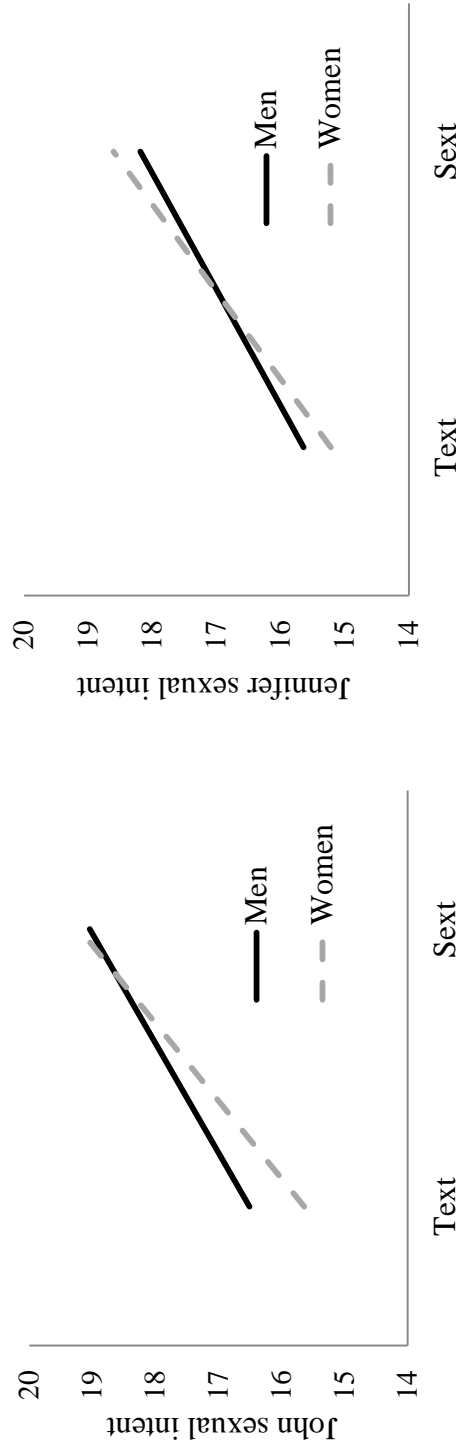


Figure 1

Interaction effects of Gender x Message type on perceptions of John's (left) and Jennifer's (right) sexual intent.

There was a significant interaction of Gender x Message type on ratings of John's sexual intent ( $F = 8.34, p = .004, \eta_{\text{partial}}^2 = .02$ ), such that men rated John's sexual intent similarly across sext and text conditions ( $M = 19.04, SD = 1.39$  vs.  $M = 16.51, SD = 2.52$ ), while women's ratings of John's sexual intent were significantly higher in the sext vs. text conditions ( $M = 19.19, SD = 1.45$  vs.  $15.60, SD = 2.70$ ). The interaction effect of Gender x Message type on ratings of Jennifer's sexual intent was not significant ( $F = 4.01, p = .05, \eta_{\text{partial}}^2 = .01$ ).

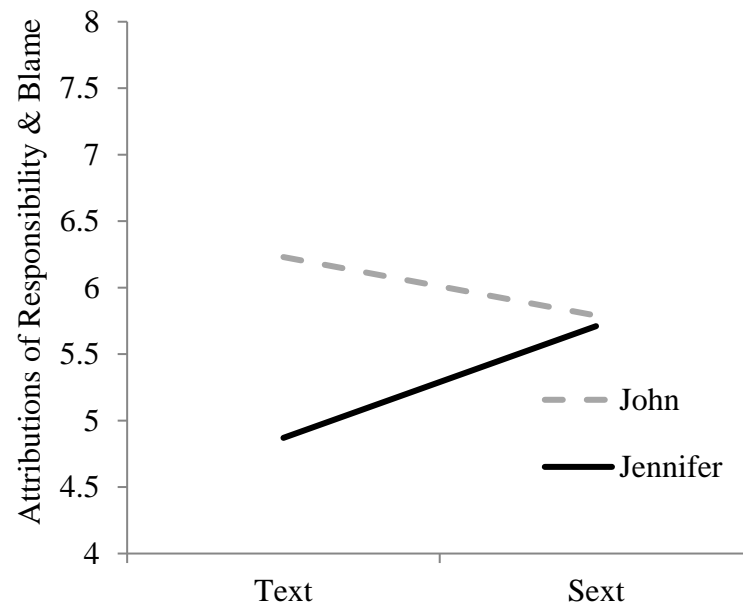


Figure 1

Attributions of Responsibility and Blame for John and Jennifer across sexting and texting conditions. John was attributed significantly more responsibility and blame compared to Jennifer across all conditions ( $F = 154.58, p < .001, \text{partial } \eta^2 = .23$ ); however, message type had a significant effect on Jennifer's attributions of responsibility and blame ( $F = 6.11, p = .01, \text{partial } \eta^2 = .01$ ), such that Jennifer was attributed more blame in the sexting vs. texting conditions ( $M = 5.40, SD = 1.53$  vs.  $M = 4.87, SD = 1.58$ ).

## REFERENCES

## REFERENCES

- Abbey, A. (1982). Sex differences in attributions for friendly behavior: Do males misperceive females' friendliness?. *Journal of Personality and Social Psychology*, 42, 830-838. doi: 10.1037/0022-3514.42.5.830
- Abbey, A. (1987). Misperceptions of friendly behavior as sexual interest: A survey of naturally occurring incidents. *Psychology of Women Quarterly*, 11, 173-194. doi: 10.1111/j.1471-6402.1987.tb00782.x
- Abbey, A. (2002). Alcohol-related sexual assault: A common problem among college students. *Journal of Studies on Alcohol and Drugs*, 14, 118-128. PMID: 12022717
- Abbey, A. (2011). Alcohol's role in sexual violence perpetration: Theoretical explanations, existing evidence and future directions. *Drug and Alcohol Review*, 30, 481-489. PMC3177166
- Abbey, A., & Harnish, R. J. (1995). Perception of sexual intent: The role of gender, alcohol consumption, and rape supportive attitudes. *Sex Roles*, 32, 297-313. doi: 10.1007/BF01544599f
- Abbey, A., Cozzarelli, C., McLaughlin, K., & Harnish, R. J. (1987). The effects of clothing and dyad sex composition on perceptions of sexual intent: Do women and men evaluate these cues differently. *Journal of Applied Social Psychology*, 17, 108-126. doi: 10.1111/j.1559-1816.1987.tb00304.x
- Abbey, A., McAuslan, P., & Ross, L. T. (1998). Sexual assault perpetration by college men: The role of alcohol, misperception of sexual intent, and sexual beliefs and experiences. *Journal of Social and Clinical Psychology*, 17, 167-195. doi: 10.1521/jscp.1998.17.2.167

- Abbey, A., Ross, L. T., McDuffie, D., & McAuslan, P. (1996). Alcohol and dating risk factors for sexual assault among college women. *Psychology of Women Quarterly*, *20*, 147-169. doi 10.1111/j.1471-6402.1996.tb00669.x
- Abbey, A., Zawacki, T., Buck, P. O., Clinton, A. M., & McAuslan, P. (2004). Sexual assault and alcohol consumption: What do we know about their relationship and what types of research are still needed? *Aggression and Violent Behavior*, *9*, 271-303. doi: 10.1016/S1359-1789(03)00011-9
- Acock, A. C., & Ireland, N. K. (1983). Attribution of blame in rape cases: The impact of norm violation, gender, and sex-role attitude. *Sex Roles*, *9*, 179-193. doi: 10.1007/BF00289622
- Alderden, M. A., & Ullman, S. E. (2012). Creating a more complete and current picture examining police and prosecutor decision-making when processing sexual assault cases. *Violence Against Women*, *18*, 525-551. doi: 10.1177/1077801212453867
- Alexander, R. A. (1988). Group homogeneity, range restriction, and range enhancement effects on correlations. *Personnel Psychology*, *41*, 773-777. doi: 10.1111/j.1744-6570.1988.tb00653.x
- Anderson, K. B., Cooper, H., & Okamura, L. (1997). Individual differences and attitudes toward rape: A meta-analytic review. *Personality and Social Psychology Bulletin*, *23*, 295-315. doi: 10.1177/0146167297233008
- Attwood, F. (2007). Sluts and riot girls: Female identity and sexual agency. *Journal of Gender Studies*, *16*, 233-247. doi:10.1080/09589230701562921.
- Aubrey, J. S. (2004). Sex and punishment: An examination of sexual consequences and the sexual double standard in teen programming. *Sex Roles*, *50*, 505-514. doi: 10.1023/B:SERS.0000023070.87195.07
- Barter, C., & Renold, E. (2000). 'I wanna tell you a story': Exploring the application of vignettes in qualitative research with young people. *International Journal of Social Research Methodology*, *3*, 307-323. doi: 10.1080/13645570050178594
- Basow, S. A., & Minieri, A. (2011). "You owe me": Effects of date cost, who pays, participant gender, and rape myth beliefs on perceptions of rape. *Journal of Interpersonal Violence*, *26*, 479-497. doi: 10.1177/0886260510363421

- Baym, N. K., Zhang, Y. B., & Lin, M. C. (2004). Social interactions across media interpersonal communication on the internet, telephone and face-to-face. *New Media & Society*, 6, 299-318. doi: 10.1177/1461444804041438
- Bell, S. T., Kuriloff, P. J., & Lottes, I. (1994). Understanding attributions of blame in stranger rape and date rape situations: An examination of gender, race, identification, and students' social perceptions of rape victims. *Journal of Applied Social Psychology*, 24, 1719-1734. doi: 10.1111/j.1559-1816.1994.tb01571.x
- Bender, R., & Lange, S. (2001). Adjusting for multiple testing—when and how?. *Journal of Clinical Epidemiology*, 54, 343-349. doi: 10.1016/S0895-4356(00)00314-0
- Benotsch, E. G., Snipes, D. J., Martin, A. M., & Bull, S. S. (2013). Sexting, substance use, and sexual risk behavior in young adults. *Journal of Adolescent Health*, 52, 307-313. doi:10.1016/j.jadohealth.2012.06.011
- Benson, B. J., Gohm, C. L., & Gross, A. M. (2007). College women and sexual assault: The role of sex-related alcohol expectancies. *Journal of Family Violence*, 22, 341-351. doi: 10.1007/s10896-007-9085-z
- Beres, M. (2010). Sexual miscommunication? Untangling assumptions about sexual communication between casual sex partners. *Culture, Health & Sexuality*, 12, 1-14. doi: 10.1080/13691050903075226
- Beres, M. A. (2007). 'Spontaneous' sexual consent: An analysis of sexual consent literature. *Feminism & Psychology*, 17, 93-108. doi: 10.1023/B:ASEB.0000037428.41757.10
- Beres, M. A., Senn, C. Y., & McCaw, J. (2014). Navigating ambivalence: How heterosexual young adults make sense of desire differences. *The Journal of Sex Research*, 51, 765-776. doi: 10.1080/00224499.2013.792327
- Blumberg, M. L., & Lester, D. (1991). High school and college students' attitudes toward rape. *Adolescence*, 26(103), 727-729.
- Bollinger, B. J. (2014). *"But I thought she liked me": An intervention campaign for the selective information processing of nonverbal refusal cues by undergraduate males*. (Doctoral dissertation). Retrieved June 1, 2016 from <http://sdsu-dspace.calstate.edu/handle/10211.3/121138>.

- Bondurant, B., & Donat, P. L. (1999). Perceptions of women's sexual interest and acquaintance rape the role of sexual overperception and affective attitudes. *Psychology of Women Quarterly, 23*, 691-705. doi: 10.1111/j.1471-6402.1999.tb00392.x
- Bradbury-Jones, C., Taylor, J., & Herber, O. R. (2012). Vignette development and administration: a framework for protecting research participants. *International Journal of Social Research Methodology, 17*, 427-440. doi: 10.1080/13645579.2012.750833
- Brady, S. S., & Halpern-Felsher, B. L. (2007). Adolescents' reported consequences of having oral sex versus vaginal sex. *Pediatrics, 119*, 229-236. doi: 10.1542/peds.2006-1727
- Bridges, J. S. (1991). Perceptions of date and stranger rape: A difference in sex role expectations and rape-supportive beliefs. *Sex Roles, 24*, 291-307. doi: 10.1007/BF00288303
- Bridges, J. S., & McGrail, C. A. (1989). Attributions of responsibility for date and stranger rape. *Sex Roles, 21*, 273-286. doi: 10.1007/BF00289907
- Brown, S. A., Christiansen, B. A., & Goldman, M. S. (1987). The Alcohol Expectancy Questionnaire: An instrument for the assessment of adolescent and adult alcohol expectancies. *Journal of Studies on Alcohol and Drugs, 48*, 483-491. doi: 10.15288/jsa.1987.48.483
- Bruce, G., & Jones, B. T. (2004). A pictorial Stroop paradigm reveals an alcohol attentional bias in heavier compared to lighter social drinkers. *Journal of Psychopharmacology, 18*, 527-533. doi: 10.1177/0269881104047280
- Burkett, M. (2015). Sex(t) Talk: A qualitative analysis of young adults' negotiations of the pleasures and perils of sexting. *Sexuality & Culture, 19*, 835-863. doi: 10.1007/s12119-015-9295-0
- Burkett, M., & Hamilton, K. (2012). Postfeminist sexual agency: Young women's negotiations of sexual consent. *Sexualities, 15*, 815-833. doi: 10.1177/1363460712454076
- Burt, M. R. (1980). Cultural myths and supports for rape. *Journal of Personality and Social Psychology, 38*, 217-230. doi: 10.1037/0022-3514.38.2.217

- Cahoon, D. D., & Edmonds, E. M. (1989). Male-female estimates of opposite-sex first impressions concerning females' clothing styles. *Bulletin of the Psychonomic Society*, 27, 280-281. doi: 10.3758/BF03334607
- Calhoun, L. G., Selby, J. W., Cann, A., & Keller, G. T. (1978). The effects of victim physical attractiveness and sex of respondent on social reactions to victims of rape. *British Journal of Social & Clinical Psychology*, 17, 191-192. doi: 10.1111/j.2044-8260.1978.tb00264.x
- Cann, A., Calhoun, L. G., & Selby, J. W. (1979). Attributing responsibility to the victim of rape: Influence of information regarding past sexual experience. *Human Relations*, 32, 57-67. doi: 10.1177/001872677903200104
- Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior*, 29, 2156-2160. doi:10.1016/j.chb.2013.05.009
- Chappell, B. (2014, September 29). California enacts 'yes means yes' law, defining sexual consent. *National Public Radio*. Retrieved June 1, 2016 from [www.npr.org](http://www.npr.org).
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cooper, K., Quayle, E., Jonsson, L., & Svedin, C. G. (2016). Adolescents and self-taken sexual images: A review of the literature. *Computers in Human Behavior*, 55, 706-716. doi:10.1016/j.chb.2015.10.003
- Cooper, M. L. (2002). Alcohol use and risky sexual behavior among college students and youth: Evaluating the evidence. *Journal of Studies on Alcohol and Drugs*, (s14), 101-117. doi: 10.15288/jsas.2002.s14.101
- Cooper, M. L. (2006). Does drinking promote risky sexual behavior? A complex answer to a simple question. *Current Directions in Psychological Science*, 15, 19-23. doi: 10.1111/j.0963-7214.2006.00385.x
- Corcoran, K. J., & Thomas, L. R. (1991). The influence of observed alcohol consumption on perceptions of initiation of sexual activity in a college dating situation. *Journal of Applied Social Psychology*, 21, 500-507. doi: 10.1111/j.1559-1816.1991.tb00533.x



- Cowan, G., & Koziej, J. (1979). The perception of sex-inconsistent behavior. *Sex Roles, 5*, 1-10. doi: 10.1007/BF00289340
- Crawford, M., & Popp, D. (2003). Sexual double standards: A review and methodological critique of two decades of research. *Journal of Sex Research, 40*, 13-26. doi: 10.1080/00224490309552163
- Cue, K. L., George, W. H., & Norris, J. (1996). Women's appraisals of sexual-assault risk in dating situations. *Psychology of Women Quarterly, 20*, 487-504. doi: 10.1111/j.1471-6402.1996.tb00318.x
- Cupples, J., & Thompson, L. (2010). Heterotextuality and digital foreplay: Cell phones and the culture of teenage romance. *Feminist Media Studies, 10*, 1-17. doi: 10.1080/14680770903457063
- Dake, J. A., Price, J. H., Maziarz, L., & Ward, B. (2012). Prevalence and correlates of sexting behavior in adolescents. *American Journal of Sexuality Education, 7*, 1-15. doi: 10.1080/15546128.2012.650959
- Danielson, C. K., & Holmes, M. M. (2004). Adolescent sexual assault: an update of the literature. *Current Opinion in Obstetrics and Gynecology, 16*(5), 383-388.
- Davies, M., Pollard, P., & Archer, J. (2006). Effects of perpetrator gender and victim sexuality on blame toward male victims of sexual assault. *The Journal of Social Psychology, 146*, 275-291. doi: 10.3200/SOCP.146.3.275-291
- Davis, K. C., George, W. H., & Norris, J. (2004). Women's responses to unwanted sexual advances: The role of alcohol and inhibition conflict. *Psychology of Women Quarterly, 28*, 333-343. doi: 10.1111/j.1471-6402.2004.00150.x
- Dawson, D. A., Grant, B. F., Stinson, F. S., & Chou, P. S. (2004). Another look at heavy episodic drinking and alcohol use disorders among college and noncollege youth. *Journal of Studies on Alcohol and Drugs, 65*, 477-488. doi: 10.15288/jsa.2004.65.477
- Deitz, S. R., Littman, M., & Bentley, B. J. (1984). Attribution of responsibility for rape: The influence of observer empathy, victim resistance, and victim attractiveness. *Sex Roles, 10*, 261-280. doi: 10.1007/BF00287780

- Dermen, K. H., & Cooper, M. L. (1994). Sex-related alcohol expectancies among adolescents: II. Prediction of drinking in social and sexual situations. *Psychology of Addictive Behaviors*, 8, 161-168. doi: 10.1037/0893-164X.8.3.161
- DeSouza, E., & Hutz, C. (1996). Reactions to refusals of sexual advances among U.S. and Brazilian men and women. *Sex Roles*, 34, 549-565. doi: 10.1007/BF01545032
- Dir, A. L., & Cyders, M. A. (2015). Risks, Risk Factors, and Outcomes Associated with Phone and Internet Sexting Among University Students in the United States. *Archives of Sexual Behavior*, 44, 1675-1684. doi: 10.1007/s10508-014-0370-7
- Dir, A. L., Coskunpinar, A., & Cyders, M. A. (2013a). From the bar to the bed via mobile phone: A first test of the role of problematic alcohol use, sexting, and impulsivity-related traits in sexual hookups. *Computers in Human Behavior*, 29, 1664-1670. doi:10.1016/j.chb.2013.01.039
- Dir, A. L., Coskunpinar, A., Steiner, J. L., & Cyders, M. A. (2013b). Understanding differences in sexting behaviors across gender, relationship status, and sexual identity, and the role of expectancies in sexting. *Cyberpsychology, Behavior, and Social Networking*, 16, 568-574. doi:10.1089/cyber.2012.0545
- Dissell, R. (2013 March 17). The Steubenville rape case: Social media on trial. *Dart Center for Journalism & Trauma*. Retrieved June 1, 2016 from [www.dartcenter.org](http://www.dartcenter.org).
- Döring, N. (2014). Consensual sexting among adolescents: Risk prevention through abstinence education or safer sexting. *Cyberpsychology*, 8, 1-18. doi: 10.5817/CP2014-1-9
- Drouin, M., & Tobin, E. (2014). Unwanted but consensual sexting among young adults: Relations with attachment and sexual motivations. *Computers in Human Behavior*, 31, 412-418. doi:10.1016/j.chb.2013.11.001
- Banyard, V. L., Plante, E. G., & Moynihan, M. M. (2005). *Rape prevention through bystander education: Final report to NIJ for grant 2002-WG-BX-0009*. Retrieved June 1, 2016 from [www.ncjrs.org/pdffiles1/nij/grants/208701.pdf](http://www.ncjrs.org/pdffiles1/nij/grants/208701.pdf).
- Burn, S. M. (2009). A situational model of sexual assault prevention through bystander intervention. *Sex Roles*, 60, 779-792. doi: 10.1007/s11199-008-9581-5

- Brody, N., & Vangelisti, A. L. (2016) Bystander intervention in cyberbullying. *Communication Monographs*, 83, 94-119. doi: 10.1080/03637751.2015.1044256
- Cugelman, B., Thelwall, M., & Dawes, P. (2011). Online interventions for social marketing health behavior change campaigns: A meta-analysis of psychological architectures and adherence factors. *Journal of Medical Internet Research*, 13, e17. doi: 10.2196/jmir.1367
- Kleinsasser, A., Jouriles, E. N., McDonald, R., & Rosenfield, D. (2015). An online bystander intervention program for the prevention of sexual violence. *Psychology of Violence*, 5, 227-235. doi: 10.1037/a0037393
- Drouin, M., Ross, J., & Tobin, E. (2015). Sexting: A new digital vehicle for intimate partner aggression? *Computers in Human Behavior*, 50, 197-204. doi:10.1016/j.chb.2015.04.001
- Drouin, M., Vogel, K. N., Surbey, A., & Stills, J. R. (2013). Let's talk about sexting, baby: Computer-mediated sexual behaviors among young adults. *Computers in Human Behavior*, 29, A25-A30. doi:10.1016/j.chb.2012.12.030
- Duggan, M., & Rainie, L. (2012). Cell phone activities 2012. *Pew Research Center*. Retrieved June 1, 2016 from <http://pewinternet.org/Reports/2012/Cell-Activities.aspx>.
- Edwards, K. M., Turchik, J. A., Dardis, C. M., Reynolds, N., & Gidycz, C. A. (2011). Rape myths: History, individual and institutional-level presence, and implications for change. *Sex Roles*, 65, 761-773. doi: 10.1007/s11199-011-9943-2
- Enders, C. K. (2006). A primer on the use of modern missing-data methods in psychosomatic medicine research. *Psychosomatic Medicine*, 68, 427-436. doi: 10.1097/01.psy.0000221275.75056.d8
- Englander, E. (2012). Low risk associated with most teenage sexting: A study of 617 18-year-olds. *MARC Research Reports*, 6, 1-12. Retrieved June 1, 2016 from [http://vc.bridgew.edu/marc\\_reports/6](http://vc.bridgew.edu/marc_reports/6).
- Farris, C., Treat, T. A., Viken, R. J., & McFall, R. M. (2008). Sexual coercion and the misperception of sexual intent. *Clinical Psychology Review*, 28, 48-66. doi: 10.1016/j.cpr.2007.03.002

- Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G\* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*, 175-191. doi: 10.3758/BF03193146
- Festinger, L., & Carlsmith, J. M. (1959). Cognitive consequences of forced compliance. *The Journal of Abnormal and Social Psychology*, *58*, 203-210. doi: 10.1037/h0041593
- Finch, J. (1987). Research note: The vignette technique in survey research. *Sociology*, *21*(1), 105-114.
- Fisher, T. D., & Walters, A. S. (2003). Variables in addition to gender that help to explain differences in perceived sexual interest. *Psychology of Men & Masculinity*, *4*, 154-162. doi: 10.1037/1524-9220.4.2.154
- Frith, H., & Kitzinger, C. (1997). Talk about sexual miscommunication. *Women's Studies International Forum*, *20*, 517-528. doi:10.1016/S0277-5395(97)87415-8
- George, W. H., Cue, K. L., Lopez, P. A., Crowe, L. C., & Norris, J. (1995). Self-reported alcohol expectancies and post-drinking sexual inferences about women. *Journal of Applied Social Psychology*, *25*, 164-186. doi: 10.1111/j.1559-1816.1995.tb01589.x
- George, W. H., Davis, K. C., Norris, J., Heiman, J. R., Stoner, S. A., Schacht, R. L., ... & Kajumulo, K. F. (2009). Indirect effects of acute alcohol intoxication on sexual risk-taking: The roles of subjective and physiological sexual arousal. *Archives of Sexual Behavior*, *38*, 498-513. doi: 10.1007/s10508-008-9346-9
- George, W. H., Gournic, S. J., & McAfee, M. P. (1988). Perceptions of postdrinking female sexuality: Effects of gender, beverage choice, and drink payment. *Journal of Applied Social Psychology*, *18*, 1295-1316. doi: 10.1111/j.1559-1816.1988.tb01208x
- Gerdes, E. P., Dammann, E. J., & Heilig, K. E. (1988). Perceptions of rape victims and assailants: Effects of physical attractiveness, acquaintance, and subject gender. *Sex Roles*, *19*, 141-153. doi: 10.1007/BF00290151
- Gidycz, C. A., McNamara, J. R., & Edwards, K. M. (2006). Women's risk perception and sexual victimization: A review of the literature. *Aggression and Violent Behavior*, *11*, 441-456. doi:10.1016/j.avb.2006.01.004

- Goodchilds, J. D., & Zellman, G. L. (1984). Sexual signaling and sexual aggression in adolescent relationships. In N. M. Malamuth & E. Donnerstein (Eds.), *Pornography and Sexual Aggression* (pp. 233–243). Orlando, FL: Academic Press.
- Granello, D. H., & Wheaton, J. E. (2004). Online data collection: Strategies for research. *Journal of Counseling & Development, 82*, 387-393. doi: 10.1002/j.1556-6678.2004.tb00325.x
- Grubb, A., & Harrower, J. (2008). Attribution of blame in cases of rape: An analysis of participant gender, type of rape and perceived similarity to the victim. *Aggression and Violent Behavior, 13*, 396-405. doi: 10.1016/j.avb.2008.06.006
- Grubb, A., & Harrower, J. (2009). Understanding attribution of blame in cases of rape: An analysis of participant gender, type of rape and perceived similarity to the victim. *Journal of Sexual Aggression, 15*, 63-81. doi: 10.1080/13552600802641649
- Grubb, A., & Turner, E. (2012). Attribution of blame in rape cases: A review of the impact of rape myth acceptance, gender role conformity and substance use on victim blaming. *Aggression and Violent Behavior, 17*, 443-452. doi: 10.1016/j.avb.2012.06.002
- Gurnham, D. (2016). Victim-blame as a symptom of rape myth acceptance? Another look at how young people in England understand sexual consent. *Legal Studies, 36*, 258-278. doi: 10.1111/lest.12107
- Harnish, R. J., Bridges, K. R., & Rottschaefer, K. M. (2014). Development and Psychometric Evaluation of the Sexual Intent Scale. *The Journal of Sex Research, 51*, 667-680. doi: 10.1080/00224499.2013.773578
- Hasinoff, A. A. (2013). Sexting as media production: Rethinking social media and sexuality. *New Media & Society, 15*, 449-465. doi: 10.1177/1461444812459171
- Hasinoff, A. A. (2014). Blaming sexualization for sexting. *Girlhood Studies, 7*, 102-120. doi: 10.3167/ghs.2014.070108
- Hasinoff, A. A., & Shepherd, T. (2014). Sexting in context: Privacy norms and expectations. *International Journal of Communication, 8*, 2932-2415.

- Hickman, S. E., & Muehlenhard, C. L. (1999). "By the semi-mystical appearance of a condom": How young women and men communicate sexual consent in heterosexual situations. *Journal of Sex Research*, *36*, 258-272. doi: 10.1080/00224499909551996
- Hockett, J. M., Saucier, D. A., Hoffman, B. H., Smith, S. J., & Craig, A. W. (2009). Oppression through acceptance? Predicting rape myth acceptance and attitudes toward rape victims. *Violence Against Women*, *15*, 877-897. doi: 10.1177/1077801209335489
- Huberty, C. J., Morris, J. D. (1989). Multivariate analysis versus multiple univariate analyses. *Psychological Bulletin*, *105*, 302-308. doi: 10.1037/0033-2909.105.2.302
- Hughes, R. (1998). Considering the vignette technique and its application to a study of drug injecting and HIV risk and safer behavior. *Sociology of Health and Illness*, *20*, 381-400. doi: 10.1111/1467-9566.00107
- Hughes, R., & Huby, M. (2002). Vignettes in social and nursing research. *Journal of Advanced Nursing*, *37*, 382-386. doi: 10.1046/j.1365-2648.2002.02100.x
- Hughes, R., & Huby, M. (2004). The construction and interpretation of vignettes in social research. *Social Work & Social Sciences Review*, *11*, 36-51. doi: 10.1921/swssr.v11i1.428
- Humphreys, T. (2007). Perceptions of sexual consent: The impact of relationship history and gender. *Journal of Sex Research*, *44*, 307-315. doi: 10.1080/00224490701586706
- Hynie, M., Schuller, R. A., & Couperthwaite, L. (2003). Perceptions of sexual intent: The impact of condom possession. *Psychology of Women Quarterly*, *27*, 75-79. doi: 10.1111/1471-6402.t01-2-00009
- IBM Corporation (2015). *IBM SPSS Statistics for Windows, Version 23.0*. Armonk, NY: IBM Corporation.
- Jonason, P. K., & Marks, M. J. (2009). Common vs. uncommon sexual acts: Evidence for the sexual double standard. *Sex Roles*, *60*, 357-365. doi:10.1007/s11199-008-9542-z.

- Jozkowski, K. N., & Peterson, Z. D. (2013). College students and sexual consent: Unique insights. *Journal of Sex Research, 50*, 517-523. doi: 10.1080/00224499.2012.700739
- Jozkowski, K. N., Peterson, Z. D., Sanders, S. A., Dennis, B., & Reece, M. (2014). Gender differences in heterosexual college students' conceptualizations and indicators of sexual consent: Implications for contemporary sexual assault prevention education. *The Journal of Sex Research, 51*, 904-916. doi: 10.1080/00224499.2013.792326
- Kanekar, S., & Vaz, L. (1988). Attribution of causal and moral responsibility to a victim of rape. *Applied Psychology, 37*, 35-49. doi: 10.1111/j.1464-0597.1988.tb01124.x
- Kanekar, S., Kolsawalla, M. B., & D'Souza, A. (1981). Attribution of responsibility to a victim of rape. *British Journal of Social Psychology, 20*, 165-170. doi: 10.1111/j.2044-8309.1981.tb00528.x
- Katz, J., Moore, J. A., & Tkachuk, S. (2007). Verbal sexual coercion and perceived victim responsibility: Mediating effects of perceived control. *Sex Roles, 57*, 235-247. doi: 10.1007/s11199-007-9253-x
- Kazdin, A. E. (2003). *Research design in clinical psychology*. Boston: Allyn & Bacon.
- Keane, D., Lang, A. R., Craven, M. P., & Sharples, S. (2012). The use of vignettes for conducting healthcare research. In: V. Duffy (Ed.), *Advances in human aspects of healthcare* (pp. 451-460). Boca Raton: CRC Press.
- Kilpatrick, D. G., Resnick, H. S., Ruggiero, K. J., Conoscenti, L. M., & McCauley, J. (2007). Drug-facilitated, incapacitated, and forcible rape: A national study. Charleston, SC: Medical University of South Carolina, National Crime Victims Research & Treatment Center.
- Kleinke, C. L., & Meyer, C. (1990). Evaluation of rape victim by men and women with high and low belief in a just world. *Psychology of Women Quarterly, 14*, 343-353. doi: 10.1111/j.1471-6402.1990.tb00024.x
- Klettke, B., Hallford, D. J., & Mellor, D. J. (2014). Sexting prevalence and correlates: A systematic literature review. *Clinical Psychology Review, 34*, 44-53. doi:10.1016/j.cpr.2013.10.007



- Kosoff, M. (2015, October). I spent a week using five of the most popular dating apps – here's the one I unexpectedly liked the most. Retrieved June 1, 2016 from [www.businessinsider.com](http://www.businessinsider.com).
- Koss, M. P., & Oros, C. J. (1982). Sexual Experiences Survey: a research instrument investigating sexual aggression and victimization. *Journal of Consulting and Clinical Psychology, 50*, 455-457. doi: 10.1037/0022-006X.50.3.455
- Kowalski, R. M. (1993). Inferring sexual interest from behavioral cues: Effects of gender and sexually relevant attitudes. *Sex Roles, 29*, 13–36. doi: 10.1007/BF00289994
- L'Armand, K., & Pepitone, A. (1982). Judgments of rape a study of victim-rapist relationship and victim sexual history. *Personality and Social Psychology Bulletin, 8*, 134-139. doi: 10.1177/014616728281021
- Lee, M. & Crofts, T. (2015). Gender, pressure, coercion and pleasure: Untangling motivations for sexting between young people. *British Journal of Criminology, 55*, 454-473. doi: 10.1093/bjc/azu075
- Lenhart, A. (2009). Teens and sexting. *Pew Internet & American Life Project*. Retrieved June 1, 2016 from <http://pewresearch.org/assets/pdf/teens-and-sexting.pdf>Levy.
- Lenton, A. P., & Bryan, A. (2005). An affair to remember: The role of sexual scripts in perceptions of sexual intent. *Personal Relationships, 12*, 483-498. doi: 10.1111/j.1475-6811.2005.00127.x
- Lerner, M. J., & Matthews, G. (1967). Reactions to suffering of others under conditions of indirect responsibility. *Journal of Personality and Social Psychology, 5*, 319-325. doi: 10.1037/h0024304
- Leshnoff, J. (2009, November). C\*U\*2night: Sexting not just for kids. Retrieved June 1, 2016 from [www.aarp.org](http://www.aarp.org).
- Lim, G. Y., & Roloff, M. E. (1999). Attributing sexual consent. *Journal of Applied Communication Research, 27*, 1-23. doi: 10.1080/00909889909365521
- Lindgren, K. P., Parkhill, M. R., George, W. H., & Hendershot, C. S. (2008). Gender differences in perceptions of sexual intent: A qualitative review and integration. *Psychology of Women Quarterly, 32*, 423-439. doi: 10.1111/j.1471-6402.2008.00456.x



- Lippman, J. R., & Campbell, S. W. (2014). Damned if you do, damned if you don't... if you're a girl: Relational and normative contexts of adolescent sexting in the United States. *Journal of Children and Media*, 8, 371-386. doi: 10.1080/17482798.2014.923009
- Lonsway, K. A., & Fitzgerald, L. F. (1994). Rape myths: In review. *Psychology of Women Quarterly*, 18, 133-164. doi: 10.1111/j.1471-6402.1994.tb00448.x
- Lonsway, K. A., & Fitzgerald, L. F. (1995). Attitudinal antecedents of rape myth acceptance: A theoretical and empirical reexamination. *Journal of Personality and Social Psychology*, 68, 704. doi: 10.1037/0022-3514.68.4.704
- Markus, K. A. (2012). Principles and practice of structural equation modeling by Rex B. Kline. *Structural Equation Modeling: A Multidisciplinary Journal*, 19, 509-512. doi: 10.1080/10705511.2012.687667
- Maurer, T. W., & Robinson, D. W. (2008). Effects of attire, alcohol, and gender on perceptions of date rape. *Sex Roles*, 58, 423-434. doi: 10.1007/s11199-007-9343-9
- McCaw, J. M., & Senn, C. Y. (1998). Perception of cues in conflictual dating situations. *Violence Against Women* 4, 609-624. doi: 10.1177/1077801298004005006
- Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods*, 17, 437-455. doi: 10.1037/a0028085
- Milhausen, R. R., & Herold, E. S. (1999). Does the sexual double standard still exist? Perceptions of university women. *Journal of Sex Research*, 36, 361-368. doi: 10.1080/00224499909552008
- Moreno, M. A., Swanson, M. J., Royer, H., & Roberts, L. J. (2011). Sexpectations: Male college students' views about displayed sexual references on females' social networking web sites. *Journal of Pediatric and Adolescent Gynecology*, 24, 85-89. doi: 10.1016/j.jpag.2010.10.004
- Moss-Racusin, C. A., Dovidio, J. F., Brescoll, V. L., Graham, M. J., & Handelsman, J. (2012). Science faculty's subtle gender biases favor male students. *Proceedings of the National Academy of Sciences*, 109, 16474-16479. doi: 10.1073/pnas.1211286109

- Muehlenhard, C. L., & Linton, M. A. (1987). Date rape and sexual aggression in dating situations: Incidence and risk factors. *Journal of Counseling Psychology, 34*, 186-196. doi: 10.1037/0022-0167.34.2.186
- Muehlenhard, C. L., & Rodgers, C. S. (1998). Token resistance to sex new perspectives on an old stereotype. *Psychology of Women Quarterly, 22*, 443-463. doi: 10.1111/j.1471-6402.1998.tb00167.x
- Muehlenhard, C. L., Friedman, D. E., & Thomas, C. M. (1985). Is date rape justifiable? The effects of dating activity, who initiated, who paid, and men's attitudes toward women. *Psychology of Women Quarterly, 9*, 297-310. doi: 10.1111/j.1471-6402.1985.tb00882.x
- Murphy, J. P., & Fontecilla, A. (2013). Social media evidence in government investigations and criminal proceedings: A frontier of new legal issues. *Richmond Journal of Law & Technology, XIX*(3), 1-30.
- Newcombe, P. A., Van Den Eynde, J., Hafner, D., & Jolly, L. (2008). Attributions of responsibility for rape: Differences across familiarity of situation, gender, and acceptance of rape myths. *Journal of Applied Social Psychology, 38*, 1736-1754. doi: 10.1111/j.1559-1816.2008.00367.x
- O'Dell, L., Crafter, S., Abreu, G., & Cline, T. (2012). The problem of interpretation in vignette methodology in research with young people. *Qualitative Research, 12*, 702-714. doi: 10.1177/1468794112439003
- Papp, L. J., Hagerman, C., Gnoleba, M. A., Erchull, M. J., Liss, M., Miles-McLean, H., & Robertson, C. M. (2015). Exploring perceptions of slut-shaming on Facebook: Evidence for a reverse sexual double standard. *Gender Issues, 32*, 57-76. doi: 10.1007/s12147-014-9133-y
- Payne, D. L., Lonsway, K. A., & Fitzgerald, L. F. (1999). Rape myth acceptance: Exploration of its structure and its measurement using the Illinois Rape Myth Acceptance Scale. *Journal of Research in Personality, 33*, 27-68. doi:10.1006/jrpe.1998.2238
- Penny, K. I. (1996). Appropriate critical values when testing for a single multivariate outlier by using the Mahalanobis distance. *Applied Statistics, 45*, 73-81. doi: 10.2307/2986224

- Pollard, P. (1992). Judgements about victims and attackers in depicted rapes: A review. *British Journal of Social Psychology, 31*, 307-326. doi: 10.1111/j.2044-8309.1992.tb00975.x
- Prause, N., Staley, C., & Finn, P. (2011). The effects of acute ethanol consumption on sexual response and sexual risk-taking intent. *Archives of Sexual Behavior, 40*, 373-384. doi: 10.1007/s10508-010-9718-9
- Prentky, R. A., & Knight, R. A. (1991). Identifying critical dimensions for discriminating among rapists. *Journal of Consulting and Clinical Psychology, 59*, 624-661. doi: 10.1037/0022-006X.59.5.643
- Rape Abuse and Incest National Network. (2009). Was I raped? Retrieved June 1, 2016 from <https://www.rainn.org/get-information/types-of-sexual-assault/was-it-rape>.
- Renfrow, D. G., & Rollo, E. A. (2014). Sexting on campus: minimizing perceived risks and neutralizing behaviors. *Deviant Behavior, 35*, 903-920. doi: 10.1080/01639625.2014.897122
- Richardson, D., & Campbell, J. L. (1982). Alcohol and rape: The effect of alcohol on attributions of blame for rape. *Personality and Social Psychology Bulletin, 8*, 468-476. doi: 10.1177/0146167282083013
- Ringrose, J., & Renold, E. (2012). Slut-shaming, girl power and 'sexualisation': Thinking through the politics of the international Slut Walks with teen girls. *Gender and Education, 24*, 333-343. doi: 10.1080/09540253.2011.645023.
- Ringrose, J., Harvey, L., Gill, R., & Livingstone, S. (2013). Teen girls, sexual double standards and "sexting": Gendered value in digital image exchange. *Feminist Theory, 14*, 305-323. doi: 10.1177/1464700113499853
- Ross, L. T., Kolars, C. L. K., Krahn, D. D., Gomberg, E. S. L., Clark, G., & Niehaus, A. (2011). Nonconsensual sexual experiences and alcohol consumption among women entering college. *Journal of Interpersonal Violence, 26*, 399-413. doi: 10.1177/0886260510363418
- Sagebin Bordini, G., & Sperb, T. M. (2013). Sexual double standard: A review of the literature between 2001 and 2010. *Sexuality and Culture, 17*, 686-704. doi:10.1007/s12119-012-9163-0.

- Schafer, J. L., & Graham, J. W. (2002). Missing data: our view of the state of the art. *Psychological Methods, 7*, 147-177. doi: 10.1037/1082-989X.7.2.147
- Schuller, R. A., & Stewart, A. (2000). Police responses to sexual assault complaints: the role of perpetrator/complainant intoxication. *Law and Human Behavior, 24*, 535-551. doi: 10.1023/A:1005519028528
- Schutte, J. W., & Hosch, H. M. (1997). Gender differences in sexual assault verdicts: A meta-analysis. *Journal of Social Behavior & Personality, 12*(3), 759-772.
- Schwarz, N., Frey, D., & Kumpf, M. (1980). Interactive effects of writing and reading a persuasive essay on attitude change and selective exposure. *Journal of Experimental Social Psychology, 16*, 1-17. doi:10.1016/0022-1031(80)90032-3
- Scronce, C. A., & Corcoran, K. J. (1995). The influence of the victim's consumption of alcohol on perceptions of stranger and acquaintance rape. *Violence Against Women, 1*, 241-253. doi: 10.1177/1077801295001003004
- Seligman, C., Brickman, J., & Koulack, D. (1977). Rape and physical attractiveness: Assigning responsibility to victims. *Journal of Personality, 45*, 554-563. doi: 10.1111/j.1467-6494.1977.tb00171.x
- Shaver, K. G. (1970). Defensive attribution: Effects of severity and relevance on the responsibility assigned for an accident. *Journal of Personality and Social Psychology, 14*, 101-113. doi: 10.1037/h0028777
- Shotland, R. L., & Goodstein, L. (1983). Just because she doesn't want to doesn't mean it's rape: An experimentally based causal model of the perception of rape in a dating situation. *Social Psychology Quarterly, 46*(3), 220-232.
- Sigal, J., Gibbs, M., Adams, B., & Derfler, R. (1988). The effect of romantic and nonromantic films on perception of female friendly and seductive behavior. *Sex Roles, 19*, 545-554. doi: 10.1007/BF00289734
- Simon, W., & Gagnon, J. H. (1986). Sexual scripts: Permanence and change. *Archives of Sexual Behavior, 15*, 97-120. doi: 10.1007=BF01542219
- Simpson, B. (2013). Challenging childhood, challenging children: Children's rights and sexting. *Sexualities, 16*, 690-709. doi: 10.1177/1363460713487467

- Sims, C. M., Noel, N. E., & Maisto, S. A. (2007). Rape blame as a function of alcohol presence and resistance type. *Addictive Behaviors, 32*, 2766-2775. doi: 10.1016/j.addbeh.2007.04.013
- Suarez, E., & Gadalla, T. M. (2010). Stop blaming the victim: A meta-analysis on rape myths. *Journal of Interpersonal Violence, 25*, 2010-2035. doi: 10.1177/0886260509354503
- Testa, M., Livingston, J. A., & Collins, R. L. (2000). The role of women's alcohol consumption in evaluation of vulnerability to sexual aggression. *Experimental and Clinical Psychopharmacology, 8*, 185-191. doi: 10.1037/1064-1297.8.2.185
- Thornton, B. (1984). Defensive attribution of responsibility: Evidence for an arousal-based motivational bias. *Journal of Personality and Social Psychology, 46*, 721-734. doi: 10.1037/0022-3514.46.4.721
- Torres, S. (2009.) Vignette methodology and culture-relevance: Lessons learned through a project on successful aging with Iranian immigrants to Sweden. *Journal of CrossCultural Gerontology, 24*, 93-114. doi: 10.1007/s10823-009-9095-9
- Townshend, J. M., & Duka, T. (2001). Attentional bias associated with alcohol cues: Differences between heavy and occasional social drinkers. *Psychopharmacology, 157*, 67-74. doi: 10.1007/s002130100764
- Treat, T. A., Viken, R. J., Farris, C. A., & Smith, J. R. (2015). Enhancing the accuracy of men's perceptions of women's sexual interest in the laboratory. *Psychology of Violence. doi: 10.1037/a0039845*
- van der Bruggen, M., & Grubb, A. (2014). A review of the literature relating to rape victim blaming: An analysis of the impact of observer and victim characteristics on attribution of blame in rape cases. *Aggression and Violent Behavior, 19*, 523-531. doi: 10.1016/j.avb.2014.07.008
- Van der Pas, S., van Tilburg, T., & Knipscheer, K. (2005). Measuring older adults' filial responsibility expectations: Exploring the application of a vignette technique and an item scale. *Educational and Psychological Measurement, 65*, 1026-1045. doi: 10.1177/0013164405278559

- Walker, S., Sanci, L., & Temple-Smith, M. (2013). Sexting: Young women's and men's views on its nature and origins. *Journal of Adolescent Health, 52*, 697-701. doi:10.1016/j.jadohealth.2013.01.026
- Wall, A., & Schuller, R. A. (2000). Sexual assault and defendant/victim intoxication: Jurors' perceptions of guilt. *Journal of Applied Social Psychology, 30*, 253-274. doi: 10.1111/j.1559-1816.2000.tb02315.x
- Walrave, M., Heirman, W., & Hallam, L. (2014). Under pressure to sext? Applying the theory of planned behaviour to adolescent sexting. *Behaviour & Information Technology, 33*, 86-98. doi: 10.1080/0144929X.2013.837099
- Ward, S. K., Chapman, K., Cohn, E., White, S., & Williams, K. (1991). Acquaintance rape and the college social scene. *Family Relations, 40*, 65-71. doi: 10.2307/585660
- Whatley, M. A. (1996). Victim characteristics influencing attributions of responsibility to rape victims: A meta-analysis. *Aggression and Violent Behavior, 1*, 81-95. doi: 10.1016/1359-1789(95)00011-9
- White, B. H., & Kurpius, S. E. R. (2002). Effects of victim sex and sexual orientation on perceptions of rape. *Sex Roles, 46*, 191-200. doi: 10.1023/A:1019617920155
- Wiederman, M. W. (2005). The gendered nature of sexual scripts. *Family Journal, 13*, 496-502. doi: 10.1177=1066480705278729
- Wild, T. C., Graham, K., & Rehm, J. (1998). Blame and punishment for intoxicated aggression: when is the perpetrator culpable?. *Addiction, 93*, 677-687. doi: 10.1046/j.1360-0443.1998.9356774.x
- Workman, J. E., & Freeburg, E. W. (1999). An examination of date rape, victim dress, and perceiver variables within the context of attribution theory. *Sex Roles, 41*, 261-277. doi: 10.1023/A:1018858313267
- Yoon, Y., Sarial-Abi, G., & Gürhan-Canli, Z. (2012). Effect of regulatory focus on selective information processing. *Journal of Consumer Research, 39*, 93-110. doi: 10.1086/661935

## APPENDICES

### Appendix A. Pilot Vignette

Chris and Lindsay, both in their mid 20's and in college, had recently met at a party of a mutual friend. They spent most of the party dancing and talking with each other, and when the evening was over, they exchanged phone numbers and made tentative plans to meet up the next weekend.

That Friday, Chris and Lindsay both have plans to meet up with friends at the local [**bar OR coffee house**]. Chris and his 3 roommates [**start drinking OR meet up**] early in the evening and after a [**few drinks OR while**], texts Lindsay: "where r u? Come to the bar." Meanwhile, Lindsay is at her friend's house [**drinking OR hanging out**]. In response, she [**sends Chris a picture of her making a sexy face in a low-cut top and says "Be there soon." OR texts "Be there soon."**] Next, Chris and Lindsay meet up, [**have a few more drinks OR hang out**], and Chris invites Lindsay back to his apartment.

1. What do you think will happen next? Come up with a brief ending to the story.
2. Which of the following best describes Lindsay's picture message she sends to Chris?
  - (1) It was an innocent flirtatious message letting Chris know she wanted to see him, nothing else.
  - (2) Lindsay sent message as a joke to Chris with no ulterior motives.
  - (3) It was a message letting Chris know she was interested in hooking up and having sex.
3. Which of the following describes how Chris likely perceived Lindsay's message?
  - (1) Lindsay was joking around.
  - (2) Lindsay wanted sex.
  - (3) Lindsay wanted to meet up and hang out.
4. What is the likelihood that the two will have sex when returning to the apartment?
  - (1) Not at all likely
  - (2) Somewhat likely
  - (3) Very likely
5. How likely is the Lindsay to initiate sex?
  - (1) Not at all likely
  - (2) Somewhat likely
  - (3) Very likely

*Why or why not?*
6. How likely is the Chris to initiate sex?
  - (1) Not at all likely
  - (2) Somewhat likely
  - (3) Very likely



### Appendix B. Preliminary Data

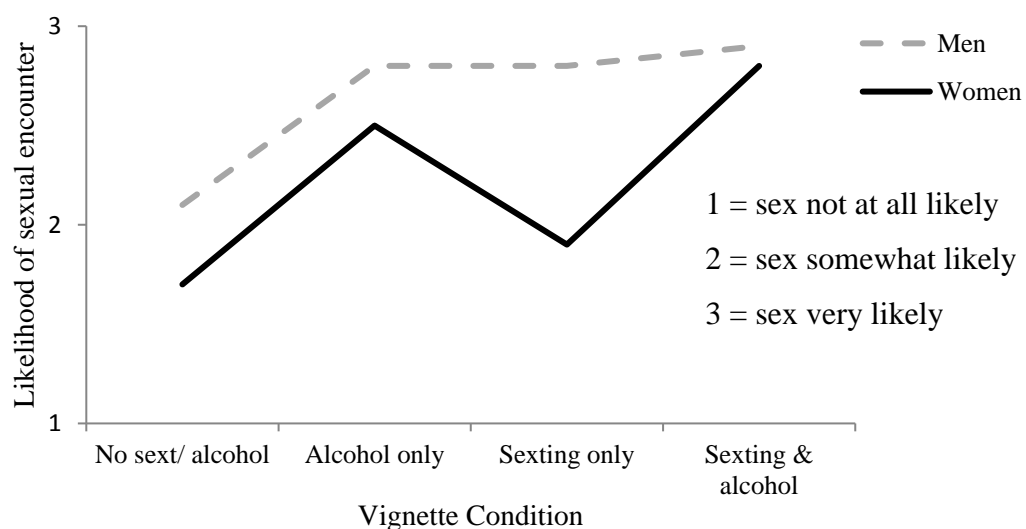


Figure 3

Shows men's and women's ratings of the likelihood that the vignette scenario would result in a sexual encounter. Participants were prompted with the question "What is the likelihood that Chris and Lindsay will hook up or have sex later that night?" Responses ranged from 1 (*sex not at all likely*) to 3 (*sex very likely*). Mean scores for men and women across each vignette condition are displayed in the figure.

## Appendix C. Vignette Condition 1: Sexting, Alcohol

### PART 1

John and Jennifer, college students in their mid 20's, had recently met at a party of a mutual friend. They spent most of the party dancing and talking with each other, and when the evening was over, they exchanged phone numbers and made tentative plans to meet up the next weekend. John and Jennifer text each other frequently throughout the next week and confirm plans for Friday.

That Friday evening before meeting up, John is drinking with his roommates and texts Jennifer:

Meanwhile, Jennifer is also drinking with her roommates and getting ready for the night. She responds to John:



Soon, John and Jennifer meet up at the bar for drinks, and at the end of the night John invites Jennifer back to his apartment.

**Part 1 Questions.** Please respond to the questions below based on your perceptions of the situation.

1. What do you think will happen next? (Provide a detailed explanation.)
2. Which of the following best describes Jennifer's picture message she sends to John?
  - (1) It was an innocent flirtatious message letting John know she wanted to see him, nothing else.
  - (2) Jennifer sent the message because she felt pressured but had no ulterior motives.

- (3) It was a message letting John know she was interested in hooking up and having sex.
3. Which of the following best describes John's picture message she sends to Jennifer?
- (1) It was an innocent flirtatious message letting Jennifer know he wanted to see her, nothing else.
  - (2) John sent message the message because he felt pressured but had no ulterior motives.
  - (3) It was a message letting Jennifer know he was interested in hooking up and having sex.
4. John is sexually attracted to Jennifer.
- (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
5. Jennifer is sexually attracted to John.
- (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
6. Prior to meeting up, John expects to hookup (or have sex) with Jennifer.
- (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
7. Prior to meeting up, Jennifer expects to hookup (or have sex) with John.
- (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
8. John is interested in hooking up with Jennifer.
- (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
9. Jennifer is interested in hooking up with John.
- (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree

10. Based on John's behavior, John is willing to hookup with Jennifer.
- (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
11. Based on Jennifer's behavior, Jennifer is willing to hookup with Jennifer.
- (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
12. John would be receptive to a sexual advance.
- (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
13. Jennifer would be receptive to a sexual advance.
- (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
14. What is the likelihood that John and Jennifer will hookup (or have sex) when returning to the apartment?
- (1) Unlikely
  - (2) Somewhat unlikely
  - (3) Somewhat likely
  - (4) Likely

## PART 2

Later that night at John's apartment...John starts kissing Jennifer and they end up having sex.

### Part 2 Questions:

1. Based on both John and Jennifer's actions throughout the scenario, how appropriate was it for John to initiate sex with Jennifer?
  - (1) Inappropriate
  - (2) Somewhat inappropriate
  - (3) Somewhat appropriate
  - (4) Appropriate
  
2. John's and Jennifer's text messages to each other could be seen as a form of communicating consent.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
3. Jennifer communicated consent to John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
4. Jennifer voluntarily agreed to have sex with John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
5. Jennifer meant to give her consent to John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree

### PART 3

Jennifer decides to tell her RA (resident adviser) about the situation and her RA tells her that the situation seems like a sexual assault. The RA talks with both John and Jennifer about what happened.

Jennifer's report:

*I met John at a party 2 weeks ago and we exchanged numbers and made plans to hang out the next weekend. We didn't have any sexual/intimate contact at the time. Last Friday before meeting up we texted each other this:*

*We met up that night and went to the bar for drinks. At the end of the night it was late so I agreed to go back to John's apartment. John wanted to have sex and I said no, but he kept trying and I gave in and we had sex.*

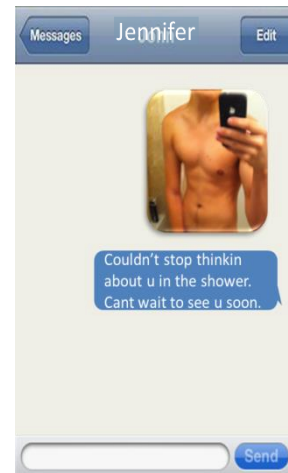
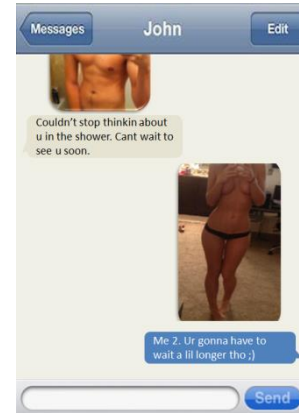
John's report:

*I met Jennifer at a party 2 weeks ago and we exchanged numbers and made plans to hang out the next weekend. We didn't have any sexual/intimate contact at the time. Last Friday before meeting up we texted each other this:*

*We met up that night and went to the bar for drinks. At the end of the night it was late so I invited Jennifer back to my apartment. At first, Jennifer didn't seem to want to have sex, but I tried again and eventually she let it happen and we had sex.*

#### Part 3 Questions:

1. To what extent is John responsible for the incident?
  - (1) Completely irresponsible
  - (2) Somewhat irresponsible
  - (3) Somewhat responsible
  - (4) Completely responsible
  
2. To what extent is John to blame for the incident?
  - (1) Completely NOT to blame
  - (2) Somewhat NOT to blame
  - (3) Somewhat to blame
  - (4) Completely to blame
  
3. To what extent is Jennifer responsible for the incident?
  - (1) Completely irresponsible
  - (2) Somewhat irresponsible
  - (3) Somewhat responsible
  - (4) Completely responsible



4. To what extent is Jennifer to blame for the incident?
  - (1) Completely NOT to blame
  - (2) Somewhat NOT to blame
  - (3) Somewhat to blame
  - (4) Completely to blame
  
5. To what extent do you believe that the outcome of the incident constitutes a sexual assault?
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree

## Appendix D. Vignette Condition 2: Sexting, No Alcohol

### PART 1

John and Jennifer, college students in their mid 20's, had recently met at a party of a mutual friend. They spent most of the party dancing and talking with each other, and when the evening was over, they exchanged phone numbers and made tentative plans to meet up the next weekend. John and Jennifer text each other frequently throughout the next week and confirm plans for Friday.

That Friday evening before meeting up, John texts Jennifer:

Meanwhile, Jennifer is getting ready for the night. She responds to John:



Soon, John and Jennifer meet up at, and at the end of the night John invites Jennifer back to his apartment.

### Part 1 Questions.

*Please respond to the following questions based on the scenario above.*

1. What do you think will happen next? (Provide a detailed explanation.)
2. Which of the following best describes Jennifer's picture message she sends to John?
  - (1) It was an innocent flirtatious message letting John know she wanted to see him, nothing else.
  - (2) Jennifer sent the message because she felt pressured but had no ulterior motives.
  - (3) It was a message letting John know she was interested in hooking up and having sex.
3. Which of the following best describes John's picture message she sends to Jennifer?



- (1) It was an innocent flirtatious message letting Jennifer know he wanted to see her, nothing else.
  - (2) John sent message the message because he felt pressured but had no ulterior motives.
  - (3) It was a message letting Jennifer know he was interested in hooking up and having sex.
4. John is sexually attracted to Jennifer.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  5. Jennifer is sexually attracted to John.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  6. Prior to meeting up, John expects to hookup (or have sex) with Jennifer.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  7. Prior to meeting up, Jennifer expects to hookup (or have sex) with John.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  8. John is interested in hooking up with Jennifer.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  9. Jennifer is interested in hooking up with John.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  10. Based on John's behavior, John is willing to hookup with Jennifer.
    - (1) Disagree
    - (2) Disagree some

- (3) Agree some
- (4) Agree

11. Based on Jennifer's behavior, Jennifer is willing to hookup with Jennifer.

- (1) Disagree
- (2) Disagree some
- (3) Agree some
- (4) Agree

12. John would be receptive to a sexual advance.

- (1) Disagree
- (2) Disagree some
- (3) Agree some
- (4) Agree

13. Jennifer would be receptive to a sexual advance.

- (1) Disagree
- (2) Disagree some
- (3) Agree some
- (4) Agree

14. What is the likelihood that John and Jennifer will hookup (or have sex) when returning to the apartment?

- (1) Unlikely
- (2) Somewhat unlikely
- (3) Somewhat likely
- (4) Likely

## PART 2

Later that night at John's apartment...John starts kissing Jennifer and they end up having sex.

### Part 2 Questions:

1. Based on both John and Jennifer's actions throughout the scenario, how appropriate was it for John to initiate sex with Jennifer?
  - (1) Inappropriate
  - (2) Somewhat inappropriate
  - (3) Somewhat appropriate
  - (4) Appropriate
  
2. John's and Jennifer's text messages to each other could be seen as a form of communicating consent.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
3. Jennifer communicated consent to John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
4. Jennifer voluntarily agreed to have sex with John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
5. Jennifer meant to give her consent to John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree

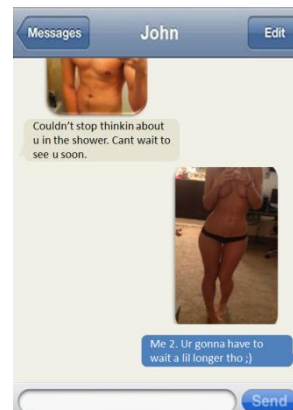
### PART 3

Jennifer decides to tell her RA (resident adviser) about the situation and her RA tells her that the situation seems like a sexual assault. The RA talks with both John and Jennifer about what happened.

Jennifer's report:

*I met John at a party 2 weeks ago and we exchanged numbers and made plans to hang out the next weekend. We didn't have any sexual/intimate contact at the time. Last Friday before meeting up we texted each other this:*

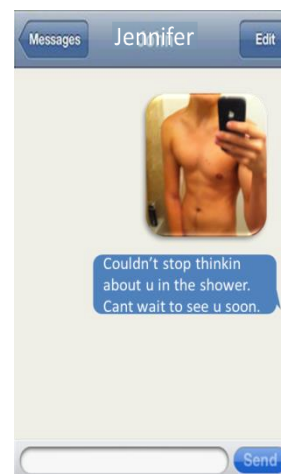
*We met up that night and went to Starbucks. At the end of the night it was late so I agreed to go back to John's apartment. John wanted to have sex and I said no, but he kept trying and I gave in and we had sex.*



John's report:

*I met Jennifer at a party 2 weeks ago and we exchanged numbers and made plans to hang out the next weekend. We didn't have any sexual/intimate contact at the time. Last Friday before meeting up we texted each other this:*

*We met up that night and went to Starbucks. At the end of the night it was late so I invited Jennifer back to my apartment. At first, Jennifer didn't seem to want to have sex, but I tried again and eventually she let it happen and we had sex.*



#### Part 3 Questions:

1. To what extent is John responsible for the incident?
  - (1) Completely irresponsible
  - (2) Somewhat irresponsible
  - (3) Somewhat responsible
  - (4) Completely responsible
  
2. To what extent is John to blame for the incident?
  - (1) Completely NOT to blame
  - (2) Somewhat NOT to blame
  - (3) Somewhat to blame
  - (4) Completely to blame
  
3. To what extent is Jennifer responsible for the incident?
  - (1) Completely irresponsible
  - (2) Somewhat irresponsible
  - (3) Somewhat responsible
  - (4) Completely responsible

4. To what extent is Jennifer to blame for the incident?
  - (1) Completely NOT to blame
  - (2) Somewhat NOT to blame
  - (3) Somewhat to blame
  - (4) Completely to blame
  
5. To what extent do you believe that the outcome of the incident constitutes a sexual assault?
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree

## Appendix E. Vignette Condition 3: No Sexting, Alcohol

### PART 1

John and Jennifer, college students in their mid 20's, had recently met at a party of a mutual friend. They spent most of the party dancing and talking with each other, and when the evening was over, they exchanged phone numbers and made tentative plans to meet up the next weekend. John and Jennifer text each other frequently throughout the next week and confirm plans for Friday.

That Friday evening before meeting up, John is drinking with his roommates and texts Jennifer:

Meanwhile, Jennifer is drinking with her roommates and getting ready for the night. She responds to John:



Soon, John and Jennifer meet up at the bar for drinks, and at the end of the night John invites Jennifer back to his apartment.

**Part 1 Questions.** *Please respond to the questions below based on your perceptions of the situation.*

1. What do you think will happen next? (Provide a detailed explanation.)
2. Which of the following best describes Jennifer's picture message she sends to John?
  - (1) It was an innocent flirtatious message letting John know she wanted to see him, nothing else.
  - (2) Jennifer sent the message because she felt pressured but had no ulterior motives.
  - (3) It was a message letting John know she was interested in hooking up and having sex.
3. Which of the following best describes John's picture message she sends to Jennifer?

- (1) It was an innocent flirtatious message letting Jennifer know he wanted to see her, nothing else.
  - (2) John sent the message because he felt pressured but had no ulterior motives.
  - (3) It was a message letting Jennifer know he was interested in hooking up and having sex.
4. John is sexually attracted to Jennifer.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  5. Jennifer is sexually attracted to John.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  6. Prior to meeting up, John expects to hookup (or have sex) with Jennifer.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  7. Prior to meeting up, Jennifer expects to hookup (or have sex) with John.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  8. John is interested in hooking up with Jennifer.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  9. Jennifer is interested in hooking up with John.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some
    - (4) Agree
  10. Based on John's behavior, John is willing to hookup with Jennifer.
    - (1) Disagree
    - (2) Disagree some
    - (3) Agree some

(4) Agree

11. Based on Jennifer's behavior, Jennifer is willing to hookup with Jennifer.

- (1) Disagree
- (2) Disagree some
- (3) Agree some
- (4) Agree

12. John would be receptive to a sexual advance.

- (1) Disagree
- (2) Disagree some
- (3) Agree some
- (4) Agree

13. Jennifer would be receptive to a sexual advance.

- (1) Disagree
- (2) Disagree some
- (3) Agree some
- (4) Agree

14. What is the likelihood that John and Jennifer will hookup (or have sex) when returning to the apartment?

- (1) Unlikely
- (2) Somewhat unlikely
- (3) Somewhat likely
- (4) Likely



## PART 2

Later that night at John's apartment...John starts kissing Jennifer and they end up having sex.

### Part 2 Questions:

1. Based on both John and Jennifer's actions throughout the scenario, how appropriate was it for John to initiate sex with Jennifer?
  - (1) Inappropriate
  - (2) Somewhat inappropriate
  - (3) Somewhat appropriate
  - (4) Appropriate
  
2. John's and Jennifer's text messages to each other could be seen as a form of communicating consent.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
3. Jennifer communicated consent to John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
4. Jennifer voluntarily agreed to have sex with John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
5. Jennifer meant to give her consent to John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree

### PART 3

Jennifer decides to tell her RA (resident adviser) about the situation and her RA tells her that the situation seems like a sexual assault. The RA talks with both John and Jennifer about what happened.

Jennifer's report:

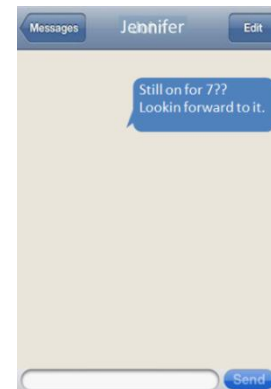
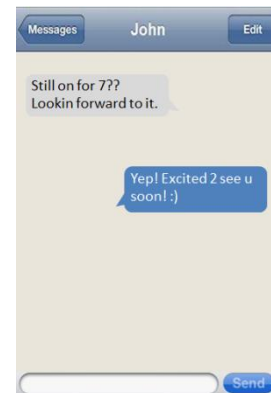
*I met John at a party 2 weeks ago and we exchanged numbers and made plans to hang out the next weekend. We didn't have any sexual/intimate contact at the time. Last Friday before meeting up we texted each other this:*

*We met up that night and went to the bar for drinks. At the end of the night it was late so I agreed to go back to John's apartment. John wanted to have sex and I said no, but he kept trying and I gave in and we had sex.*

John's report:

*I met Jennifer at a party 2 weeks ago and we exchanged numbers and made plans to hang out the next weekend. We didn't have any sexual/intimate contact at the time. Last Friday before meeting up we texted each other this:*

*We met up that night and went to the bar for drinks. At the end of the night it was late so I invited Jennifer back to my apartment. At first, Jennifer didn't seem to want to have sex, but I tried again and eventually she let it happen and we had sex.*



#### Part 3 Questions:

1. To what extent is John responsible for the incident?
  - (1) Completely irresponsible
  - (2) Somewhat irresponsible
  - (3) Somewhat responsible
  - (4) Completely responsible
  
2. To what extent is John to blame for the incident?
  - (1) Completely NOT to blame
  - (2) Somewhat NOT to blame
  - (3) Somewhat to blame
  - (4) Completely to blame
  
3. To what extent is Jennifer responsible for the incident?
  - (1) Completely irresponsible
  - (2) Somewhat irresponsible
  - (3) Somewhat responsible
  - (4) Completely responsible

4. To what extent is Jennifer to blame for the incident?
  - (1) Completely NOT to blame
  - (2) Somewhat NOT to blame
  - (3) Somewhat to blame
  - (4) Completely to blame
  
5. To what extent do you believe that the outcome of the incident constitutes a sexual assault?
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree

## Appendix F. Vignette Condition 4: No Sexting, No Alcohol

### PART 1

John and Jennifer, college students in their mid 20's, had recently met at a party of a mutual friend. They spent most of the party dancing and talking with each other, and when the evening was over, they exchanged phone numbers and made tentative plans to meet up the next weekend. John and Jennifer text each other frequently throughout the next week and confirm plans for Friday.

That Friday evening before meeting up, John texts Jennifer:

Meanwhile, Jennifer is getting ready for the night. She responds to John:



Soon, John and Jennifer meet up, and at the end of the night John invites Jennifer back to his apartment.

**Part 1 Questions.** *Please respond to the questions below based on your perceptions of the situation.*

1. What do you think will happen next? (Provide a detailed explanation.)
2. Which of the following best describes Jennifer's picture message she sends to John?
  - (1) It was an innocent flirtatious message letting John know she wanted to see him, nothing else.
  - (2) Jennifer sent the message because she felt pressured but had no ulterior motives.
  - (3) It was a message letting John know she was interested in hooking up and having sex.

3. Which of the following best describes John's picture message she sends to Jennifer?
  - (1) It was an innocent flirtatious message letting Jennifer know he wanted to see her, nothing else.
  - (2) John sent message the message because he felt pressured but had no ulterior motives.
  - (3) It was a message letting Jennifer know he was interested in hooking up and having sex.
4. John is sexually attracted to Jennifer.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
5. Jennifer is sexually attracted to John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
6. Prior to meeting up, John expects to hookup (or have sex) with Jennifer.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
7. Prior to meeting up, Jennifer expects to hookup (or have sex) with John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
8. John is interested in hooking up with Jennifer.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
9. Jennifer is interested in hooking up with John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
10. Based on John's behavior, John is willing to hookup with Jennifer.
  - (1) Disagree

- (2) Disagree some
- (3) Agree some
- (4) Agree

11. Based on Jennifer's behavior, Jennifer is willing to hookup with Jennifer.

- (1) Disagree
- (2) Disagree some
- (3) Agree some
- (4) Agree

12. John would be receptive to a sexual advance.

- (1) Disagree
- (2) Disagree some
- (3) Agree some
- (4) Agree

13. Jennifer would be receptive to a sexual advance.

- (1) Disagree
- (2) Disagree some
- (3) Agree some
- (4) Agree

14. What is the likelihood that John and Jennifer will hookup (or have sex) when returning to the apartment?

- (1) Unlikely
- (2) Somewhat unlikely
- (3) Somewhat likely
- (4) Likely

## PART 2

Later that night at John's apartment...John starts kissing Jennifer and they end up having sex.

### Part 2 Questions:

1. Based on both John and Jennifer's actions throughout the scenario, how appropriate was it for John to initiate sex with Jennifer?
  - (1) Inappropriate
  - (2) Somewhat inappropriate
  - (3) Somewhat appropriate
  - (4) Appropriate
  
2. John's and Jennifer's text messages to each other could be seen as a form of communicating consent.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
3. Jennifer communicated consent to John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
4. Jennifer voluntarily agreed to have sex with John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree
  
5. Jennifer meant to give her consent to John.
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree

### PART 3

Jennifer decides to tell her RA (resident adviser) about the situation and her RA tells her that the situation seems like a sexual assault. The RA talks with both John and Jennifer about what happened.

Jennifer's report:

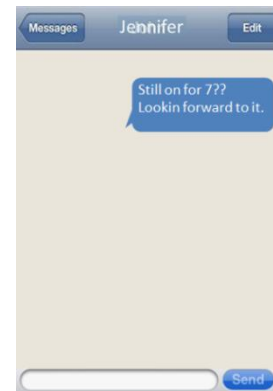
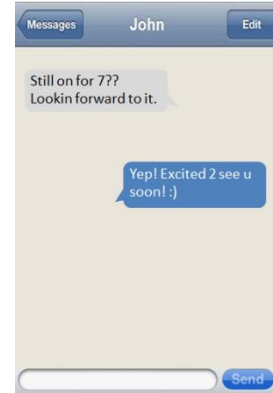
*I met John at a party 2 weeks ago and we exchanged numbers and made plans to hang out the next weekend. We didn't have any sexual/intimate contact at the time. Last Friday before meeting up we texted each other this:*

*We met up that night and went to Starbucks. At the end of the night it was late so I agreed to go back to John's apartment. John wanted to have sex and I said no, but he kept trying and I gave in and we had sex.*

John's report:

*I met Jennifer at a party 2 weeks ago and we exchanged numbers and made plans to hang out the next weekend. We didn't have any sexual/intimate contact at the time. Last Friday before meeting up we texted each other this:*

*We met up that night and went to Starbucks. At the end of the night it was late so I invited Jennifer back to my apartment. At first, Jennifer didn't seem to want to have sex, but I tried again and eventually she let it happen and we had sex.*



#### Part 3 Questions:

1. To what extent is John responsible for the incident?
  - (1) Completely irresponsible
  - (2) Somewhat irresponsible
  - (3) Somewhat responsible
  - (4) Completely responsible
  
2. To what extent is John to blame for the incident?
  - (1) Completely NOT to blame
  - (2) Somewhat NOT to blame
  - (3) Somewhat to blame
  - (4) Completely to blame
  
3. To what extent is Jennifer responsible for the incident?
  - (1) Completely irresponsible
  - (2) Somewhat irresponsible
  - (3) Somewhat responsible
  - (4) Completely responsible



4. To what extent is Jennifer to blame for the incident?
  - (1) Completely NOT to blame
  - (2) Somewhat NOT to blame
  - (3) Somewhat to blame
  - (4) Completely to blame
  
5. To what extent do you believe that the outcome of the incident constitutes a sexual assault?
  - (1) Disagree
  - (2) Disagree some
  - (3) Agree some
  - (4) Agree

VITA

## VITA

Allyson L. Dir

---

### ACADEMIC AND PROFESSIONAL EXPERIENCE

---

#### EDUCATION

---

- 8|2016-8|2017 **Predoctoral Internship in Clinical Psychology**  
 Charleston Consortium (MUSC)  
 Substance Abuse track
- 5|2017 **Doctor of Philosophy**  
 Indiana University-Purdue University Indianapolis  
 Dissertation: *Effects of sexting on perceptions of sexual intent, sexual consent, and responsibility*  
 Defended: May 19, 2016  
 Chair: Melissa A. Cyders, Ph.D.
- 6|2013 **Doctoral Candidate**  
 Indiana University-Purdue University Indianapolis  
 Preliminary Examination Project: *The differential role of impulsivity in risky sexual behavior across adolescence: Disaggregation across age, personality, and sex*  
 Defended: June 10, 2013  
 Chair: Melissa A. Cyders, Ph.D.
- 2|2012 **Master of Science, Clinical Psychology**  
 Indiana University-Purdue University Indianapolis  
 Thesis: *Understanding sexting behaviors, sexting expectancies, and the role of impulsivity in sexting behavior*  
 Defended: February 24, 2012  
 Chair: Melissa A. Cyders, Ph.D.
- 5|2009 **B. S. in Psychology / B. A. in Spanish**  
 The University of Georgia, Athens, GA; *Suma Cum Laude*

## FUNDED GRANTS

---

- 5|2014 – **Ruth L. Kirschstein National Research Service Award Individual**  
 5|2016 **Fellowship**  
*Sexting as a mechanism for the relationship between alcohol and sexual assault*  
 National Institute on Alcohol Abuse and Alcoholism / NIH  
 F31AA022825 (PI: Dir) \$85,352

## ACADEMIC HONORS

---

- 2015 **IUPUI Sherry Queener Award for Excellence in Graduate School**, \$1,000 award, awarded to one master's and one doctoral student for excellence in research, academics, and service across the IUPUI campus
- 2013 **IUPUI Department of Psychology Research Award**, \$2,000 research funding for longitudinal study of college women and sexual assault risk
- 2010 – 2011 **IUPUI University Fellowship**, awarded to excellent incoming graduate students across the IUPUI campus
-

---

**RESEARCH EXPERIENCE**


---

**PEER-REVIEWED PUBLICATIONS**


---

1. **Dir, A. L.**, Banks, D. E., Zapolski, T. C. B., McIntyre, E., & Hulvershorn, L. A. (2016). Negative urgency and emotion regulation predict positive smoking expectancies in non-smoking youth. *Addictive Behaviors*
2. Hulvershorn, L. A., Hummer, T. A., Fukunga, R., Leibenluft, E., Finn, P., Cyders, M. A., Anand, A., Overhage, L., **Dir, A. L.**, & Brown, K. (2015). Neural activation during risky decision making in youth at high risk for substance use disorders. *Psychiatric Research: Neuroimaging*, 233(2), 102-111.
3. **Dir, A. L.**, & Cyders, M. A. (2014). Risks, risk factors, and outcomes associated with phone and internet sexting among university students in the United States. *Archives of Sexual Behavior*, October 2014, 1-10.
4. **Dir, A. L.**, Coskunpinar, A., & Cyders, M. A. (2014). A meta-analytic review of the relationship between adolescent risky sexual behavior and impulsivity and risky sexual behavior across gender, age, and race. *Clinical Psychology Review*, 34(7), 551-562.
5. **Dir, A. L.**, Cyders, M. A., & Coskunpinar, A. (2013). From the bar to the bed via mobile phone: A first test of the role of problematic alcohol Use, sexting, and impulsivity-related traits in sexual hookups. *Computers in Human Behavior*, 29(4), 1664-1670.
6. **Dir, A. L.**, Coskunpinar, A., Steiner, J. L., & Cyders, M.A. (2013). Understanding differences in sexting behaviors across gender, relationship status, and sexual identity, and the role of sexting expectancies in sexting. *Cyberpsychology, Behavior, and Social Networking*, 16(8), 568-574.
7. **Dir, A. L.**, Karyadi, K., & Cyders, M. A. (2013). The uniqueness of negative urgency as a common risk factor for self-harm behaviors, alcohol consumption, and eating problems. *Addictive Behaviors*, 38(5), 2158-2162.
8. Coskunpinar, A., **Dir, A. L.**, Cyders, M. A. (2013). Multidimensionality in impulsivity and alcohol use: A meta-analysis using the UPPS model of impulsivity. *Alcoholism: Clinical and Experimental Research*, 37(9), 1441-1450.
9. Coskunpinar, A., **Dir, A. L.**, Karyadi, K., Koo, CS, Cyders, M. A. (2013). Mechanisms underlying the relationship between negative affectivity and problematic alcohol use. *Journal of Experimental Psychology*, 4(3), 263-278.
10. Hulvershorn, L., Hummer, T., Leibenluft, E., **Dir, A. L.**, Finn, P., & Anand, A. (2013). Medial prefrontal hyperactivation during facial emotion processing in youth at high risk for the development of substance use disorders. *Biological Psychiatry*, 73(9), 86S.
11. Karyadi, K., Coskunpinar, A., **Dir, A. L.**, Cyders, M. A. (2012). The interactive effects of affect lability, negative urgency, and sensation seeking on young adult problematic drinking. *Journal of Addiction*, 2013, 1-7.

12. Miller, J.D., **Dir, A.**, Gentile, B., Pryor, L.R., Wilson, L., & Campbell, W.K. (2010). Searching for a vulnerable and dark triad: Comparing factor 2 psychopathy, vulnerable narcissism, and borderline personality disorder. *Journal of Personality*, 5, 1529-1564.

### MANUSCRIPTS UNDER REVIEW

---

1. **Dir, A. L.**, Riley, E. N., Dempsey, A., Smith, G. T., & Cyders, M. A. The prospective role of Tinder use and alcohol consumption in increasing sexual risk-taking among college women. Under review at *Cyberpsychology, Behavior, and Social Networking*.
2. **Dir, A. L.**, Riley, E. N., Cyders, M. A., & Smith, G. T. Alcohol use, sexting, and risk for unwanted sexual experiences and sexual assault among college women. Under review at *Journal of College Health*.

### MANUSCRIPTS IN PREPARATION

---

1. **Dir, A.L.**, Andrews, A., Wilson, S., Davidson, T. M., & Gilmore, A. K. (in preparation). The role of sex-related alcohol expectancies and heavy drinking in differences across ethnicity in risk for incapacitated sexual assault and alcohol-related sex.
2. **Dir, A. L.**, & Cyders, M. A. (in preparation). Effects of sexting on men's and women's perceptions of sexual intent, sexual consent, and responsibility in sexual encounters.

### CHAPTERS AND NON-PEER REVIEWED PUBLICATIONS

---

1. **Dir, A. L.**, & Cyders, M. A. Sexting: An emerging behavior of risk. (October 2014). In *Paradigm Magazine*.
2. **Dir, A. L.**, Soo, C.S., & Cyders, M. A. Risk-taking: The risk process of sexting. (2013). In J. G. Lavino & R. B. Neumann (Eds.), *Psychology of Risk Perception*. New York: Nova Science Publishers.

### INVITED RESEARCH PRESENTATIONS

---

1. **Dir, A. L.** (2016 October). Can feeling good be bad?: Positive Urgency in the role of sexual risk-taking, sexual assault, and substance use. Invited presentation given for the symposium "Can feeling good be bad?: An investigation of positive emotion dysfunction in risky, self-destructive, and health-compromising behaviors" at the annual ABCT (Association for Behavioral and Cognitive Therapy) Conference in New York, NY, October, 2016.
2. **Dir, A. L.** (2015). Sexting behaviors, alcohol use, and sexual risk-taking among adolescents and college students: What clinicians should know. Presentation at the Leadership Education for Adolescent Health (LEAH) program meeting at

the Adolescent Medicine Department, Indiana University School of Medicine, November, 2015.

3. **Dir, A. L.** (2014). The risks and relationships associated with sexting, sexual behavior, and alcohol use among teens and young adults. Presentation at Indiana School Safety Academy (ISSA) Training Conference in Indianapolis, IN, September, 2014.
4. **Dir, A. L., & Cyders, M. A.** (2014). The risks and relationships associated with sexting, sexual behavior, and alcohol use among teens and young adults. Presentation at the annual Susan Li Conference at Fairbanks Addiction Treatment Center in Indianapolis, IN, July, 2014.

### POSTER PRESENTATIONS

---

1. **Dir, A. L.,** Riley, E. N., Cyders, M. A., & Smith, G. T. (2015). Tinder use and associations with problematic alcohol use and sexual hookups among college women. Poster presented at the annual RSA (Research Society on Alcoholism) Conference in San Antonio, TX, June, 2015.
2. **Dir, A. L.,** Hershberger, A., & Cyders, M. A. (2014). Sexting as a mechanism in the relationship between alcohol use and sexual assault among college women. Poster presented at the annual RSA Conference in Seattle, WA, June 2014.
3. **Dir, A. L.,** Cyders, M. A., & Coskunpinar, A. (2013). From the bar to the bed via mobile phone: A first test of the role of problematic alcohol Use, sexting, and impulsivity-related traits in sexual hookups. Poster presented at the annual RSA Conference in Orlando, FL, June 2013.
4. Coskunpinar, A., **Dir, A. L.,** Karyadi, K., & Cyders, M. A. (2013). Mechanisms underlying the relationship between negative affectivity and problematic alcohol use. Poster presented at the annual RSA Conference in Orlando, FL, June 2013.
5. Hulvershorn, L., Hummer, T., Liebenluft, E., **Dir, A. L.,** Finn, P., & Anand, A. (2013). Medial prefrontal hyperactivation during facial emotion-processing in youth at high risk for the development of substance use disorders. Poster presented at the annual Society for Biological Psychiatry conference in San Francisco, May 16, 2013.
6. **Dir, A.L.,** Karyadi, K., & Cyders, M. A. (2013). The uniqueness of negative urgency as a common risk factor for self-harm behaviors, alcohol consumption, and eating problems. Poster presented at IUPUI Research Day in Indianapolis, IN, April 2013.
7. **Dir, A. L., & Cyders, M. A.** (2012) Impulsivity and increased risk towards alcohol use and sexual behaviors: The importance of sex-related alcohol expectancies. Poster presented at the annual RSA Conference in San Francisco, CA, June 2012.

8. Lopossa, A.M., **Dir, A.L.**, Cyders, M.A. (2012). Positive and negative urgency predict problematic alcohol consumption for subjects with positive family history of alcohol dependency. Poster presented November 16, 2012 at IUPUI Center of Research and Learning, November, 2012.
9. **Dir, A.L.**, Coskunpinar, A., & Cyders, M.A. (2012). Sexting, alcohol use, and impulsivity among college students. Poster presented at IUPUI Research Day April 13, 2012.
10. Koo, C. S., **Dir, A. L.**, & Cyders, M. A. (2012). Alcohol use, problematic internet use, and impulsivity. Poster to be presented at the annual RSA Conference in San Francisco, CA, June, 2012.
11. **Dir, A. L.**, Coskunpinar, A., & Cyders, M.A. (2011). Sexting, alcohol, and impulsivity: A preliminary study. Poster presented at the annual RSA Conference in Atlanta, GA, June, 2011.
12. **Dir, A. L.**, Miller, J.D. (2009). Searching for a vulnerable and dark triad: Comparing vulnerable narcissism, borderline personality disorder, and factor 2 psychopathy. Paper presented at the annual Psi Chi conference at the University of Georgia in Athens, GA, April 2009.
13. Miller, J.D., **Dir, A. L.**, Gentile, B., Pryor, L.R., Wilson, L., & Campbell W.K. Searching for a dark and vulnerable triad: Comparing vulnerable narcissism, borderline personality disorder, and factor 2 psychopathy. Paper presented at the annual meeting for the Society for Research in Psychopathology, Minneapolis, MN.

## INTERVIEWS & MEDIA

---

- Television interview with Debby Knox for *WISH-TV* Indianapolis Local 11pm News. Interview discussion regarding sexting behaviors and what parents should know about sexting and how to prevent negative consequences. June 21, 2013.
- Research featured in article in *Washington Post*:  
Rettner, R. (September 9, 2013). Men expect better things from sexting than women do. *Washington Post*. [www.washingtonpost.com](http://www.washingtonpost.com)
- The Practice Institute (Producer). (October 1, 2013). *Sexting behaviors, sexual risk-taking, and alcohol-related sexual hookups among college students and adolescents* [audio podcast]. [www.thepracticeinstitute.com](http://www.thepracticeinstitute.com)  
(Interview for “Meet the Authors” podcast discussing my ongoing research on sexting, alcohol use, and sexual-risk taking.)

## RESEARCH TRAINING & EXPERIENCES

---

2014 – Present **Principal Investigator, Graduate Student Fellow**

*Sexting as a mechanism for the relationship between alcohol and sexual assault*, NIH/NIAAA F31 AA022825 (PI: Dir)



---

Indiana University-Purdue University Indianapolis

Obtained advanced training in conducting longitudinal research and psychological statistics and methods. Coordinated a three-wave longitudinal data collection at two sites (IUPUI and University of Kentucky) assessing sexting, sexual, and alcohol use behaviors among undergraduate women, as well as impulsivity and sexting and sex-related alcohol expectancies. Performed advanced statistical analyses on longitudinal data using structural equation modeling. Completed data collection for Study 2 of project which entails a factorial vignette design in November 2015. Proposed dissertation project using these data and prepared 3 manuscripts currently under review and poster presentation for Annual Scientific Meeting of the Research Society on Alcoholism Conferences in San Antonio, TX (June 2015) using data. Received training in sexual assault prevention and intervention, as well as training in conducting research on sexual assault from Dr. Jeff Temple and training in conducting longitudinal research studies from Dr. Gregory T. Smith.

2014 – Present **Dissertation Project**

My dissertation project examines how men and women perceive sexting as a communication of sexual consent, sexual intent, and how sexting influences perceptions of responsibility and blame in sexual encounters. Specifically, I am using a vignette design, with a hypothetical scenario in which a man and woman meet, exchange numbers and communicate via mobile phone, go on a date, and eventually engage in a sexual encounter. Across the vignette I manipulate the presence of alcohol and sexting (vs. texting). I piloted the vignette prior to proposing my dissertation and found that across a small sample of undergraduates, men were more likely than women to expect that a hypothetical scenario would result in a sexual encounter when sexting was involved, while both men and women expected that the chances of a sexual encounter were highest when both alcohol and sexting were involved. My dissertation was defended May 19, 2016.

2013

**Preliminary Examination**

I conducted a meta-analysis ( $k = 85$  studies) to examine relationships between impulsivity and risky sexual behavior among adolescents. Specifically, I sought to disaggregate the broad constructs of impulsivity (UPPS model) and risky sexual behavior in order to more

closely examine associations between specific unidimensional impulsivity-related traits and specific risky behaviors and outcomes (e.g., multiple partners, unprotected sex, sex while intoxicated), as well as differences across age, race, and gender. Interestingly, I found that disaggregating impulsivity was not important; however, across studies, relationships between impulsivity and risky sexual behaviors were significantly stronger among adolescent females vs. males. This conclusion was interesting, and considering differential gender roles in sexuality, it seems that while risky sex may be more acceptable and normative for men, it is more risky for women. I conducted all coding and analyses, and for publication a graduate student assisted in secondary coding for accuracy.

**Dir, A. L.,** Coskunpinar, A., & Cyders, M. A. (2014). A meta-analytic review of the relationship between adolescent risky sexual behavior and impulsivity and risky sexual behavior across gender, age, and race. *Clinical Psychology Review, 34*(7), 551-562.

2012

### **Master's Thesis**

The aim of the project was to examine sexting behaviors among college students and to create a measure of sexting expectancies, or individuals' expectations of what they expected to happen when sending and receiving sexts, and to examine the reliability and validity of the scale in two independent samples. The Sextpectancies measure had good reliability and adequate construct, convergent, and discriminant validity as a measure of individuals' sexting expectancies in predicting actual sexting behaviors. The factor structure of the scale revealed five domains: negative beliefs about receiving sexts, positive beliefs about receiving sexts, negative beliefs about sending sexts, positive beliefs about sending sexts, and positive sexual-related beliefs about sending sexts. Further, analyses revealed that men were more likely than women to endorse positive sexual-related expectancies, and further that sexual-related expectancies were more predictive of actual sexual behavior. This project was one of the first published empirical studies on sexting behaviors and served as a foundation for further developing my program of research throughout graduate school.

**Dir, A. L.,** & Cyders, M. A. (2014). Risks, risk factors, and outcomes associated with phone and internet sexting among university students in the United States. *Archives of Sexual Behavior,*

October 2014, 1-10.

**Dir, A.L.**, Coskunpinar, A., Steiner, J. L., & Cyders, M.A. (2013). Understanding differences in sexting behaviors across gender, relationship status, and sexual identity, and the role of sexting expectancies in sexting. *Cyberpsychology, Behavior, and Social Networking*, 16(8), 568-574.

2014

**Research Coordinator Education Program**

Center for Professional Development and Lifelong Learning  
Indiana University School of Medicine and School of Nursing

Completed training in all aspects of conducting and coordinating clinic research as preparation for F31 grant responsibilities.

2011 - 2014

**Research Assistant**

Indiana University School of Medicine, Department of Psychiatry  
Supervisor: Leslie Hulvershorn, M.D.

Worked as a research assistant on Dr. Hulvershorn's K12 grant funded through NIDA examining risk factors for the development of substance abuse in youth. Conducted semi-structured clinical interviews with youth participants and guardians using K-SADS and SCID.

2011 – 2012

**Research Assistant**

*Computer Performance and Behavior*, HRSA-10-175 (D76HP20905)  
U.S. Department of Health and Human Services (PI: Melissa A. Cyders, Ph.D.)  
Indiana University-Purdue University Indianapolis

Conducted experimental sessions with individual participants using ASL eye-tracking and olfactometer equipment and DasyLab and E-Prime software. Trained other graduate students in using ASL eye-tracking equipment and conducting experiment sessions.

2008 – 2009

**Undergraduate Research Assistant**

University of Georgia, Department of Psychology  
Supervisors: Joshua Miller, Ph.D. and Sarah Fischer, Ph.D.

Conducted experiment sessions for ongoing research in Dr. Miller's and

Dr. Fischer's labs. Worked with entering data collection, conducting statistical analyses, and assisted in manuscript preparation for Dr. Miller's primary study. Also attended weekly lab meetings with Dr. Miller and his graduate students as well as lab meetings with Dr. Fischer and her graduate students.

---

## CLINICAL TRAINING AND EXPERIENCE

---

### CLINICAL EXPERIENCE

---

1|2015 -9|2015 *Practicum Student* (two separate sequences)

**Midtown Community Mental Health Center**

5|2013-12|2013 **BASE Program**

Indianapolis, IN

Supervisor: Joan Farrell, Ph.D.

Group therapy: Co-facilitated weekly 1.5 hour group Schema Therapy sessions with clients diagnosed with Borderline Personality Disorder and other co-morbid diagnoses, including PTSD, substance use disorders, and mood disorders. Co-facilitated 7 groups ranging in level of treatment progress and symptom severity (5-12 people/group) utilizing manualized Schema Therapy for Borderline Personality Disorder interventions.

Individual therapy: Provided 1-hour individual therapy sessions to individuals with Borderline Personality Disorder and comorbid diagnoses, including Major Depressive Disorder, Generalized Anxiety Disorder, PTSD, Substance Use Disorders, Binge Eating Disorder, Bulimia Nervosa, and Personality Disorder – NOS. (6 clients). Evidence-based interventions included Schema Therapy techniques (techniques included cognitive strategies for challenging schemas and mode management, behavioral strategies, experiential strategies, and imagery rescripting); and CBT-based strategies (challenging distorted thinking and core beliefs, relaxation training, behavioral strategies; role playing, goal-setting, positive activity scheduling, psychoeducation on co-morbid issues. Also saw one couple for couples therapy. Worked with multidisciplinary team of psychiatrists, social workers, and care coordinators to provide wrap-around services and manage treatment.

1|2014 - 5|2014 *Practicum Student*

**St. Vincent Hospital**

**Joshua Max Simon Primary Care Center**

Indianapolis, IN

Supervisor: Thomas J. Barbera, Ph.D.

Trained as student clinician in the Behavioral Health Consultant model of Integrated Primary Care. Conducted brief, one-time psychological interventions and assessments for same-day patient referrals, as well as brief, ongoing evidence-based interventions (6 sessions or less) for English- and Spanish-speaking primary care patients. Worked collaboratively with team of medical residents, physicians, nurses, and pharmacists to provide integrated care, consultation, and treatment planning for issues, including: depression, anxiety, stress, smoking cessation, substance use, weight management, medication and diabetes treatment adherence, insomnia, and pain management. Interventions included motivational interviewing, psychoeducation, relaxation training, and brief CBT and behavior change strategies with both English- and Spanish-speaking adult patients. Attended brown bag lunch seminars with medical residents and had weekly individual supervision meetings to discuss individual cases.

5|2012 - 9|2012 *Practicum Student*

**Larue D. Carter Memorial Inpatient Psychiatric Hospital  
Youth and Adolescent Inpatient Units**

Indianapolis, IN

Supervisor: John Spanke, Ph.D.

Treated child and adolescent patients on an inpatient unit with a range of presenting psychological issues, including extensive trauma history, emotion and behavior dysregulation, self-harm, borderline cognitive functioning, depression, anxiety, Pervasive Developmental Disorders, Attention Deficit Hyperactivity Disorder, Oppositional Defiant Disorder, Conduct Disorder, and other disruptive behavior issues (e.g., aggression), early-onset psychosis, as well as other presenting symptoms misdiagnosed as child-onset Bipolar Disorder and Schizophrenia. Engaged in milieu therapy with all patients on the children's and adolescent girls' and boys' units. Conducted individual therapy with 5 individuals utilizing the following evidence-based interventions: CBT-based techniques (recognizing and identifying emotions and maladaptive thought processes, using coping cards), Aggression Replacement Therapy strategies (social skills development, anger management), and relaxation training (e.g., deep breathing, imagery). Observed comprehensive intake interviews. Had weekly individual supervision meetings as well as weekly team case management meetings with parents or guardian to discuss individual cases. Completed an online trauma-based CBT course for children.

8|2011 - 5|2012 ***Practicum Student***

**Indiana University School of Medicine**  
**Neuropsychology Clinic, Department of Psychiatry**  
 Indianapolis, IN  
 Supervisor: Daniel F. Rexroth, Psy.D.

Administered, scored, and interpreted a range of neuropsychological and psychological assessments for 30 adults referred for cognitive or pre-surgical testing. Gained experience assessing the following domains: orientation, intelligence, executive functioning, processing speed, language, verbal and spatial memory, motor skills, mood and personality. Assisted with clinical interviews, post-assessment feedback sessions, and writing integrative reports for referring physicians. Prepared 20 integrated reports for referring physicians. Observed Neuropsychology Case Conference sessions and had weekly individual supervision meetings to review reports and individual cases.

8|2011 - 6|2013 ***Student Clinician***

**Riley Hospital for Children**  
**Adolescent Dual Diagnosis Clinic, Department of Psychiatry**  
 Indianapolis, IN  
 Supervisors: Melissa A. Cyders, Ph.D., HSPP and Leslie Hulvershorn, M.D.

Conducted intake interviews with adolescents enrolling in the ENCOMPASS substance abuse and dual diagnosis treatment program. Conducted semi-structured diagnostic interviews using the K-SADS and other screening tools to assess for current and lifetime clinical diagnoses and specific substance use patterns. Consulted with Dr. Hulvershorn on diagnostic and treatment recommendations. Wrote assessment report and initial treatment plans for patients starting treatment (16 patients). Attended monthly group supervision and treatment fidelity meetings to discuss individuals in program with team of psychologists who created ENCOMPASS treatment program.

## PEER SUPERVISION

---

- 1|2014 - 5|2014 Provided bi-weekly peer supervision to a graduate student during her practicum placement at the Indiana PolyClinic in Indianapolis, IN working with individuals with mood, pain, and substance use disorders.
- 8|2014 - 12|2014 Provided bi-weekly peer supervision to a graduate student during her practicum placement at the Richard L. Roudebush Veterans Administration Medical Center, Psychiatric Rehabilitation and Recovery Center (PRRC) working with patients with severe mental illness.

## SUPERVISION TRAINING COURSE

---

- 1|2014 - 12|2014 Completed 2 semesters of supervision training course led by assistant clinical director, John Guare, Ph.D., during peer supervision training. Texts used:  
 Falender, C. A., & Shafranske, E. P. (2008). *Casebook for Clinical Supervision: A Competency-Based Approach*.  
 Falender, C. A., & Shafranske, E. P. (2004). *Clinical Supervision: A Competency-Based Approach*.

## TESTS ADMINISTERED

---

<b>Neuropsychological Assessments</b>	Boston Naming Test Category Fluency Test Controlled Oral Word Association Test Grip Strength Test Judgment of Lines Mini-mental State Examination Rey Auditory Verbal Learning Test Rey-Osterrieth Complex Figure Stroop Color and Word Test Test of Memory Malingering Trail Making Test Wechsler Memory Scale-Revised Wisconsin Card Sorting Test
<b>Personality Assessments</b>	Minnesota Multiphasic Personality Inventory (MMPI-2) Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-2-RF)
<b>Intelligence and Achievement Assessments</b>	Wechsler Adult Intelligence Scale-III (WAIS-III) Wechsler Adult Intelligence Scale-IV (WAIS-IV) Wechsler Intelligence Scale for Children-IV (WISC-IV)

Wechsler Test of Adult Reading (WTAR)  
 Wide-Range Achievement Test, 3<sup>rd</sup> Edition (WRAT-III)  
 Woodcock-Johnson Achievement Test

**Other Assessments**

Beck Depression Inventory (BDI)  
 Beck Anxiety Inventory (BAI)  
 Children's Depression Inventory (CDI)  
 Generalized Anxiety Disorder-7 (GAD-7)  
 Kiddie-Schedule for Affective Disorders and Schizophrenia (K-SADS)  
 Milton Clinical Multiaxial Inventory (MCMI-III)  
 Patient Health Questionnaire-9 (PHQ-9)  
 Structured Clinical Interview for DSM-IV (SCID-I)  
 Structured Clinical Interview for DSM-IV-II (SCID-II)

#### **SELECTED CLINICAL TRAINING WORKSHOPS**

---

- 4|2015      **Acceptance and Commitment Therapy Training Workshop**  
 Jennifer Lydon-Lam, Ph.D., Roudebush VA Medical Center
- 4|2014      **Biofeedback Workshop**  
 Eric Scott, Ph.D., Indiana University School of Medicine, Riley Hospital for Children
- 4|2013      **Self-Hypnosis for Chronic Pain Management Workshop**  
 Mark P. Jensen, Ph.D., Associate Professor of Rehabilitation Science, University of Washington
- 1|2013      **Consultation Liaison Supervision Training Workshop**  
 Angie Rollins, Ph.D., Roudebush VA Medical Center
- 4|2011      **Group Schema Therapy for Borderline Personality Disorder Clinical Training Workshop**  
 Joan Farrell, Ph.D., Training Director for the Center for BPD Treatment and Research
- 2010 - Present      **Proseminar on Professional Issues in Clinical Psychology**  
 Department of Clinical Psychology, IUPUI

Weekly professional development course covering advanced clinical topics such as case conference/case conceptualization and clinical practice issues.



Relevant topics include: supervision, consulting, diversity, ethics, professionalism, teaching, research methods, licensure, and grant writing.

---

### **OTHER CLINICAL WORK EXPERIENCE**

---

6|2009 – *Psychology Intern / Counselor*

4|2010 **Positive Impact Atlanta**

Atlanta, GA

Co-facilitated a therapy support group for clients with HIV/AIDS. Held weekly meetings for two hours at AIDS Alliance in Hall County, GA for a group of 5 to 7 Spanish-speaking men discussing issues related to disease management and lifestyle.

11|2009 - 4|2010 *Volunteer Counselor*

**Leukemia & Lymphoma Society**

Atlanta, GA

Co-facilitated a monthly support group for Spanish-speaking families with family members undergoing treatment for blood-related cancers.

---

### **PROFESSIONAL SERVICE**

---

#### **MEMBERSHIPS**

---

2014 – Present RSA (Research Society on Alcoholism), member

2011 – Present APAGS (American Psychological Association for Graduate Students)

2012 – Present ABCT (Association for Behavioral and Cognitive Therapy), member

**EDITORIAL ACTIVITIES: AD HOC REVIEWER**

---

- 2016 *Journal of Adolescent Health*  
2016 *Journal of Sex Research*  
2016 *Addiction Research & Theory*  
2016 *Review of General Psychology*  
2016 *Sexual Health*  
2015 *Pediatrics*  
2015 *Archives of Sexual Behavior*  
2014 *Journal of Family Medicine and Community Health*  
2013 *American Journal of Psychology*  
2013 *Clinical Psychology Review*  
2013 *Cyberpsychology, Behavior, and Social Networking*  
2012 *Psychology of Addictive Behaviors* (mentored review)

## TEACHING EXPERIENCE

---

- 2012-2014     **Instructor**  
*Health Psychology (PSY B365)*, undergraduate course  
 Department of Psychology, IUPUI  
 (Taught 4 semesters total; 4 “live” sections, 2 online sections; responsible for creating course syllabus and content)
- 2013            **Teaching Assistant**  
*Careers in Professional Psychology*, undergraduate course  
 Department of Psychology, IUPUI  
 (1 semester)
- 2013            **Teaching Assistant**  
*Introduction to Statistics*, undergraduate course  
 Department of Psychology  
 (1 semester)
- 2011-2012     **Teaching Assistant**  
*Clinical Assessment I*, graduate course  
 Department of Psychology, IUPUI  
 (2 semesters)
- 2012            **Teaching Assistant**  
*Psychology and Law*, undergraduate course  
 Department of Psychology, IUPUI  
 (1 semester)
- 2010-2011     **Teaching Assistant**  
*Capstone Honors Research Seminar*, undergraduate course  
 Department of Psychology, IUPUI  
 (2 semesters)