# Using the Theory of Planned Behavior to Predict College Students' Communication of Affirmative Sexual Consent

by

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

Approved April 2016 by the
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May 2016

ABSTRACT

Sexual violence is a problem on college campuses across that United States. In the past few years, federal and state legislation has been drafted in order to address campus sexual violence. A main feature of this legislation addresses an important communicative construct related to students' sexual behavior: sexual consent. Colleges and universities are adopting an affirmative-standard of consent, which emphasizes that consent for sexual activity be communicated verbally or via unambiguous actions, mutual, voluntary, enthusiastic, and ongoing throughout the sexual encounter. Literature has explored how college students communicate and interpret sexual consent, but antecedents to sexual consent behaviors, particularly affirmative consent, are largely unknown.

The current investigation seeks to longitudinally explore the antecedents to college students' affirmative sexual consent behaviors (i.e., nonverbal, initiating, verbal). Using the Theory of Planned Behavior (TPB) as a theoretical framework, hypotheses predicted that at Time 1 (T1) attitudes, norms, and perceived behavioral control would positively and significantly predict students' (T1) intentions to communicate affirmative consent to their partner. Then, it was predicted that at Time 2 (T2)—thirty days later—intentions to communicate consent from T1 would positively and significantly predict college students' communication of affirmative consent to their partner during their most recent sexual encounter. The final matched (i.e., completed T1 and T2 surveys) sample included two hundred twenty-five ($N = 225$) college students who had engaged in sexual activity during the 30 days between survey distributions. Results from the path analyses support the theoretically driven hypotheses for all three affirmative consent behaviors, and demonstrate that subjective norms and perceived control are important and strong

determinants of students' communication of affirmative sexual consent. Furthermore, multi-group invariance tested the potential moderating effects of three individual, two dyadic, and two environmental/contextual variables on the strength of path coefficients between TPB constructs for all three sexual consent behaviors. Only individual and environmental/contextual variables significantly moderated relationships within the TPB for the three models. Results are discussed with regard to theoretical implications as well as practical implications for university health educators and other health professionals. Additionally, limitations and future directions are noted.

# DEDICATION

First, I'd like to dedicate this to everyone who has been a victim or survivor of sexual violence, and to those who have ever experienced unwanted sexual contact. I hope that my research is able to contribute to, and create effective programming that reduces the prevalence of sexual violence and unwanted sexual experiences, particularly within high-risk populations including college-aged women, fraternity men, athletes, and military.

Second, I'd like to dedicate this to everyone who has experienced the comfort, freedom, confidence, passion, and pleasure of a consensual sexual experience (with yourself, a partner, or partners). I hope that my research is able to make positive and lasting changes to the ways in which we communicate about and during sex.

Third, I'd like to dedicate this to all of my past, present, and future students (particularly the FratMANers guys, SigEp Cal Deltas, and SigEp AZ Alphas). It is because of your curiosity, passion, and positivity that I continue to dedicate my time and energy to your endless potential. I want you to know that all of you have had a permanent and lasting effect on my life. Thank you for reminding me (again and again…and again) that age is just a number…and that you are never too old to drink cheap beer, buy cheap wine, stay up all night, sleep all day, wear your clothes two (or more) days in a row, believe that pizza is its own food group, worry about whether he (or she) will text you back, celebrate your birthday for an entire week, swipe right, eat take out more than you cook, have a new crush every weekend, celebrate Taco Tuesday, Wing Wednesday, Thirsty Thursday, and Sunday Funday, run on empty and still get everything done, take that dare, go on Spring Break, smell your clothes before you wear them, think

it's cool that the bartender knows your name, have a one-night stand…that turns into the love of your life, think you'll never get married…or have kids, put vodka in your Gatorade and think that nobody will know, tail-gate, look forward to holidays and summer vacation, have theme parties, wear sweatpants every day, stop searching for the best happy hour, rally, slay, Netflix and chill, take a picture (or video) of everything, consider your parent(s) house "home", think it's a big deal to buy your furniture at IKEA, sleep on a futon, create a new drinking game, have only condiments, 40s, and boxed wine in your fridge, make new friends, make new enemies, have frenemies, bond over the guy (or girl) you both hooked up with, not lock your front door, stop saying "remember that time when we…" and wish you didn't remember, be able to fall asleep anywhere, have $0.00 in your bank account, sustain yourself on Kraft man 'n cheese and canned goods, use Chipotle napkins as toilet paper, play a practical joke, laugh 'til you cry, live with eight of your closest friends, pay for laundry with quarters, need 80 quarters by the time you get around to doing laundry, learn from your mistakes, have the BEST time of your life…

…and most importantly, you are NEVER too old to stop learning, have EPIC ideas, and dream BIG.

ACKNOWLEDGMENTS

To my family, Judy (mom), Bill (dad), Roby (Braylan and Jillian) and Mary Alice. Thank you for nurturing and accepting my imagination and free spirit. Thank you mom and dad for being my biggest fans and supporters. I would not be the woman I am today without your encouragement, guidance, friendship, and love.

To my family in Phoenix, Aunt Paula and Cousin Alex. Thank you for being my home away from home. To my "second" family, Jehanne, Sandy, Olivia, and Michael for always supporting me through my most challenging times.

To my cohort, Mark, Tara, Chiao, Margaret, and Steven. Thank you for keeping me on track and encouraging me. A special thanks to Mark, my best friend and saving grace. You have been my sounding board, shoulder to cry on, work(out) and HH buddy (bottle of Prosecco, anyone?) during the past four years, and particularly during this challenging dissertation process. I appreciate everything about you, especially your passion for the spotlight.

To my friends, Tara Trisha, and Lauren, thank you for always being only a phone call away, and for not letting me quit. Thank you to Lisa for being my stat "mate", to Adam for "most ridiculous Tinder story" competitions, and to Karina, my San Diego kindred spirit.

To *all* my friends...thank you for still being here with me after all these years; and, to my dearest and best friends, Sue, Megan, and Niko. You all have mentored and challenged me (when needed), and most importantly have always accepted and appreciated *me*. The words to capture my love, appreciation, and respect for you have yet to be created and defined. I am so lucky to have you in my life, now and always.

Thank you to the HDSHC for giving me the opportunity to fulfill my dreams and explore my passions. To the office staff, Heather (and her family), Rosemary, Lynn, Sue, Phillip and Misa. Thank you for your support, both administrative and otherwise. To the entire HDSHC faculty, and especially Badame, Jess, Dan, Kory, Laura, Jennifer, Kathy, and Sarah, thank you for being awesome teachers, mentors, and people. Also, thank you Belle. I appreciate all of our honest conversations, and thank you for helping me to be a better and more mindful teacher.

A very special thanks is reserved for my amazing committee, Paul, Linda, Tony, and Scott. Thank you for all your input and feedback on this project. I could not have produced this caliber of work without you. To Paul, thank you for being one helluva cool professor, mentor, advisor, teacher, and friend. To Linda, I have never felt so supported yet so challenged at the same time by a single person. Both of you (Paul and Linda) have been with me from the very beginning, and have helped me realize that feedback and criticism make me a better thinker, writer, and person. Thanks for believing in me!

…and last but certainly not least, I want to thank my stinkiest, cuddliest, bestest friend Hobie. You've been my trusted and dedicated furry sidekick through the most challenging times in my adult life, and the past few years have been no different.

**A special shout out goes to all the restaurants/bars in Tempe with Wi-Fi, cheap happy hours, and/or really cute servers/bartenders. Your role in helping me to finish this massive project is appreciated. Your effect on my bank account however, is not.

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# CHAPTER 1

## INTRODUCTION AND RATIONALE

Sexual violence is a pervasive problem on college campuses across the United States (Gidycz, Orchowski, & Berkowitz, 2011; Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004). Studies have shown that as many as one in four college women have experienced rape or attempted rape at some point in their lives (Daigle et al., 2008; Mohler-Kuo et al., 2004). One way that colleges and universities have tried to address the problem of sexual assault on campus is by developing clear policies regarding students' sexual behavior (Borges, Banyard, & Moynihan, 2008; Karjane, Fisher, & Cullen, 2005). Following recommendations set forth by The Campus Sexual Violence Elimination Act (Campus Sexual Violence Elimination Act [SaVE], 2013), colleges and universities have begun to reevaluate and revise their sexual assault policies and reporting procedures. In accordance with the SaVE Act, signed into law by President Obama in March of 2013, colleges and universities must meet minimum standards with regard to transparency, accountability, and education on sexual violence (SaVE, 2013). The act requires colleges and universities to report incidents of sexual assault, rape, domestic violence, and dating violence in their annual crime statistics report, and sets minimum standards for disciplinary action for offenders (SaVE, 2013). The SaVE Act also places a primary focus on providing sexual assault education programming for students (SaVE, 2013).

As colleges and universities move forward with the revisions required by the SaVE Act (2013), they have started to consider a particularly important factor related to intimate relationships between students: sexual consent. Sexual consent is a highly

contested and complicated communicative construct with varying definitions (Beres, 2007; Hickman & Muehlenhard, 1999). Within the legal context, sexual consent is a, if not the, factor that determines whether a sexual assault/rape has occurred (Little, 2005). This legal definition of sexual consent reflects the way in which colleges and universities are currently defining sexual consent within their policies regarding sexual violence, which adheres to a "no means no" standard of consent (Little, 2005). Essentially, this means that someone (usually a woman) must verbally decline sexual advances from their partner (Little, 2005).

Though replete with simplicity, this standard of sexual consent has come under review recently (The Affirmative Consent Project, 2016). The "no means no" standard places the responsibility of rape on the victim, which shifts the focus from the person committing the crime to the behavior of the person who was raped (i.e., victim-blaming) (Katz, 2006). Instead of demanding that the perpetrator defend and prove what they did to gain consent, the focus has been placed on the victim to prove that they said no to sex (Katz, 2006). Further, in the absence of a no, sexual consent is assumed to have been provided/given by the victim (Bussel, 2008).

Defining sexual consent using the "no means no" standard disregards women's control of their own bodies and their participation in sexual activity (Little, 2005). It also perpetuates rape myths (i.e., "attitudes and beliefs that are generally false but are widely and persistently held, and that serve to deny and justify male sexual aggression against women") (Lonsway & Fitzgerald, 1994, p. 134). Finally, the "no means no" standard of consent embodies the sexist, patriarchal, and hegemonic principles that permeate the college environment (and society as a whole), and serves to disregard and excuse sexual

violence, particularly men's violence against women (Jozkowski, 2015; Katz. 2006; Little, 2005).

Recognizing that the "no means no" standard of consent is damaging to the victims of sexual assault and rape, colleges and universities across the country are adopting a new affirmative or "active" standard of consent ("yes means yes"), which requires both partners to communicate verbally or via unambiguous actions to each new sexual activity (De Leon et al., 2014). According to the National Center for Higher Education Risk Management (2014), over 800 Universities across the country have changed their sexual assault policies to include the affirmative consent standard. Further, several states, including Arizona, have passed legislation that requires colleges and universities receiving state funding, to adopt the affirmative-standard of consent (Jozkowski, 2015; Mueller & Peterson, 2012; The Affirmative Consent Project, 2016).

With this change to sexual consent policies comes a shift in the way a person's role in sexual activity is publically viewed (Little, 2005). The affirmative-standard of consent recognizes that sexual activity should be mutually agreed upon, and both partners should be enthusiastic about each new sexual activity (De Leon et al., 2014; Little, 2005). The "yes means yes" standard of consent requires a more gender-aware approach, which highlights that both men and women are expected (and capable) of engaging in sexual activity that is healthy, respectful, and mutual (Kilmartin & Berkowitz, 2001). It also changes the way in which sexual assaults will be handled during the administrative process at colleges and universities. The person accused of perpetrating the sexual assault must be able to articulate how their accuser clearly indicated/said "yes" to sexual activity (Kelderman, 2014). This perspective shifts the focus from the victim to the

perpetrator and what they did to gain their accuser's consent, as well as how the accused interpreted their accuser's actions as clear indication of content to sexual activity (Kelderman, 2014).

Several popular media outlets have raised questions about the effectiveness and application of the affirmative consent standard, stating that explicitly confirming that sexual activity is consensual and mutual ruins the spontaneous give-and-take of sexual activity (Young, 2014) or that it relies too heavily on verbal consent, which is not the primary way in which people give and get consent (Young, 2014). Others believe that the government is infringing on individual rights by trying to dictate what goes on in the bedroom (Jozkowski, 2015). Further, critics of this new standard of consent believe that the "he said/she said" argument will not go away; it will only shift the perpetrator's response from "she didn't say no" to "she said yes" (Bogle, 2008).

Despite these criticisms of the policy, most sexual assault researchers and educators/advocates, university administrators, campus police, students, parents, and even the lay public agree that something needs to be done to address campus sexual violence, and an affirmative-consent standard can have many positive (and practical) consequences (Mueller & Peterson, 2012). Besides the shift in perspective mentioned above, promoting an affirmative-standard of consent can encourage clear and direct sexual communication between partners, which has been linked to positive outcomes such as increased sexual satisfaction (Babin, 2013, and overall more enjoyable sexual experiences (Jozkowski, 2013). In the presence of affirmative consent, both partners can experience a mutually erotic, fulfilling, safe, and intimate sexual encounter (Mueller & Peterson, 2012).

Students' attitudes toward this new way of viewing consent are largely unknown. Sexual consent literature, however, suggests that the affirmative-standard of consent does not reflect the ways in which students are currently communicating their own, and interpreting their partner's consent to sexual activity (Hall, 1998; Hickman & Muehlenhard, 1999; Humphreys, 2007; Humphreys & Brousseau, 2010; Jozkowski & Peterson, 2013; Jozkowski, Peterson, Sanders, Dennis, & Reece, 2014). It does, however, reflect the ways in which student think that consent should be communicated between partners (i.e., direct, explicit, etc.) (Hall, 1998; Hickman & Muehlenhard, 1999; Humphreys, 2007; Lim & Roloff, 1999). This suggests that there is a contradiction between students' intentions and actual consent behaviors.

The Theory of Planned Behavior (TPB) (Ajzen, 1991) provides a framework from which to explore the contradiction between students' intentions and actual consent behaviors. The TPB posits that intentions are the strongest antecedent of behaviors, and that individual attitudes, subjective norms, and perceived behavioral control these intentions (Ajzen, 1991). The theory has been effective at predicting general health behaviors (e.g., oral hygiene, health screening, addictive behaviors) as well as sexuality-specific health behaviors (e.g., condom use, contraceptive use, HIV/AIDs prevention). If the TPB has been effective at predicting these behaviors, it is likely that it will also be effective at predicting other sex-related behaviors such as the communication of sexual consent, which would increase our knowledge about this important communicative phenomenon. Therefore, the current investigation seeks to test the ability of the TPB to predict students affirmative consent behavior and to explore the antecedents (i.e.,

attitudes, subjective norms, and perceived behavioral control) that predict college students' communication of affirmative consent during sexual interaction.

# CHAPTER 2

# REVIEW OF THE LITERATURE

Scholars have long noted the complex, nuanced nature of sexual consent (Beres, 2007, 2010; Hall, 1998; Humphreys, 2004, 2007; Humphreys & Brousseau, 2010; Jozkowski, 2013; Jozkowski & Peterson, 2013; Jozkowski, Sanders, Peterson, Dennis, & Reece, 2014; Hickman & Muehlenhard, 1999). Lawmakers, politicians, and scholars have all noted the importance of understanding sexual consent as the communicative construct necessary to prevent sexual assault (Little, 2005; Neidig, 2009). With this said, the current study is valuable for its potential to contribute to our understanding of the factors that predict the communication of affirmative sexual consent.

In order to construct the argument for this study, the following review of literature will first, provide a detailed overview of campus sexual assault, including a brief summary of relevant federal and state legislation to address the problem. Second, conceptualize sexual consent generally and affirmative sexual consent specifically. Finally, the following will lay out the aims of the current study, including theoretical framework and hypotheses/research questions.

## Campus Sexual Assault

Sexual assault is defined as "any type of sexual contact or behavior that occurs without the explicit consent of the recipient" (The Office of Violence Against Women, 2015). It is difficult to accurately assess the prevalence of sexual assault on college campuses, and statistics of sexual assaults on campus vary widely (Fedina, Holmes, & Backes, 2016; Yung, 2015). For example, a report disseminated by the United States Department of Justice through the National College Women Sexual Violence study in

1996 reported that 3% of college women are victims of sexual assault each year (Karjane et al., 2005). A more recent version of the study reported 19% of college women experience attempted or completed rape since entering college (Krebs, Lindquist, Warner, Fisher, & Martin, 2009). These studies focus solely on female victimization. Very few studies capture the true nature of male victimization in college, though it is happens much less frequently than female victimization (Fedina et al., 2016; Krebs et al., 2009).

Though these numbers are shocking as is, it is likely that they vastly underestimate the actual prevalence of campus sexual assault (DeMatteo, Galloway, Arnold, & Patel, 2015; Koss, 1992, 1998). It is rare that student victims report the incident to authorities (Abbey, Parkhill, & Koss; 2005; DeMatteo et al., 2015; Gidycz & Koss, 1991). Reporting rates among college student victims 18-24 is about 20%, compared to 32% for nonstudent population of the same age (Langston & Sinozich, 2014). Another study found that only 14% of victims of forcible rape, and a mere 2% of victims who were assaulted under the influence of alcohol or other drugs reported the incident to authorities (Krebs et. al., 2009). Unofficial reporting of incidents of sexual assault paints a much more accurate picture, with 70% of victims reporting to someone they know such as a friend, classmate, roommate, family member, or someone else close to them (Krebs et al., 2009).

There are a number of reasons for these low rates of reporting. First, many women do not recognize that what happened to them was sexual assault or rape, and therefore do not think that what happened constitutes a crime to be reported (DeMatteo et al., 2015). For example, one study found that only 27% of women who reported

experiencing sexual assault believed that what happened to them met the legal criteria for rape, or was not important enough to report (Langston & Sinozich, 2014).

Second, the majority of sexual assaults on campus, between 75% and 90%, are perpetrated by someone the victim knows (DeMatteo et al., 2015; Karjane et al., 2005; Koss, Dinero, Seibel, & Cox, 1988; Krebs et al., 2009). Being assaulted by an acquaintance (e.g., friend, classmate, person they met at a party) makes it extremely difficult for the victim to report because the victim may fear repercussions from their perpetrator and/or peers (Krebs et al., 2009). Other reasons victims do not report include wanting to avoid public disclosure of what happened, reporting procedures at universities aren't confidential, lack of sufficient evidence to prove the assault occurred, to avoid further trauma and shame and, the victim fears that the perpetrator will not be sufficiently punished by the police or university (DeMatteo et al. 2015; Karjane et al., 2005; McCaskill, 2014).

One of the most common reasons that women do not report the assault is because there were under the influence of alcohol or other drugs during the assault (Horton, Guillory, Held, & Protti, 2014; Mohler-Kuo et al., 2004). Studies suggest that nearly 75% of assaults on campus occur while the perpetrator, victim, or both are under the influence of alcohol or other drugs (Mohler-Kuo et al., 2004; Kilpatrick, Resnick, Ruggerio, Conoscenti, & McCauley, 2007). Alcohol and other drugs can cloud one's judgment and make it difficult to communicate or interpret sexual signals and consent (Jozkowski & Wiersma, 2015; Ward, Matthews, Weiner, Hogan, & Popson, 2012).

Given the prevalence of campus sexual assault, and the very low reporting rates, it is important to examine campus policies and reporting procedures (Koss, Wilgus, &

Williamson, 2014). Victims of campus assaults have two reporting options. They can report to law enforcement directly (e.g., campus or local police) or to an administrative unit at their university that handles complaints against other students (Koss et al., 1988, 1993, 2014; DeMatteo et al., 2015). Far too often, however, the administrative process for victim reporting of sexual assault is confusing, incomplete, ineffective, or in some cases, nonexistent (DeMatteo et al., 2015; Sabina & Ho, 2014; Skinner & Gross, 2016). For example, a review of campus policies and procedures for reporting assault found that approximately 75% of colleges and universities had existing policies, however less than half of those policies included instructions on how to report the assault or file an incident report (Karjane et al., 2005). Also, less than half of the schools with existing policies provide a phone number to report an assault, and even fewer have a phone number that provides assistance outside of business hours (Chung et al., 2015; Karjane et al., 2005; Sabina & Ho, 2014; Skinner & Gross, 2016).

Though there is some benefit to having the option to report directly to the university, it is not without its problems. Colleges and universities are notorious for mishandling assault cases (Castillo, 2016; Cohen & St. Clair, 2016). There are 167 colleges and universities across the United States under federal investigation for mishandling sexual violence cases (Cohen & St. Clair, 2016). This has brought into question whether universities should be able to handle these cases at all, and whether assaults should only be handled by the criminal justice system (Chung et al., 2015; DeMatteo et al., 2015; Sabina & Ho, 2014).

The primary difference between these two reporting options for victims lies in the adjudicatory procedures and the range of possible penalties (Chung et al., 2015;

Krivoshey, Adkins, Hayes, Nemeth, & Klein, 2013). In terms of the adjudicatory procedures, the burden of proof differs considerably between the two. In criminal cases, the prosecution must prove the evidence beyond a reasonable doubt, while in administrative contexts institutions abide by a preponderance of the evidence standard (U.S. Department of Education, 2014). This lower burden of proof provides many benefits: 1) it makes it easier for the victim to prove that the assault occurred; 2) resources are made available for the victim such as counseling and academic support, and housing accommodations; and, 3) they potentially encourage more victims to report (Karjane et al., 2005).

With regard to the range of possible penalties associated with the administrative process, it is more restricted and less severe than in criminal cases (Chung et al., 2015; Krivoshey et al., 2013). Reporting to the university does not result in jail time for the perpetrator, which may be particularly attractive to those who knew their perpetrator (Karjane et al., 2005). Instead, suggested penalties for perpetrators include suspension or expulsion. Although these are penalties that carry severe consequences for the perpetrator, colleges and universities are reluctant to pass down a decision that results in one of these penalties (DeMatteo et al., 2015). For example, Dean Nicole Eramo of the University of Virginia (UVA) recently told reporters that during her tenure as dean, no student had ever been expelled for a campus assault, even when the perpetrator admitted their guilt (DeMatteo et al., 2015; Ganim & Ford, 2014). She went on to say that the harshest penalty she had ever witnessed was a 2-year academic suspension (Ganim & Ford, 2014).

The reporting processes and lack of appropriate action against perpetrators has sparked federal involvement in holding colleges and universities accountable. For example, The Campus Sexual Violence Elimination Act (SaVE) Act (2013) has forced colleges and universities to reevaluate and revise their sexual assault policies and reporting procedures. In accordance with the SaVE Act, colleges and universities must meet minimum standards with regard to transparency, accountability, and education on sexual violence (SaVE, 2013). The act requires colleges and universities to report incidents of sexual assault, rape, domestic violence, and dating violence in their annual crime statistics report, and sets minimum standards for disciplinary action for offenders (SaVE, 2013). The SaVE Act also places a primary focus on providing sexual assault education programming for students (SaVE, 2013).

The following section will outline and discuss the SaVE Act (2013) in greater detail, as well as introduce one of the first state laws to mandate all colleges and universities receiving funding from the state to adopt comprehensive sexual assault policies and prevention education, California Senate Bill 967 (2014).

**The Campus Sexual Violence Elimination (SaVE) Act**

In 2013, President Barack Obama signed the Campus Sexual Violence Elimination (SaVE Act) into law as part of the Violence Against Women Act (VAWA) Reauthorization (Violence Against Women Reauthorization Act [VAWA], 2013). The SaVE Act increases the focus on accountability, transparency, and education on college campuses concerning incidents of sexual violence (VAWA, 2013). Colleges and universities receiving Title IX (i.e., educational amendment protecting people from being discriminated against based on sex) financial aid are required to provide annual statistics

on incidents of sexual assault, domestic violence, dating violence and stalking on campus and/or reported to campus authorities or local police (VAWA, 2013). In addition, colleges and universities are required to publish information regarding the following: 1) victim confidentiality; 2) campus and community support resources; 3) the victim's right to change housing, transportation, academic, and work situations regardless of whether a formal report was made; 4) information regarding the preservation of evidence following a crime; 5) how to formally report the crime to the campus disciplinary office and/or campus/local police; 6) the victim's right to equitable, prompt, fair, and impartial disciplinary proceedings following the official report of an incident; and, 7) the victim's right to formally decline reporting the crime to authorities (VAWA, 2013). Finally, the SaVE Act (2013) mandates that colleges and universities provide educational programming to new students and employees as well as ongoing prevention programming and campus-wide awareness campaigns (VAWA, 2013). Among the focus of these primary prevention and awareness programs is education on bystander intervention and risk reduction programming that seeks to increase knowledge about abusive behavior or potential attacks in order to reduce and/or eliminate perpetration and/or incidence of sexual victimization (VAWA, 2013).

As colleges and universities move forward with revisions required by the SaVE Act (2013), various factors related to students' sexual behavior need to be addressed, including sexual consent. California was the first state to take legislative action to require that universities and colleges receiving state funding adopt affirmative-standards of consent (De Leon et al., 2014). New York, New Jersey, Illinois, Minnesota, and the U.S. Virgin Islands followed with similar legislation, while over 800 other colleges and

university across the United States have voluntarily adopted affirmative-standards of consent (The Affirmative Consent Project, 2016). The following section will specifically outline California's legislation, Senate Bill 967 (2014), which is the first legislation to require universities to adopt the affirmative-standard of consent.

**California Senate Bill 967**

On September 2, 2014, the California State University System (CSU) adopted the first state-mandated collegiate consent policy (De Leon et al., 2014). This policy stipulates that in order to receive state funding for student financial assistance, community college districts (CCD), California State University system (CSU) and the University of California system (UC), as well as independent postsecondary institutions adopt policies and procedures related to sexual assault, domestic violence, dating violence, and stalking. Specifically, colleges and universities must implement comprehensive prevention and outreach programming that addresses these issues (De Leon et al., 2014). The bill also provides requirements for policies and procedures regarding the handling of sexual violence cases (De Leon et al., 2014).

A main feature of the bill is a requirement that colleges and universities revise their current sexual consent policies to reflect an affirmative-consent standard, which places responsibility on each person or persons engaging in sexual activity to affirmatively communicate their consent (De Leon et al., 2014). The affirmative consent standard recognizes that sexual activity should be mutually agreed upon, and that both partners are enthusiastic about each new sexual activity (De Leon et al., 2014). The "yes means yes" standard of consent highlights both people involved in the sexual encounter

are expected to, and capable of engaging in sexual activity that is healthy, respectful, and mutual (Kilmartin & Berkowitz, 2001). According to California Senate Bill 967:

> It is the responsibility of each person involved in the sexual activity to ensure that he or she has the affirmative consent of the other or others to engage in the sexual activity … Affirmative consent must be ongoing throughout a sexual activity and can be revoked at any time. The existence of a dating relationship between the persons involved, or the fact of past sexual relations between them, should never by itself be assumed to be an indicator of consent. (De Leon et al., 2014, p. 1)

To summarize, the law requires that sexual consent in all California institutions of higher education be unambiguous, mutually and voluntarily agreed upon, affirmative (i.e., an enthusiastic "yes") sexual communication (De Leon et al., 2014).

## Sexual Consent

As previously noted, the focus of the current study is to understand the antecedents that predict individuals' likelihood to communicate sexual consent. Sexual consent is complex, and numerous scholars have offered various definitions to try and capture this complexity (e.g., Archard, 1998; Beres, 2007; Cowling & Reynolds, 2004; Dripps, 1992; Hall, 1998; Hickman & Muehlenhard, 1999; Humphreys, 2004, 2007; Humphreys & Brousseau, 2010; Little, 2005; Pineau, 1989).

### Scholarly Definitions of Sexual Consent

Similar to the variations apparent in the legal definitions of sexual consent, scholars have differing definitions of the construct. Several scholars define consent as any agreement to participate in sex (e.g., Archard, 1998; Dripps, 1992). Others specify

that consent can only be given in the absence of force or coercion (e.g., Beres, 2014; Hickman & Muehlenhard, 1999). Still, others highlight the distinction between the internal feelings and external behaviors of willingness or wanting to have sex (Hickman & Muehlenhard, 1999). Jozkowski, Sanders, et al. (2014) further explored this distinction by constructing a scale measuring internal (e.g., physical response, readiness, safety/comfort) and external (e.g., nonverbal and verbal behaviors, passive behaviors, no response behaviors) manifestations of consent. The current investigation conceptualizes sexual consent as, unambiguous, mutually and voluntarily agreed upon, affirmative sexual communication (De Leon et al., 2014). What all of these definitions have in common is that consent is comprised of various nonverbal and verbal communicative behaviors. Moreover, researchers have discovered potential factors that influence the communication of consent. Therefore, the following sections will first conceptualize the various communicative manifestations of sexual consent, as well as address the individual, dyadic, and environmental influences of sexual consent.

**Sexual Consent Communicative Behaviors**

Sexual consent is an affirmative, communicative construct (Johnson & Hoover, 2015; Jozkowski, 2015; Little, 2005; Mueller & Peterson, 2012). As a communicative construct, sexual consent manifests in different ways during sexual interaction (Hickman & Muehlenhard, 1999; Jozkowski & Peterson, 2013). Scholars have identified several different, albeit overlapping, ways of communicating consent (Hickman & Muehlenhard, 1999; Jozkowski & Peterson, 2014; Jozkowski, Peterson, et al., 2014; Jozkowski, Sanders, et al., 2014; Humphreys & Brousseau, 2010). Some of the ways that individuals' have reported communicating consent are ambiguous, unclear, and/or indirect: 1) indirect

nonverbal (e.g., you hug and kiss him/her); 2) indirect verbal (e.g., discussing the importance of birth control with your partner; 3) intoxication signals (e.g., you/they say, "I'm really drunk"); 4) no response/passive/non-resistant (e.g., allowing and/or not resisting partner's sexual advances); and, 5) removal behaviors (e.g., shutting or closing the door) (Hickman & Muehlenhard, 1999; Jozkowski & Peterson, 2014; Jozkowski, Sanders, et al., 2014). Conversely, other methods of communicating consent are affirmative, active, and direct: 1) direct nonverbal (e.g., actively participating in sexual activity); 2) direct verbal (e.g., I would tell my partner that I am interested in engaging in sexual activity); and, 3) initiator behavior (e.g., initiating sexual behavior and seeing if it is reciprocated) (Hickman & Muehlenhard, 1999; Jozkowski & Peterson, 2014; Jozkowski, Sanders, et al., 2014).

The differences between indirect and direct communication of sexual consent are important for the current study, as the researcher plans to examine affirmative consent behaviors separately (i.e., direct nonverbal, initiator behavior, and direct verbal) in an effort to understand the antecedents that predict each one. These three ways of communicating sexual consent were chosen because they best fit the affirmative consent focus of this study—each are expressed either by words or unambiguous actions (De Leon et al., 2014). The following will define and describe each of these categories for communicating consent, and distinguish them as ways to communicate affirmative consent to a partner.

**Nonverbal signals of interest.** Sexual consent is most often communicated nonverbally (Hall, 1998; Humphreys, 2004, 2007; Hickman & Muehlenhard, 1999). Studies suggest that nonverbal communication of consent differs based on biological sex,

relationship status, as well as various contextual factors (e.g., when alcohol has been consumed) (Jozkowski & Peterson, 2013; Humphreys, 2007; Lim & Roloff, 1999). There are a variety of nonverbal sexual consent signals that individuals' report using in order to communicate their consent to engage in sexual activity including, "actively participating in foreplay with your partner, kissing your partner, using body language to communicate comfort with the sexual behavior, and actively participating in sexual activity (Jozkowski & Peterson, 2014). These nonverbal indicators of one's consent focus on actively participating in sexual activity *with* a partner, and actively (and affirmatively) *reciprocating* various types of sexual behavior during a sexual encounter.

**Initiating sexual behaviors.** Initiating signals of consent include direct nonverbal and verbal expressions of individual desire to engage in sexual behavior that are meant to begin sexual activity or to start a new sexual activity during the sexual encounter (Jozkowski & Peterson, 2014). Men report engaging in more initiating sexual behaviors than women, which is consistent with gender norms enacted within the traditional sexual script (Jozkowski & Peterson, 2013). That is, men are expected to be sexual aggressors and/or initiators, while women are expected to react to men's advances (Edgar & Fitzpatrick, 1993; Gagnon & Simon, 1973). Initiating sexual behavior can be an active and affirmative way of communicating an individuals' sexual intent to their partner (Little, 2005; Mueller & Peterson, 2012). Examples of initiating signals of consent include initiating sexual behavior and checking to see if it is reciprocated, and making a move and checking my partner's reaction (Jozkowski & Peterson, 2014).

**Verbal communication of affirmative consent.** Verbal communication is considered the most clear and explicit way of communicating sexual consent during a

sexual encounter (Hickman & Muehlenhard, 1999; Lim & Roloff, 1999). Verbal expressions of consent provide clear evidence that an individual voluntarily wants to, and agrees (without force or coercion) to engage in sexual activity (Lim & Roloff, 1999). Research suggest, however, that sexual consent is least likely to be expressed verbally because it is difficult to do (Lim & Roloff, 1999), is not romantic (Humphreys & Brousseau, 2010), may be awkward (Humphreys & Brousseau, 2010), or may elicit a negative response from the partner (Hickman & Muehlenhard, 1999; Humphreys, 2004). Verbal expression of consent, similar to nonverbal, differs based on biological sex, relationship type, and contextual factors (Hickman & Muehlenhard, 1999; Jozkowski & Peterson, 2013; Humphreys, 2007; Lim & Roloff, 1999). Verbal consent is used most frequently when a couple is engaging in sexual activity for the first time, and is considered less applicable to longer term romantic relationships or ongoing casual sexual encounters (Humphreys, 2007). Examples of verbal communication of consent include asking my partner if they are interested in engaging in sexual intercourse, telling your partner what types of sexual behavior you want to engage in, or telling your partner you are interested in engaging in sexual intercourse (Jozkowski & Peterson, 2014).

**Factors Influencing the Communication of Consent**

Scholars have cited several factors influencing the communication of consent. These include *individual* factors that facilitate or inhibit one's communication of consent (Hickman & Muehlenhard, 1999; Humphreys, 2007; Jozkowski, Peterson, et al., 2014), the inherently *dyadic* nature of sexual consent (Hall, 1998; Humphreys, 2007), and the influence of *contextual/environmental* factors that affect the communication of sexual consent (Humphreys, 2004, 2007; Jozkowski & Wiersma, 2015; Ward et al., 2012; Lim

& Roloff, 1999). The following section will discuss the individual, dyadic, and environmental/contextual factors that influence the communication of sexual consent. This study is interested how these factors moderate the determinants of one's intention to communicate their affirmative consent to their partner.

**Individual factors.** Biological sex and personality factors affect individual communication of sexual consent (Hickman & Muehlenhard, 1999; Humphreys, 2007; Jozkowski, 2015; Jozkowski, Peterson, et al., 2014)

***Biological sex.*** Studies have found sex differences in how men and women communicate and interpret sexual consent (Hickman & Muehlenhard, 1999; Humphreys, 2007; Jozkowski, Peterson, et al., 2014). These sex differences are consistent with traditional sexual scripts that view men as initiators of sex whose consent is assumed, and women as gatekeepers who must provide permission or refusal to a man's sexual advances (Gagnon & Simon, 1973; Kitzinger & Frith, 1999).

Men tend to engage in more indirect nonverbal (Humphreys, 2004; Hickman & Muehlenhard, 1999) (e.g., touching and kissing their partner) and initiator behaviors (Hickman & Muehlenhard, 1999; Jozkowski & Peterson, 2014; Jozkowski, Sanders, et al., 2014) (e.g., making a move, removing their own clothing, moving their partner's hands to their pants or lower body) to communicate their consent. Women, however report engaging in indirect verbal signals of consent (e.g., asking their partner to get a condom) (Humphreys, 2004, 2007; Jozkowski, Peterson, et al., 2014; Jozkowski, Sanders, et al., 2014) and more passive behaviors (e.g., not saying no, not actively resisting or stopping advances from their partner) (Hickman & Muehlenhard, 1999; Jozkowski & Peterson; 2014) to communicate their consent to sexual activity.

Women, more than men, view explicit and direct sexual consent as more necessary during sexual interactions (Hickman & Muehlenhard, 1999; Humphreys, 2007; Jozkowski, 2013; Jozkowski & Peterson, 2013). Men prefer assuming consent rather than asking first (Humphreys, 2007), while women prefer that consent be asked or requested by their partner (Humphreys, 2007). And lastly, women and men equally evaluate direct refusals (i.e., "no" or "stop") as nonconsent (Hickman & Muehlenhard, 1999).

***Personality factors.*** Communication scholars have argued the importance of personality characteristics in predicting sexual risk-taking as well as safer sexual behavior (e.g., Donohue et al., 2000; Noar, Zimmerman, Palmgreen, Lustria, & Horosewski, 2006; Pinkerton & Abramson, 1995). This becomes important for exploring sexual consent, as one's personality may influence his/her communication of consent during sexual activity. When someone feels confident in his or her ability to communicate their sexual needs, they experience higher levels of relational and sexual satisfaction, and reduce their risk of having unwanted or unsafe sex (Cupach & Comstock, 1990). Higher levels of sexual satisfaction (e.g., quality of sexual intercourse) and a decreased risk of unwanted and/or nonconsensual sex have also been linked to the communication of consent (Jozkowski, 2013; Reneau & Muehlenhard, 2007).

Affirmative sexual consent focuses specifically on the communication of an enthusiastic 'yes', (De Leon et al., 2014), a task that requires confidence in, and the ability to communicate about sex and one's sexual needs (Jozkowski, 2015). With this said, two personality factors that have been linked to communication during sexual interactions include sexual self-esteem (Snell & Papini, 1989) and sexual assertiveness

(Pierce & Hurlburt, 1999), as both these individual traits are related to one's ability to engage in sexual communication with a partner. This study is interested in exploring whether sexual self-esteem and sexual assertiveness are individual factors that moderate the relationship between one's intention to communicate affirmative consent and their subsequent action (or inaction).

Sexual self-esteem is defined as one's "positive regard for and confidence in the capacity to experience one's sexuality in a satisfying and enjoyable way" (Snell & Papini, 1989, p. 256). There are several factors that can negatively influence one's SSE, including: 1) sexual victimization (Van Bruggen, Runtz, & Kadlec, 2006); 2) physical disabilities (Potgeiter & Khan, 2005); 3) disrespect from partners (Heinrichs, MacKnee, Auton-Cuff, & Domene, 2009); 4) the onset of sexually transmitted infection (Mayers, Heller, & Heller, 2003); and, 5) verbal insults and name-calling (Mayers et al., 2003). On the other hand, there are factors that elevate one's sexual self-esteem such as global self-esteem (Oattes & Offman, 2007), openness and comfort about sexuality (Heinrichs et al., 2009), being involved in a loving, honest, open, and respectful relationship (Heinrichs et al., 2009), and supportive communication from one's partner (Mayers, et al., 2003).

Past research has linked sexual self-esteem to several sexuality-related variables including safer sex practices (e.g. Eithier et al., 2006) and sexual self-efficacy (e.g., Rostosky, Dekhtyar, Cupp, & Anderman, 2008). Sexual self-esteem is also linked to several communication related variables, including communication competence (Richmond, McCroskey, & McCroskey, 1989) and intimate self-disclosure (e.g., Sprecher & Hendrick, 2004). Moreover, sexual self-esteem increases one's ability to communicate pleasure, both verbally and nonverbally, during a sexual encounter (Babin,

2013; Oattes and Offman, 2007), which results in a more sexually satisfying encounter (Babin, 2013). Jozkowski (2013) found that individuals' perceived the overall quality of intercourse to be positive when they communicated consent to their partner. Given this evidence from the literature, it is likely that sexual self-esteem may also affect one's communication of affirmative consent during sexual activity.

Sexual self-esteem is highly correlated with another individual variable that this study will consider: sexual assertiveness (Menard & Offman, 2009; Oattes & Offman, 2007). Sexual assertiveness is related to the quality of a sexual relationship (Hurlbert, 1991; Pierce & Hurlbert, 1999), and focuses on the "behaviors, cognitions, and emotions in evaluating how open, communicative, and comfortable an individual is with sexuality in a particular intimate relationship" (Pierce & Hurlbert, 1999, p. 32). Sexual assertiveness is related to better sexual functioning, fewer sexual victimization experiences, and less sexual risk-taking behavior (e.g., Santos-Iglesias & Sierra, 2010; Santos-Iglesias, Sierra, & Vallejo-Medina, 2013), and similar to sexual self-esteem, it is likely that this variable also affects communication of affirmative consent.

**Dyadic factors.** Communication scholars recognize that sexual communication is a type of interpersonal interaction between 2 (or more) people (Hall, 1998; Hickman & Muehlenhard, 1999; Jozkowski, Peterson, et al., 2014; Humphreys, 2007). It is important to recognize how the interaction between partners affects how consent is communicated and interpreted during a sexual encounter (Hall, 1998; Hickman & Muehlenhard, 1999; Jozkowski, Peterson, et al., 2014; Humphreys, 2004, 2007).

***Relationship status.*** Studies have cited differences in the ways in which sexual consent is communicated within a romantic relationship (Humphreys, 2007, Jozkowski,

2013; Jozkowski, Peterson, et al., 2014). Those who have been dating for a longer period of time perceive less of a need to communicate consent verbally (Humphreys, 2007; Shotland & Goodstein, 1983). Humphreys reported that individuals' perceived sexual intent as more clear when hypothetical situations depicted two people in an established romantic relationship. In addition, individuals' perceived that consent at each stage of a sexual encounter is not necessary in established, romantic relationships (Hall, 1998).

***Types of sexual behavior.*** Several scholars have reported that consent differs depending on the type of sexual behavior individuals' engage in during a sexual encounter (Bogle, 2008; Hall, 1998; Humphreys, 2007; Jozkowski & Peterson, 2013; Jozkowski, Peterson, et al., 2014). Sexual script theory suggests that sexual behaviors occur in a socially constructed, and accepted sequence (Gagnon & Simon, 1973). This sequence is arranged hierarchically with less intimate sexual behaviors (e.g., kissing/making out) occurring early in the sexual sequence, while more intimate sexual behaviors (i.e., oral or vaginal intercourse) occurring later in the sexual sequence (Cowart & Pollack, 1979; Cowart-Steckler, 1983; Hall, 1998). Scholars have found that consent is rarely, if ever, communicated for each individual behavior in this sexual sequence (Coward & Pollack, 1979; Cowart-Steckler,; Hall, 1998). It is more likely for explicit consent to be communicated at the beginning of a sexual encounter, or prior to engaging in more intimate behaviors such as vaginal-penile and anal intercourse (Hall, 1998; Humphreys. 2007; Lim & Roloff, 1999). This suggests that other behaviors in the sexual sequence either do not require consent, or can be consented to indirectly or nonverbally (Hall, 1998; Lim & Roloff, 1999).

**Environmental factors.** There are several factors unique to the college environment that influences the communication of consent. These include the increase in non-romantic casual sexual relationships (Jonason, Li, & Cason, 2009; Jonason, Li, & Richardson, 2010; Mongeau, Knight, Williams, Eden, Shaw, 2013; Paul, McManus, & Hayes, 2000) and alcohol consumption (Jozkowski & Weirsma, 2015; Ward et al., 2012).

***Sex in College.*** Many contemporary college students engage in non-romantic, casual sexual relationships such as one-night stands (e.g., Jonason et al., 2010; Wentland & Reissing, 2014), booty-calls (e.g., Jonason et al., 2009; Jonason et al., 2010), hookups (e.g., Bogle, 2008; Paul et al., 2000), and friends with benefits (e.g., Afifi & Faulkner, 2000; Bisson & Levine, 2009; Mongeau et al., 2013). The short-term, non-committal nature of these sexual relationships makes them attractive to students (Jonason et al., 2009; Jonason et al., 2010). Studies suggest that between 50% and 65% of students have experienced a friend with benefit-type relationship (Afifi & Faulkner, 2000), and about 30% report involvement in a booty-call relationship (Jonason et al., 2009; Jonason et al., 2010). These statistics highlight the commonality of these non-romantic, casual sexual relationships on college campuses.

Sexual consent has been examined within these unique types of relationships (Humphreys, 2007). There are different perceptions of consent when a sexual relationship is ongoing (i.e., partners are in a non-committed relationship but continue to engage in sexual activity with one another) (Humphreys, 2007). Because the partners have already engaged in sexual activity in the past, verbal consent is viewed as unnecessary (Humphreys, 2007; Hickman & Muehlenhard, 1999). In addition, partners

in these ongoing sexual relationships are less likely to communicate consent throughout the sexual encounter (i.e., for each new sexual behavior they engage in) (Hall, 1998).

Perceptions of consent, and actual behavior differ greatly in casual sexual relationships that occur between acquaintances, or during a casual sexual encounter with a stranger (Humphreys, 2007; Lim & Roloff, 1999). Explicit, verbal sexual consent is perceived as acceptable, needed, and necessary in these situations (Humphreys, 2007; Lim & Roloff, 1999), however, the uncertainty and ambiguity associated with these sexual encounters, makes indirect nonverbal communication of consent more likely (Humphreys, 2007; Hickman & Muehlenhard, 1999). These sexual encounters, and communication of consent during them, are further complicated when alcohol has been consumed by one or both partners (Jozkowski, 2015; Ward et al., 2012).

***Alcohol.*** The college environment is conducive to high-risk drinking (The National Center on Addiction and Substance Abuse at Columbia University, 2007). High risk drinking includes drinking larger amounts of alcohol in a short period of time, and having more incidents of alcohol consumption in a shorter period of time (i.e., frequent binge-drinking) (Ward et al., 2012). Binge drinking is associated with high-risk sexual behaviors including having sex with a new partner, an increased number of sexual partners, and unprotected sex (Goldstein, Barnett, Pedlow, & Murphy, 2007). Alcohol consumption among college students has also been linked to sexual assault (Abbey, 2002; Abbey, 2010; Abbey, McAuslan, Zawacki, Clinton, & Buck, 2001; Abbey, Ross, McDuffie, & McAuslan, 1996; Abbey, Zawacki, Buck, Clinton, McAuslan, 2004; Parks, Romosz, Bradizza, & Hsieh, 2008).

Very few studies examine the direct link between alcohol consumption and sexual consent (Jozkowski, 2015; Ward et al., 2012). This may be the result of ethical issues associated with studying sexual encounters that occur under the influence (Jozkowski, 2015). Alcohol consumption has been linked to decreased risk perception and misperception of sexual intent that could affect one's ability to give and gauge sexual consent (Abbey, 2002; Abbey et al., 1996; Abbey et al., 2004; Davis, Stoner, Norris, George, & Masters, 2009).

In the eyes of the law, sexual activity with someone who is too intoxicated to give consent is sexual assault (Little, 2005). College students, however, often engage in sexual activity (consensual and nonconsensual) in conjunction with alcohol (Abbey, 2010; Abbey, 2002; Abbey et al., 1996; Abbey et al., 2004; Jozkowski, 2015; Ward et al., 2012). This begs the question—how intoxicated is too intoxicated? In one study, Jozkowski found that consumption of alcohol at one's most recent consensual sexual event affected their "feelings of willingness associated with consent to sex" (e.g., safety/comfort, arousal) and "cues people utilize to communicate their consent, verbally and behaviorally" (e.g., removal of clothing, asking to have sex) (Jozkowski, 2015, p. 158).

## Theory of Planned Behavior (TPB)

The TPB is an extension of the theory of reasoned action (TRA; Ajzen & Fishbein, 1980). The TRA suggests that there is a set of factors that explain and predict most human behaviors (Fishbein, 1972; Fishbein & Ajzen, 1975, 2010). According to the theory, a central determinant of behavior is an individual's intention to perform the recommended behavior (Fishbein, 1972; Fishbein & Ajzen, 1975, 2010). As an

individual forms these intentions, they are assumed to take into account two conceptually independent constructs: individual attitudes and subjective norms to perform a behavior (Fishbein, 1972; Fishbein & Ajzen, 1975, 2010). A primary prediction made by the theory is that the more favorable individuals' attitudes and subjective norms are toward the recommended behavior, the more likely it is they will intend to perform it (Ajzen & Fishbein, 2000 Fishbein, 1972; Fishbein & Ajzen, 2010).

The TRA is valuable when explaining behaviors under one's volitional control (Godin & Kok, 1996). The predictive ability of the TRA decreases when personal control over the behavior decreases (Ajzen, 1991; Godin & Kok, 1996). Because of this limitation of the TRA, the theory was extended to include a third construct, perceived behavioral control, and the theory was subsequently renamed the theory of planned behavior (TPB) (Ajzen, 1985, 1991). See Figure 1 for a visual representation of the theory of planned behavior.

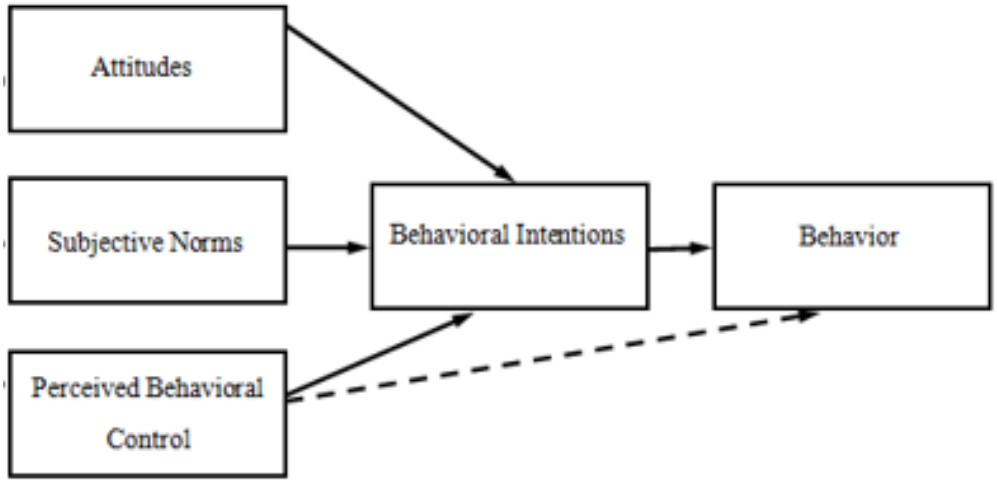


*Figure 1*. Theory of Planned Behavior (TPB) Model (Adapted from Ajzen, 2002; Ajzen & Fishbein, 1980). Dashed line represents the direct relationship between perceived behavioral control and behavior, via actual control. Solid lines represent theoretical relationships linking attitudes, subjective norms, and perceived control to intention, and intention to behavior.

This study used the TPB as the theoretical frame from which to examine college students' intention to communicate, and subsequent communicative behavior of affirmative consent to their sexual partner. The following sections will: 1) provide a detailed description of attitudes, norms, and perceived behavioral control as predictors of intention; 2) discuss how intention mediates the relationship between the three predictors and behavior; and, 3) outline the goal of this study as well as the research questions and hypotheses of the current investigation.

**Attitudes**

Attitude has been the center of scholars' attempts to explain and predict human behavior (e.g., Ajzen, 1971; Bettinghaus, 1986; Glasman & Albarracin, 2006; Kim & Hunter, 1993). Fishbein & Ajzen (2010) focused specifically on the role of attitude in behavior change, and define attitude as the "latent disposition or tendency to respond with some degree of favorableness or unfavorableness to a psychological object" (p. 76). Fishbein and Ajzen recognize two general categories of attitude, which include instrumental and experiential. Instrumental attitudes are perceptions of how foolish or wise, useful or useless performing a recommended behavior is perceived to be (Ajzen, 1991; Fishbein & Ajzen, 2010). Experiential attitudes are perceptions of how pleasant or unpleasant or enjoyable or unenjoyable a recommended behavior is perceived to be (Ajzen, 1971; Fishbein & Ajzen, 1975, 2010). Attitude, then, is assessed in the TPB in terms of overall evaluation of a behavior based on a series of bipolar adjectives representing instrumental and experiential factors of attitude (Fishbein & Ajzen, 1975, 2010).

Attitudes toward the behavior are dependent on behavioral beliefs (i.e., beliefs about performing the behavior) and evaluation of behavioral outcomes (i.e., people favor behaviors with desirable outcomes and have unfavorable attitudes toward behaviors with undesirable outcomes) (Fishbein, 1972; Fishbein & Ajzen, 1975, 2010). An individual is likely to have a positive attitude about a behavior (e.g., affirmative sexual consent) if they believe that it will lead to positive outcomes (e.g., will enhance their overall sexual experience) and prevent negative outcomes (e.g., prevent unwanted and/or nonconsensual sex).

In terms of affirmative sexual consent, it is particularly important to consider college students' evaluation of active negotiation of consent through verbal, initiating and nonverbal communication (Jozkowski & Peterson, 2013). Studies highlight that students favor nonverbal signals of consent, but also indicate that verbal communication of consent is clearer and can prevent miscommunication between partners (Lim & Roloff, 1999). Other attitudes toward consent consider when and how often consent should be communicated during a single sexual encounter (Humphreys, 2007), whether consent is important for all sexual activities, or for only specific behaviors such as intercourse (Hall, 1998), and whether consent can be assumed, particularly based on one's romantic relationship or sexual relationship status (Humphreys, 2007).

**Subjective Norms**

Subjective norms refer to the belief that important (referent) others in one's life think they should or should not perform a behavior (Ajzen, 1985, 1991). There are two types of norms: 1) injunctive norms; and, 2) descriptive norms (Ajzen, 1985, 1991; Rimel & Real, 2003). Injunctive norms refer to beliefs about whether important others approve

or disapprove of the behavior (Ajzen, 1985). Descriptive norms refer to one's belief about whether most people perform the behavior (i.e., prevalence of a behavior) (Ajzen, 1985; Rimel & Real, 2003).

Perceived norms are formed by normative beliefs and motivation to comply (Ajzen, 1991). Normative beliefs refer to how a person thinks that important others in their life would like them to behave (Fishbein, 1972; Fishbein & Ajzen, 1975, 2010). Motivation to comply refers to the degree to which a person wants to act in accordance with the perceived wishes of the important others in their life (Fishbein, 1972; Fishbein & Ajzen, 2010). In other words, if an individual perceives that those close to them (e.g., peers, close friends, family members) approve of them communicating affirmative sexual consent, and the individual thinks it is important to listen to these important others, they will perceive more positive social norms overall.

Sexual behavior in college is influenced by one's peers (Bogle, 2008). Several scholars highlight the positive association between perceived peer sexual attitudes and behaviors and individual sexual attitudes and behaviors in young adults (e.g., Bogle, 2008; Boone & Lefkowitz, 2004; L'Engle & Jackson, 2008; Wallace, Miller, & Forehand, 2008). In addition to peer influences, one's sexual partner is also an important influence on the decision to communicate consent (Humphreys, 2004). Though health messaging may promote consent as a way to prevent unwanted sex and/or sexual assault, it is more likely that an individual is influenced by their partner's perception of their consent communication (Cline, 2003; Cline, Johnson, & Freeman, 1992; Cline & McKenzie, 1994). For example, if someone perceives that his or her partner will react negatively to

his or her consent communication, it is likely that consent will not occur (Humphrey & Brousseau, 2010).

Traditional sexual scripts (Gagnon & Simon, 1973) guide the norms and perceptions surrounding the communication of sexual consent (Jozkowski & Peterson, 2013; Humphreys, 2004). A widely held belief is that men initiate sexual activity, and assume consent rather than asking for it (Gagnon & Simon, 1973; Humphreys, 2004). Women, on the other hand, are perceived as the "gatekeepers" whose responsibility it is to accept or decline a man's sexual advances (Gagnon & Simon, 1973). Also, men's communication of consent is widely perceived by both men and women as emasculating and/or unromantic (Humphreys, 2004). Men and women's communication of consent during sexual activity is also perceived as awkward, and as a way to quickly "ruin the mood" (Humphreys, 2004).

There are also general beliefs (i.e., norms) about communicating consent with respect to the stage of the relationship (Hall, 1998; Humphreys, 2004). Humphreys (2007) found that the longer a couple has been together, the less perceived need there was to communicate consent prior to and during sexual activity. Furthermore, individuals perceive some sexual behavior (i.e., intercourse) as requiring more explicit consent than other types of sexual behavior (Hall, 1998).

**Perceived Behavioral Control**

Perceived behavioral control refers to the extent to which an individual believes that they are capable of performing a behavior, and whether they perceive that they are, or are not in control of performing the behavior (Ajzen, 1991; Fishbein & Ajzen, 2010). Perceived behavioral control considers the extent to which information is available, an

individual possesses the skills needed, has an opportunity to perform it, and other resources needed in order to successfully perform the behavior (Fishbein & Ajzen, 2010). If perceived control over the behavior is lacking, individuals' are less likely to form strong behavioral intentions over performance of the behavior, even if attitudes and subjective norms are positive (Ajzen, 1985, 1991; Fishbein & Ajzen, 2010). The TPB posits that perceived behavioral control can influence behavior indirectly, via intentions, and can also predict behavior directly because it may be considered a proxy for actual control over behavioral performance (Ajzen, 1985, 1991; Ajzen & Madden, 1986). A dashed line represents this direct relationship between perceived behavioral control and behavior (see Figure 1). So, it is actual control, not perceived behavioral control that directly predicts behavioral performance (Ajzen, 1991; Ajzen & Madden, 1986). Perceived behavioral control, however, can accurately reflect the skills, resources, and opportunities available to an individual (Ajzen, 1991; Ajzen & Madden, 1986). That is, actual control can influence perceived control and behavior (Ajzen & Madden, 1986). Thus, the relationship between perceived behavioral control and behavior can be explained to the extent that perceived control reflects actual control over the performance of the behavior (Ajzen, 1985, 1991; Ajzen & Madden, 1986)

Perceived control is dependent on control beliefs and perceived power (Ajzen, 1991; Fishbein & Ajzen, 2010). Perceived control is the beliefs an individual has about internal and external factors that may hinder or assist in performing the behavior (Ajzen, 1991; Fishbein & Ajzen, 2010). Perceived power is the perception of how hard or easy it is to perform the behavior in each of the conditions identified in the control beliefs (Ajzen, 1991).

In terms of sexual consent; as is the case with sexual communication in general; there is a reluctance to talk directly and openly about one's sexual desires or passion (Humphreys, 2007; Cline, 2003; Cline et al., 1992; Cline & McKenzie, 1994). As a result, sexual consent is most often communicated to one's partner indirectly and nonverbally in an attempt to avoid having to engage in a discussion with him/her (Humphrey, 2007). Communicating consent in this way helps the person "save face" if their partner reacts negatively (Afifi & Lee, 2000). Key perceived behavioral control issues to be explored with regard to affirmative sexual consent may also include feelings of awkwardness, reduced pleasure, and level of confidence in communicating and negotiating consent with a sexual partner (Humphreys, 2004).

**Intentions**

In the TPB, intentions are the most important immediate antecedent to behavioral performance, although as previously mentioned, perceived control is also taken into account (Fishbein & Ajzen, 2010). Intentions are "the indications of a person's readiness to perform a behavior" (Fishbein & Ajzen, 2010, p. 39). According to the theory, attitudes, norms, and perceived control determine a person's behavioral intentions (Fishbein & Ajzen, 2010). The relative contribution of each of these three constructs (i.e., attitudes, norms, and perceived control) on one's intention to perform a behavior may differ depending on the specific population being studied, and the particular behavior of interest (Montona & Kasprzyk, 2002, 2008). Intentions for some individuals, or populations, may be more influenced by their attitude toward the behavior than their beliefs about what others are doing or think they should do. For others, normative beliefs predict intentions more strongly than one's attitudes toward the behavior. Still others

may be most influenced by their perceived control over their behavioral performance. In some cases, it is possible for one or even two of these constructs to not significantly predict behavioral intentions (Ajzen & Fishbein, 2010). This demonstrates that one of the constructs is irrelevant to one's intention to perform the behavior. This is not problematic to the theoretical framework unless intentions cannot be predicted from any combination of the three determinants (i.e., attitudes, subjective norm, and perceived control) (Fishbein & Ajzen, 2010).

## Purpose of Current Study

The overall purpose of this longitudinal study was to assess college students' intention to communicate affirmative sexual consent to their partner in the next 30 days using the theory of planned behavior (Ajzen, 1991; Fishbein & Ajzen, 2010). Specifically, three types of affirmative consent intentions and subsequent behaviors were assessed: 1) nonverbal signals of interest; 2) initiating sexual behaviors; and, 3) verbally communicating consent. Each of these consent behaviors were defined more specifically for participants during the study based on the Consent to Sex Scale (CSS) (Jozkowski & Peterson, 2013). Nonverbal signals of interest were described in this study as "letting the person (i.e., partner) know through your action/body language/signals that you are comfortable with the sexual behavior." Initiating sexual behaviors were defined as "making a move and checking your partner's reactions or initiating sexual behavior to see if it is reciprocated." Finally, communicating consent verbally was defined as "suggesting having sex to your partner, telling your partner the types of sexual behaviors you want to engage in, telling your partner you are interested in having sex."

## Hypotheses

Research supports the use of the theory of planned as framework used to explain and predict various health behaviors (e.g., eating behavior, physical activity behavior, addictive behaviors, HIV/AIDS-related behaviors) (Godin & Kok, 1996). It is a particularly helpful framework when exploring sexual risk-taking behaviors, including having casual sex and engaging in sex while intoxicated (Turchik & Gidycz, 2012). Both of these behaviors are linked to increased risk of sexual assault perpetration and victimization (Mohler-Kuo et al., 2004), particularly among college students (Abbey & McAuslan, 2004; Borges et al., 2008; Karjane et al., 2005; Ullman, Karabatso, & Koss, 1999). It stands to reason that the TPB is a useful framework for understanding sexual consent behaviors, as sexual consent is inherently a health behavior (Borges et al., 2008). Consequently, this study predicts that the theory of planned behavior will also be a useful framework from which to predict communication of affirmative consent within a college population. The current study used a longitudinal design to test the predictive ability of the TPB. At Time 1 (T1) attitudes, subjective norms, perceived behavioral control, and intention to communicate their consent using nonverbal signals, initiating sexual behavior, and verbal communication were assessed using an online survey. Thirty days later, students' were asked to report on their actual nonverbal, initiating, and verbal sexual consent behavior during their most recent sexual encounter (Time 2; T2). The following hypotheses will be tested:

> *H*1: TPB constructs at T1 will accurately predict the extent to which college students communicated *nonverbal signals of consent* to their partner during their most recent sexual encounter at T2 (see Figure 2 for hypothesized model).

*H*2: TPB constructs at T1 will accurately predict the extent to which college students *initiated sexual behaviors* to communicate sexual consent to their partner during their most recent sexual encounter at T2 (see Figure 3 for hypothesized model).

*H*3: TPB constructs at T1 will accurately predict the extent to which college students *verbally communicated sexual consent* to their partner during their most recent sexual encounter at T2 (see Figure 4 for hypothesized model).

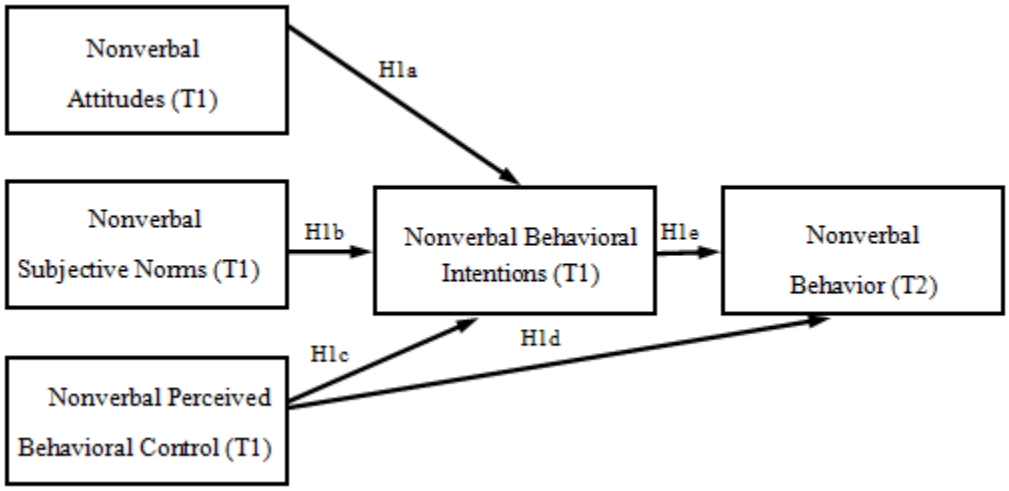


*Figure 2.* Hypothesized Theory of Planned Behavior model of nonverbal signals of interest to communicate affirmative sexual consent, including each hypothesized path.

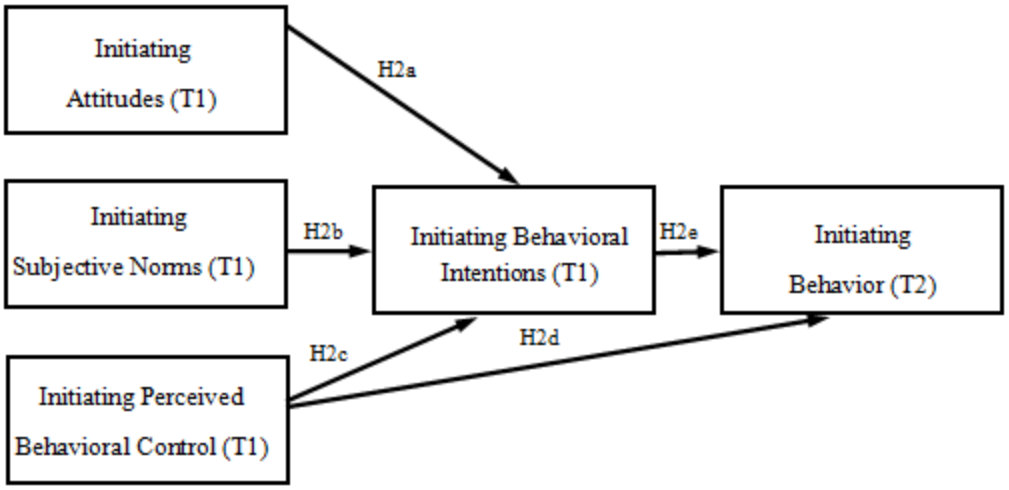


*Figure 3.* Hypothesized Theory of Planned Behavior model of initiating sexual behaviors to communicate affirmative sexual consent, including each hypothesized path.

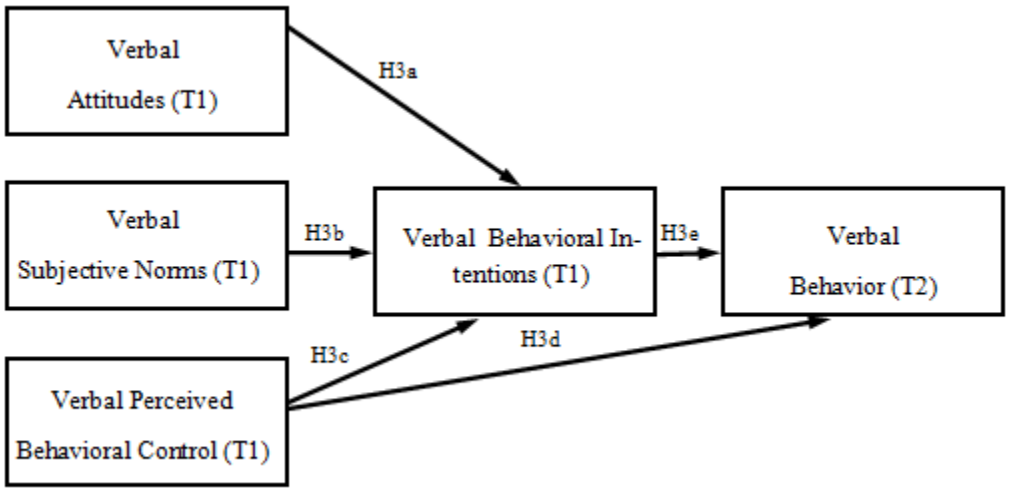


*Figure 4.* Hypothesized Theory of Planned Behavior model of verbal communication of affirmative sexual consent, including each hypothesized path.

## Research Questions

This study also sought to explore individual, dyadic, and environmental/contextual variables that may strengthen one's intention to communicate nonverbal, initiating, or verbal affirmative consent, and potentially cause them to act in a way that is inconsistent with their intention. The individual variables of interest are: 1)

biological sex (Jozkowski, Peterson, et al., 2014); 2) individual sexual self-esteem (Snell & Papini, 1989); and, 3) sexual assertiveness (Hurlbert, 1991; Pierce & Hurlbert, 1999). The dyadic variables of interest are: 1) relationship type (Humphreys, 2007); and, 2) type of sexual behavior/activity engaged in with the partner (Hall, 1998). Finally, the environmental/contextual variables of interest are: 1) if sexual activity occurs with a new or serial sexual partner (Beres, 2010; Humphreys, 2007); and, 2) substance use (Jozkowski & Wiersma, 2015; Ward et al., 2012).

The following research questions will be explored:

*RQ*1: For *nonverbal signals of consent*, do any of the following individual, dyadic, or environmental variables moderate one or more structural parameters in the model?

Individual

a. Sex
b. Sexual self-esteem
c. Sexual assertiveness

Dyadic

d. Relationship type
e. Type of sexual activity

Environmental

f. New or serial sexual partner
g. Alcohol consumption

*RQ*2: For *initiating sexual behavior*, do any of the following individual, dyadic, or environmental variables moderate one or more structural parameters in the TPB model?

Individual

a. Sex
b. Sexual self-esteem
c. Sexual assertiveness

Dyadic

d. Relationship type
e. Type of sexual activity

Environmental

f. New or serial sexual partner
g. Alcohol consumption

*RQ*3: For *verbal communication of consent*, do any of the following individual, dyadic, or environmental variables moderate one or more structural parameters in the TPB model?

Individual

a. Sex
b. Sexual self-esteem
c. Sexual assertiveness

Dyadic

d. Relationship type
e. Type of sexual activity

Environmental

f. New or serial sexual partner

g. Alcohol consumption

# CHAPTER 3

# RESEARCH METHODOLOGY

This longitudinal study sought to determine if the theory of planned behavior (TPB) could predict the extent to which college students communicated nonverbal, initiating, and verbal sexual consent to their partner during their most recent sexual encounter. At Time 1 (T1), students' attitudes, norms, perceived control, and intention to communicate their consent using nonverbal signals, initiating sexual behavior, and verbal communication were assessed. Thirty days later, students' reported on their actual nonverbal, initiating, and verbal sexual consent behavior during their most recent sexual encounter (Time 2; T2). A quantitative questionnaire measuring the five theoretical constructs of the TPB (i.e., attitudes, subjective norms, perceived behavior control, intention, and actual behavior) was created, as outlined by Ajzen (2006) and Fishbein and Ajzen (2010). The Institutional Review Board of Arizona State University, Protocol #00003481, approved the surveys assessing TPB constructs and other variables of interest.

This chapter will describe the T1 and T2 survey participants. In addition, a description of the final analytic sample is included. Following the description of the study participants, research procedures are presented including recruitment techniques and the procedure used to match study participants' T1 and T2 surveys. Then, the measures used in the survey, including sample items, scale formation, and reliability are presented. Finally, the chapter closes by presenting the procedures used to dichotomize the moderator variables for analysis.

## Participants

**Time 1 (T1) Sample**

Time 1 (T1) sample included 884 students enrolled in upper- and lower- division undergraduate communication courses at a large Southwestern university. Twenty-seven participants were eliminated from the study because they did not provide a study ID, and therefore could not be matched at Time 2. An additional 33 participants were eliminated for failing to complete the survey items (excessive missing data). Therefore, 824 participants remained.

The T1 sample included both males ($n$ = 396; 48.1%) and females ($n$ = 423; 51.3%), who identified predominately as heterosexual (92.6%). Participants identified as freshmen (44.9%), sophomores (18.8%), seniors (17.8%), juniors (17.4%), and six students (.7%) did not report their year in school. Participants identified their ethnicity as non-Hispanic (80.5%) or Hispanic (18.8%), with 6 people not reporting their ethnicity (.7%). Participants identified their race as White or Caucasian (67.7%), Asian or Asian American (12.0%), two or more races (9.1%), other (5.7%), Black or African American (3.0%), American Indian or Alaskan Native (1.0%), Native Hawaiian or Pacific Islander (.4%), and 9 participants did not identify their race. Participants ranged in age from 18-49 ($M$ = 20.01; $SD$ = 4.17). Participants reported relationship status as single and not dating or hanging out with someone (37.3%), in a relationship and not living together (25.8%), single but casually seeing someone/dating/hanging out with someone (24.8%), living together but not married (7.8%), other relationship status (2.1%), married (1.7%), and 5 people did not report their relationship status (.6%).

Descriptive statistics for all T1 participants' demographic characteristics (i.e., age, sex, sexual orientation, year in school, ethnicity, race, and relationship status) are provided in Table 1.

Table 1

*Demographic Characteristics of Time 1 (T1) Sample (N = 824)*

| Demographic Characteristic | % | *n* |
|---|---|---|
| Sex | | |
| Female | 51.3 | 423 |
| Male | 48.1 | 396 |
| Sexual orientation | | |
| Straight/heterosexual | 92.6 | 210 |
| Bisexual | 3.2 | 26 |
| Gay/homosexual | 2.2 | 18 |
| Unsure/questioning | 1.4 | 11 |
| Year in school | | |
| Freshman | 44.9 | 370 |
| Sophomore | 18.8 | 155 |
| Junior | 17.4 | 143 |
| Senior | 17.8 | 147 |
| Missing | 0.7 | 4 |
| Ethnicity | | |
| Hispanic | 18.8 | 155 |
| Not Hispanic | 80.5 | 663 |
| Race | | |
| White or Caucasian | 67.7 | 558 |
| Black or African American | 3.0 | 25 |
| Asian or Asian American | 12.0 | 99 |
| American Indian or Alaskan Native | 1.0 | 8 |
| Native Hawaiian or Pacific Islander | 0.4 | 3 |
| Two or more races | 9.1 | 75 |
| Other | 5.7 | 47 |
| Relationship status | | |
| Single and not dating/hanging out with someone | 37.3 | 307 |
| Single but casually seeing /dating/hanging out with someone | 24.8 | 204 |
| In a relationship and not living together | 25.8 | 213 |
| Living together but not married | 7.8 | 64 |
| Married | 1.7 | 14 |
| Other relationship status | 2.1 | 17 |

**Time 2 (T2) Sample**

The Time 2 (T2) sample included 731 participants. Thirty-five participants were eliminated from the study because they did not provide a study ID, and an additional 7 participants were eliminated for failing to complete the survey items (excessive missing data). Therefore, 694 participants remained.

Due to an oversight, demographic questions were not included in the T2 survey until after it had opened. Therefore, demographic data for T2 participants is incomplete. The numbers reported here reflect the participants who completed the demographic questions.

The T2 sample included both males ($n$ = 138; 19.9%; valid 51.5%) and females ($n$ = 130; 18.7%; valid 48.5%), who identified predominately as heterosexual (36.2%; valid 93.7%). Participants identified as freshman (15.9%; valid 41%), seniors (8.9%; valid 23.1%), juniors (6.9%; valid 17.9%) and sophomores (6.9%; valid 17.9%). Participants identified their ethnicity as Hispanic (7.3%; valid 19.3%) or non-Hispanic (30.7%; valid 80.7%). Participants identified their race as White or Caucasian (25.8%; valid 67.5%), Asian or Asian American (4.5%; valid 11.7%), two or more races (4.2%; valid 10.9%), other (1.6%; valid 4.2%), Black or African American (1.3%; valid 3.4%), American Indian or Alaskan Native (.6%; valid 1.5%), and Native Hawaiian or Pacific Islander (.3%; valid .8%). Participants ranged in age from 18-37 ($M$ = 20.00; $SD$ = 2.23). Participants reported relationship status as single and not dating or hanging out with someone (13.8%; valid 36.2%), in a relationship and not living together (10.7%; valid 27.9%), single but casually seeing someone/dating/hanging out with someone (10.1%;

valid 26.4%), living together but not married (3.0%; valid 7.9%), married (.4%; valid 1.1%), and other relationship status (.1%; valid .4%).

Descriptive statistics for T2 participants' demographic characteristics (i.e., age, sex, sexual orientation, year in school, ethnicity, race, and relationship status) are provided in Table 2.

Table 2

*Demographic Characteristics of Time 2 (T2) Sample (N = 694)*

| Demographic Characteristic | % | Valid % | *n* | *%Δ from T1* |
|---|---|---|---|---|
| Sex | | | | |
| Female | 18.7 | 48.5 | 130 | -2.8 |
| Male | 19.9 | 51.5 | 138 | 3.4 |
| Sexual orientation | | | | |
| Straight/heterosexual | 36.2 | 93.7 | 251 | 1.1 |
| Bisexual | 1.3 | 3.4 | 9 | 0.2 |
| Gay/homosexual | 1.0 | 2.6 | 7 | 0.4 |
| Unsure/questioning | 0.1 | 0.4 | 1 | -1.0 |
| Year in school | | | | |
| Freshman | 15.9 | 41.0 | 110 | -4.9 |
| Sophomore | 6.9 | 17.9 | 48 | -0.9 |
| Junior | 6.9 | 17.9 | 48 | .5 |
| Senior | 8.9 | 23.1 | 62 | 5.3 |
| Graduate | 0.0 | 0.0 | 0 | -0.2 |
| Ethnicity | | | | |
| Hispanic | 7.3 | 19.3 | 51 | 0.5 |
| Not Hispanic | 30.7 | 80.7 | 213 | 0.2 |
| Race | | | | |
| White or Caucasian | 25.8 | 67.5 | 179 | -0.2 |
| Black or African American | 1.3 | 3.4 | 9 | 0.4 |
| Asian or Asian American | 4.5 | 11.7 | 31 | -0.3 |
| American Indian or Alaskan Native | 0.6 | 1.5 | 4 | 0.5 |
| Native Hawaiian or Pacific Islander | 0.3 | 0.8 | 2 | 0.4 |
| Two or more races | 4.2 | 10.9 | 29 | 1.8 |
| Other | 1.6 | 4.2 | 11 | -1.5 |
| Relationship status | | | | |
| Single and not dating/hanging out with someone | 13.8 | 36.2 | 96 | -1.1 |
| Single but casually seeing someone/dating/hanging out with someone | 10.1 | 26.4 | 70 | 1.6 |
| In a relationship and not living together | 10.7 | 27.9 | 74 | 2.1 |
| Living together but not married | 3.0 | 7.9 | 21 | 0.1 |

Table 2 (continued)

*Demographic Characteristics of Time 2 (T2) Sample (N = 694)*

| Demographic Characteristic | % | Valid % | *n* | *%Δ from T1* |
|---|---|---|---|---|
| Married | 0.5 | 1.5 | 4 | -0.2 |
| Other relationship status | 0.1 | 0.5 | 1 | -1.6 |

**Final Matched Sample**

Primary analysis included only those participants who completed both T1 and T2 measures, and who had engaged in sexual activity (i.e., kissing, sexual touching, oral sex, vaginal sex, anal sex, etc.) during the 30 days between survey administrations. Responses were matched based on study ID. Based upon the matching process, a sample of 230 participants remained, as they completed both surveys and reported sexual activity between survey administrations. An additional 5 participants were eliminated for missing responses for any of the TPB items (i.e., attitude, norms, perceived behavioral control, and intention) at T1 or the behavior item at T2. A final sample of 225 participants was used for the analysis.

The final analytic sample included both males ($n$ = 98; 43.6%) and females ($n$ = 127; 56.4%), who identified predominately as heterosexual (93.3%). Participants identified as freshman (45.8%), seniors (22.7%), juniors (16.4%) and sophomores (15.1%). Participants identified their ethnicity as Hispanic (18.7%) or non-Hispanic (81.3%). Participants identified their race as White or Caucasian (74.7%), two or more races (8.9%), Asian or Asian American (5.8%), other (5.8%), and Black or African American (3.6%). Participants ranged in age from 18–29 ($M$ = 19.70; $SD$ = 1.94). Participants reported relationship status as in a relationship and not living together (34.7%), single and not dating or hanging out with someone (29.3%), single but casually seeing someone/dating/hanging out with someone (24.9%), living together but not married (8.9%), other relationship status (1.8%), and married (.4%).

Descriptive statistics for all matched participants' demographic characteristics (i.e., age, sex, sexual orientation, year in school, ethnicity, race, and relationship status) are provided in Table 3.

Table 3

*Demographic Characteristics of Final Matched Sample (N = 225)*

| Demographic Characteristic | % | *n* | *%Δ from T1* | *%Δ from T2* |
|---|---|---|---|---|
| Sex | | | | |
| Female | 56.4 | 127 | 5.1 | 7.9 |
| Male | 43.6 | 98 | -4.5 | -7.9 |
| Sexual orientation | | | | |
| Straight/heterosexual | 93.3 | 210 | 0.7 | -0.4 |
| Bisexual | 2.2 | 5 | 1.0 | -1.2 |
| Gay/homosexual | 3.6 | 8 | 1.4 | 1.0 |
| Unsure/questioning | 0.4 | 1 | 1.0 | 0.0 |
| Other | 0.4 | 1 | 0.4 | 0.0 |
| Year in school | | | | |
| Freshman | 45.8 | 103 | 0.9 | 4.8 |
| Sophomore | 15.1 | 34 | -3.7 | -2.8 |
| Junior | 16.4 | 37 | -1.0 | -1.5 |
| Senior | 22.7 | 51 | 4.9 | 0.9 |
| Graduate | 0.0 | 0 | -.0.2 | 0.0 |
| Ethnicity | | | | |
| Hispanic | 18.7 | 42 | -0.1 | -0.6 |
| Not Hispanic | 81.3 | 183 | 0.8 | 0.8 |
| Race | | | | |
| White or Caucasian | 74.7 | 168 | 7.0 | 7.2 |
| Black or African American | 3.6 | 8 | 0.6 | 0.2 |
| Asian or Asian American | 5.8 | 13 | -6.2 | -5.9 |
| American Indian or Alaskan Native | 0.0 | 0 | -0.4 | -1.5 |
| Native Hawaiian or Pacific Islander | 0.0 | 0 | -0.4 | -0.8 |
| Two or more races | 8.9 | 20 | 0.2 | 2.0 |
| Other | 5.8 | 13 | 0.1 | 1.6 |
| Relationship status | | | | |
| Single and not dating/hanging out with someone | 29.3 | 66 | -8.0 | -6.9 |
| Single but casually seeing someone/dating/hanging out with someone | 24.9 | 56 | 0.1 | -1.5 |
| In a relationship and not living together | 34.7 | 78 | 8.9 | 6.8 |

Table 3 (continued)

*Demographic Characteristics of Final Matched Sample (N = 225)*

| Demographic Characteristic | % | *n* | *%Δ from T1* | *%Δ from T2* |
|---|---|---|---|---|
| Living together but not married | 8.9 | 20 | 1.1 | 1.0 |
| Married | 0.4 | 1 | -1.3 | -1.1 |
| Other relationship status | 1.8 | 4 | -0.3 | 1.8 |

**Data Collection Procedure**

The institutional review board approved all procedures before data collection began (see Appendix A).

**Time 1 Procedure**

At the discretion of individual instructors, extra credit was offered to students in return for their participation in the T1 survey. Course instructors solicited their students' participation via an email message that contained an online survey link and recruitment script with a description of the study. The online survey was created using Qualtrics Research Software, and required approximately 15-20 minutes for completion. When students began the survey, they read a cover letter with information about the study, eligibility requirement (i.e., must be at least 18 years of age), and informed consent information (see Appendix B). By clicking the *continue* button at the end of the cover letter, each participant acknowledged that they were at least 18 years old and that they voluntarily consented to participate in the study.

After indicating informed consent, participants generated their own study ID by indicating, first the first two letters of their birth city (e.g., Ashville – AS); the day of the month when they were born (two digits number such that March 3 = 03 and March 13 =

13); and, the last letter of their last name (e.g., Jones = S). Participant responses to the three questions (e.g., AS03S), created their study ID. This study ID assisted the researcher in matching participants' T1 survey responses with their T2 survey responses. Then at T1, students were asked to complete questions about their attitudes, subjective norms, perceived behavioral control, and intention to engage in each of the three consent behaviors (i.e., nonverbal signals of interest, initiating behaviors, and verbal communication of consent) and, finally demographic information. At the end of the survey, participants were provided with a separate survey link where they were asked to fill out their first and last name, instructor's name, and course number. This separate survey was used for the purpose of recording those students who wished to receive extra credit. This survey was not linked to the participants' answers, further protecting their confidentiality. An alternative assignment was available to students who wished to earn extra credit but wanted to opt out of the survey. See Appendix C for the complete T1 survey.

**Time 2 Procedure**

Thirty days after opening the T1 survey, instructors were asked to distribute the recruitment script and survey link for the T2 survey. The online survey was created using Qualtrics Research Software, and required approximately 10-15 minutes for completion. When students began the T2 survey, they were again directed to a page with information about the study, eligibility requirement (i.e., must be at least 18 years old), and informed consent information (see Appendix D). Clicking the *continue* button indicated their consent to participate in the survey.

After indicating informed consent, participants were asked to generate a study ID using the same three questions as T1 (i.e., first two letters of birth city, numeric day of the month on which they were born, and last letter of their last name). Then, students were asked to complete questions about their sexual behavior in the past month, characteristics of their last sexual encounter, sexual self-esteem items, and sexual assertiveness items. If students indicated that they had not engaged in sexual activity in the past month, they only completed the sexual self-esteem and sexual assertiveness items. At the survey's conclusion, students were provided with another survey link where they were asked to complete personal information (i.e., first and last name, instructor's name, and course number) in order to receive extra credit. See Appendix E for the complete T2 survey.

## Instrumentation

### Time 1 and Time 2 Measures

The direct measurements of the theory of planned behavior (TPB) constructs were developed using the guidelines for creating a reasoned action questionnaire outlined by Ajzen (2002, 2006, 2013) and Fishbein and Ajzen (2010). At T1, participants were asked about their attitudes, subjective norms, perceived behavioral control, and intentions on three separate sexual consent communicative behaviors: 1) nonverbal signals of interest; 2) initiating sexual behaviors; and, 3) verbal communication of consent. At T2, students were asked to report on their sexual consent behavior during their most recent sexual encounter in the past 30 days. TPB variables (attitude, norms, perceived behavioral control, intentions and behavior), number of items, mean, standard deviation, and reliability coefficients are listed in Table 4.

Table 4

*Number of Items, Means, Standard Deviations, and Reliability Coefficients for Time 1 and Time 2 Variables*

| | # of Items | *M* | *SD* | α |
|---|---|---|---|---|
| Time 1 Variables | | | | |
| Intentions | | | | |
| Nonverbal | 4 | 5.63 | 1.29 | .86 |
| Initiating | 4 | 5.29 | 1.39 | .90 |
| Verbal | 4 | 5.17 | 1.55 | .89 |
| Attitude | | | | |
| Nonverbal | 5 | 5.72 | 1.23 | .86 |
| Initiating | 5 | 5.52 | 1.34 | .89 |
| Verbal | 5 | 5.75 | 1.22 | .82 |
| Subjective norms | | | | |
| Nonverbal | 4 | 5.53 | 1.35 | .87 |
| Initiating | 4 | 5.34 | 1.34 | .83 |
| Verbal | 4 | 5.58 | 1.39 | .84 |
| Perceived behavioral control | | | | |
| Nonverbal | 6 | 5.81 | 1.10 | .88 |
| Initiating | 6 | 5.61 | 1.17 | .86 |
| Verbal | 6 | 5.66 | 1.30 | .88 |
| Time 2 Variables | | | | |
| Behavior | | | | |
| Nonverbal | 2 | 5.41 | 1.52 | .80 |
| Initiating | 2 | 5.02 | 1.60 | .89 |
| Verbal | 2 | 4.46 | 1.88 | .93 |

*Notes*. Means are listed in descending order. Intentions, attitude, subjective norms, perceived behavioral control and behavior were measured using a scale ranging from 1 to 7. The reported means and standard deviations represent data before normality transformation.

**Attitude.** In the T1 survey, instrumental (i.e., perceptions of the usefulness of the recommended behavior) and experiential (i.e., perceptions of how enjoyable the recommended behavior is) attitudes were assessed by responding to the stem, "For me to communicate my consent to engage in sexual activity using [type of sexual consent (i.e.,

nonverbal signals of consent, initiating sexual behaviors, or verbal communication of consent)] would be…" Five semantic differential items were used for each of the three affirmative consent factors (15 items total). Factor analysis demonstrated that the measure was unidimensional. These items held together reliably for nonverbal signals of interest (α = .86), initiating sexual behaviors (α = .89), and verbal communication of consent (α = .82). Therefore, individual scores on the five attitude items were averaged for each of the consent factors in order to create individual mean scores on the construct.

**Subjective norms.** Subjective norms include both descriptive norms (i.e., what I think important others are doing) and injunctive norms (i.e., what important others think I should do). In the T1 survey, these were measured with four total items for each of the affirmative consent communication behaviors (12 items total). Factor analysis demonstrated that the measure was unidimensional. These items held together reliably for nonverbal signals of interest (α = .87), initiating sexual behaviors (α = .83), and verbal communication of consent (α = .84). Individual scores on the four subjective norm items were averaged for each of the consent factors in order to create individual mean scores on the construct.

**Perceived behavioral control.** In the T1 survey, perceived behavioral control was assessed using six items for each of the three affirmative consent communication behaviors (18 items total). Factor analysis demonstrated that the measure was unidimensional. These items held together reliably for nonverbal signals of interest (α = .88), initiating sexual behaviors (α = .86), and verbal communication of consent (α = .88). Individual scores on the six perceived behavioral control items were averaged for each of the consent factors in order to create individual mean scores on the construct.

**Intentions.** In the T1 survey, intentions to engage in each of the three affirmative consent communicative behaviors (i.e., nonverbal, initiator, verbal) were measured using four items (12 items total). Factor analysis demonstrated that the measure was unidimensional. These items hold together reliably for nonverbal signals of interest ($\alpha$ = .86), initiating sexual behaviors ($\alpha$ = .90), and verbal communication of consent ($\alpha$ = .89). Therefore, individual scores on the four intention items were averaged for each of the consent factors in order to create individual mean scores on the construct.

**Affirmative sexual consent behavior.** In the T2 survey, affirmative sexual consent behavior was measured using two self-report items for each of the three affirmative consent communication behaviors (6 items total). Using self-report does not assure validity as much as observation methods (Ajzen, 2002), but direct observation of sexual consent is not realistic or possible. These items were positively and significantly correlated for nonverbal signals of interest ($r$ = .78, $p$ < .001), initiating sexual behaviors ($r$ = .78, $p$ < .001), and verbal communication of consent ($r$ = .78, $p$ < .001). Therefore, individual scores on the two behavior items were averaged for each of the consent factors in order to create individual mean scores on the construct.

## Moderation Group Selection Procedures

Three individual variables (i.e., participant sex, sexual self-esteem, and sexual assertiveness), two dyadic variables (i.e., partner type and type of sexual activity), and two environmental variables (i.e., new or serial sexual partner and alcohol consumption) were examined as potential moderators of the paths in the TPB model. Participant sex and partner type were measured at T1, while sexual self-esteem, sexual assertiveness, type of sexual activity, new or serial sexual partner, and alcohol consumption were

measured at T2. AMOS only allows for the comparison of two discrete groups when performing multiple group modeling. The process for creating these dichotomous variables is explained in detail below.

**Individual Moderator Variables**

For the final analysis, the sample was divided based on participant sex (individual moderator variable): female ($n$ = 127; 56.4%) and male ($n$ = 98; 43.6%). The two additional individual moderators required modifications in order to fit the necessary criteria. Participant sex was collected at T1.

Sexual self-esteem (SSE) was measured using a 10-item subscale of Snell and Papini's (1989) Sexuality Scale. Sample items included, "I would rate my sexual skill quite highly" and "I am better at sex than most other people." The items were rated on a 1 = *strongly disagree* to 5 = *strongly agree* scale. Reliability results for this subscale produced a Cronbach's alpha of 93. Five of the items were reverse coded (e.g., "I am very confident about my sexual skill").

Using a median split method (Icobucci, Psavac, Kardes, Schneider, & Popovich, 2015), sexual self-esteem scores were categorized into two groups: high SSE and low SSE. Any value below the median (i.e., 3.70) was put in the "low SSE" group ($n$ = 109), and every value above it was labeled "high SSE" ($n$ = 116). Sexual self-esteem items were measured at T2.

Sexual Assertiveness (SA) (Hurlbert, 1991; Pierce & Hurlbert, 1999) was measured using a shortened version of the Hurlburt Index of Sexual Assertiveness. Fifteen of the items on the 25-item scale were used to evaluate how open and comfortable participants' were with communicating about their sexuality in a particular relationship.

Items that related to sexual initiation (e.g., "I approach my partner for sex when I desire it") and no shyness (e.g., "I feel that I am shy when it comes to sex") were included in the study. The items were rated on a 1 = *strongly disagree* to 5 = *strongly agree* scale with higher scores indicating greater levels of sexual assertiveness. Eight of the items were reverse coded. Reliability results produced a Cronbach's alpha of .86 for all participants.

Using a median split method (Icobucci et al., 2015), sexual assertiveness scores were categorized into two groups: high SA and low SA. Any value below the median (i.e., 2.60) was put in the "low SA" group ($n$ = 109), and every value above it was labeled "high SA" ($n$ = 116). Sexual assertiveness items were measured at T2.

**Dyadic Moderator Variables**

Partner type included 6 categories (i.e., spouse or domestic partner, boyfriend/girlfriend/significant other, casually dating, a friend, someone they just met, and other. For the final analysis, the sample was divided into two groups based on whether they reported engaging in sexual activity with a romantic or nonromantic partner. Those who indicated that the partner was their spouse, domestic partner, boyfriend, girlfriend or significant other were classified as having engaging in sexual activity with a *romantic partner*. The rest of the sample (i.e., casually dating, friend, someone they just met), excluding those who responded 'other', were classified as having engaged in sexual activity with a *nonromantic partner*. Partner type was measured at T2.

To measure type of sexual activity, participants were provided a list of 8 sexual behaviors and asked to identify all the activities that they engaged in with their partner during their most recent sexual encounter. These behaviors consisted of: 1) kissed/made out with the person; 2) touched the other person's genitals; 3) person touch your genitals;

4) gave this person oral sex; 5) received oral sex from this partner; 6) had vaginal intercourse; 7) had anal intercourse; and, 8) used sex toys such as vibrators and dildos. For the final analysis, the sample was divided into two groups based on whether they reported engaging in *intercourse* (i.e., vaginal and/or anal) or other *sexual activities only*. Type of sexual activity engaged in during the sexual interaction was measured at T2.

**Environmental/Contextual Moderator Variables**

The sample was divided into two groups based on whether the participant reported engaging in sexual activity with a *new partner* (i.e., for the first time) (*n* = 54; 24%) or with a *serial sexual partner* (i.e., had engaged in sexual activity with this person as least once in the past) (*n* = 170; 75.6%). One person did not answer this question. New or serial sexual partner was measured at T2.

Alcohol use was measured using 4 categories: 1) only you consumed alcohol (*n* = 11; 4.9%); 2) only your partner consumed alcohol (n = 5; 2.2%); 3) both you and your partner consumed alcohol (*n* = 69; 30.7%); and, 4) Neither of you consumed alcohol (*n* = 140; 62.2%). For the final analysis, the sample was divided into two groups based on whether they reported that *alcohol was consumed* (i.e., by themselves, their partner, or both) (*n* = 85) or *did not consume alcohol* (*n* = 140). Alcohol use during sexual activity was measured at T2. Descriptive statistics for sexual self-esteem, sexual assertiveness, and partner type, type of sexual activity, new or serial sexual partner, and alcohol consumption are provided in Table 5.

Table 5

*Characteristics of Participants' Most Recent Sexual Event N = 225*

| Characteristics of Most Recent Sexual Event | % | n |
|---|---|---|
| Person they engaged in sexual activity with (T1) | | |
| My spouse or domestic partner | .4 | 1 |
| My boyfriend, girlfriend, or significant other | 47.1 | 106 |
| Someone I am casually dating/hanging out with | 24 | 54 |
| A friend | 14.7 | 33 |
| Someone I just met | 12 | 27 |
| Other | 1.8 | 4 |
| Type of sexual activities engaged in (check all that apply) (T2) | | |
| I kissed/made out with the person | 57.8 | 130 |
| I touched the person's genitals | 37.3 | 84 |
| This person touched my genitals | 41.3 | 93 |
| I gave this person oral sex | 27.1 | 61 |
| This person gave me oral sex | 26.2 | 59 |
| I had vaginal intercourse | 36.9 | 83 |
| I had anal intercourse | 4.4 | 10 |
| I used sex toys such as vibrator and dildos with this person | 2.2 | 5 |
| Prior sexual activity with this person (T2) | | |
| Yes | 75.6 | 170 |
| No | 24 | 54 |
| Missing | 0.4 | 1 |
| Alcohol use prior to the sexual event (T2) | | |
| We both did | 30.7 | 69 |
| Just I did | 4.9 | 11 |
| Just my partner did | 2.2 | 5 |
| Neither of us did | 62.2 | 140 |

# CHAPTER 4

# RESULTS

The results section begins with a series of independent samples t-tests used to identify the significant differences, if any, on the variables of interest (i.e., TPB constructs) between those who completed only one of the surveys (i.e., T1 only or T2 only) and those who completed both surveys. In addition, independent samples t-tests used to identify significant differences, if any, on the variables of interest between those who completed both surveys and reported engaging in sexual activity between survey completions and those who completed both survey and reported no sexual activity between survey completions. Second, correlation tests were used to confirm the theorized relationships between the TPB variables.

Next, the results are presented in the order of the hypotheses and research questions. To address hypothesis 1, 2, and 3, path analyses were conducted to test the overall fit of the three TPB models: 1) nonverbal signals of consent; 2) initiating sexual behaviors); and 3) verbal communication of consent. To address research questions 1a-g, 2a-g, and 3a-g, multiple group moderation analyses were conducted to analyze categorical (grouped) moderators including participant sex, relationship type, partner type, type of sexual activity engaged in, new or serial sexual partner, sexual self-esteem and sexual assertiveness for all three affirmative consent models. The results will now turn to the descriptive statistics for the final analytic sample.

## Test of Group Differences

A series of t-tests were conducted to analyze whether participants who completed both T1 and T2 surveys ($n$ = 225) differed in their attitudes, subjective norms, perceived

behavioral control, and intentions on the three sexual consent factors (i.e., nonverbal, initiating, verbal) from those who completed the T1 survey only.

Those who completed both surveys reported significantly higher perceived behavioral control on nonverbal, $t(820) = -2.96$, $p < .01$, $\eta^2 = .01$ ($M_{both} = 5.77$, $SD_{both} = 1.11$; $M_{T1\ only} = 5.48$, $SD_{T1\ \text{only}} = 1.28$), initiating, $t(818) = -3.83$, $p < .001$, $\eta^2 = .02$ ($M_{both} = 5.58$, $SD_{both} = 1.18$; $M_{T1\ only} = 5.19$, $SD_{T1\ \text{only}} = 1.32$), and verbal consent, $t(820) = -2.35$, $p < .05$, $\eta^2 = .01$ ($M_{both} = 5.71$, $SD_{both} = 1.28$; $M_{T1\ only} = 5.47$, $SD_{T1\ \text{only}} = 1.27$) behaviors than those who only completed the T1 survey. This indicates that the groups differed significantly on this variable for all three consent behaviors.

For initiating sexual behaviors, those who completed both surveys reported significantly more positive norms, $t(818) = -2.37$, $p < .05$, $\eta^2 = .01$ ($M_{both} = 5.31$, $SD_{both} = 1.35$; $M_{T1\ only} = 5.05$, $SD_{T1\ \text{only}} = 1.39$), and significantly more intention to engage in the behavior, $t(810) = -2.27$, $p < .05$, $\eta^2 = .01$ ($M_{both} = 5.25$, $SD_{both} = 1.39$; $M_{T1\ only} = 4.99$, $SD_{T1\ \text{only}} = 1.45$) than those who only completed the T1 survey. This indicates that the groups differed significantly on these variables for initiating consent only.

There were no significant differences between the groups on their attitudes toward the three affirmative consent behaviors. There were no significant differences in intentions to engage in nonverbal and verbal affirmative sexual consent between the groups.

It is unclear as to why these differences were found. Because these variables were measured at T1, it may be that those with low scores on these variables were not as comfortable with the sensitive nature of this topic and chose not to complete the T2 survey.

A series of t-tests were conducted to analyze whether participants who completed both surveys and reported engaging in sexual activity between survey completions (labeled "yes") significantly differed in their attitudes, subjective norms, perceived behavioral control, and intentions from those who reported completing both surveys but did not engage in sexual activity (labeled "no").

Those who engaged in sexual activity between survey completions reported significantly more positive attitudes toward initiating sexual behaviors, $t(323) = -2.41$, $p < .05$, $\eta^2 = .02$ ($M_{yes} = 5.52$, $SD_{yes} = 1.34$; $M_{no} = 5.12$, $SD_{no} = 1.45$).

In addition, those who engaged in sexual activity between survey completions reported significantly more positive subjective norms for nonverbal signals of interest, $t(323) = -3.12$, $p < .01$, $\eta^2 = .03$ ($M_{yes} = 5.53$, $SD_{yes} = 1.35$; $M_{no} = 5.01$, $SD_{no} = 1.49$), initiating sexual behaviors, $t(323) = -3.94$, $p < .001$, $\eta^2 = .05$ ($M_{yes} = 5.34$, $SD_{yes} = 1.34$; $M_{no} = 4.68$, $SD_{no} = 1.55$), and verbal expressions of consent $t(323) = -2.73$, $p < .01$, $\eta^2 = .02$ ($M_{yes} = 5.58$, $SD_{yes} = 1.39$; $M_{no} = 5.10$, $SD_{no} = 1.56$).

Those who engaged in sexual activity between survey completions reported significantly more perceived behavioral control for nonverbal signals of interest, $t(323) = -4.73$, $p < .001$, $\eta^2 = .06$ ($M_{yes} = 5.81$, $SD_{yes} = 1.10$; $M_{no} = 5.14$, $SD_{no} = 1.33$), initiating sexual behaviors, $t(323) = -5.02$, $p < .001$, $\eta^2 = .07$ ($M_{yes} = 5.61$, $SD_{yes} = 1.17$; $M_{no} = 4.85$, $SD_{no} = 1.46$), and verbal expressions of consent, $t(323) = -2.93$, $p < .01$, $\eta^2 = .03$ ($M_{yes} = 5.66$, $SD_{yes} = 1.30$; $M_{no} = 5.19$, $SD_{no} = 1.49$).

Finally, for intentions, those who reported engaging in sexual activity between survey completions reported significantly higher intentions to communicate affirmative sexual consent using nonverbal, $t(323) = -3.26$, $p < .01$, $\eta^2 = .03$ ($M_{yes} = 5.63$, $SD_{yes} =$

1.29; $M_{no}$ = 5.09, $SD_{no}$ = 1.59) and initiating sexual behaviors, $t(323) = -.3.77$, $p < .001$, $\eta^2 = .04$ ($M_{yes}$ = 5.29, $SD_{yes}$ = 1.39; $M_{no}$ = 4.64, $SD_{no}$ = 1.57).

## Correlation Tests

Using SPSS 23, Pearson correlation tests were conducted to demonstrate the predicted theoretical relationships between the TPB variables as well as the relationship (i.e., overlap) among the three consent behaviors used in this study (i.e., nonverbal signals of consent, initiating sexual behaviors, and verbal expressions of consent). Consistent with the TPB, attitudes, subjective norm, and perceived behavioral control were positively and significantly correlated with one another. Also consistent with the TPB, attitudes subjective norm, and perceived behavioral control were positively and significantly related to behavioral intentions. Finally, behavioral intentions and perceived behavioral control were positively and significantly related to actual behavior as predicted by the TPB (see Tables 6, 7, and 8). The three affirmative sexual consent behaviors were significantly correlated, demonstrating a strong relationship between them (see Table 9).

Table 6

*Summary of Inter-Factor Correlations for Scores on Nonverbal Signals of Interest to Communicate Affirmative Sexual Consent Theory of Planned Behavior Constructs: Intentions, Attitudes, Norms, Perceived Behavioral Control and Behavior*

| Measure | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|
| 1. Intentions | --- | | | | |
| 2. Attitudes | .56* | --- | | | |
| 3. Subjective Norms | .77* | .61* | --- | | |
| 4. Perceived Behavioral Control | .75* | .61* | .80* | --- | |
| 5. Actual Behavior | .44* | .37* | .39* | .41* | --- |

*Notes.* * $p < .01$ (one-tailed)

Table 7

*Summary of Inter-Factor Correlations for Scores on Initiating Sexual Behaviors to Communicate Affirmative Sexual Consent Theory of Planned Behavior Constructs: Intentions, Attitudes, Norms, Perceived Behavioral Control and Behavior*

| Measure | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|
| 1. Intentions | --- | | | | |
| 2. Attitudes | .63* | --- | | | |
| 3. Subjective Norms | .72* | .61* | --- | | |
| 4. Perceived Behavioral Control | .75* | .65* | .75* | --- | |
| 5. Actual Behavior | .54* | .42* | .46* | .46* | --- |

*Notes.* * $p < .01$ (one-tailed)

Table 8

*Summary of Inter-Factor Correlations for Scores on Verbal Communication of Affirmative Sexual Consent Theory of Planned Behavior Constructs: Intentions, Attitudes, Norms, Perceived Behavioral Control and Behavior*

| Measure | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|
| 1. Intentions | --- | | | | |
| 2. Attitudes | .50* | --- | | | |
| 3. Subjective Norms | .72* | .55* | --- | | |
| 4. Perceived Behavioral Control | .76* | .55* | .75* | --- | |
| 5. Actual Behavior | .53* | .43* | .40* | .44* | --- |

*Notes.* * $p < .01$ (one-tailed)

Table 9

*Summary of Inter-Factor Correlations for Nonverbal Signals of Interest, Initiating Sexual Behaviors and Verbal Expressions of Affirmative Consent*

| Measure | *1* | *2* | *3* | *4* | *5* |
|---|---|---|---|---|---|
| 1. Nonverbal Signals of Interest | --- | | | | |
| 2. Initiating Sexual Behaviors | .64* | --- | | | |
| 3. Verbal Expressions of Consent | .28* | .45* | --- | | |

*Notes.* * $p < .01$ (one-tailed)

## Theory of Planned Behavior Path Analyses

To test the hypothesized TPB models and paths in the models, three path analyses were conducted using analysis of moment structures (AMOS) statistical software (Arbuckle, 2010; Byrne, 2013) with a maximum-likelihood estimation. Path analysis is an extension of multiple regression, and is common when predicting health behaviors

using the theory of planned behavior (e.g., Blanchard et al., 2009; France, France, & Himawan, 2007; Hagger, Chatzisarantis, & Biddle, 2002). According to Streiner (2005), path analysis "is a powerful statistical technique that allows for more complicated and realistic models than multiple regression with its single dependent variable" (p. 122). Unlike multiple regression where more complex models must be run separately, conducting the path analysis runs the equations simultaneously and interdependently (Lowry & Gaskin, 2014). Therefore, the effects of all the variables are estimated codependent and simultaneously instead of separately (as is the case with multiple regression). Additionally, path analysis provides greater statistical power to detect moderation effects, without the need for large sample sizes (Lowry & Gaskin, 2014).

**Data Analysis Plan**

For this study, three theory of planned behavior models (i.e., path analyses) were specified. The first for nonverbal signals of sexual consent, the second for initiating sexual behaviors, and the third for verbal communication of consent (see Figures 2, 3, and 4 for the hypothesized models). Each model contained 3 exogenous variables (i.e., attitudes, subjective norms, and perceived behavioral control) and 2 endogenous variables (i.e., intentions and behavior). In each case, modeling began with the specification of the initial (TPB) model, including the paths, covariances among exogenous variables, and the variances of the exogenous variables (i.e., attitude, subjective norm, and perceived behavioral control). Significant paths were retained in the model. Then, nonsignificant paths were deleted from the hypothesized model. The goal of this model reduction technique is to achieve the simplest model that explains the most variance in the outcome variable (i.e., behavior) with the fewest number of predictor variables (Kline, 2015).

**Assumptions**. The assumptions were evaluated through SPSS 23. Sample size was determined to be adequate based on recommendations set forth by Kline (2015). The dataset contained 230 total responses. There were complete data for 225 participants on the five variables of interest (i.e., attitudes, norms, perceived behavioral control, intentions, and behavior). Two participants were missing data on attitudes, one participant was missing data on norms, and two participants were missing data on perceived behavioral control. This analysis used complete only cases ($N = 225$). Kline recommends a minimum of 10 participants for every parameter that is estimated, and 20 participants for every parameter, if possible. A maximum of 13 (5 paths + 3 variances of exogenous variables + 3 covariances + 2 error terms) parameters can be estimated in each of the affirmative consent models, resulting in about 17 participants per parameter (13 x 17 = 221). Thus, sample size was adequate.

Data met the assumptions of linearity (i.e., relationships among variables were linear) as determined by observing the scatterplots, and third, singularity (i.e., variance inflation factor less than 10 and tolerance less than .10 indicated that variables were not too correlated) as outlined by Tabachnik & Fidell (2013). In addition, the endogenous variables (i.e., attitude, subjective norms, and perceived behavioral control) were continuous.

Univariate outliers for each of the variables were calculated using z-scores that were calculated for each variable separately. Any value greater than +/= 3.29 ($p < .001$) was flagged as an outlier, and analysis of larger sample sizes is expected to result in some outliers (Tabachnik & Fidell, 2007). Outliers for each of the theory of planned behavior variables ranged from zero to six. In order to preserve as much data as possible, these

were remained in the data for the initial analysis. Then, the path analyses for all three affirmative consent models were run with and without the outliers to determine if there were any substantive changes in the findings. No substantive changes were found when the outliers were included or excluded from the model, and therefore the results reported here will include the outliers.

When conducted path analysis with maximum likelihood estimation, univariate skewness and kurtosis values of 2 and 7 may be problematic (Curran, West, & Finch, 1996). Attitudes, norms, perceived behavioral control, and intentions were significantly negatively univariately skewed (values were above 2). As suggested by Tabachnik and Fidell (2007) and Howell (2007), a logarithmic (Log10) transformation (NEWX = LG10(K – X), with K representing the largest score +1) was used to transform the data. Skewness values after the correction were between -.21 and 1.78 on all variables. Kurtosis values after the correction were between -2.77 and -4.17 on all variables.

**Fit indices for path analysis.** The fit of the TPB models was assessed using common indices, including the chi-square test statistic with associated degrees of freedom and significance level (Joreskog & Sorbom, 1993). The chi-square test measures the difference between the theorized and observed model's covariance matrix. A nonsignificant chi-square test indicates good model fit. Chi-square alone, however, is not sufficient to assess model fit, and has been criticized for sensitivity to issues including sample size, distribution, and assumptions (Brown, 2006; Kline, 2015). Because the chi-square test is commonly used and reported, and is useful when comparing models, it will be reported here. Several other goodness-of-fit indices will also be used to examine the models, including the comparative fit index (CFI: Bentler,

1990), the standardized root mean square residual (SRMR; Tabachnik & Fidell, 2007), and the root mean square error of approximation (RMSEA; Browne & Cudeck, 1993), and the chi-square statistic divided by the degrees of freedom (CMIN/DF) (Bollen, 1989; Carmines & McIver, 1981) were also calculated.

There have been several guidelines offered for fit indices. A CFI value greater than .9 indicated adequate fit, and a CFI value greater than .95 indicated a good fit (Kaplan, 2000). SRMR values below .05 indicate a good fit, and those between .05 and .08 indicate an acceptable fit (Bollen, 1989). RMSEA values below .05 are considered acceptable, between .05 and .08 fair, and values between .08 and .10 indicate a mediocre fit (Kaplan, 2000). Finally, ratios of less than three for CMIN/DF represent a good fit. Examining $R^2$ assessed predictive power of intention and behavior for each of the models.

**Nonverbal Signals of Interest (H1)**

Hypothesis one predicted that theory of planned behavior variables would accurately predict the extent to which college students used nonverbal signals of interest to indicate their consent to engage in sexual activity at their most recent sexual event. The AMOS (Arbuckle, 2010) package within SPSS was used to test the hypothesized model. The AMOS (Arbuckle, 2010) package within SPSS was used to test the hypothesized model.

First, the path coefficients were examined for the hypothesized nonverbal signals of consent model (see Figure 5). All five of the paths (H1a-e) demonstrated statistical significance and were in the correct direction. In order of strength, subjective norms ($\beta = .41$, $p < .001$), perceived behavioral control ($\beta = .34$, $p < .001$), and attitudes ($\beta = .12$, $p$

< .05), positively and significantly predicted intentions to communicate consent nonverbally. These three predictor variables explained 64% of the variance in behavioral intention.

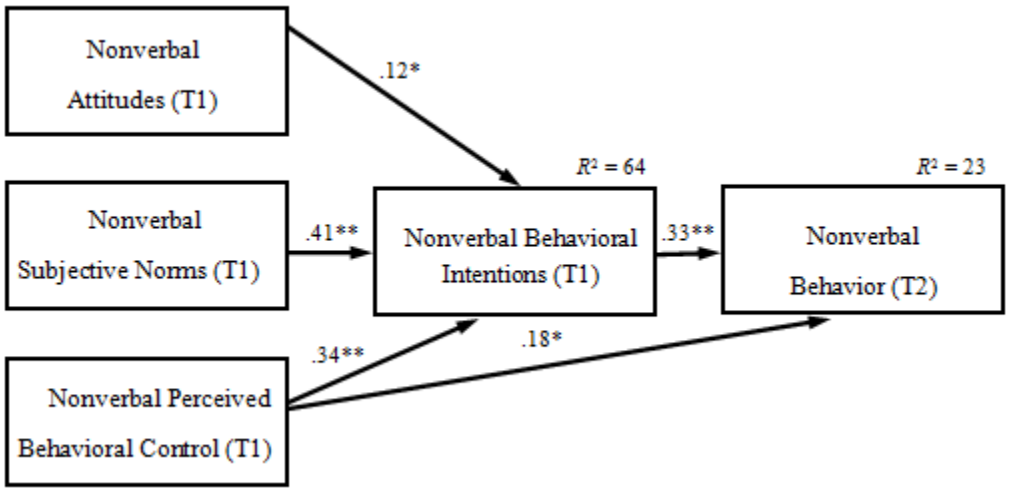


*Figure 5.* Final Theory of Planned Behavior path model for nonverbal signals of interest to communicate affirmative sexual consent with individual path parameters $\chi^2(2) = 3.38$, $p = .185$, CMIN/DF = 1.689, CFI = .998, SRMR = .019, RMSEA = .055. Standardized path coefficients are shown from the model with covariates and error terms omitted. T1 = Time 1 measurement. T2 = Time 2 measurement. *$p < .05$. **$p < .01$.

Both behavioral intentions ($\beta = .33$, $p < .001$) and perceived behavioral control ($\beta = .18$, $p < .05$) were positive and significant predictors of behavior. Together, these predictors explained 23% of the variance in behavior.

No modifications were performed because all of the paths were in the correct direction and statistically significant. Also, the model indicated good overall fit. Second, results indicated a good overall fit between the data and the theory of planned behavior model: $\chi^2$ (2) = 3.38, $p = .185$, CFI = .998, SRMR = .019, RMSEA = .055, and CMIN/DF = 1.689 (see Figure 5).

**Initiating Sexual Behaviors (H2)**

Hypothesis two stated that the theory of planned behavior would accurately predict the extent to which college students used initiating behaviors to indicate their consent to engage in sexual activity at their most recent sexual event. The AMOS (Arbuckle, 2010) package within SPSS was used to test the hypothesized model.

First, the path coefficients were examined for the hypothesized initiating sexual behaviors model (see Figure 6). Four of the five paths (H2a, b, c, and e) demonstrated statistical significance and were in the correct direction. In order of strength, perceived behavioral control ($\beta = .41$, $p < .001$), subjective norms ($\beta = .33$, $p < .001$), and attitudes ($\beta = .13$, $p < .05$) positively and significantly predicted intentions to communicate consent using initiating behaviors. These three predictors explained 63% of the variance in behavioral intention.

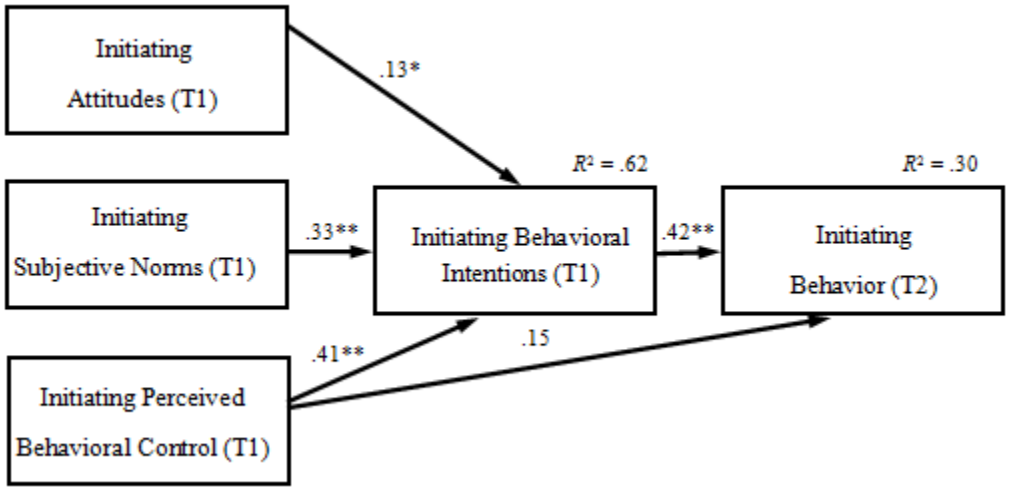


*Figure 6.* Hypothesized Theory of Planned Behavior path model for initiating sexual behaviors to communicate affirmative sexual consent, with individual path parameters, $\chi^2(2) = 5.72$, $p = .057$, CMIN/DF = 2.858, CFI = .994, SRMR = .026, RMSEA = .091. Standardized path coefficients are shown from the model with covariates and error terms omitted. T1 = Time 1 measurement. T2 = Time 2 measurement. *$p < .05$. **$p < .01$.

Perceived behavioral control was in the hypothesized direction, however was not a significant predictor of behavior (β = .15, $p$ = .07) (H2d), which is not consistent with the theory. Behavioral intentions were the only significant predictor of behavior in the model (β = .42, $p$ < .001), and explained 30% of the variance in behavior.

The nonsignificant path between perceived behavioral control and behavior was removed. The final model indicated adequate fit: $\chi^2(3) = 8.90$, $p$ = .031, CFI = .990, SRMR = .041, RMSEA = .094, and CMIN/DF = 2.965, and strengthened the intention behavior path coefficient (β = .54, $p$ < .001) (See Figure 6 for the hypothesized model and Figure 7 for the final model).

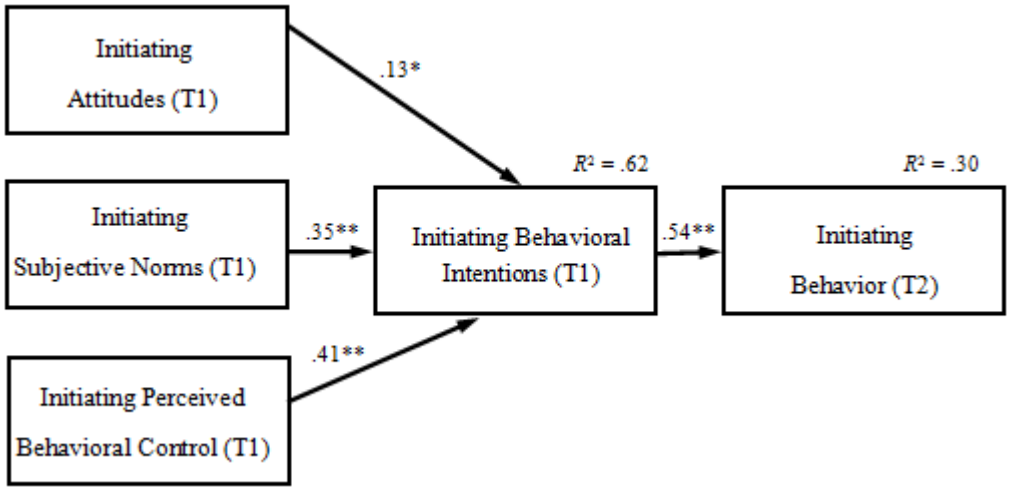


*Figure 7.* Final Theory of Planned Behavior path model for initiating sexual behaviors to communicate affirmative sexual consent, with individual path parameters, $\chi^2(3) = 8.90$, $p$ = .031, CMIN/DF = 2.965, CFI = .990, SRMR = .041, RMSEA = .094. Standardized path coefficients are shown from the model with covariates and error terms omitted. T1 = Time 1 measurement. T2 = Time 2 measurement. *$p$ < .05. **$p$ < .01.

**Verbal Expressions of Consent (H3)**

Hypothesis three stated that the theory of planned behavior would accurately predict the extent to which college students used verbal communication to indicate their

consent to engage in sexual activity at their most recent sexual event. The AMOS (Arbuckle, 2010) package within SPSS was used to test the hypothesized model.

First, the path coefficients were examined for the verbal communication of consent model (see Figure 8). Four of the five paths (H3b, c, d, and e) demonstrated statistical significance and were in the correct direction. In order of strength, perceived behavioral control (β = .48, $p < .05$), and subjective norms (β = .37, $p < .001$) positively and significantly predicted intentions to communicate consent using verbal communication. Attitudes were not a significant predictor of behavioral intentions (β = .05, $p > .05$), which is not consistent with the theory. These predictors explained 64% of the variance in behavioral intention.

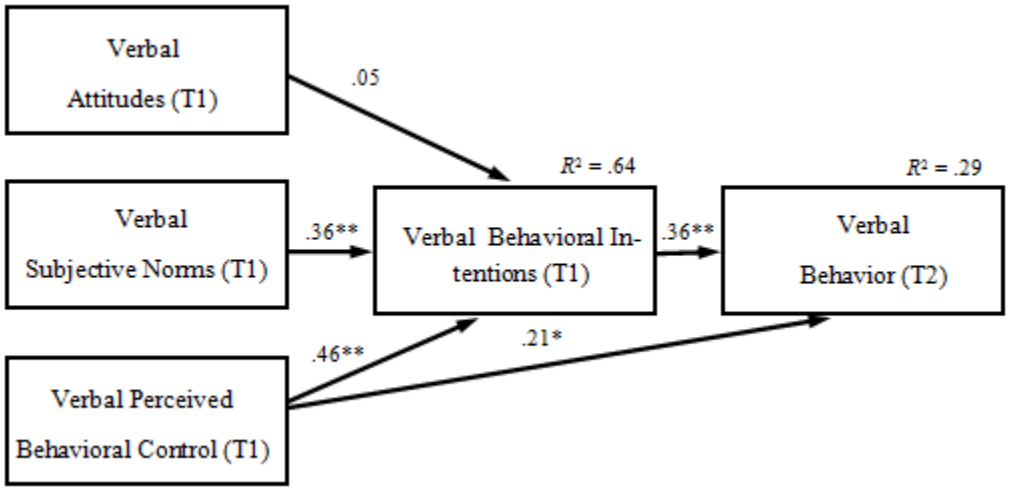


*Figure 8.* Hypothesized Theory of Planned Behavior path model for verbal communication of affirmative sexual consent, with individual path parameters $\chi^2(2) = 8.63$, $p = .013$, CMIN/DF = 4.317.CFI = .989, SRMR = .034, RMSEA = .122. Standardized path coefficients are shown from the model with covariates and error terms omitted. T1 = Time 1 measurement. T2 = Time 2 measurement.
*$p < .05$. **$p < .01$.

Perceived behavioral control (β = .21, $p < .05$) and behavioral intentions (β = .36, $p < .001$) were positive and significant predictors of behavior in the model. These two predictors explained 29% of the variance in behavior.

The nonsignificant path between attitudes and intentions was removed. The final model indicated excellent fit: $\chi^2(1) = .106$ $p = .745$, CFI = 1.00, SRMR = .004, RMSEA = .000, CMIN/DF = .106 (see Figure 8 for the hypothesized model and Figure 9 for the final model).

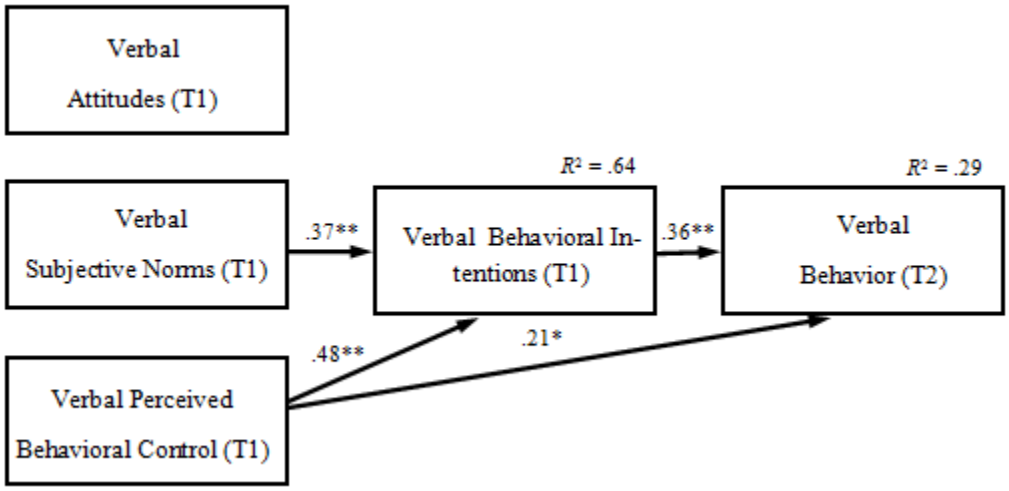


*Figure 9.* Final Theory of Planned Behavior path model for verbal communication of affirmative sexual consent, with individual path parameters, $\chi^2(1) = .106$, $p = .745$, CMIN/DF = .106, CFI = 1.000, SRMR = .004, RMSEA = .000. Standardized path coefficients are shown from the model with covariates omitted. T1 = Time 1 measurement. T2 = Time 2 measurement. *$p < .05$. **$p < .01$.

The fit statistics and $R^2$ values for each of the three hypothesized models are shown in Table 10, and for each of the final models in Table 11. Path coefficients for each of the hypothesized models are shown in Table 12, and for each of the final models in Table 13.

Table 10

*Fit Indices for the Hypothesized Theory of Planned Behavior Models*

| | Nonverbal TPB | Initiating TPB | Verbal TPB |
|---|---|---|---|
| Fit | | | |
| $\chi^2$(df) | 3.38(2) | 5.72(2) | 8.63(2) |
| *p* | .185 | .057 | .013 |
| CMIN/DF | 1.689 | 2.858 | 4.317 |
| CFI | .998 | .994 | .989 |
| SRMR | .019 | .026 | .034 |
| RMSEA | .055 | .091 | .122 |
| Intention $R^2$ | .64 | .62 | .64 |
| Behavior $R^2$ | .23 | .30 | .29 |

Table 11

*Fit Indices for the For the Final Theory of Planned Behavior Models*

| | Nonverbal TPB | Initiating TPB | Verbal TPB |
|---|---|---|---|
| Fit | | | |
| $\chi^2$(df) | 3.38(2) | 8.90(3) | .106(1) |
| *p* | .185 | .031 | .745 |
| CMIN/DF | 1.689 | 2.965 | .106 |
| CFI | .998 | .990 | 1.000 |
| SRMR | .019 | .041 | .004 |
| RMSEA | .055 | .094 | .000 |
| Intention $R^2$ | .64 | .62 | .64 |
| Behavior $R^2$ | .23 | .30 | .29 |

Table 12

*Unstandardized Path Coefficients, Standard Errors, and Standardized Paths for Each of the Hypothesized Theory of Planned Behavior Models*

| | Nonverbal TPB | | | Initiator TPB | | | Verbal TPB | | |
|---|---|---|---|---|---|---|---|---|---|
| | B | SE | β | B | SE | β | B | SE | β |
| Path | | | | | | | | | |
| Attitude--Intention | .12* | .05 | .12 | .12* | .05 | .13 | .06 | .05 | .05 |
| Norms—Intention | .39** | .07 | .41 | .32** | .06 | .33 | .37** | .07 | .36 |
| PBC—Intention | .37** | .08 | .34 | .46** | .08 | .41 | .51** | .07 | .46 |
| Intention—Behavior | .36** | .10 | .33 | .46** | .09 | .42 | .40** | .09 | .36 |
| PBC—Behavior | .23* | .11 | .18 | .19 | .10 | .15 | .25* | .10 | .21 |

*Notes.* * $p < .05$, ** $p < .01$.

Table 13

*Unstandardized Path Coefficients, Standard Errors, and Standardized Paths for Each of the Final Theory of Planned Behavior Models*

| | Nonverbal TPB | | | Initiator TPB | | | Verbal TPB | | |
|---|---|---|---|---|---|---|---|---|---|
| | B | SE | β | B | SE | β | B | SE | β |
| Path | | | | | | | | | |
| Attitude--Intention | .12* | .05 | .12 | .12* | .05 | .13 | --- | --- | --- |
| Norms—Intention | .39** | .07 | .41 | .32** | .06 | .33 | .39** | .06 | .37 |
| PBC—Intention | .37** | .08 | .34 | .46** | .08 | .41 | .53** | .07 | .48 |
| Intention—Behavior | .36** | .10 | .33 | .59** | .06 | .54 | .40** | .09 | .36 |
| PBC—Behavior | .23* | .11 | .18 | --- | --- | --- | .25* | .10 | .21 |

*Notes.* In the final Initiator TPB model, the nonsignificant path was omitted: PBC—Behavior. In the final Verbal TPB model, the nonsignificant path was omitted: Attitude—Intention. * $p < .05$, ** $p < .01$.

## Theory of Planned Behavior Moderation Models

In order to explore the distinct difference in the proportion of variance explained in intentions and behavior (i.e., nonverbal signals of interest, initiating sexual behaviors, verbal expressions of consent), seven variables were assessed as moderators of the intention-behavior path coefficient. All other paths in the TPB (i.e., attitude-intention, norms-intentions, perceived control-intention, and perceived control-behavior) were also investigated for the effect of the moderator variables on the strength of each path in all three affirmative sexual consent models.

The following section will outline group selection for the moderator variables, the data analysis plan for the multiple group moderation, as well as present the results for all three affirmative consent models. The moderators under investigation include participant sex, partner type, type of sexual activity, new or serial sexual partner, alcohol consumption, sexual self-esteem and sexual assertiveness.

### Data Analysis Plan

Multigroup invariance was tested (Byrne, 2004) using AMOS statistical software (Arbuckle, 2010; Byrne, 2013) to address research questions $1_{a\text{-}g}$, $2_{a\text{-}g}$, and $3_{a\text{-}g}$. AMOS was used for this analysis because it provides a built-in design feature that assists with multiple group analyses (Byrne, 2004, 2013). The same goodness-of-fit indices and guidelines used for the path analysis were used for the multiple group moderation, with the exception of the RMSEA. For the multiple group moderation, the RMSEA was corrected by multiplying it by the square root of k groups (Steiger, 1998).

To test for multigroup invariance, each of the affirmative consent models were fit simultaneously to both groups (e.g., men and women) for each of the moderator

variables; first, allowing all parameters to vary across groups (i.e., unconstrained model); and, second, constraining the factor loadings, regression weights and covariances (i.e., constrained model). The chi-square difference test was used to compare the unconstrained and constrained models. A significant chi-square difference test indicated that the variable moderated one or more paths in the models.

To identify the paths that were significantly changed by the moderator variables, the moderation model was used, and a path was constrained to be equal for both groups. Then, the fit of this model was compared to the fit of the moderation model. If the difference between the models was significant, as indicated by the chi-square difference test, it was concluded that the variable under investigation moderated the path. This was done separately for each of the TPB paths (i.e., attitude—intention, subjective norm—intention, perceived behavioral control—intention, perceived behavioral control—behavior, and intention—behavior). In sum, the multiple group invariance analysis consisted of three (i.e., nonverbal, initiator, verbal) moderation models, and an examination of the 5 path coefficients for potential moderation by each of the 7 discrete variables (i.e., sex, partner type, sexual activity type, new or serial sexual partner, alcohol, sexual self-esteem, and sexual assertiveness).

**Nonverbal Signals of Interest (RQ 1a-g)**

**Individual moderator variables.** Participant sex (RQ1a; female/male) moderated one of the structural parameters in the model. The association between norms and intentions was significantly stronger for men ($\beta = .65$, $p < .001$) than for women ($\beta = .26$, $p < .001$).

Sexual self-esteem (RQ1b; high/low) moderated two of the structural parameters. The association between norms and intention was significantly stronger for those with high SSE ($\beta = .59$, $p < .001$) than those with low SSE ($\beta = .17$, $p = .08$). The association between perceived behavioral control and intention was significantly stronger for those with low SSE ($\beta = .55$, $p < .001$) than those with high SSE ($\beta = .17$, $p = .15$).

For sexual assertiveness (RQ1c; high/low), the constrained and unconstrained models were not significantly different, indicating that this variable did not moderate any of the paths in the model.

**Dyadic moderator variables.** Neither of the dyadic variables: 1) partner type (RQ1d; romantic/nonromantic); and, 2) type of sexual activity (RQ1e; intercourse/no intercourse) moderated paths in the model.

**Environmental moderator variables.** Engaging in sexual activity with the partner prior to the most recent sexual event (RQ1f; new partner/serial partner) moderated two of the structural parameters in the model. The association between perceived behavioral control and behavior was significantly stronger for those who engaged in sexual activity with a serial partner ($\beta = .81$, $p < .05$) than for those who engaged in sexual activity with a new partner ($\beta = .15$, $p = .21$). The association between intention and behavior was significantly stronger for new partners ($\beta = .45$, $p < .001$) than for serial partners ($\beta = .22$, $p = .45$).

Alcohol consumption (RQ1g; yes/no) moderated one of the structural parameters in the model. The association between perceived behavioral control and intentions was significantly stronger for those who did not consume alcohol ($\beta = .51$, $p < .05$) than for those who did consume alcohol ($\beta = .24$, $p = .62$).

See Table 13 for fit indices, $\Delta\chi^2$ difference results and variance explained in behavioral intentions and behavior for the individual, dyadic, and environmental moderation models for nonverbal signals of consent.

Table 14

*Fit Indices and Chi-Square Difference Test Statistics for the Moderation Models for Nonverbal Signals of Interest to Communicate Affirmative Sexual Consent*

| | RQ1a* | RQ1b* | RQ1c | RQ1d | RQ1e | RQ1f* | RQ1g* |
|---|---|---|---|---|---|---|---|
| Fit | | | | | | | |
| $\chi^2$(df) | 5.74(4) | 1.52(4) | 1.83(4) | 6.49(4) | 8.41(4) | 6.23(4) | 4.57(4) |
| *p* | .219 | .824 | .767 | .166 | .078 | .183 | .334 |
| CMIN/DF | 1.436 | .379 | .458 | 1.621 | 2.104 | 1.558 | 1.143 |
| CFI | .997 | 1.000 | 1.000 | .996 | .993 | .997 | .999 |
| SRMR | .021 | .004 | .009 | .015 | .014 | .025 | .033 |
| RMSEA | .062 | .000 | .000 | .074 | .099 | .071 | .035 |
| $\Delta\chi^2$ ($\Delta$df) | 11.06(5) | 11.34(5) | 10.77(5) | 8.59(5) | 3.42(5) | 11.82(5) | 13.17(5) |
| *p* | < .05 | < .05 | .06 | .13 | .64 | < .05 | < .05 |
| Intention $R^2$ | .73/.58 | .67/.64 | .69/.63 | .67/.62 | .62/.70 | .57/.88 | .63/.67 |
| Behavior $R^2$ | .29/.17 | .30/.16 | .27/.19 | .16/.37 | .25/.20 | .25/.24 | .08/.35 |

*Notes*. a = participant sex (male/female), b = sexual self-esteem (high/low), c = sexual assertiveness (high/low), d = relationship type (romantic/nonromantic), e = type of sexual behavior (intercourse/no intercourse), f = new/serial sexual partner; g = alcohol use (yes/no). * designates that the unconstrained model fit the data significantly better than the constrained model, therefore the variable moderated one or more structural parameters in the model.

**Initiating Sexual Behaviors (RQ 2a-g)**

**Individual moderator variables.** Participant sex (RQ2a; female/male) and sexual assertiveness (RQ2c; high/low) did not moderate any of the paths in the initiating sexual behaviors model.

Sexual self-esteem (RQ2b; high/low) moderated one of the structural parameters. The association between norms and intention was significantly stronger for those with high SSE ($\beta = .54$, $p < .001$) than those with low SSE ($\beta = .09$, $p = .33$).

**Dyadic moderator variables.** Partner type (RQ2d; romantic/nonromantic) and type of sexual activity (RQ2e; intercourse/no intercourse) did not moderate any of the paths in the model.

**Environmental moderator variables.** Prior sexual experience with partner (RQ2f; new/serial sexual partner), and alcohol consumption (RQ2g; yes/no) did not moderate any of the paths in the model.

See Table 14 for fit indices, $\Delta\chi^2$ difference results and variance explained in behavioral intentions and behavior for the individual, dyadic, and environmental moderation models for initiating sexual behaviors.

Table 15

*Fit Indices for the Moderation Models for Initiating Sexual Behaviors to Communicate Affirmative Sexual Consent*

| | RQ2a | RQ2b* | RQ2c | RQ2d | RQ2e | RQ2f | RQ2g |
|---|---|---|---|---|---|---|---|
| Fit | | | | | | | |
| $\chi^2$(df) | 5.46(4) | 5.32(4) | 9.78(4) | 5.94(4) | 11.31(4) | 6.56(4) | 6.08(4) |
| *p* | .243 | .256 | .044 | .204 | .023 | .161 | .193 |
| CMIN/DF | 1.365 | 1.329 | 2.445 | 1.485 | 2.827 | 1.639 | 1.520 |
| CFI | .998 | .998 | .999 | .997 | .988 | .996 | .997 |
| SRMR | .016 | .024 | .007 | .026 | .026 | .025 | .021 |
| RMSEA | .056 | .054 | .114 | .066 | .128 | .076 | .068 |
| $\Delta\chi^2$ ($\Delta$df) | 3.87(5) | 14.14(5) | 9.36(5) | 1.98(5) | 3.07(5) | 6.53(5) | 3.68(5) |
| *p* | .57 | < .05 | .10 | .85 | .69 | .26 | .60 |
| Intention $R^2$ | .73/.52 | .67/.59 | .59/.64 | .68/.54 | .58/.68 | .55/.82 | .54/.66 |
| Behavior $R^2$ | .36/.25 | .36/.23 | .41/.19 | .23/.38 | .31/.29 | .29/.32 | .17/.39 |

*Notes*. a = participant sex (male/female), a = participant sex (male/female), b = sexual self-esteem (high/low), c = sexual assertiveness (high/low), d = relationship type (romantic/nonromantic), e = type of sexual behavior (intercourse/no intercourse), f = new/serial sexual partner; g = alcohol use (yes/no). * designates that the unconstrained model fit the data significantly better than the constrained model, therefore the variable moderated one or more structural parameters in the model.

**Verbal Expressions of Consent (RQ 3a-g)**

**Individual moderator variables.** Participant sex (RQ3a; female/male) did not moderate any of the paths in the verbal communication of consent model.

Sexual self-esteem (RQ3b; high/low) moderated two structural parameters. The association between norms and intention was significantly stronger for those with high SSE ($\beta = .64$, $p < .001$) than those with low SSE ($\beta = .10$, $p = .24$). The association between perceived behavioral control and intention was significantly stronger for those with low SSE ($\beta = .77$, $p < .001$) than those with high SSE ($\beta = .21$, $p < .05$).

Sexual assertiveness (RQ3c; high/low) moderated two of the structural paths. The association between norms and intention was significantly stronger for those with high sexual assertiveness ($\beta = .63$, $p < .001$) than those with low sexual assertiveness ($\beta = .19$, $p < .05$). The association between perceived behavioral control and intention was significantly stronger for those with low sexual assertiveness ($\beta = .70$, $p < .001$) than those with high sexual assertiveness ($\beta = .32$, $p < .001$).

**Dyadic moderator variables.** Partner type (RQ3d; romantic/nonromantic) and type of sexual activity (RQ3e; intercourse/no intercourse) did not moderate any of the paths in the model.

**Environmental moderator variables.** Prior sexual experience with partner (RQ3f; new/serial sexual partner), and alcohol consumption (RQ3g; yes/no) did not moderate any of the paths in the model.

See Table 15 for fit indices, $\Delta\chi^2$ difference results and variance explained in behavioral intentions and behavior for the individual, dyadic, and environmental moderation models for verbal communication of consent.

Table 16

*Fit Indices for the Moderation Models for Verbal Communication of Affirmative Sexual Consent*

| | RQ3a | RQ3b* | RQ3c* | RQ3d | RQ3e | RQ3f | RQ3g |
|---|---|---|---|---|---|---|---|
| Fit | | | | | | | |
| $\chi^2$(df) | 10.56(4) | 8.46(4) | 7.00(4) | 7.82(4) | 12.18(4) | 15.16(4) | 9.49(4) |
| *p* | .032 | .076 | .136 | .098 | .016 | .004 | .050 |
| CMIN/DF | 2.641 | 2.115 | 1.749 | 1.956 | 3.044 | 3.791 | 2.372 |
| CFI | .989 | .993 | .995 | .993 | .987 | .980 | .991 |
| SRMR | .046 | .026 | .029 | .037 | .026 | .032 | .019 |
| RMSEA | .121 | .100 | .082 | .092 | .135 | .158 | .110 |
| $\Delta\chi^2$ ($\Delta$df) | 7.50(5) | 14.20(5) | 26.35 | 3.23(5) | 9.31(5) | 5.64(5) | .94(5) |
| *p* | .19 | < .05 | < .001 | .66 | .11 | .34 | .97 |
| Intention $R^2$ | .71/.60 | .65/.69 | .63/.66 | .68/.60 | .55/.79 | .59/.79 | .61/.66 |
| Behavior $R^2$ | .35/.26 | .40/.19 | .29/.25 | .24/.33 | .35/.23 | .25/.44 | .27/.31 |

*Notes* a = participant sex (male/female a = participant sex (male/female), b = sexual self-esteem (high/low), c = sexual assertiveness (high/low), d = relationship type (romantic/nonromantic), e = type of sexual behavior (intercourse/no intercourse), f = new/serial sexual partner; g = alcohol use (yes/no). * designates that the unconstrained model fit the data significantly better than the constrained model, therefore the variable moderated one or more structural parameters in the model.

## Summary

In this chapter, correlation tests, and t-tests for group differences were presented. To address the hypotheses, path analyses were conducted, and to address the research questions, multiple group analyses were conducted. In the final chapter, the overall study findings will be discussed, the theoretical implications and practical/applied implications, limitations, and future directions for behavioral research on this topic and its contribution the discipline will be discussed.

# CHAPTER 5

# STUDY FINDINGS AND DISCUSSION

## Summary and Discussion of the Findings

The current study represents the first attempt to predict college students' communication of affirmative sexual consent using nonverbal signals, initiating behaviors, and verbal expressions using the Theory of Planned Behavior (Ajzen, 1985, 1991). The results of the current study provide insight about the antecedents to students' consent behaviors, and extends the theory of planned behavior to the prediction of college students' communication of affirmative sexual consent. It also provides preliminary evidence of the moderating effects of individual (i.e., biological sex, sexual self-esteem, and sexual assertiveness) and environmental/contextual (i.e., new or serial sexual partner and alcohol consumption) on the relationships between TPB constructs.

This chapter will first provide a summary, discussion, and interpretation of the findings for the theory of planned behavior path analyses for all three affirmative sexual consent behavior, as well as for the multiple group moderation analyses of individual, dyadic, and environmental/contextual variables; second, discuss the theoretical and applied/practical implications of the findings; and, lastly will address the study's limitations and opportunities for future research.

### Summary and Discussion of Path Analyses

This study had a dual purpose. The first was to longitudinally test the extent to which the Theory of Planned Behavior (Ajzen, 1985, 1991) predicts college students' communication of three affirmative sexual consent behaviors: 1) nonverbal signals of interest; 2) initiating sexual behaviors; and, 3) verbal communication. At Time 1 (T1)

students reported on their attitudes, subjective norms, and perceived behavioral control regarding the three affirmative sexual consent behaviors, as well as their intentions to use each of the behaviors to communicate affirmative sexual consent to their partner(s) in the next month. At Time 2 (T2)—30 days later—students reported on their actual affirmative sexual consent behaviors during sexual activity since completing the T1 survey. Three path analyses tested the ability of the TPB to predict college students' communication of nonverbal signals of interest, initiating behaviors, and verbal communication.

The behavior under investigation was college students' communication of affirmative sexual consent (i.e., nonverbal, initiating, and verbal) to their partner during sexual activity in the next 30 days. The overall findings confirmed the predictive ability of the theory of planned behavior. Attitudes, subjective norms, and perceived behavioral control explained over 60% of the variance in students' intention to communicate affirmative consent using nonverbal, initiating, and verbal expressions. This is a very large effect, and larger than what has been reported by several meta-analytic reviews of the theory of planned behavior (e.g., Godin & Kok, 1996; Randall & Wolff, 1994; Sheppard, Hartwick, & Warshaw, 1988). These reviews report that attitudes, subjective norms, and perceived control explain between 31% and 50% of the variance in behavioral intentions for other health behaviors (see Godin & Kok, 1996). Behavioral intentions and perceived behavioral control explained over 20% of the variance in students' affirmative sexual consent behavior, also a large effect. These TPB constructs have explained between 19% and 38% of the variance in other health behaviors as demonstrated by

several meta-analytic review of the theory of planned behavior (e.g., Godin & Kok, 1996; Randall & Wolff, 1994; Sheppard et al., 1988).

**Attitudes**. In the current study there was a weak relationship between attitudes and the intention to communicate affirmative sexual consent using nonverbal, initiating, and verbal expressions. This was the case despite the fact that students in the current study reported very positive attitudes toward communicating their consent using all three affirmative consent communication behaviors. Attitude was a significant predictor of students' intention to communicate their consent using initiating behaviors and nonverbal signals of consent, however the relationship between attitudes and intention in these models was the weakest compared to norms and perceived behavioral control. For verbal communication of affirmative sexual consent, attitude did not significantly predict students' intentions to communicate future affirmative sexual consent using verbal expressions. This is an important and interesting finding, and one that is contrary to other studies using the TPB to predict behaviors (see Godin & Kok, 1996). The attitude-behavior relationship has been strongly supported by both the theory of reasoned action and the theory of planned behavior (Ajzen & Fishbein, 1970, 1972, 1973). The weak relationship found between students' attitudes toward communicating affirmative sexual consent and their intention to communicate future affirmative consent suggests that attitudes are less relevant in determining students' consent intentions and subsequent behavior. Thus, students' communication of affirmative consent is largely influenced by factors other than how they evaluate the behavior and its outcomes. College students are exposed to sexual assault prevention programming and messaging more than other populations, and therefore it is likely that they've also been exposed to sexual consent-

related messaging/programming. Therefore, it is likely that they have already formed positive attitudes about communicating affirmative consent because doing so results in positive outcomes such as preventing sexual assault and rape. These attitudes, however, do not strongly predict their actual consent communication, and these students' intentions are more motivated by normative influences and their perceived level of control over communicating affirmative consent.

**Subjective Norms and Perceived Control.** As proposed in the theory of planned behavior (Ajzen, 1991), subjective norms and perceived behavioral control were important predictors of behavioral intentions related to communicating affirmative sexual consent using nonverbal signals of interest, initiating behaviors, and verbal expressions. For this behavior (i.e., communicating affirmative sexual consent), norms and perceived control were very strong predictors of students' intention to communicate future affirmative sexual consent. In the current study, positive social influence which the students' experience regarding their future intention to communicate affirmative sexual consent led to a greater willingness to communicate affirmative sexual consent to their partner. This is consistent with previous literature that has reported that peers have influence on adolescent sexual behavior (e.g., Adamczyk & Felson, 2006; Kirby, 2002; Maxwell, 2002).

An additional reason that subjective norms may be a more important predictor of students' intentions and behavior may be explained by cross-cultural literature (e.g., Singelis, 1994; Trafimow, Triandis, & Goto, 1991). This literature suggests that people have a separate private self (i.e., thoughts about an individual's own status and traits) and a collective self (i.e., thoughts about group membership) that can be informed

independently of each other (Trafimow et al., 1991). It may be the case that students' have strong collective selves (i.e., they identify highly with their group memberships) and therefore are more likely to behave in accordance with the opinions of important others than populations that do not have strong ties to their group membership or peer network (Trafimow & Finley, 1996). Emerging adults ages 18-24 (Arnett, 2000) spend more time with their peers, who play an important and influential role in their development (Leftkowitz, Boone, & Shearer, 2004). During this period of development, students are discussing sex-related topics (e.g., sexual intercourse, reproductive health) with their friends/peer, which forms their attitudes about these topics and subsequent behavior (Leftkowitz et al., 2004). This is a likely explanation for why normative influences played a strong role in predicting students' communication of affirmative sexual consent.

Students' high levels of perceived control over their behavioral performance directly influence their future intention to communicate affirmative sexual consent to their partner. For all three affirmative consent behaviors, perceived behavioral control was a strong predictor of intention to communicate future affirmative sexual consent. This finding suggests that communication of consent is not under one's volitional control. Thus, students' perceive that they have little control over communicating affirmative sexual consent to their partner. This finding is not necessarily surprising considering the complexity of sexual consent that has been cited by several scholars (e.g., Archard, 1998; Beres, 2004, 2007; Cowling & Reynolds, 2004; Dripps, 1992; Hall, 1998; Hickman & Muehlenhard, 1999; Humphreys, 2004, 2007; Humphreys & Brousseau, 2010; Little, 2005; Pineau, 1989). Previous studies have suggested several reasons why communicating sexual consent is difficult: 1) it is face-threatening; 2) it may result in a

negative reaction from one's partner; 3) it may be awkward or ruin the mood; 4) some ways of communicating consent are more ambiguous than others; and, 5) relationship type and/or sexual history may complicate communication of consent or function based on implied consent (Hickman & Muehlenhard, 1999; Jozkowski & Peterson, 2013; Jozkowski, Peterson, et al., 2014; Humphreys, 2007; Humphreys & Brousseau, 2010).

Overall, the results of the current study provide preliminary information about the determinants of students' intention to communicate affirmative consent to their partner. Students' intentions to communicate affirmative sexual consent are largely influenced by normative influences and their perceived control over behavioral performance. Conversely, students' attitudes are less relevant to their intention to communicate future affirmative consent during sexual activity. This information provides important information for health educators and health professionals on college campuses who are designing and implementing sexual assault prevention programming, particularly programming with a focus on sexual consent communication. Results of the current study highlight that students' have positive attitudes about communicating sexual consent and evaluate the outcomes of the behavior (i.e., sexual assault prevention) as positive, however these attitudes are less important to their actual behavioral performance than what their peers (or sexual partner) think about their communication of sexual consent and their perceived (lack of) ability to communicate affirmative consent to their partner.

**Summary and Discussion of Multiple Group Moderation Analyses**

The second purpose of this study was to examine whether individual (i.e., biological sex, sexual self-esteem, and sexual assertiveness), dyadic (i.e. relationship type and type of sexual activity), and/or environmental/contextual (i.e., new/serial sexual

partner and alcohol consumption) variables moderated the intention-behavior relationship in particular, as well as the other path coefficients between the theory of planned behavior constructs for the three affirmative sexual consent behaviors (i.e., nonverbal signals of interest, initiating sexual behaviors, and verbal communication). Only past sexual relationship history moderated the intention-behavior relationship in the nonverbal signals of interest model. Overall, individual variables moderated paths in all three affirmative sexual consent theory of planned behavior models. Environmental/contextual variables moderated paths in the nonverbal model. The dyadic variables did not moderate any of the paths in the models. Therefore, only individual-level and environmental/contextual moderators produced significant moderation effects, and the paths they moderated will be discussed below.

**Individual-level moderators**. Individual-level moderators consisted of biological sex, sexual self-esteem, and sexual assertiveness. Biological sex moderated one path in one of the models (i.e., nonverbal signals of consent). Sexual self-esteem moderated a total of 5 paths across the three models, and sexual assertiveness moderated two paths in the verbal communication of consent model. These will be discussed and interpreted in greater detail below.

***Biological sex.*** Biological sex moderated the path between norms and intention to communicate consent using nonverbal signals. Perceived norms positively and significantly predicted intentions for both men and women, suggesting that men and women's intention to communication of affirmative sexual consent is influenced by important referents such as their peers and/or sexual partner. For men, perceived norms (i.e., social expectations associated with performing the behavior) were a significantly

stronger predictor of intention to communicate consent using nonverbal signals than for women. Previous literature has cited that that men are more likely to communicate their consent using nonverbal signals (Humphreys, 2004; Hickman & Muehlenhard, 1999), and that peer networks and social ties strongly influence adolescent risk behavior (Adamczyk & Felson, 2006; Kirby, 2002; Maxwell, 2002). Among college men, certain group affiliations (e.g., fraternities and athletes) are associated with high levels of group conformity that are often reinforced through hazing or other ritualistic behaviors (Boeringer, 1996; Carr & VanDeusen, 2004; Humphrey, 2000; Koss & Gaines, 1993; Murnen & Kohlman, 2007; Martin & Hummer, 1989). Within these groups, there is a greater acceptance of norms supporting the mistreatment of women, sexual aggression, and rape myths (e.g., women enjoy being forced or "roughed up" during sex, that women say no when they really mean yes, that women secretly want to be raped) (Boeringer, 1996; Foubert, Garner & Thaxter, 2006; Sanday, 2007). It is possible that this propensity to be persuaded by one's peers, particularly with regard to how they treat of women and their sexual behaviors also strongly influenced their intention to communicate sexual consent to their partner. Thus, the findings in this study provide further support that peer networks and social ties strongly influence men's behavior, and in this specific case their intention to communicate consent using nonverbal signals.

***Sexual self-esteem.*** Sexual self-esteem (SSE) moderated the path between norms and intention for all three affirmative consent behaviors (i.e., nonverbal, initiator, verbal). Perceived norms were positive and significant predictors of intention only for those with high SSE for all three affirmative sexual consent models. Norms were not a significant predictor of intentions for those with low SSE for all three affirmative sexual consent

models. The path between norms and intention was significantly stronger for those with high SSE than for those with low SSE. Thus, perceived norms are a significantly stronger predictor of individual intention to communicate affirmative consent for those with high SSE than for those with low SSE. This suggests that intentions of those with high SSE to communicate affirmative sexual consent using nonverbal, initiating, and verbal communication are influenced by important others in their life such as their peers and sexual partner. However, this is not the case for those with low SSE, who are likely influenced more by other constructs such as perceived behavioral control and/or attitudes toward communicating affirmative sexual consent.

Research has linked sexual self-esteem with general self-esteem (Oattes & Offman, 2007). Those with high SSE likely have higher general self-esteem (Oattes & Offman, 2007), and individuals who are higher in general self-esteem tend to form closer relationships with the people around them (Oattes & Offman, 2007). Thus, it stands to reason that students in this study who are high in sexual self-esteem have closer relationships to the important people in their lives, and therefore are more influenced by what these important people do and think regarding their communication of affirmative consent.

In addition, sexual self-esteem moderated the path between perceived behavioral control and intention for nonverbal signals of consent and verbal communication of consent. Perceived behavioral control positively and significantly predicted intentions to communicate affirmative sexual consent using nonverbal and verbal expressions of consent for those with high SSE. Thus, students' perceived control and ability to communicate of verbal expressions of consent predicts their intentions regardless of

whether they have high or low SSE. Also, perceived behavioral control positively and significantly predicted intention to communicate affirmative sexual consent using verbal expressions for those with low SSE, however intentions to communicate affirmative consent nonverbally were not significantly predicted by perceived behavioral control for those with low self-esteem. This is not the case for students' communication of nonverbal signals of interest. Students' perceived control and ability to communicate nonverbal signals of consent was not an important predictor of intention to communicate affirmative consent using nonverbal signals of interest for those with low SSE.

The path between perceived behavioral control was significantly stronger for those with low SSE than for those with high SSE. This suggests that one's evaluation of how easy or hard it is to communicate nonverbal and verbal consent to their partner is a significantly stronger predictor of intention to perform the behavior for those with low SSE than for those with high SSE. The theory of planned behavior (Ajzen, 1991) posits that the predictive power of perceived behavioral control is greater for behaviors that lack perceived control than for those where perceived behavioral control is high. SSE is related to one's confidence in their sexual abilities (Snell & Papini, 1989), and therefore those with low SSE may perceive communicating consent to their partner as difficult and out of their control. Thus, perceived behavioral control would be a stronger predictor of their intention than those with high SSE.

Overall, these findings suggest that for those with high SSE perceived external social expectations as significantly stronger determinants of their intention to communicate affirmative consent (i.e., nonverbal, initiating, verbal) to their partner during their next sexual encounter. Conversely, for those with less confidence in their

"capacity to experience sexuality in a satisfying and enjoyable way", personal beliefs about their ability to communicate affirmative consent are a significantly stronger determinant of their intention to communicate affirmative consent (i.e., nonverbally and verbally) (Snell & Papini, 1989, p. 256).

***Sexual assertiveness.*** Similar to sexual self-esteem, sexual assertiveness moderated the path between norms and intention for nonverbal signals of consent and verbal communication of consent. Perceived norms significantly and positively predicted intention to communicate verbal expressions of affirmative consent for those with high and low sexual assertiveness, however perceived norms were only a significant predictor of intention to communicate nonverbally for those with high sexual assertiveness, but not for those with low sexual assertiveness. The path was significantly stronger for those with high sexual assertiveness. This suggests that perceived norms were a significantly stronger predictor of intention for those with high sexual assertiveness than for those with low sexual assertiveness.

Also in line with the findings for sexual self-esteem, sexual assertiveness moderated the path between perceived control and intention for verbal communication of consent. Perceived control was a significantly stronger predictor of intention to communicate consent verbally for those with low sexual assertiveness than for those with high sexual assertiveness.

Literature has found a strong positive relationship between sexual self-esteem and sexual assertiveness (Menard & Offman, 2009; Oattes & Offman, 2007). Overall, an individual who is confident in their sexual abilities (i.e., high SSE) is also open, communicative and comfortable with their sexuality (i.e., high sexual assertiveness)

(Menard & Offman, 2009; Oattes & Offman, 2007). The findings in this study support this relationship between sexual self-esteem and sexual assertiveness. Both variables moderate the norm-intention and PBC-intention paths in the nonverbal and verbal communication of consent models. Specifically, norms are a significantly stronger predictor of intentions for those with high sexual self-esteem and high sexual assertiveness, and perceived control is a significantly stronger predictor of intentions for those with low sexual self-esteem and sexual assertiveness. This suggests those with high SSE and sexual assertiveness are more influenced by social expectations to communicate consent verbally and nonverbally. Those with low SSE and sexual assertiveness are more influenced by their perceived ability to communicate consent verbally and nonverbally.

**Environmental/contextual moderators.** The presence or absence of a previous sexual encounter with one's most recent sexual partner moderated 2 paths in the nonverbal signals of consent model. Alcohol use/non-use moderated one of the paths in the nonverbal signals of consent model. These environmental/contextual factors only moderated paths in the nonverbal signals of consent model. Each of the significant paths will be discussed in further detail below.

***New/serial sexual partner.*** Perceived control was not a significant predictor of intention to communicate nonverbal affirmative consent for those who engaged in sexual activity with a new partner, and intentions were not a significant predictor of students' nonverbal communication of consent for those who engaged in sexual activity with someone they had previously been engaged in sexual activity with (i.e., ongoing sexual relationship). Engaging in sexual activity with a new or serial sexual partner, however

still strengthened (i.e., moderated) the direct path between perceived control and behavior as well as the intention-behavior path in the nonverbal signals of consent model. Perceived control over communicating consent using nonverbal signals is a significantly stronger predictor of actual behavioral performance for those who engaged in sexual activity with their partner prior to their most recent sexual encounter than for those who engaged in sexual activity with a new partner. According to Ajzen and Madden (1986), PBC strongly predicts behavior when perceptions of control accurately reflect actual control over the behavior. This suggests that perceived control over communicating consent nonverbally for those engaging in sexual activity were significantly more reflective of the skills, resources, and opportunities available to them (i.e., actual control). Oftentimes, actual control is stronger when someone has experience performing the behavior (Ajzen & Madden, 1986), and in this study, when someone already had engaged in sexual activity with their most recent sexual partner. Studies have found that once sexual activity has occurred between two people, consent may be presumed during future encounters (at least) for the same sexual behaviors that the couple has engaged in previously (Humphreys, 2007). Furthermore, when two people have a sexual history, signals of consent are predominately communicated nonverbally (Humphreys, 2007) and, once these nonverbal cues have been established over time, it is expected that these behavioral patterns will continue, and consent between partners is assumed (Hall, 1998; Humphreys, 2007). Thus, it is possible that this relationship was stronger for those with an ongoing sexual relationship because they had already engaged in consent communication with their partner in the past. During their most recent sexual encounter,

perceived control more accurately reflected actual control, and therefore directly predicted their actual behavior.

Engaging in sexual activity with a new partner versus a serial sexual partner also moderated the relationship between intentions and actual behavior for nonverbal signals of interest. This is the only variable to moderate the intention-behavior relationship, which is important considering the discrepancy between proportion of variance explained in intentions (by attitudes, norms, and control) and behavior (by intentions). One's intention to communicate consent using nonverbal signals was a significantly stronger predictor of actual behavioral performance for those who engaged in sexual activity with a new partner than for those who had engaged in sexual activity with their partner prior to their most recent sexual event. Students' communication of nonverbal expressions of interest during their most recent encounter was positively and significantly predicted by intentions when engaging in sexual activity with a new partner (behavior was not significantly predicted by intentions for those who engaged in sexual activity with a serial sexual partner). Thus, engaging in sexual activity with a new partner significantly strengthened the likelihood that an individual would act on their intention to communicate consent nonverbally. This finding seems to suggest support for Humphreys (2007) who found that a sexual encounter between strangers or acquaintances is associated with high levels of uncertainty. Further this finding suggests support that communicating consent in these situations is more necessary (Humphreys, 2007; Lim & Roloff, 1999), and that nonverbal communication of consent is favored due to the ambiguity of the situation (Humphreys, 2004; Hickman & Muehlenhard, 1999).

***Alcohol consumption.*** Perceived behavioral control was a positive and significant predictor of intentions to communicate affirmative consent using nonverbal signals of interest for those who did not consume alcohol at their most recent sexual encounter, but not for those who did consume alcohol at their most recent sexual encounter. Alcohol use (or non-use) strengthened (i.e., moderated) the path between perceived behavioral control and intention to communicate consent using nonverbal signals. Perceived control over communicating consent using nonverbal signals was a significantly stronger predictor of intention to communicate consent nonverbally for those who did not consume alcohol at their most recent sexual event than for those who did consume alcohol at their most recent sexual event. It is difficult to make inferences about why an individuals' behavior (i.e., not consuming/consuming alcohol prior to engaging in sexual activity with their most recent partner) would have affected their perceived control and intentions at T1. There were no significant differences in individuals' behavior (PBC-behavior and intention-behavior) based on their use or nonuse of alcohol prior to the sexual encounter, which would be more interpretable. It might be the case, however, that students' who reported consuming alcohol prior to their most recent sexual encounter have used alcohol in the past as a social lubricant to alleviate the uncertainty or awkwardness associated with communicating consent, particularly to a new partner. Perhaps some students have developed a sexual script for engaging in sexual activity under the influence of alcohol (because this is the most likely and common way they engage in sexual activity), and can predict (with some accuracy) how they will communicate during sexual encounters in the next 30 days (Gagnon & Simon, 1973).

The strong link between alcohol and sexual assault, and therefore the likelihood of a strong link between alcohol and sexual consent suggest alcohol would moderate the intention-behavior relationship in one or more of the models. This was, however, not the case in this study. Alcohol consumption did not significantly strengthen students' to act (or not act) on their T1 intention to communicate nonverbal, initiating, or verbal consent to their partner at T2. This relationship, and alcohol's role predicting consent behavior should be further investigated. Though alcohol use (or nonuse) did not strengthen one's intentions and subsequent behavior, it is possible that alcohol use still affected one's behavior. Those who consumed alcohol prior to their most recent sexual encounter were significantly more likely to have engaged in sexual activity with a new partner, and were less likely to be in a romantic relationship. Therefore, alcohol may be a strong predictor of one's partner type, but not on their behavior during the sexual encounter.

## Implications

The findings of the current study provide important implications for theory and practice, particularly for those in health professions such as health educators who are designing and implementing violence prevention programming/campaigns on college campuses. In this section the theoretical and practical/applied implications will be discussed.

### Theoretical Implications

This study's results have several important theoretical implications. First, the findings of the current study support the utility of the theory of planned behavior for explaining sexuality-related intentions and behavior (e.g., Albarracin, Durantini, & Earl, 2006; Godin & Kok, 1996; Kirby, Laris, & Rolleri, 2007; Sheeran & Orbell, 1998;

Turchik & Gidycz, 2012). Further, this is the first reported study that has tested the theory of planned behavior's ability to predict affirmative consent behaviors (i.e., nonverbal, initiating, and verbal) in a sexually active college population. Thus, the current investigation extends the scope of the theory of planned behavior to this behavior in this population.

Second, findings suggest that normative influences and perceived behavioral control are strong predictors of college students' affirmative consent behavior, and that attitude toward communicating affirmative consent is a less relevant determinant of students' intentions and subsequent consent behavior. These findings contradict studies that have used the TPB to predict general behaviors (e.g., Conner, Norman, & Bell, 2002; Haggar, Chatzisarantis, & Biddle, 2002) and other sexuality-related behaviors (e.g., Albarracin et al., 2006; Godin & Kok, 1996; Kirby et al., 2007; Sheeran & Orbell, 1998; Turchik & Gidycz, 2012) where attitudes are the strongest predictor of behavior. This could reflect the dyadic nature of sexual consent, and therefore students' intentions are more strongly influenced by external factors such as their sexual partner or how they perceive they should be communicating consent. It is likely that students adhere to traditional sexual scripts that prescribe ways in which sexual encounters, including consent, are negotiated.

Third, findings provide mixed evidence for the possibility of a direct link between perceived behavioral control and behavior that is not mediated by intention (Ajzen, 1991; Ajzen & Madden, 1986). For nonverbal signals of consent and verbal communication of consent, PBC-behavior path coefficients were statistically significant, but weak. This indicates that PBC contributed independently to the prediction of behavior, but not

strongly. PBC, therefore, adds to the predictive ability of behavior beyond just behavioral intentions in the nonverbal and verbal TPB models. For initiating behaviors, the PBC-behavior path coefficients was not significant, and therefore did not contribute to the prediction for this behavior. One of the moderations (i.e., new/serial sexual partner) indicated that the PBC-behavior path coefficient was significantly stronger for those who engaged in sexual activity with an ongoing sexual partner than for those who engaged in sexual activity with a new partner. This supports that perceived behavioral control is likely to reflect, among other factors, individuals' enactment of the behavior in the past (Ajzen & Madden, 1986).

**Practical/Applied Implications**

The use of the theory of planned behavior to predict affirmative sexual consent communication offers practical implications for health educators and other health professionals communicating with college populations about sexual assault prevention and healthy sexual communication within relationships. This theoretical framework provides unique and important insights about the factors that strengthen college students' intentions to communicate consent and subsequent behavior.

Results of this study demonstrate that individual factors, particularly personality factors (i.e., sexual self-esteem and sexual assertiveness) affect students' communication of consent more than other factors (i.e., dyadic and environmental/contextual), and that normative influences and perceived control are stronger determinants of students' intention to communicate affirmative consent than their attitudes. Results also provided important information about how students actually communicate affirmative consent to their partner during a sexual encounter. Students reported communicating consent during

their most recent sexual encounter using nonverbal signals the most, and verbal consent the least. This information about determinants of students' behavioral intentions, as well as their actual consent behaviors provide important avenues for primary prevention programming.

For example, students' indicated that perceived control over behavioral performance is a strong determinant of their intention to communicate consent using affirmative behaviors, and also independently adds to the prediction of their nonverbal and verbal communication of consent during sexual activity between T1 and T2 surveys. Thus, perceived behavioral control is an important area of focus for primary prevention programs aimed at college students. Specifically, programs should focus on knowledge and skill building related to affirmative consent, and verbal communication of consent in particular.

Results also suggest that perceived control is a significantly stronger determinant of intentions to communicate consent using verbal expressions and nonverbal signals for those with low sexual self-esteem and sexual assertiveness. Thus, there is a specific need for programming that facilitates ways to build sexual communication skills, strengthens students' confidence in, and control over their consent communication, and reduces overall anxiety associated with communicating verbal (and nonverbal) affirmative sexual consent to their partner.

In addition to perceived control, normative influence was a strong determinant of this behavior (i.e., affirmative consent) in this particular population (i.e., sexually active college students). Thus, norms-based strategies and campaigns (Gidycz et al., 2011; Kilmartin & Berkowitz, 2014) that promote communication of sexual consent using

affirmative behaviors such as nonverbal signals, initiating behaviors, and verbal communication could be beneficial in strengthening students' intention to communicate affirmative consent. Additionally, these strategies and campaigns can potentially restructure students' perceptions of verbal consent, and reinforce their perception of nonverbal consent. The particular normative influences should be considered when designing these campaigns. Students' may be heavily influenced by peers, or by their sexual partner. It would be beneficial to focus norms-based strategies on these important others and the influence they have on students' affirmative consent communication. Normative influences were a significantly stronger determinant of men's intention to communicate affirmative consent using nonverbal signals than women's. Thus, programming that targets men should include specific strategies that address social norms, and create opportunities to promote positive perceptions of communicating affirmative consent to a sexual partner.

The only moderator variable that strengthened the path between intention and affirmative sexual consent behavior in this study was students' sexual history (or lack of) with their partner. Intentions were a significantly stronger determinant of (nonverbal) consent behavior for those who engaged in sexual activity with a new partner than for those who had already engaged in sexual activity with their most recent partner. Conversely, perceived behavioral control was a significantly stronger determinant of (nonverbal) consent behavior for those who had a previous sexual history with their partner than for those who engaged in sexual activity with a new partner. Thus, it is important for consent programming to consider students' sexual history with their partner and its influence on their affirmative consent behaviors. This is particularly important as

more universities adopt the affirmative-standard of consent, which clearly states that, "the existence of a past dating relationship between the persons involved, or the fact of past sexual relations between them, should never by itself be assumed to be an indicator of consent" (De Leon et al., 2014, p. 1). Those who have a sexual history with their partner may have strengthened their ability and broadened their repertoire of sexual consent communicative behaviors. Conversely, they may feel that consent is implied with a past sexual partner, and therefore be less likely to communicate consent at all during the sexual encounter, or rely on indirect and nonverbal cues.

Finally, the results of this study suggest that it may not be effective for messaging or programming to focus solely on changing attitudes. Contemporary programming focuses on reducing the prevalence of sexual violence on campus by changing/increasing knowledge and attitudes toward sexual consent (Anderson & Whiston, 2005; Borges et al., 2008; Foubert et al., 2006; Foubert & Marriott, 1997; Foubert & Newberry, 2006). Attitudes were the weakest predictor of intentions for all three affirmative consent behaviors, and did not significantly predict intentions to communicate verbal communication of consent. Therefore, making attitudes the focus of prevention programming may not produce behavioral change, and instead should focus on the stronger predictors of intentions such as perceived control and perceived norms.

## Limitations and Future Directions

Despite its many strengths and implications for theory and application, there are several limitations of the current study. In addition, the current study provides several important directions for future research. The following section will, first, outline

limitations of the current study, and second, identify potential areas of interest for future investigation.

**Limitations**

Though this study offers several important theoretical and practice implications, it is limited in a number of ways. First, the sample lacked cultural diversity and were predominately under-classman (i.e., freshman students), and therefore the results cannot be generalized to more diverse college populations or upperclassman.

Even though there are several strengths associated with the longitudinal survey design used for this analysis, it did present some limitation that should be noted. First, descriptive statistics were incomplete for the T2 sample. Second, there was a large amount of students who completed the T1 survey and not the T2 survey, and vice versa. There were significant differences on TPB constructs between those who completed both surveys and those who completed T1 only. Third, though requesting that students create their study ID protected their anonymity, it was not without its challenges. Students who were missing part or all of their study ID were eliminated from the study, and it is possible that students did not use the same study ID for T1 and T2, and therefore could not be matched and analyzed. Fourth, the study was limited to students who engaged in sexual activity during the time between T1 and T2 surveys. There were significant differences between matched participants who did and did not engage in sexual activity. It is unknown if these differences were due to lack of opportunity or other reasons that could have affected the results of this study.

Lastly, it is important to mention that the data in this study was based on self-report, and therefore is susceptible to participant bias. Like other measurements of

human sexual behavior, sexual consent is not an observed behavior and must rely on self-report (Catania, Gibson, Chitwood, & Coates, 1990). There may be inconsistencies between students' actual behavior and their self-reported behavior due to privacy or embarrassment (Catania et al., 1990), or it is possible that students may have guessed the purpose of the survey (i.e., sexual consent) and given answers that portrayed them in a positive light and/or that their attitudes, norms, control, intentions, and behavior were inflated. This behavior may be susceptible to a social desirability bias, since it is not acceptable to condone sexual assault and rape (a potential consequence of not communicating consent to a sexual partner). The students' answers may have reflected this, particularly with regard to attitudes, and therefore means may have been inflated, and results should be interpreted with this in mind. Additionally, university students are more exposed to sexual assault prevention and awareness on campus, and therefore, have more awareness of sexual consent as an issue that may differentially affect their answers.

**Future Directions**

Despite its limitations, the current investigation offers several opportunities for future research for health and interpersonal communication scholars, behavioral health researchers, and other social scientists.

First, the results of this study strongly support the predictive ability of the theory of planned behavior (Ajzen, 1991) for this behavior (i.e., affirmative sexual consent) in this population (i.e., sexual active college students). This is the first known study using the theory of planned behavior to predict college students' communication of affirmative consent, and therefore researchers should seek to replicate and extend the findings from this study.

Second, similar to other studies using the theory of planned behavior to predict sexuality-related behavior (e.g., Albarracin et al., 2006; Godin & Kok, 1996; Kirby et al., 2007; Sheeran & Orbell, 1998; Turchik & Gidycz, 2012), students' intentions to communicate affirmative consent (i.e., nonverbal, initiating, and verbal) and perceived control over performing the consent behavior explained a significant, but smaller amount of variance in behavior compared to the amount of variance explained in intentions by their attitudes, perceived norms, and perceived control. Thus, even though students intended to engage in affirmative consent communication, there were factors other than their behavioral intentions and perceived control that explained the variance in their actual consent behavior. Future studies should focus on the reasons why students are not acting on their intentions to engage in consent communication with their partner. Particularly, additional variables should be explored that may strengthen the relationship between intention and behavior. Only one variable (new vs. serial sexual partner) moderated this relationship in one of the models (nonverbal signals of interest).

Third, this study attempted to capture the nuances and the complexity of affirmative consent by examining three different, albeit overlapping, ways of expressing affirmative consent (i.e., nonverbal signals, initiating behaviors, verbal communication). Future research should continue to explore affirmative consent as a multi-faceted construct and not just one general behavior. Further, future research could better distinguish between nonverbal, initiating, and verbal behaviors. The ways of communicating consent used for this study (i.e., nonverbal, initiating, and verbal) were positively and significantly correlated, which means that results may not accurately reflect any nuance or difference between these consent behaviors. In particular, both

nonverbal and verbal expressions of consent were strongly correlated with initiating sexual behaviors, demonstrating that these ways of communicating consent were strongly related to one another. Though verbal and nonverbal signals were significantly correlated, the relationship was weaker. Future studies should consider the relationship between the different ways that students communicate their consent during sexual activity. It is likely that they use a combination of the various consent behaviors and this overlap is inevitable.

Fourth, future research should continue to explore the effects of individual, dyadic, and environmental/contextual variables on students' consent behavior. Specifically, additional analysis of the effect personality factors has on students' behavior deserves attention from scholars. Sexual self-esteem and sexual assertiveness moderated several paths within the theory of planned behavior framework, and should be included in future studies predicting sexual consent behavior. Scholars should also begin to consider other personality factors such as sexual communication apprehension or sexual risk-taking.

Dyadic factors (i.e., relationship type, and type of sexual behavior) did not moderate any of the paths within the theory of planned behavior framework in this study. However, several scholars have documented their effect on how sexual consent is communicated during a sexual interaction (Hall, 1998; Hickman & Muehlenhard, 1999; Jozkowski, Peterson, et al., 2014; Humphreys, 2007). Further exploration of their role within the theory of planned behavior framework is needed. The findings also provide preliminary evidence that communication of sexual consent can change based on environmental/contextual factors (Jonason, Li, & Cason, 2009; Mongeau et al., 2013; Paul et al., 2000), and scholars should continue to explore the effect that these variables (i.e., new/serial sexual partner and alcohol) have on students' consent behavior.

Lastly, future research should continue to explore the independent contribution made by normative influence and perceived control on students' intention to communicate affirmative consent to their partner. This can provide valuable information about the determinants of affirmative consent behavior that can be used to guide interventions designed to produce change in individual affirmative consent behavior.

## Conclusion

This study is the first to use the Theory of Planned Behavior (Ajzen, 1991) to predict college students' communication of nonverbal, initiating, and verbal affirmative sexual consent. Results provided evidence that students' intention to engage in future communication of affirmative consent is largely influenced by perceived norms and perceive control, and less so by their attitudes toward communicating affirmative sexual consent. These findings provide important information about this behavior and its antecedents that can be applied by university health educators to design effective programming to increase students' communication of affirmative sexual consent. Prior to this study, students' attitudes, subjective norms, and perceived behavioral control toward communication of affirmative consent was largely unknown. In addition, the strength to which each of these constructs predicts students' affirmative consent communicative behavior was also largely unknown.

In addition to its influence on programming, the results of this study provide preliminary information that can be used to inform administrators as they revise policies and procedures related to students' sexual behavior, and their sexual consent behavior in particular. As colleges and universities shift their sexual consent standards to an affirmative-standard of consent focus, they should keep in mind that students' sexual

consent behavior is largely influenced by their peer networks and/or sexual partner, and that they may not perceive complete control over their sexual consent behavior. Therefore, it is important that these policies not merely be passively adopted, but be supplemented with information for students about how to go about engaging in affirmative consent with their partner, as well as social norms campaigns that influence students' perception of consent behavior.

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# APPENDIX A

# INSTITUTIONAL BOARD APPROVAL

ASU Knowledge Enterprise Development

EXEMPTION GRANTED

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

Dear Paul Mongeau:

On 11/6/2015 the ASU IRB reviewed the following protocol:

| | |
|---|---|
| Type of Review: | Initial Study |
| Title: | Exploring the Intention-Behavior Relationship in the Prediction of Affirmative Consent |
| Investigator: | Paul Mongeau |
| IRB ID: | STUDY00003481 |
| Funding: | None |
| Grant Title: | None |
| Grant ID: | None |
| Documents Reviewed: | • Recruitment Form-Time 1.pdf, Category: Recruitment Materials;<br>• TIME 1 Survey Items.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);<br>• Consent Form-Time 2.pdf, Category: Consent Form;<br>• TIME 2 Survey Items.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);<br>• Recruitment Form-Time 2.pdf, Category: Recruitment Materials;<br>• Consent Form-Time 1.pdf, Category: Consent Form;<br>• HRP-503a - Protocol Template Social Behavioral REVISED, Category: IRB Protocol; |

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 11/6/2015.

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

# APPENDIX B

## INFORMED CONSENT DOCUMENT—TIME 1

Participant Letter

Dear Participant:

I am a graduate students working under the direction of Professor Paul Mongeau in the Hugh Downs School of Human Communication here at Arizona State University.

I am conducting a study about how college students feel about communicating sexual consent. I am inviting your participation, which will involve answering some questions about yourself (e.g., age, sex, and relationship status) in addition to filling out a survey that asks you to consider how you think and feel about communicating sexual consent. It should take you approximately 15-20 minutes to complete the survey.

This survey will ask you several questions in order to generate a study ID. The study ID that you create will be used to match your responses on this survey to your responses on a later survey. Your participation in the later survey is optional, and you can choose not to participate.

Your participation in this study is voluntary. Your responses are anonymous and cannot be linked directly to you in any way. You can skip any questions you feel uncomfortable answering or stop participating at any time without penalty. **You must be over the age of 18 in order to participate in this study**.

Your responses on the questionnaire will be used to gain a better understanding of how college students think and feel about communicating sexual consent during their sexual interactions. Although there is no benefit to you, possible benefits of your participation are that we can learn more about how sexual consent is communicated in a college population. There are no foreseeable risks or discomforts to your participation.

Your responses will be anonymous. No one will be able to determine which responses are yours. The results of this study may be used in reports, presentations, or publications but your name will not be known. The responses you provide will be categorized and combined with other, similar, responses.

Some instructors may be offering you extra credit as a result of your participation in this research study. In order to receive extra credit, you will be directed to a separate questionnaire to provide your name. The information you provide on the extra credit page will never be linked to the study survey. An alternative extra credit opportunity will be available, should students not wish to participate in the survey.

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

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

Sincerely,

Lori Bednarchik
Paul Mongeau

# APPENDIX C

## STUDY QUESTIONNAIRE—TIME 1

**Study ID:**

1. What are the first two letters of the **city** where you were born (e.g., Asheville = AS)?
2. What day of the **month** were you born (e.g., March 3 = 03)?
3. What is the **last** letter of your **last** name (e.g., Jones = S)?
4. Have you taken this survey before? (Your answer to this question is important for the researchers, but will *not* disqualify you from filling out the survey)
5. Have you engaged in sexual activity (e.g., kissing, heavy petting, oral/genital contact, intercourse) in the past 30 days?
    a. No
    b. Yes

*If the participant chooses "No" they will skip the past affirmative consent behavior questions (the next 6 questions)*

**Past Affirmative Consent Behavior**

1. During the past month, how often have you communicated your consent to engage in sexual activity using **nonverbal signals of interest** (e.g., let the person know through your actions/body language/signals that you were comfortable with the sexual behavior)?
    a. every time
    b. almost every time
    c. most times
    d. about half the time
    e. a number of times, but less than half

f. a few times, or never.

2. Please estimate how often in the past month you communicated your consent to engage in sexual activity using **nonverbal signals of interest** (e.g., let the person know through your actions/body language/signals that you were comfortable with the sexual behavior).

   (1 = *never* to 7 = *every time*)

3. During the past month, how often have you communicated your consent to engage in sexual activity by **initiating sexual behaviors** (e.g., made a move and checked your partner's reactions, moved your partner's hands to your pants or lower body, initiated sexual behavior to see if it was reciprocated)?

   a. every time

   b. almost every time

   c. most times

   d. about half the time

   e. a number of times, but less than half

   f. a few times, or never.

4. Please estimate how often in the past month you communicated your consent to engage in sexual activity by **initiating sexual behaviors** (e.g., made a move and checked your partner's reactions, moved your partner's hands to your pants or lower body, initiated sexual behavior to see if it was reciprocated). (1 = *never* to 7 = *every time*)

5. During the past month, how often have you **verbally** communicated your consent to engage in sexual activity (e.g., suggested having sex to your partner, told

partner the types of sexual behaviors you wanted to engage in, told partner you were interested in having sex)?

a. every time
b. almost every time
c. most times
d. about half the time
e. a number of times, but less than half
f. a few times, or never.

6. Please estimate how often in the past month you **verbally** communicated your consent to engage in sexual activity (e.g., suggested having sex to your partner, told partner the types of sexual behaviors you wanted to engage in, told partner you were interested in having sex).

   (1 = *never* to 7 = *every time*)

**Direct Measures of Intentions**

1. If I have sex in the next 30 days, I *expect* to communicate my consent to engage in sexual activity with my partner using **nonverbal signals of interest** (e.g., letting my partner know through my actions/body language/signals that I am comfortable with the sexual behavior). (1 = *strongly disagree*; 7 = *strongly agree*)
2. If I have sex in the next 30 days, I *plan* to communicate my consent to engage in sexual activity with my partner using **nonverbal signals of interest** (e.g., letting my partner know through my actions/body language/signals that I am comfortable with the sexual behavior). (1 = *strongly disagree*; 7 = *strongly agree*)

3. If I have sex in the next 30 days, I *intend* my consent to engage in sexual activity with my partner using **nonverbal signals of interest** (e.g., letting my partner know through my actions/body language/signals that I am comfortable with the sexual behavior). (1 = *extremely unlikely*; 7 = *extremely likely*)
4. If I have sex in the next 30 days, I will *try* to communicate my consent to engage in sexual activity with my partner using **nonverbal signals of interest** (e.g., letting my partner know through my actions/body language/signals that I am comfortable with the sexual behavior). (1 = *definitely false*; 7 = *definitely true*).
5. If I have sex in the next 30 days, I *expect* to communicate my consent to engage in sexual activity with my partner by **initiating sexual behaviors** (e.g., making a move and checking my partner's reactions, moving my partner's hands to my pants or lower body, initiating sexual behavior to see if it is reciprocated). (1 = *strongly disagree*; 7 = *strongly agree*)
6. If I have sex in the next 30 days, I *plan* to communicate my consent to engage in sexual activity with my partner by **initiating sexual behaviors** (e.g., making a move and checking my partner's reactions, moving my partner's hands to my pants or lower body, initiating sexual behavior to see if it is reciprocated). (1 = *strongly disagree*; 7 = *strongly agree*)
7. If I have sex in the next 30 days, I *intend to* communicate my consent to engage in sexual activity with my partner by **initiating sexual behaviors** (e.g., making a move and checking my partner's reactions, moving my partner's hands to my pants or lower body, initiating sexual behavior to see if it is reciprocated). (1 = *extremely unlikely*; 7 = *extremely likely*)

8. If I have sex in the next 30 days, I will *try* to communicate my consent to engage in sexual activity with my partner by **initiating sexual behaviors** (e.g., making a move and checking my partner's reactions, moving my partner's hands to my pants or lower body, initiating sexual behavior to see if it is reciprocated). (1 = *definitely false*; 7 = *definitely true*).
9. If I have sex in the next 30 days, I *expect* to **verbally** communicate my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex). (1 = *strongly disagree*; 7 = *strongly agree*)
10. If I have sex in the next 30 days, I *plan* to **verbally** communicate my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex). (1 = *strongly disagree*; 7 = *strongly agree*)
11. If I have sex in the next 30 days, I *intend to* **verbally** communicate my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex). (1 = *extremely unlikely*; 7 = *extremely likely*)
12. If I have sex in the next 30 days, I will *try* to **verbally** communicate my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell partner the types of sexual behaviors I want

to engage in, tell partner I am interested in having sex). (1 = *definitely false*; 7 = *definitely true*).

**Direct Measures of Attitude**

1. For me to communicate my consent to engage in sexual activity using **nonverbal signals of interest (**e.g., letting my partner know through my actions/body language/signals that I am comfortable with the sexual behavior) would be…
    a. 1 = *harmful*; 7 = *beneficial*
    b. 7 = *useful;* 1 = *useless* (R)
    c. 1 = *unsafe*; 7 = *safe*
    d. 7 = *unenjoyable,;* 1 = *enjoyable* (R)
    e. 1 = *unpleasant;* 7 = *pleasant*
2. For me to communicate my consent to engage in sexual activity by **initiating sexual behaviors** (e.g., making a move and checking my partner's reactions, moving my partner's hands to my pants or lower body, initiating sexual behavior to see if it is reciprocated) would be…
    a. 1 = *harmful*; 7 = *beneficial*
    b. 7 = *useful;* 1 = *useless* (R)
    c. 1 = *unsafe*; 7 = *safe*
    d. 7 = *unenjoyable,;* 1 = *enjoyable* (R)
    e. 1 = *unpleasant;* 7 = *pleasant*
3. For me to **verbally** communicate my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell my

partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex) would be…

a. 1 = *harmful*; 7 = *beneficial*
b. 7 = *useful;* 1 = *useless* (R)
c. 1 = *unsafe*; 7 = *safe*
d. 7 = *unenjoyable,;* 1 = *enjoyable* (R)
e. 1 = *unpleasant;* 7 = *pleasant*

**Direct Measurement of Subjective Norm**

**Descriptive Norms**

1. Most people who are important to me communicate consent to engage in sexual activity during a sexual encounter using **nonverbal signals of interest** (e.g., letting their partner know through actions/body language/signals that they are comfortable with the sexual behavior) (1 = *completely false*; 7 = *completely true*)
2. The people in my life whose opinions I value communicate consent to engage in sexual activity during a sexual encounter using **nonverbal signals of interest** (e.g., letting their partner know through actions/body language/signals that they are comfortable with the sexual behavior). (1 = *extremely unlikely*; 7 = *extremely likely*)
3. Most people who are important to communicate consent to engage in sexual activity during a sexual encounter by **initiating sexual behaviors** (e.g., making a move and checking their partner's reactions, moving their partner's hands to their pants or lower body, initiating sexual behavior to see if it is reciprocated). (1 = *completely false*; 7 = *completely true*)

4. The people in my life whose opinions I value communicate their consent to engage in sexual activity during a sexual encounter by **initiating sexual behaviors** (e.g., making a move and checking their partner's reactions, moving their partner's hands to their pants or lower body, initiating sexual behavior to see if it is reciprocated). (1 = *extremely unlikely*; 7 = *extremely likely*)
5. Most people who are important to me **verbally** communicate their consent to engage in sexual activity with their partner during a sexual encounter (e.g., suggest having sex to their partner, tell partner the types of sexual behaviors they want to engage in, tell partner they are interested in having sex). (1 = *completely false*; 7 = *completely true*)
6. The people in my life whose opinions I value **verbally** communicate their consent to engage in sexual activity with their partner during a sexual encounter (e.g., suggest having sex to their partner, tell partner the types of sexual behaviors they want to engage in, tell partner they are interested in having sex). (1 = *extremely unlikely*; 7 = *extremely likely*)

**Injunctive Norms**

1. Most people who are important to me think that I (1 = *should not*; 7 = *should*) communicate consent to engage in sexual activity during a sexual encounter using **nonverbal signals of interest** (e.g., letting my partner know through actions/body language/signals that I am comfortable with the sexual behavior)
2. The people in my life whose opinions I value would (1 = *disapprove*; 7 = *approve*) of me communicating consent to engage in sexual activity during a sexual encounter using **nonverbal signals of interest** (e.g., letting my partner

know through my actions/body language/signals that I am comfortable with the sexual behavior)

3. Most people who are important to me think that I (1 = *should not*; 7 = *should*) communicate consent to engage in sexual activity by **initiating sexual behaviors** (e.g., make a move and check my partner's reactions, move my partner's hands to my pants or lower body, initiate sexual behavior to see if it is reciprocated).
4. The people in my life whose opinions I value would (1 = *disapprove*; 7 = *approve*) of me communicating consent to engage in sexual activity during a sexual encounter by **initiating sexual behaviors** (e.g., make a move and check my partner's reactions, move my partner's hands to my pants or lower body, initiate sexual behavior to see if it is reciprocated).
5. Most people who are important to me think that I (1 = *should not*; 7 = *should*) **verbally** communicate my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell my partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex).
6. The people in my life whose opinions I value would (1 = *disapprove*; 7 = *approve*) of me **verbally** communicating my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell my partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex).

**Direct Measurement of Perceived Control/Self-Efficacy**

1. For me to communicate my consent to engage in sexual activity during a sexual encounter using **nonverbal signals of interest** during a sexual encounter would be… (e.g., letting my partner know through my actions/body language/signals that I am comfortable with the sexual behavior) (1 = *impossible*; 7 = *possible*)
2. If I wanted to I could communicate my consent to engage in sexual activity during a sexual encounter using **nonverbal signals of interest** (e.g., letting my partner know through actions/body language/signals that I am comfortable with the sexual behavior). (1 = *definitely true*; 7 = *definitely false*)
3. How much control do you believe you have over communicating your consent to engage in sexual activity during a sexual encounter using **nonverbal signals of interest** (e.g., letting my partner know through actions/body language/signals that I am comfortable with the sexual behavior)? (1 = *no control*; 7 = *complete control*)
4. It is mostly up to me whether or not I communicate consent to engage in sexual activity during a sexual encounter using **nonverbal signals of interest** (e.g., letting my partner know through actions/body language/signals that I am comfortable with the sexual behavior). (1 = *strongly disagree*; 7 = *strongly agree*)
5. I am confident that I could communicate my consent to engage in sexual activity during a sexual encounter using **nonverbal signals of interest** (e.g., letting my partner know through actions/body language/signals that I am comfortable with the sexual behavior). (1= *strongly disagree*; 7 = *strongly agree*)
6. For me to communicate consent to engage in sexual activity during a sexual encounter using **nonverbal signals of interest** (e.g., letting my partner know

through my actions/body language/signals that I am comfortable with the sexual behavior) is. (1 = *easy*; 7 = *difficult*).

7. For me to communicate my consent to engage in sexual activity during a sexual encounter by **initiating sexual behaviors** (e.g., making a move and checking my partner's reactions, moving my partner's hands to my pants or lower body, initiating sexual behavior to see if it is reciprocated) would be… (1 = *impossible*; 7 = *possible*)
8. If I wanted to I could communicate my consent to engage in sexual activity during a sexual encounter by **initiating sexual behaviors** (e.g., making a move and checking my partner's reactions, moving my partner's hands to my pants or lower body, initiating sexual behavior to see if it is reciprocated) (1 = *definitely true*; 7 = *definitely false*)
9. How much control do you believe you have over communicating your consent to engage in sexual activity during a sexual encounter by **initiating sexual behaviors** (e.g., making a move and checking my partner's reactions, moving my partner's hands to my pants or lower body, initiating sexual behavior to see if it is reciprocated)? (1 = *no control*; 7 = *complete control*)
10. It is mostly up to me whether or not I communicate my consent to engage in sexual activity during a sexual encounter by **initiating sexual behaviors** (e.g., making a move and checking my partner's reactions, moving my partner's hands to my pants or lower body, initiating sexual behavior to see if it is reciprocated). (1 = *strongly disagree*; 7 = *strongly agree*)

11. I am confident that I could communicate my consent to engage in sexual activity during a sexual encounter by **initiating sexual behaviors** (e.g., making a move and checking my partner's reactions, moving my partner's hands to my pants or lower body, initiating sexual behavior to see if it is reciprocated) (1= *strongly disagree*; 7 = *strongly agree*)
12. For me to communicate my consent to engage in sexual activity during a sexual encounter by **initiating sexual behaviors** (e.g., making a move and checking my partner's reactions, moving my partner's hands to my pants or lower body, initiating sexual behavior to see if it is reciprocated) is. (1 = *easy*; 7 = *difficult*).
13. For me to **verbally** communicate my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell my partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex) would be… (1 = *impossible*; 7 = *possible*)
14. If I wanted to I could **verbally** communicate my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell my partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex) (1 = *definitely true*; 7 = *definitely false*)
15. How much control do you believe you have over **verbally** communicating your consent to engage in sexual activity with your partner during a sexual encounter (e.g., suggest having sex to my partner, tell my partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex)? (1 = *no control*; 7 = *complete control*)

16. It is mostly up to me whether or not I **verbally** communicate my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell my partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex). (1 = *strongly disagree*; 7 = *strongly agree*)
17. I am confident that I could **verbally** communicate my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell my partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex) (1= *strongly disagree*; 7 = *strongly agree*)
18. **Verbally** communicating my consent to engage in sexual activity with my partner during a sexual encounter (e.g., suggest having sex to my partner, tell my partner the types of sexual behaviors I want to engage in, tell partner I am interested in having sex) is. (1 = *easy*; 7 = *difficult*).

**Sexual Experience**

1. Have you ever (i.e., in your lifetime) engaged in any of the following behaviors?
    a. kissed/made out with someone
    b. touched a partner's genitals
    c. a partner touched your genitals
    d. gave a partner oral sex
    e. received oral sex from a partner
    f. had vaginal intercourse
    g. had anal intercourse
    h. used sex toys or dildos with a partner

i. had sex with someone other than your partner while in a committed relationship

j. had vaginal intercourse that was consensual but not wanted

**Intention Certainty**

1. How *certain* is your intention to communicate consent to engage in sexual activity in the next 30 days **using nonverbal signals of interest** (e.g., letting your partner know through your actions/body language/signals that you are comfortable with the sexual behavior)?" 1 = *uncertain*; 7 = *certain*
2. How *sure* is your intention to communicate consent to engage in sexual activity in the next 30 days using **nonverbal signals of interest** (e.g., letting your partner know through your actions/body language/signals that you are comfortable with the sexual behavior) 1 = *unsure*; 7 = *sure*
3. How *certain* is your intention to communicate your consent to engage in sexual activity in the next 30 days by **initiating sexual behaviors** (e.g., making a move and checking your partner's reactions, move your partner's hands to your pants or lower body, initiating sexual behavior to see if it is reciprocated) 1 = *uncertain*; 7 = *certain*
4. How *sure* is your intention to communicate your consent to engage in sexual activity in the next 30 days by **initiating sexual behaviors** (e.g., making a move and checking your partner's reactions, move your partner's hands to your pants or lower body, initiating sexual behavior to see if it is reciprocated) 1 = *unsure*; 7 = *sure*

5. How *certain* is your intention to **verbally** communicate your consent to engage in sexual activity with your partner in the next 30 days (e.g., suggest having sex to your partner, tell partner the types of sexual behaviors you want to engage in, tell partner you are interested in having sex)?" 1 = *uncertain*; 7 = *certain*
6. How *sure* is your intention to **verbally** communicate your consent to engage in sexual activity with your partner in the next 30 days (e.g., suggest having sex to your partner, tell partner the types of sexual behaviors you want to engage in, tell partner you are interested in having sex)? 1 = *unsure*; 7 = *sure*

**Demographics:**

1. At your last birthday, how old were you in years?
    a. _____ years old
2. What is your sex?
    a. Male
    b. Female
    c. Other
3. Which of the following best describes your sexual orientation?
    a. Heterosexual/Straight
    b. Homosexual/Gay
    c. Bisexual
    d. Unsure/Questioning
    e. Other
4. What is your class standing?
    a. Freshman
    b. Sophomore
    c. Junior
    d. Senior
    e. Graduate student
5. How do you describe your ethnicity?

a. Hispanic
b. Not Hispanic

6. How do you describe your race?
    a. White or Caucasian
    b. Black or African American
    c. Asian or Asian American
    d. American Indian or Alaskan Native
    e. Native Hawaiian or Pacific Islander
    f. Two or more races
    g. Another race, please specify: _____
7. What is your current relationship status?
    a. Single and not dating or hanging out with anyone
    b. Single but casually seeing someone/dating/hanging out with someone
    c. In a relationship and not living together
    d. Living together but not married
    e. Married
    f. Another relationship status, please specify: _____

# APPENDIX D

## INFORMED CONSENT DOCUMENT—TIME 2

Participant Letter

Dear Participant:

I am a graduate students working under the direction of Professor Paul Mongeau in the Hugh Downs School of Human Communication here at Arizona State University.

I am conducting a study about how college students feel about communicating sexual consent. I am inviting your participation, which will involve answering some questions about yourself (e.g., age, sex, and relationship status) in addition to filling out a survey that asks you to consider how you think and feel about communicating sexual consent. It should take you approximately 10-15 minutes to complete the survey.

It is possible that you have participated in an earlier survey that asked you to create a study ID. This survey will ask you questions to generate the same ID. This will be used to match the first survey to this survey. Though the surveys will be matched, your answer will not be linked directly to you in any way.

If you did not participate in an earlier survey, you are still eligible to participate in this survey.

Your responses on the questionnaire will be used to gain a better understanding of how college students think and feel about communicating sexual consent during their sexual interactions. Although there is no benefit to you, possible benefits of your participation are that we can learn more about how sexual consent is communicated in a college population. There are no foreseeable risks or discomforts to your participation.

Your participation in this study is voluntary. Your responses are anonymous and cannot be linked directly to you in any way. You can skip any questions you feel uncomfortable answering or stop participating at any time without penalty. **You must be over the age of 18 in order to participate in this study**.

The results of this study may be used in reports, presentations, or publications but your name will not be known. The responses you provide will be categorized and combined with other, similar, responses.

Some instructors may be offering you extra credit as a result of your participation in this research study. In order to receive extra credit, you will be directed to a separate questionnaire to provide your name. The information you provide on the extra credit page will never be linked to the study survey. An alternative extra credit opportunity will be available, should students not wish to participate in the survey.

If you have any questions concerning the research study, please contact Paul Mongeau at 480.965.3773. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the

Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

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

Sincerely,

Lori Bednarchik
Paul Mongeau

# APPENDIX E

# STUDY QUESTIONNAIRE—TIME 2

**Study ID:**

1. What are the first two letters of the **city** where you were born (e.g., Asheville = AS)?
2. What day of the **month** were you born (e.g., March 3 = 03)?
3. What is the **last** letter of your **last** name (e.g., Jones = S)?
4. Have you taken this survey before? (Your answer to this question is important for the researchers, but will *not* disqualify you from filling out the survey)

**Actual Behavior**

1. Did you engage in sexual activity with a partner in the past 30 days? Sexual activity includes kissing, sexual touching, oral, vaginal, anal sex, etc. (0 = *no*; 1 = *yes*)

*If the participant answers "no" they will skip to the Sexual Assertiveness and Sexual Self-Esteem questions*

*Now we want you to think of the MOST RECENT time you engaged in sexual activity with someone in the past 30 days. Please answer all of the following questions with this person and sexual encounter in mind.*

2. At your most recent sexual event, who did you engage in sexual activity with?
    a. My spouse or domestic partner
    b. Boyfriend, girlfriend or significant other
    c. Someone I am casually dating/hanging out with
    d. A friend
    e. Someone I just met
    f. Someone who paid me or gave me something for sex

g. Someone who I paid or gave something to for sex

h. Other, please specify

3. Had you already engaged in sexual activity with this person prior to this most recent sexual event?

    a. No

    b. Yes

4. At your most recent sexual event, the person I engaged in sexual activity with was:

    a. Female

    b. Male

    c. Other

5. During your most recent sexual event, what sexual activities did you engage in with this person? (check all that apply)

    a. I kissed/made out with the person

    b. I touched this person's genitals

    c. This person touched my genitals

    d. I gave this person oral sex

    e. This person gave me oral sex

    f. I had vaginal intercourse

    g. I had anal intercourse

    h. I used sex toys such as vibrators and dildos with this person

6. During your most recent sexual event, was the sexual activity…?

    i. Initiated by you

j. Initiated by the other person

k. Initiated mutually by both you and the other person

l. It was hard to tell who initiated it

*For the following questions **sexual activity** is defined as sexual behaviors such as kissing, sexual touching, oral, vaginal, anal sex.*

7. Approximately how many times have you engaged in sexual activity in the past 30 days?
8. Approximately how many people have you engaged in sexual activity within the past 30 days?
9. During the past 30 days, how often have you communicated your consent to engage in sexual activity using **nonverbal signals of interest** (e.g., let your partner know through your actions/body language/signals that you were comfortable with the sexual behavior) during a sexual encounter?" *every time*, *almost every time*, *most times, about half the time, a number of times but less than half, a few times*, or *never*.
10. Please estimate how often in the past 30 days you communicated your consent to engage in sexual activity using **nonverbal signals of interest** (e.g., let your partner know through your actions/body language/signals that you were comfortable with the sexual behavior) during a sexual encounter. 1 = *never*; 7 = *every time*
11. During the past 30 days, how often have you communicated your consent to engage in sexual activity by **initiating sexual behaviors** (e.g., made a move and checked your partner's reactions, moved your partner's hands to your pants or

lower body, initiated sexual behavior to see if it is reciprocated) during a sexual encounter?" *every time*, *almost every time*, *most times, about half the time, a number of times but less than half, a few times*, or *never*.

12. Please estimate how often in the past 30 days you communicated your consent to engage in sexual activity by **initiating sexual behaviors** (e.g., made a move and checked your partner's reactions, moved your partner's hands to your pants or lower body, initiated sexual behavior to see if it is reciprocated) during a sexual encounter. 1 = *never*; 7 = *every time*
13. During the past 30 days, how often have you **verbally** communicated your consent to engage in sexual activity during a sexual encounter (e.g., suggested having sex to your partner, told partner the types of sexual behaviors you wanted to engage in, told partner you were interested in having sex)?" *every time*, *almost every time*, *most times, about half the time, a number of times but less than half, a few times*, or *never*.
14. Please estimate how often in the past 30 days you **verbally** communicated your consent to engage in sexual activity during a sexual encounter (e.g., suggested having sex to your partner, told partner the types of sexual behaviors you wanted to engage in, told partner you were interested in having sex) during a sexual encounter. 1 = *never*; 7 = *every time*

**Substance Use**

1. Prior to engaging in sexual activity, did you and/or your partner consume alcohol? 1 = *We both did*; 2 = *Just I did*; 3 = *Just my partner did*; 4 = *Neither of us did*

2. Prior to engaging in sexual activity, did you and/or your partner take any recreational drugs? 1 = *We both did*; 2 = *Just I did*; 3 = *Just my partner did*; 4 = *Neither of us did*
3. How impaired (e.g., drunk, tipsy, dizzy, high, etc.) did you feel as the sexual encounter began? 1 = *not at all* to 10 = *extremely*
4. How impaired (e.g., drunk, tipsy, dizzy, high, etc.) do you think your partner was as the sexual encounter began? 1 = *not at all* to 10 = *extremely*

**Sexual Self Esteem (subscale of Snell & Papini, 1989, Sexuality Scale)**

1-5*, strongly disagree* to *strongly agree*

1. I am a good sexual partner
2. I would rate my sexual skill quite highly.
3. I am better at sex than most other people.
4. I sometimes have doubts about my sexual competence. (R)
5. I am not very confident in sexual encounters. (R)
6. I think of myself as a very good sexual partner.
7. I would rate myself low as a sexual partner. (R)
8. I am confident about myself as a sexual partner.
9. I am not very confident about my sexual skill. (R)
10. I sometimes doubt my sexual competence. (R)

**The Hurlbert Index of Sexual Assertiveness (15 items)**

1-5*, strongly disagree* to *strongly agree*

1. I feel uncomfortable talking during sex.
2. I approach my partner for sex when I desire it. (R)

3. I think I am open with my partner about my sexual needs. (R)
4. I enjoy sharing my sexual fantasies with my partner. (R)
5. I communicate my sexual desires to my partner. (R)
6. It is difficult for me to touch myself during- sex.
7. I am reluctant to describe myself as a sexual person.
8. I feel uncomfortable telling my partner what feels good.
9. I speak up for my sexual feelings. (R)
10. I am reluctant to insist that my partner satisfy me.
11. When a sexual technique does not feel good, I tell my partner. (R)
12. I feel comfortable giving sexual praise to my partner. (R)
13. It is easy for me to discuss sex with my partner. (R)
14. I feel that I am shy when it comes to sex.
15. It is hard for me to be honest about my sexual feelings.

**Demographics:**

1. At your last birthday, how old were you in years?
    a. _____ years old
2. What is your sex?
    a. Male
    b. Female
    c. Other
3. Which of the following best describes your sexual orientation?
    a. Heterosexual/Straight
    b. Homosexual/Gay
    c. Bisexual
    d. Unsure/Questioning
    e. Other

4. What is your class standing?
    a. Freshman
    b. Sophomore
    c. Junior
    d. Senior
    e. Graduate student
5. How do you describe your ethnicity?
    a. Hispanic
    b. Not Hispanic
6. How do you describe your race?
    a. White or Caucasian
    b. Black or African American
    c. Asian or Asian American
    d. American Indian or Alaskan Native
    e. Native Hawaiian or Pacific Islander
    f. Two or more races
    g. Another race, please specify: _____
7. What is your current relationship status?
    a. Single and not dating or hanging out with anyone
    b. Single but casually seeing someone/dating/hanging out with someone
    c. In a relationship and not living together
    d. Living together but not married
    e. Married
    f. Another relationship status, please specify: _____