

FROM SEXUAL MEDIA TO UNWANTED HOOKUPS: THE MEDIATING INFLUENCE OF  
COLLEGE STUDENTS' ENDORSEMENT OF TRADITIONAL HETEROSEXUAL SCRIPTS,  
SEXUAL SELF-CONCEPT, AND PERCEIVED PEER NORMS

by

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## Abstract

Previous authors have suggested that reducing rape and sexual assault will require dismantling the rape culture that exists in the U.S. that supports and condones sexual violence against women (e.g., Brownmiller, 1975; Burt, 1980). Sexual media maintain rape culture by frequently portraying rape myths and sexual stereotypes (e.g., Cuklanz, 1999; Ward, 1995), like traditional heterosexual scripts. These portrayals then increase acceptance of these myths and stereotypes in viewers (e.g., Emmers-Sommer, Pauley, Hanzal, & Triplett, 2006; Kahlor & Eastin, 2011). A two-month longitudinal panel survey was conducted to better understand the theoretical mechanisms that may explain how college students' sexual media use may indirectly influence their propensity for engaging in unwanted hookups through their endorsement of traditional heterosexual scripts, sexual self-efficacy, and perceived peer norms. The results were different for men and women. For women, the results suggested that their sexual media diet at Time 1 increased their endorsement of traditional heterosexual scripts at Time 2, their endorsement of traditional heterosexual scripts at Time 1 increased their propensity for engaging in unwanted hookups at Time 2, and their propensity for engaging in unwanted hookups at Time 1 decreased their sexual self-efficacy at Time 2. For men, the results suggested that their sexual media diet at Time 1 decreased their sexual self-efficacy at Time 2 and their perceived peer norms regarding hookups at Time 1 increased their propensity for engaging in unwanted hookups at Time 2. Together the results suggest sexual media may be negatively impacting college students' sexual attitudes and beliefs and their sexual self-efficacy, which may lead them to be more likely to engage in unwanted hookups. Limitations and future directions are discussed.

*Keywords:* sexual media, scripts, sexual self-efficacy, peer norms, unwanted sex, rape

## Chapter 1: Introduction

A recent survey of undergraduates and graduates at 27 universities in the U.S. reported that 13%-30% of undergraduates said they have experienced forced or incapacitated sexual penetration or touching since entering college. Between 5%-21% of undergraduates reported that they have experienced nonconsensual sexual penetration or touching that are not illegal, but that violate student codes of conduct requiring affirmative sexual consent. Women are significantly more at risk of experiencing these unwanted sexual acts than men, and a majority of victims report they will not report the crime to university officials or the police (D. Cantor et al., 2015). D. Cantor and colleagues' survey did not assess the prevalence of less severe forms of unwanted sex, such as sexual compliance, but other studies have found between 38% and 55% of college students report they have experienced unwanted sexual intercourse that did not fit the definition of sexual assault or sexual coercion (Erickson & Rapkin, 1991; Muehlenhard & Cook, 1988; O'Sullivan & Allgeier, 1998; Sprecher, Hatfield, Cortese, Potapova, & Levitskaya, 1994). When kissing, touching, and oral sex are included in the definition of unwanted sexual contact, the percentages of college students reporting unwanted sexual contact are much higher. For example, Muehlenhard and Cook (1988) used a definition of unwanted sexual contact that included kissing, touching, oral sex, and intercourse and found 97.5% of women and 93.5% of men reported having experienced at least one form of unwanted sexual contact.

Several negative outcomes are associated with unwanted sexual experiences, but the worst part is that unwanted sexual contact could result in a harmful cycle of unwanted sexual experiences and negative outcomes. Whether unwanted sexual contact is compliant, coerced, or assaultive, men and women often experience negative outcomes from it, such as increased alcohol or drug use, depression, and less enjoyment from sex (Banyard et al., 2007; Katz &

Tirone, 2009; Vannier & O'Sullivan, 2010). In addition, Wilson, Calhoun, and Bernat (1999) found that compared to nonvictims, those who had been victimized in the past had longer response latencies in signaling when to halt an audiotaped date rape scenario. This “freeze effect” may contribute to an individual’s risk of future victimization. Even those unwanted sexual experiences that are compliant can leave individuals “feeling guilty, sleazy, and violated” (Christopher, 1988, p. 263), feeling as though they have lost a part of their identity (Basile, 1999), or feeling less capable of resisting unwanted sexual advances (Katz & Schneider, 2015). Past studies have shown that men generally report unwanted sexual activity as less traumatic than women, except in situations with male partners or female strangers (C. Struckman-Johnson, 1988; C. Struckman-Johnson & Struckman-Johnson, 1994; D. Struckman-Johnson & Struckman-Johnson, 1996). Yet Katz and Schneider (2015) found men experienced a similar reduction in sexual refusal efficacy as women after engaging in compliant casual sex. Thus, being a victim of sexual assault or coercion, or engaging in sexual compliance, could predict a pattern of unwanted sexual activity for women and men. Without intervention, this pattern could become a harmful cycle resulting in physical, psychological, and social problems.

The reasons that college students provide for engaging in less severe forms of unwanted sex, such as instances that were coerced or compliant, may provide a look into what might be causing the majority of unwanted sex on college campuses. Some of the most common reasons provided for engaging in the less severe forms of unwanted sex involve perceived peer or gender norms (Bay-Cheng & Eliseo-Arras, 2008; Muehlenhard & Cook, 1988; Poppen & Segal, 1988). For example, men frequently report peer pressure as a reason to engage in sexual activity that is unwanted (Muehlenhard & Cook, 1988; Poppen & Segal, 1988), and men have reported that they had engaged in unwanted sexual contact so that they would not appear less masculine,

homosexual, or inexperienced (Muehlenhard & Cook, 1988). Women have reported that they have engaged in unwanted sexual contact because they felt the male partner was too aroused to stop (Miller & Marshall, 1987; Shotland & Hunter, 1995), or that they felt it would be inappropriate to refuse (Sandberg, Jackson, & Petretic-Jackson, 1987). Shotland and Hunter (1995) found that reasons provided for unwanted sex that revolved around keeping up appearances (e.g., “do not want to appear unmasculine”, “felt it would be inappropriate to resist”) were more frequently reported in unwanted sexual experiences with a less known partner than a more well known partner.

Researchers have observed that hookups, which are sexual encounters that occur between uncommitted partners, are often unwanted. Flack et al. (2007) reported that 78% of college students’ unwanted oral and vaginal intercourse occurred as a hookup. In addition, Katz, Tirone, and van der Kloet (2012) found that 16% of college students had complied to unwanted sex within their first two months on campus. Katz et al.’s (2012) study did not specify whether the unwanted sex occurred as a hookup, but the limited amount of time the college students had been in school suggested that these students did not probably know their sexual partners well. Paul and Hayes (2002) argued that because partners do not often know each other well in hookup situations, they may have quite different expectations for the hookup and may not communicate these expectations in advance, which could lead to partners having very different ideas about what is wanted and what is not.

The goal of the present study is to determine whether college students’ sexual media diet explains variance in their unwanted hookups in college (including, but not limited to, rape and sexual assault). A multi-stage theoretical model will investigate the indirect relationship between sexual media diet and college students’ propensity for engaging in unwanted hookups through

three mediators (i.e., traditional sexual scripts, sexual self-concept, and perceived peer norms). This study is needed because the media are often cited as cultivating rape- and hookup-supportive attitudes and beliefs (e.g., Aubrey & Smith, 2015; Bogle, 2008; Burnett et al., 2009; Peters, 2012), and several studies have suggested unwanted sex, especially in hookups, may be supported or condoned by these attitudes and beliefs (e.g., Bay-Cheng & Eliseo-Arras, 2008; Flack et al., 2007). Despite these suggestions, no study has examined the links between college students' sexual media diets, their rape- and hookup-supportive attitudes and beliefs (i.e., endorsement of traditional heterosexual scripts, sexual self-concept, and perceived peer norms), and their propensity for engaging in unwanted hookups.

### **Difficulties in Defining Unwanted Sexual Experiences**

Sexual assault, sexual coercion, and sexual compliance are all unwanted sexual experiences, and not surprisingly, there is considerable overlap in the definitions of each. Sexual assault is “any type of sexual contact or behavior that occurs without the explicit consent of the recipient” (Office on Violence Against Women, n.d., para. 1), and can be used to describe all *illegal* forms of sexual violence including rape, attempted rape, and inappropriate touching. Sexual coercion refers to sexual contact that is not necessarily illegal, but that is coerced using *non-physically* threatening, manipulative, or controlling behaviors in an attempt to solicit sexual activity (Finkelhor & Yllö, 1987; Gavey, 1992). Lastly, sexual compliance is defined as freely engaging in unwanted sexual activity in the *absence* of partner coercion (O’Sullivan & Allgeier, 1998). Sexual compliance is different than sexual coercion because sexual compliance lacks partner coercion. Clearly, the definitions of the different types of unwanted sexual experiences overlap. Some authors have suggested sexual assault may be an extreme version of sexual coercion (Gavey, 1992; O’Sullivan, 2005), and others have suggested sexual compliance may

include instances of sexual coercion that are not coerced by a partner, but are coerced through other means, such as peer pressure or social norms (Conroy, Krishnakumar, & Leone, 2014).

These definitions are also further complicated by the fact that they all rely on consent, which is a confusing and somewhat unpredictable behavior that college students, researchers, and lawmakers are all struggling to define (Beres, 2007; Jozkowski & Peterson, 2013; Jozkowski, Peterson, Sanders, Dennis, & Reece, 2014; Shotland & Hunter, 1995). Sexual consent can be defined as any agreement to engage in a sexual act (Beres, 2007), but this definition does not address the fact that consent is sometimes coerced, is usually specific to a particular act, and can often be misinterpreted. Thus, relying on consent to define unwanted sex may be problematic.

The definitions of unwanted sexual experiences may also be influenced by rape culture. As the definition of rape culture suggests, rape culture normalizes, trivializes, and eroticizes sexual assault in such a way that victims may not perceive they have been victimized (e.g., they may perceive they had an obligation to engage in unwanted sex). In addition, victims may blame themselves for the assault, feel that reporting their unwanted sexual experience will cause them more harm than good, or that their experience was not serious enough to report (D. Cantor et al., 2015; National Research Council, Division on Behavioral and Social Sciences and Education, & Committee on National Statistics, 2014). As studies have shown, rape-supportive beliefs and the stigma associated with being a victim of sexual assault can often lead college students to not report their unwanted sexual experiences to the police or on surveys (Banyard et al., 2007; Planty, Langton, Krebs, Berzofsky, & Smiley-McDonald, 2013; Sinozich & Langton, 2014).

In sum, because of the conceptual and operational difficulties associated with studying unwanted sexual experiences directly, I will be studying college students' *propensity* for

engaging in unwanted hookups. This concept was chosen because it can avoid some of the problems previous studies have encountered when trying to determine the prevalence of women's unwanted sexual experiences in college. First, propensity for engaging in unwanted hookups may seem similar to sexual compliance, but it is conceptually different because it does not refer to past consent behavior or a willingness to engage in unwanted sexual activity. Instead, it refers to college students' predicted future non-resistance in unwanted hookup situations. Defining one's participation in unwanted sexual activity through non-resistance instead of consent or willingness may reduce the possibility of socially desirable responses. In addition, providing scenarios that fall into a grey area in terms of whether they would be consensual or not, gives participants leeway in the social desirability of their responses. For example, participants may be more inclined to accurately report their non-resistance to a partner's sexual advances if the scenario placed them in a situation in which they may consent if only they were more prepared and willing. Second, asking participants to report past unwanted sexual behavior may invite response bias because women often make up excuses or try to justify the assaultive or coercive behaviors of their partners (Weiss, 2009, 2010). In order to cope with their unwanted sexual experiences, victims may reframe the experience as something other than unwanted, and thus, would not report it as unwanted on surveys. By asking participants how non-resistant they would be in a future unwanted sexual scenario, researchers are less reliant on participants' memories of their past experiences. Third, hookups are specified because unwanted sex within relationships may have quite different antecedents and outcomes. In fact, individuals in relationships report complying with unwanted sex for different reasons than single individuals, and report different positive and negative outcomes (Impett & Peplau, 2003). Fourth, because propensity is not singularly determined by remembering previous behavior, propensity would

still be applicable to those who have not yet engaged in sexual intercourse. The purpose of this study is to predict what may lead college students, in the future, to engage in unwanted hookups because unwanted hookups could lead to victimization, unhealthy sex practices, and physical, psychological, or social problems (Lewis, Granato, Blayney, Lostutter, & Kilmer, 2012; Owen & Fincham, 2011).

### **Emerging Adulthood, Media Use, and Sexual Behavior in College**

College students are going through a unique period of development called emerging adulthood. Emerging adulthood is a period of role experimentation and identity development between late adolescence and young adulthood that occurs in the late teens and early twenties (Arnett, 2000). Emerging adults have more independence than late adolescents and less responsibility than young adults. Thus, emerging adulthood is the time in most people's lives when they begin to explore their sexual identities (Arnett, 2000; E. M. Morgan, 2013; Shulman & Connolly, 2013). Without parental supervision and with more independence, emerging adults are free to experiment sexually.

Exploration of sexual and romantic relationships is an important psychosocial developmental task that prepares emerging adults for their future romantic relationships (Erikson, 1963). It is in these early explorations that emerging adults develop the security and trust that will allow them to form romantic relationships that will last. Thus, it is important that these sexual experiences be wanted because otherwise they could have a negative impact on emerging adults' ability to form lasting, satisfying romantic relationships (Madsen & Collins, 2011).

The media provide emerging adults with information about what sexual identities are available to them. The media practice model explains how emerging adults' use media in

developing their sexual identities (Steele & Brown, 1995), especially before they become sexually active. Based on a uses and gratifications approach, the media practice model argues emerging adults will select and react to media in ways that confirm their salient identities. Because many emerging adults are beginning to experiment sexually (Guttmacher Institute, 2013), their salient sexual identity will influence the type of media content they choose to watch and the way they interpret this content. In addition, many emerging adults are in college while they are developing and experimenting with new sexual identities. The college environment fosters a range of activities (e.g., drinking, casual sex) that could negatively impact emerging adults' developing identity and self-concept. Together, these two salient identities will help determine what media content college students select, how they will interpret that content, and how that content will influence their attitudes, beliefs, and social identities (Brown, 2000, 2002). When college students select sexual content, it is likely that this content will both reinforce their salient identities and further develop those identities (Slater, 2007). Thus, the media may be quite potent for men and women in this stage of development.

Empirical evidence suggests that hooking up has become the norm for sexual exploration on college campuses, and that it is replacing traditional dating (Garcia & Reiber, 2008; Garcia, Reiber, Massey, & Merriwether, 2012; Owen & Fincham, 2011). Several reasons for this exist, but the most commonly cited reasons for the increase in hooking up in college are delayed marriage and the sexual revolution (e.g., Bogle, 2008; Garcia et al., 2012). The median age at first marriage has increased 30% from 1954 to 27.5 for women and 29.2 for men in 2013 (K. K. Payne, 2015), yet the average age for becoming sexually active is 17 (Guttmacher Institute, 2015), which means most young people will have a decade in which they can experiment sexually. In addition, the sexual revolution of the 1960s brought changes in how young people

viewed sex and dating (Bogle, 2008). More than just a means for reproduction, sex began to be viewed as an activity to express intimacy and experience personal pleasure. Birth control methods, such as condoms and oral contraceptives, also became more available after the 1960's, which made sex for reasons other than reproduction more accessible.

Garcia et al. (2012) define a hookup as a sexual encounter that involves two people who are physically intimate (e.g., kissing, touching, oral sex, vaginal sex, anal sex) but who are not committed. Emerging adults claim they prefer hookups to dates because hooking up does not obligate partners to commit to a romantic relationship (Bogle, 2008), but studies have also found that one of the primary motivators for engaging in a hookup is the potential for relationship formation for both men and women, but more commonly among women (England, Shafer, & Fogarty, 2011; Garcia & Reiber, 2008). Studies have found between 70% and 80% of college students report they have engaged in a hookup (i.e., ranging from kissing to intercourse) in their lifetime (Aubrey & Smith, 2013; Lambert, Kahn, & Apple, 2003; E. L. Paul & Hayes, 2002; E. L. Paul, McManus, & Hayes, 2000). Hooking up is more common when school is in session, which suggests the college environment may facilitate hookup behavior (Fielder, Carey, & Carey, 2013).

Hookups concern sexual health scholars for a variety of reasons. While emerging adults are not necessarily engaging in more sexual activity than in previous decades, they are engaging in more sexual activity with friends or casual acquaintances rather than relational partners than they did in previous decades (Monto & Carey, 2014). Therefore, sexual frequency has not significantly changed over the years, but the level of familiarity between sexual partners has changed over the years. Also, college students report between one to three oral sex and intercourse hookups per month, which suggests hookup behavior does not follow a regular

pattern; it is spontaneous (Monto & Carey, 2014). Lastly, hookups tend to involve the use of alcohol and drugs (Claxton, DeLuca, & van Dulmen, 2015). Each of these factors concern sexual health scholars because these factors may increase the likelihood of risky sexual behavior and negative outcomes (Fielder, Walsh, Carey, & Carey, 2013; Lambert et al., 2003; E. L. Paul et al., 2000).

### **College Students' Reasons For Past Hookups And Unwanted Sexual Experiences**

The reasons men and women give for engaging in hookups and unwanted sex tend to be ambivalent, containing both positive and negative motivations (E. L. Paul & Hayes, 2002). Most college students, report reasons for engaging in *wanted* hookups that revolve around intraindividual factors (e.g., desire or intoxication) and factors having to do with the sexual partner (e.g., attractiveness) (Garcia & Reiber, 2008; Kenney, Thadani, Ghaidarov, & LaBrie, 2013; Regan & Dreyer, 1999). Generally, these reasons do not differ much for men and women. For *unwanted* sex (there are no studies specifically examining reasons for unwanted hookups), men and women tend to differ in the reasons they provide. In the one study comparing men's and women's reasons for engaging in unwanted sexual activity, men tended to provide reasons involving personal fulfillment and external pressures, such as enticement and peer pressure (Muehlenhard & Cook, 1988). On the other hand, women provided more interpersonal reasons, such as altruism and fear of termination of the relationship. In hookups, it is not likely that the woman would have a relationship with her partner yet, but she may engage in a hookup, wanted or not, as a way to initiate a relationship (Bogle, 2008). In studies that have assessed men's and women's reasons for engaging in unwanted sex separately, these patterns of differences seem to be upheld (Conroy et al., 2014; Flack et al., 2007; E. Morgan, Johnson, & Sigler, 2006; Shotland

& Hunter, 1995). These reasons are often given post-sexual behavior and therefore should be interpreted as explanations for past behavior, rather than motives for future behavior.

College students are engaging in both wanted and unwanted hookups, and they provide positive and negative reasons for doing either. What we do not know is how college students determine whether they should or should not engage in an unwanted hookup. The following section will describe how the media may play role in college students' propensity for engaging in unwanted hookups.

### **The Attitudes and Beliefs Influencing College Students' Propensity for Engaging in Unwanted Hookups**

The following section will propose three theoretical mechanisms to explain how college students' sexual media diets may be indirectly influencing their propensity for engaging in unwanted hookups. Exposure to sexual media is theorized to impact college students' endorsement of traditional heterosexual scripts, sexual self-concept, and perceived peer norms. Each theoretical construct will be briefly defined and explanations of the mechanisms will be provided.

**Traditional heterosexual scripts.** In general, most sexual behavior is guided by sexual scripts and gender norms (Leigh, 1989). Sexual scripts are socially learned mental representations that guide sexual behavior that can be learned from a variety of sources, such as friends and family, or media (Simon & Gagnon, 1986). Much like a play, sexual scripts provide information about who will do what, when, how, and why in sexual situations.

Traditional heterosexual scripts prescribe what behaviors are considered appropriate for men and women in sexual situations and are typically highly gendered (e.g., Kim et al., 2007; Masters, Casey, Wells, & Morrison, 2013; Sakaluk, Todd, Milhausen, Lachowsky, &

Undergraduate Research Group in Sex, 2014). According to these scripts, men and women fulfill opposite but complementary roles in sexual encounters. Men are expected to desire sex, have strong sex drives, initiate and push sex to the next level of intimacy, be sexually skilled, and prefer physically pleasurable recreational sex over emotionally intimate relational sex. On the other hand, women are expected to be desirable to men (i.e., sex objects), but not to desire sex themselves. They are expected to have weak sex drives compared to men, and to resist sexual advances (i.e., gatekeeper). Women are expected to want commitment and monogamy, and therefore should prefer relational sex to recreational sex. When they have sex, women are expected to seek emotional intimacy rather than physical pleasure.

Traditional heterosexual scripts also contain a sexual double standard in which men's sexual activity is tolerated, encouraged, and yields few negative consequences, but women's sexual activity is controlled, restricted, and subject to censure for violation of norms (MacCorquodale, 1989). Recent studies have found this double standard may be slowly fading from the sexual scripts held by college students (Masters et al., 2013; Sakaluk et al., 2014), but it may still be alive and well in the hookup culture. This is because many college students may still uphold the sexual double standard when it comes to hookups (Armstrong, England, & Fogarty, 2012). Endorsement of the sexual double standard and the expectation that women should resist sexual advances is also related to the belief that women's resistance is sometimes "token resistance," meaning their unwillingness to engage in sexual activity is a cover-up for their real desire to have sex (O'Sullivan & Allgeier, 1998). Studies have found women need to say no an average of 2.6 times before their partner will believe them (Mills & Granoff, 1992), and that more experienced women will be believed even less (Shotland & Goodstein, 1992).

Despite advances in gender equality in our society, traditional heterosexual scripts and gender roles are still prevalent in emerging adults' ideas about sex and could increase college students' propensity for engaging in unwanted hookups. Women, more than men, report that their sexual thoughts and feelings often revolve around the limits and contexts in which sexual behavior is acceptable (Maas, Shearer, Gillen, & Lefkowitz, 2015). According to Eaton and Matamala (2014), endorsing heteronormative beliefs, like traditional heterosexual scripts, predicts their reporting of more acceptance and experience with verbal sexual coercion. Also, women who internalize traditional gender norms tend to base their self-esteem on others' approval, which may result in them feeling less sexual autonomy and experiencing less sexual pleasure (Sanchez, Crocker, & Boike, 2005).

While the research on men's unwanted sexual experiences is limited, the role prescribed to men in the traditional heterosexual script may also encourage men to engage in unwanted sexual encounters. Men's role in the heterosexual script is to always be ready for sex and to have sex with as many women as possible (Kim et al., 2007; Seabrook et al., 2016). In order to maintain their image as a "player," men may feel they will be expected to live up to the standards set by the heterosexual script by engaging in sexual behavior whenever they can, even in situations that are unwanted.

The roles prescribed to men and women by the traditional heterosexual script are stereotypical, but that does not mean these scripts will be discounted. If someone believes they should live up to these stereotypes in order to be accepted by their friends and romantic partners, it is likely they will still engage in behaviors that conform to the traditional heterosexual script. As Eaton and Matamala (2014) found, there was a positive correlation between men's and women's endorsement of traditional heterosexual scripts and their acceptance of verbal sexual

coercion, as well as their experience as both victim and perpetrator of verbal sexual coercion. This result may seem ironic, especially among women whose role prescribed by the traditional heterosexual script includes being a “sexual gatekeeper”, but when one considers the negative impact that these beliefs could have on one’s sexual self-concept, it is much easier to see how strongly endorsing traditional heterosexual scripts could reduce both men’s and women’s ability to resist unwanted sexual situations.

**Sexual self-concept.** Broadly defined, one’s sexual self-concept is how one thinks and feels about the self sexually (Buzwell & Rosenthal, 1996; Deutsch, Hoffman, & Wilcox, 2014). Refinement of the sexual self-concept is an important developmental task for adolescents because it helps individuals organize and interpret their sexual experiences (Gagnon & Simon, 2011; Hensel, Fortenberry, O’Sullivan, & Orr, 2011; Longmore, 1998; Rostosky, Dekhtyar, Cupp, & Anderman, 2008). Three lower-order factors, or sub-dimensions, are frequently studied under the sexual self-concept umbrella: sexual self-esteem, sexual self-efficacy, and sexual anxiety (Buzwell & Rosenthal, 1996; Deutsch et al., 2014; Rostosky et al., 2008; Snell, 1998). Sexual self-esteem is defined as one’s perceptions of sexual worth and sexual attractiveness, as well as a sense of pride in one’s sexual behaviors (Buzwell & Rosenthal, 1996). Sexual self-efficacy is one’s perceptions of their ability and competence as a sexual agent (Deutsch et al., 2014). Lastly, sexual anxiety is a negative affective response towards sex (Deutsch et al., 2014). Together these three concepts make up a theoretical construct that assesses the cognitive, emotional, and behavioral aspects of an individual’s sexual self-concept.

The relationship between sexual self-concept and behavior is reciprocal. Breakwell (1993) argues that the social representations we use to define ourselves affect the likelihood of exposing oneself to, accepting, and using certain social representations to organize or interpret

one's behavior. Also, Millward (1995) argues social representations limit one's identity possibilities and actions. To illustrate, consider a woman who feels she is sexually attractive and that this is central to her sexual self-concept. Because of this self-categorization, she may be more likely to accept and identify with models who are sexually objectified and act in ways that confirm her sexual attractiveness (i.e., self-objectification). Breakwell and Millward (1997) found men and women who used self-descriptors like "passionate" and "knowledgeable about eroticism" felt sex and being sexually attractive were more important than those who did not use these sexually assertive descriptors. The sexually assertive women in Breakwell and Millward's (1997) study reported more sexual experience and more frequent risk-taking behaviors such as alcohol consumption and number of sexual partners, but sexually assertive men did not report significantly more or less sexual experience or risk-taking behaviors. Instead, men whose sexual self-concepts reflected more relational descriptors like being "unlikely to seduce" and "unlikely to sexually exploit partner" reported sex or being sexually attractive were less important and reported less alcohol and cigarette consumption. These results provide some confirmation of the reciprocal relationship between self-descriptions, representation, and action.

Despite the fact that men and women's sexual roles within the traditional heterosexual script are different, internalizing these scripts may negatively impact their sexual self-concepts. Strong endorsement of traditional heterosexual scripts, like the sexual double standard, may lead to internalizing these beliefs, or using these beliefs as standards to compare oneself to in order to satisfy a perceived norm or ideal (Breakwell, 1993; Wood, Christensen, Hebl, & Rothgerber, 1997). Men's sexual role within the traditional heterosexual script emphasizes men's insatiable sexual desire and preference for recreational sex with a variety of partners rather than relational sex with a single partner (Byers, 1996; Masters et al., 2013; Seal & Ehrhardt, 2003).

Internalizing this role may lead men to struggle with their competing desires for emotional and sexual intimacy (Seal & Ehrhardt, 2003), and could reduce their perceived ability to say “no” to sex (Rosenthal, Moore, & Flynn, 1991; Zimmerman, Sprecher, Langer, & Holloway, 1995). Because women’s sexual role is predominately defined in contrast to men’s sexual role within the traditional heterosexual script, women may not feel it is appropriate to have autonomous sexual desires themselves (Morokoff, 2000). Internalizing the traditional heterosexual script may instill in women a tendency to just “let it happen” when a man initiates unwanted sexual activity because they feel obligated to have sex or because they fear they man will get angry or resent them for refusing sex (Crawford, Kippax, & Waldby, 1994; Gavey, 1992; Motley & Reeder, 1995; Tolman, 1991).

With a lowered sexual self-concept, emerging adults may find it difficult to resist unwanted sexual advances. Studies have shown emerging adults with low sexual self-esteem, self-efficacy, and/or anxiety are less likely to engage in safe sex practices, such as condom use (Salazar et al., 2004), and may be more likely to be a victim of sexual coercion (Forbes & Adams-Curtis, 2001; Messman-Moore, Coates, Gaffey, & Johnson, 2008). In addition, less refusal efficacy, or feelings of being capable of refusing unwanted sex, is associated with greater engagement in unwanted casual sex (Katz & Schneider, 2015). Thus, a lower sexual self-concept may result in emerging adults being more likely to engage in unwanted hookups.

**Perceived peer norms.** Emerging adults’ sexual behavior may also be guided by their perceptions about what their peers are doing or thinking. The reasoned action approach, previously the theory of planned behavior or theory of reasoned action, explains that individuals’ behavior is often influenced by what they perceive important or similar others are doing (i.e., descriptive norms) and what these others believe is appropriate (i.e., injunctive norms) (Fishbein

& Ajzen, 2011). Thus, college students may be more likely to engage in unwanted hookups if they perceive their peers are hooking up or that their peers approve of hooking up. An important point here is that it is unlikely that emerging adults perceive their peers are frequently engaging in, or approving of, *unwanted* hookups. Still, if individuals overestimate their peers' hookup behavior or attitudes towards hooking up, they may be more likely to engage in unwanted hookups to fit in (Carey, Borsari, Carey, & Maisto, 2006; Peters, 2012). Individuals may be able to get information about their peer's sexual behaviors and attitudes towards sexual behavior by talking to them or observing their behavior, but the media may also act as a "sexual super peer" (Brown, Halpern, & L'Engle, 2005), imparting information to viewers about what similar others do and believe.

Studies have shown that college students overestimate the prevalence of hooking up and how comfortable their peers are with hooking up (i.e., pluralistic ignorance; Lambert et al., 2003; E. L. Paul et al., 2000). In their descriptions of sex, college students often note that hooking up is expected in college or that everyone hooks up in college (Fantasia, 2011). Believing one's close friends or family approve of hookup behavior is associated with one's own approval of hookup behavior (Herold, Maticka-Tyndale, & Mewhinney, 1998; Napper, Kenney, & LaBrie, 2015) and with one's own actual hookup behavior three months later (Napper et al., 2015). These distorted beliefs may put pressure on college women and men to engage in hookups, even in unwanted situations. For example, men and women often say peer pressure was a reason they engaged in unwanted sex (Conroy et al., 2014; Muehlenhard & Cook, 1988; E. L. Paul & Hayes, 2002).

### **Organization of the Dissertation**

This chapter defined and explained the significance of the major concepts for this study. In addition, it proposed college students may be more likely to participate in unwanted hookups,

in part, because of their endorsement of traditional heterosexual scripts, sexual self-concept, and perceived peer norms. Not yet discussed is how college students' sexual media diets are hypothesized to indirectly influence their propensity for engaging in unwanted hookups through these constructs. Therefore, Chapter 2 will describe the media content that may influence college students' endorsement of traditional heterosexual scripts, sexual self-concept, and perceived peer norms. Second, it will provide a comprehensive summary of the scripting theory framework that will be used in this study. Last, an in-depth explanation of the theoretical model proposed for this study will be provided. In Chapter Three, the method, procedure, and measures used in executing the proposed study will be discussed.

## **Chapter 2: Literature Review**

### **Emerging Adults Turn to the Media for Sexual Information**

As was previously discussed, the media practice model argues young people will select and interpret the media based on their salient identities (Steele & Brown, 1995). Fifty-two percent of young men and women will wait to have sex until they are 18 or older, but between the ages of 18 and 20 about 20% will engage in sexual intercourse (Guttmacher Institute, 2013). Because many young people will begin having sex in college, it is likely their sexual identities will be particularly salient in college. Because sex is still such an uncomfortable topic for many people and because asking their peers about sex would be admitting their inexperience, it is likely college students will use the media to obtain information about what is sexually normative (Gagnon & Simon, 2011).

In addition, media use trends seem to be increasing. Young people aged 8-18 increased their total media use by more than an hour per day from 1999 to 2009 (Rideout, Foehr, & Roberts, 2010). On average, adolescents are now spending about 7.5 hours consuming media per day, which, with the prevalence of media multi-tasking, amounts to about 10.5 hours of total content in a given day. This is divided among television (4.5 hours), music (2.5 hours), non-school-related computer use (1.5 hours), print (.5 hours), and movies (.5 hours). While young men and women differ slightly in the time they spend with certain media (e.g., cellphones: women ~2hrs, men ~1.25hrs; video games: women ~1hr, men ~1.5hrs), their overall media use totals only differ by about an hour.

Because of the amount of media young men and women are consuming and because of their salient sexual identity, it is important to review what sexual content they may be exposed to and to consider how that content could influence their endorsement of traditional heterosexual

scripts, sexual self-concepts, and perceived peer norms. The following section will discuss the sexual content in television, music videos, magazines, movies, and social media that could influence college students' sexual attitudes, beliefs, and behaviors. After that, a comprehensive review and summary about scripts and how scripts can be acquired from the media and used in individuals' daily lives will be provided. Finally, a theoretical model using scripting theory will propose college students' sexual media diets indirectly influence their propensity for engaging in unwanted hookups through their endorsement of traditional heterosexual scripts, sexual self-concepts, and perceived peer norms.

### **What Emerging Adults See in the Media**

There have been several recent reviews of the content analysis literature that assess how sex is portrayed in the media (Stern & Brown, 2008; Ward, 2003; Wright, 2009). Together, these reviews agree that the amount and explicitness of sex have increased over the past few decades with little effort being made to show healthy sex practices and realistic consequences. Content analyses primarily focus on television, music videos, and magazines; film and social media content have been studied less. In addition, many content analyses have focused on the prevalence of sex in the media, rather than the details about how sex is portrayed. Social media are versatile mediums, allowing users to interact with friends, family, and celebrities. To maintain consistency, this review will only focus on the content of social media posts and young people's perceptions of these posts because, in this way, social media function similarly to the other media studied. The following section will provide an overview of the types of content found in television, movies, music videos, magazines, and social media that could influence emerging adults' endorsement of traditional heterosexual scripts, sexual self-concepts, and perceived peer norms. Four overarching themes of content (i.e., amount of sex, unwanted sex

and hookups, sexual consequences and health, and traditional heterosexual scripts) will be discussed.

**Amount of sex.** Overall, content analyses of television, movies, and music videos find depictions and discussions of sex are common and may be increasing (Stern & Brown, 2008; Ward, 2003; Wright, 2009). On television, sexual behavior and talk are more common among programs viewed by adolescents and young adults than they are industry-wide (Kunkel et al., 2003, 2007; Kunkel, Eyal, Finnerty, Biely, & Donnerstein, 2005). In their analysis of multiple prime-time television samples gathered during 1997/1998, 2001/2002, and 2004/2005, Kunkel et al. (2005) found the amount of sexual content rose from 56% in 1998 to 70% in 2005. Talk about sex rose from 54% in 1998 to 68% in 2005, and sexual behavior rose from 23% in 1998 to 35% in 2005. In movies, there is an average of about 7.28 sexual acts per teen movie (Callister, Stern, Coyne, Robinson, & Bennion, 2011), and 60% of top-grossing movies in 1996 had at least one sex scene (Bufkin & Eschholz, 2000). Music videos are also a common source of sexual content, with 44-76% containing sexual imagery, but the amount of sex differs by genre with rap, R & B, and pop having more sex than country and classic rock (Tapper, Thorson, & Black, 1994). The sexual content on television and in music videos is rarely graphic, consisting of mostly sexual innuendo or less explicit sexual acts like flirting, kissing, and hugging on television (Kunkel et al., 1999), or provocative clothing and suggestive dance in music videos (Aubrey & Frisby, 2011; Frisby & Aubrey, 2012; Hansen & Hansen, 2000).

Estimates concerning the amount of sexual content in magazines are notably absent in the literature. Virtually all content analyses of sex in magazines assess *how* sex is portrayed, not *how much* (e.g., Farvid & Braun, 2006; Joshi, Peter, & Valkenburg, 2010; Ward, 2003; Wright,

2009). In terms of *how* sex is depicted in magazines, sexual content in magazines is quite explicit and graphic (Farvid & Braun, 2006).

On social media, teens and emerging adults are posting and viewing sexual profile material (Doornwaard, Moreno, van den Eijnden, Vanwesenbeeck, & ter Bogt, 2014). In their analysis of 104 Dutch adolescents' profiles, 25 of the profiles contained 67 sexual references (Doornwaard, Moreno, et al., 2014). Similar findings were found in the U.S., with between 21% and 33% of 16-23 year olds' myspace profiles (Bobkowski, Brown, & Neffa, 2012; Moreno, Brockman, Rogers, & Christakis, 2010; Moreno, Parks, Zimmerman, Brito, & Christakis, 2009) and 21% of university students' profiles (Moreno, Brockman, Wasserheit, & Christakis, 2012) containing references to sexual behavior. Findings are mixed as to whether men or women post more sexual references on social media (Moreno et al., 2012, 2010; Pujazon-Zazik, Manasse, & Orrell-Valente, 2012). In fact, the differences could be explained by social media platform (e.g., myspace, Facebook, MyLol.net) because each of these studies was performed using a different platform.

**Unwanted sex and hookups.** Content analyses have found casual sex is portrayed commonly in television, movies, music videos, and magazines, but very few studies have analyzed the frequency of unwanted sexual encounters (Stern & Brown, 2008; Ward, 2003; Wright, 2009). On television, sex occurs primarily between young, unmarried characters (Cope-Farrar & Kunkel, 2002), and is often recreational (Ward, 1995). Fisher, Hill, Grube, and Gruber (2004) found 58.7% of televised sexual references occurred between partners who were not married and in a casual relationship. In popular movies, the majority of sex is between people who just met (Bufkin & Eschholz, 2000; Gunasekera, Chapman, & Campbell, 2005). In teen movies, 80% of sexual activity (primarily kissing) is among teens (Callister et al., 2011), and

married sex is portrayed as undesirable (Dempsey & Reichert, 2000; Pardun, 2002). Music videos often portray sex as harmless and exciting (Hansen & Hansen, 2000; Seidman, 1992). In magazines, casual sex is discussed more than committed sex (Joshi, Peter, & Valkenburg, 2014), and magazines contain conflicting messages about whether sex should primarily be about lust or love (Farvid & Braun, 2006).

Of the studies that have analyzed portrayals of unwanted sex, most have found unwanted sex is fairly uncommon (Brinson, 1992; Bufkin & Eschholz, 2000; Sommers-Flanagan, Sommers-Flanagan, & Davis, 1993; Stankiewicz & Rosselli, 2008). On television, one study found 8% of sex scenes were nonconsensual with women being more likely to be victims of nonconsensual sex (Eyal & Finnerty, 2009). About 17% of the sex scenes found in a sample of 50 movies from 1996 were rapes (Bufkin & Eschholz, 2000), and 31% of music videos portrayed aggressive sex (Sommers-Flanagan et al., 1993). In an analysis of women in magazine ads, only 7% were portrayed as sexualized victims (Stankiewicz & Rosselli, 2008), but teen magazines generally tend to assume girls are coerced into sex (Durham, 1998). When unwanted sex is portrayed in the media, it often follows harmful rape myths such as rape offenders are psychotic maniacs and victims bring rape on themselves (Bufkin & Eschholz, 2000).

Studies have found young adults perceive that sexual content on social media communicates interest in casual sex to men and may result in negative social perceptions in women (Daniels & Zurbriggen, 2014; Moreno, Swanson, Royer, & Roberts, 2011). Men report increased sexual expectations and decreased interest in pursuing a dating relationship with a female after seeing sexual references on her Facebook profile (Moreno et al., 2011). On the other hand, young women rate other young women with sexualized Facebook posts as less physically and socially attractive, and less competent (Daniels & Zurbriggen, 2014).

**Sexual consequences and health.** Overall, relatively few media portrayals of sex include information about sexual consequences and health, and those that do tend to hold women solely responsible for protecting themselves against negative sexual consequences (Stern & Brown, 2008; Ward, 2003; Wright, 2009). On television, only one in ten shows with sexual content mentioned risks and responsibilities (Eyal, Kunkel, Biely, & Finnerty, 2007). Between 2002 and 2005, negative sexual consequences increased significantly on television replacing all of the positive consequences and reducing the number of mixed (i.e., positive and negative) consequences (Eyal et al., 2007). Most sexual consequences on television are emotional or social (Aubrey, 2004; Eyal & Finnerty, 2009), and women are more likely than men to receive negative sexual consequences, especially when they initiated sexual contact (Aubrey, 2004). Most movies (between 85% and 89%) do not depict or discuss physical consequences resulting from sex or sexual health topics (e.g., condom use, STDs) (Callister et al., 2011; Gunasekera et al., 2005). Magazines tend to caution women about the dangers and negative consequences of sex (Joshi, Peter, & Valkenburg, 2011) and advise women to take responsibility for their protection by using birth control or condoms (Carpenter, 1998; Joshi et al., 2014). No content analyses of music videos examined sexual consequences or health.

Likewise, none of the content analyses of sexual references on social media looked for references about sexual consequences or health, but there are associations between sexual posting and sexual risk behavior, which suggests sexual references on social media are not communicating information about safe sex practices (Baumgartner, Sumter, Peter, & Valkenburg, 2015; Bobkowski et al., 2012; Moreno et al., 2012). For example, those who sexually self-disclose on their profiles report significantly more sexual risk behaviors (Bobkowski et al., 2012), and viewing sexual references on social media may increase

perceptions that peers are more approving of sex and are more sexually active (Doornwaard, van den Eijnden, Johnson, & ter Bogt, 2014).

**Traditional heterosexual scripts.** Overall, content analyses find the media's depictions of women's role in sexual interactions continue to follow traditional norms for heterosexual conduct (Collins, 2011; Stern & Brown, 2008; Ward, 2003; Wright, 2009). In television, movies, music videos, and magazines, men's sexual role is to be so preoccupied with women's bodies and sex that they cannot control their actions. Women's sexual role is positioned as complementary to men's by being less desiring, more desirable, and responsible for their own actions and appearances. On television, men are portrayed as sexual "players," valuing sexual fulfillment over emotional intimacy (Kim et al., 2007). They are seen being sexual initiators, constantly consumed by sexual thoughts, preoccupied by women's bodies, and talking freely about their sexual desires and experiences (Kim et al., 2007; Ward, 1995). Women are portrayed on television as sexual objects responsible for passively setting sexual limits (Ward, 1995). They are primarily interested in securing a relationship, and they are judged by their sexual experience (Kim et al., 2007). In movies, women are portrayed as not having autonomous sexual desire apart from men's (Smith, 2012), and are valued by men for their appearance (Martin & Kazzyak, 2009). In music videos, men are portrayed as aggressive and dominant, whereas women are sexually objectified and subservient (Arnett, 2002; Hansen & Hansen, 2000; Sommers-Flanagan et al., 1993). Magazines uphold the sexual double standard that men are more sexual than women, convey confusing ambivalent messages to women about their sexual role, and primarily position women as lacking desire and agency, but being ultimately responsible for their actions (Carpenter, 1998; Durham, 1998; Joshi et al., 2010, 2011). In television, movies, and magazines, women who do not follow the sexual double standard receive negative social and emotional

consequences, such as being labeled a slut or experiencing guilt or shame (Aubrey, 2004, p. 200; Eyal & Finnerty, 2009; Joshi et al., 2011; Smith, 2012).

Content analyses of social media have not examined the presence of these traditional heterosexual scripts in posts, but men and women may perceive others' social media posts in ways that follow traditional heterosexual scripts. For example, in Daniels and Zurbriggen's (2014) experiment, college women judged other young women who posted images sexualized images of themselves on Facebook as less physically and socially attractive and less competent. Also, in Baumgartner et al.'s (2015) study, both men and women evaluated same-sex sexualized photos more negatively on social characteristics than they did sexualized photos of the opposite sex. Thus, posting self-sexualizing information or photos to social media may be communicating to same-sex peers that an individual is sexual, which may be more acceptable for men than it is for women because of the sexual double standard.

The preceding review of the sexual themes present in television, movies, music videos, magazines, and social media indicates the media may provide college students with information about sex that could be used to develop traditional heterosexual scripts, their sexual self-concept, and their perceived peer norms. The following section will provide a comprehensive theoretical framework for understanding how young men and women's sexual media diets may indirectly influence their propensity for engaging in unwanted hookups by negatively impacting their endorsement of traditional heterosexual scripts, sexual self-concepts, and perceived peer norms.

### **A Comprehensive Theoretical Framework for Scripts**

The work of four influential scholars – Abelson, Simon, Gagnon, and Huesmann – has provided much of the theorizing about scripts. By combining the efforts of these scholars, the following review will provide a comprehensive examination of what scripts are and how they are

organized in memory (Abelson, 1981; Simon & Gagnon, 1986), how individuals use scripts to navigate complex social situations (Simon & Gagnon, 1986), and how scripts are acquired and selected for use (Huesmann, 1986; Huesmann & Kirwil, 2007).

To Simon and Gagnon (1986), a script is a metaphor that helps individuals define what behaviors are appropriate socially. In their conceptualization, scripts exist in three levels of abstraction: (a) *cultural scenarios* are scripts that instruct individuals in the requirements of fulfilling certain cultural norms or roles, (b) *interpersonal scripts* are context-specific behavioral guides, and (c) *intrapsychic scripts* are representations of an individual's personal desires. Abelson (1981) defines a script as "a hypothesized cognitive structure that when activated organizes comprehension of event-based situations" (p. 717). Similar to Simon and Gagnon (1986), Abelson (1976) argued script information is organized from specific to abstract, or from episodic to semantic. At the episodic level, scripts contain only the information that is needed to understand a specific event. Between the episodic and semantic levels is the categorical level, in which information related to categories or types of events is stored (e.g., first kiss scripts) (Abelson, 1976). At this level, scripts do not include information about specific actors or details about the situation only the information that is shared between the scripts within that category. At the most abstract level exists script information that cannot uniquely explain events but may be used to guide interactions as a whole. Together, these two conceptualizations indicate scripts vary in abstraction and contain information about how one should behave.

According to Abelson (1981), scripts help people make behavioral decisions more easily, especially in situations where an individual does not have advanced knowledge about how to proceed and would like to reduce uncertainty within the situation by following a known script, like in sexual situations. Scripts assist both understanding and behavior because they function to

help the person experiencing the event understand it as it unfolds, and prescribe the appropriate behavioral actions in response to the unfolding event. At the societal level, scripts can help to maintain social order and facilitate coordination with other people in one's culture (Ginsburg, 1988). Abelson's (1981) discussion of the utility of scripts shows that without sexual scripts, it would be difficult for people to have satisfying sexual experiences because they would not know what was sexually appropriate in their culture, how to behave in sexually appropriate ways, or how to interpret their partner's sexual behaviors as appropriate or not.

While Abelson's (1976) conceptualization of scripts describes the purpose, contents, and organization of scripts within memory, its primary purpose was in developing artificial intelligence. It did little to explain the complexity of human decision making processes and the importance of the interaction between an individual's own desires and their perceptions of what is expected of them within their culture. Thus, Simon and Gagnon (1986) conceptualized a new way of thinking about scripts that would address these limitations.

Within Simon and Gagnon's (1986) scripting theory, scripts are cognitive frameworks that include "[culturally-defined] norms which guide behavior, individuals' interpretations of the implications of cultural norms of interpersonal interactions, and individuals' constructions of their own desires" (Masters et al., 2013, p. 410). Scripting, then, is the process of turning personal experiences or observations into scripts. This occurs as a sort of trickle-down process in which cultural scenarios, the most abstract-level scripts, impart information to form the less-abstract, more context-specific interpersonal scripts.

On the cultural level of scripts, cultural scenarios are often too abstract to be applicable in all situations for all people. Instead, individuals must improvise and make changes in order to apply the norms defined by the cultural scenario to specific situations (i.e., interpersonal

scripting) (Simon & Gagnon, 1986). Transforming cultural scenarios into context-specific behavioral guides creates interpersonal scripts. Still, individuals are not just actors in a scripted play providing only slight modifications to their prescribed roles. Thus, their personal desires must be also scripted (i.e., interpersonal scripting). Intrapsychic scripts are created through a process of evaluating the outcomes of enacting interpersonal scripts and what an individual expects to experience from something or someone is recorded to help guide the individual in defining and obtaining desirable outcomes. Simon and Gagnon (1986) argue, “desire is not reduceable to an appetite, a drive, an instinct: It does not create the self, rather it is a part of the process of the creation of the self” (p. 100). Thus, scripting theory not only provides a framework for understanding how individuals make behavioral decisions based on cultural norms, but also how their behavioral decisions transform their self-conceptions. This becomes particularly important later in the theoretical model proposed because it highlights how individuals’ self-concepts are derived from their ideas about what is culturally appropriate.

By combining Abelson’s (1976) conceptualization of the script concept and Simon and Gagnon’s (1986) scripting theory, it becomes clear that scripts are not just step-by-step instructions for enacting culturally appropriate behavior; they are complex frameworks through which we can understand human behavior as being both culturally and personally defined. This is important to consider when studying sexual behavior, because leaving out one or the other may only tell half of the story. For example, it would be inadequate to try to predict individuals’ future sexual behavior from only their previous sexual experience or their endorsement of culturally defined sexual norms and roles. Both will explain a sizeable portion of the variance in future sexual behavior.

The previous two script conceptualizations lack an explanation for how scripts are acquired and selected for use. To understand how scripts are acquired and used, Huesmann (1986) borrows from Bandura's (1977) social learning theory for his cognitive information processing model. According to Huesmann (1986) four steps are involved in the process of acquiring a script through observation: attention, rehearsal, retrieval, and utilization. First, a script must be perceived as salient to get the attention of the observer. When observing, the details that are important to the observer's goals or motives at the time will be encoded (Owens, Bower, & Black, 1979). Scripts are more likely to be acquired when: (1) the model performing the script is similar, (2) the viewer identifies with the model, (3) the context is realistic, and (4) the viewed behavior is rewarded (Bandura, 1977).

Second, in order to remember the script, it must be rehearsed (Huesmann, 1986). Script elements are organized into a sort of story to make the script easier to remember. Because rehearsal sometimes requires considerable elaboration, individuals may abstract elements from scripts to create more general strategies for behavior that will make behavioral decisions easier in the future. These abstracted scripts are what Abelson (1976) referred to as categorical and semantic level scripts, and what Simon and Gagnon (1986) referred to as cultural scenarios.

Lastly, in order for the script to influence future behavior, the script must be retrieved memory and utilized (Huesmann, 1986). When individuals are faced with a social problem, they search their memory for a script that can guide their behavior in that moment. Because most individuals only perform this search until they have found a sufficient behavioral solution for their problem (Wyer & Srull, 1986), scripts that best match the demands of their present situation and are easily remembered will be utilized. When utilized, positively reinforced behaviors will become more accessible (Bandura, 1977).

Scripts are retrieved and selected based on a complex process of evaluating and interpreting situations that may or may not occur under an individual's conscious awareness (Bargh & Chartrand, 1999). That is why Huesmann's cognitive information processing model includes four cognitive or emotional factors that are used to guide this process: social scripts (i.e., the scripts we hold in memory and the complexity and strength of those scripts), world schemas (i.e., beliefs about how the world works; e.g., the world is a mean place), normative beliefs (i.e., cognitions about the appropriateness of certain behaviors), and emotional predispositions (i.e., person-related tendencies such as level of arousal, propensity to become angry, ability to regulate emotions) (Huesmann & Kirwil, 2007). Each of these factors play a role in how people evaluate and interpret situations and influence which scripts are retrieved and selected. The social scripts individuals have influence the variety of choices they have in retrieving a script because they cannot retrieve a script they do not have. World schemas and normative beliefs, or cultural scenarios, influence what social schemas, or interpersonal scripts, individuals retrieve and select. For example, if a woman believed the role of women in sexual interactions was to be passive and sexually attractive, then it is likely she will choose a script that will help her to enact these behaviors. While emotional predispositions were not explicitly described in Simon and Gagnon's (1986) scripting process, they did explain that individuals are constantly evaluating the unfolding social situation and recording information about what one can expect in the future so that they can achieve desirable outcomes in the future. What individuals record are their intrapsychic scripts; these arguably could be considered emotional predispositions because both are used to define personal relevance or personal desires in social situations.

The cognitive information processing model also explains how scripts are learned from observation, such as media consumption. In the short-term, the information processing model (Huesmann & Kirwil, 2007) outlines three effects: priming, simple imitation, and arousal and excitation transfer. Priming is an encounter with a stimulus that activates related concepts and ideas in an individual's memory even when the person is not aware of the stimulus influence (Bargh & Pietromonaco, 1982). Primes, or cues, are shortcuts that help people interpret the meaning of stimuli. Each time a prime is encountered, the scripts that are activated become more accessible, or easier to retrieve from memory (Fiske & Taylor, 1984). Thus, primes that are frequently encountered can make certain scripts chronically accessible (Anderson & Huesmann, 2003).

In addition to priming, individuals may be influenced through simple imitation or arousal and excitation transfer. First, mirror neurons, which are nerves in the brain that fire when a person acts or observes another acting, may fire when a person observes a behavior in the media (Rizzolatti & Craighero, 2004). Through mirror neurons, individuals may be able to experience the behaviors and emotions they see in the media. Second, seeing mediated images can cause physiological responses (e.g., heart rate, skin conductance) that are intense enough to diminish task performance, reduce inhibition of inappropriate behavior, and increase the use of dominant scripts, or common action tendencies (Huesmann & Kirwil, 2007). In addition, this arousal may be misattributed to a different behavioral cue causing a sort of "transfer" of the arousal to another situation (J. R. Cantor, Zillmann, & Bryant, 1975).

The long-term effects of viewing media can influence all four of the above cognitive and emotional factors that play a role in whether a particular script is retrieved and selected (Huesmann & Kirwil, 2007). When consuming media, individuals learn more than specific

behaviors (i.e., social scripts). They also learn about how the world works (i.e., world schemas), what behaviors are appropriate (i.e., normative beliefs), and what emotional responses are typical (i.e., emotional predispositions). Thus, consistent media consumption not only provides individuals with behaviors to imitate, it also guides the process of evaluating and interpreting situations.

Previous scripting frameworks have been proposed (e.g., Wright, 2011), but the current framework relies more heavily on the works of Simon and Gagnon (1986) to explain that young people use the media to learn more than just how to behave. Young people also use the media to learn how to understand others' behavior and how to be socially accepted within their culture. Given this scripting framework, sexual media could be highly influential to college students' sexual attitudes, beliefs, and behaviors because their salient sexual identities will lead them to select sexual media content and this content will lead them to abstract these behaviors into cultural scenarios that guide their evaluation, interpretation, and behavior in subsequent sexual situations. When faced with a sexual situation, sexual scripts, derived from these cultural scenarios, may help college men and women evaluate and interpret the ongoing situation, as well as select the appropriate behaviors. Just like in other scripted situations, these individuals are not generally aware of how a script is selected, most of the time their brain just selects the most accessible, sufficient script for the situation (Shrum, 2009).

The next section will briefly review the effects of sexual media on adolescents' and emerging adults' sexual attitudes, beliefs, and behaviors. Following this review of effects, the theoretical model proposed for this study will be introduced and support will be provided for the hypotheses and research questions that are posed.

### **Empirical Evidence of Effects from Sexual Media**

As I reviewed earlier, the media provide adolescents and emerging adults with information that may lead them to expect a lot of sex, including hookups, with few negative consequences. Sexual media prescribe women sexual roles that position them to be passive, sexual objects, and then blame them for both their wanted and unwanted sexual experiences. At the same time, sexual media prescribe men sexual roles that encourage an almost constant pursuit of physically pleasurable but emotionally lacking sex with as many partners as possible whether or not this kind of sex is truly desired. This sexual content is fairly standard across television, movies, music videos, magazines, and social media (Stern & Brown, 2008; Ward, 2003; Wright, 2009). Thus, a sexual media diet is simply the relative exposure college students will have to sexual media as a result of their regular viewing habits (Brown et al., 2006). As the media practice model argues, college students' sexual identities may be highly salient, which will not only influence their selection of sexual media content, but also their involvement in sexual media and their motivation to incorporate the information from sexual media into their attitudes and beliefs about sex that can guide their behavior (Steele & Brown, 1995).

There is empirical evidence that sexual media diets can influence individuals' sexual behavior, as well as their traditional heterosexual scripts, sexual self-concepts, and perceived peer norms. The following will review some of this evidence, but a comprehensive review is available elsewhere (see Ward, Reed, Trinh, & Foust, 2014). Because this study is interested in *unwanted* sex, a short review of the effects of sexual media on rape-supportive attitudes and beliefs will also be provided.

First, longitudinal studies show sexual media directly influences adolescents' and emerging adults' sexual behavior (Brown et al., 2006; Chandra et al., 2008; Collins, 2004). For example, white adolescents who watch the most sexual media (top 20%) are 2.2 times more

likely to engage in sexual behavior two years later, even after controlling for other variables that predict sexual behavior, including baseline sexual behavior (Brown et al., 2006). Also, adolescents ages 12-17 who view the most sexual television content (top 10%) are more likely to initiate intercourse and engage in more advanced noncoital sexual activities in the following year (Collins, 2004), as well as be twice as likely to experience pregnancy in the next three years (Chandra et al., 2008) compared to those with lower levels of exposure.

Cross-sectional survey and experimental studies confirm that exposure to television, music videos, and magazines can increase endorsement of traditional heterosexual scripts (e.g., Kim & Ward, 2004; van Oosten, Peter, & Valkenburg, 2015; Ward, 2002). Frequent television viewing is associated with college students' greater support of sexual stereotypes (e.g., men are sex-driven, women are sex objects, recreational sex is fun) (Ward, 2002). Reading adult women's magazines (e.g., *Cosmopolitan*) is associated with weaker support of sexual stereotypes about men, of the view that sex is risky, and that women should self-censor, whereas reading teen magazines (e.g., *Seventeen*) is associated with stronger endorsement of stereotypes about men (Kim & Ward, 2004). Lastly, van Oosten et al. (2015) found viewing sexual music videos by male artists was associated with increased endorsement of token resistance among adolescent girls.

Sexual media also influences individuals' sexual self-concepts. Television and music video consumption lead to diminished opinions of one's sexual self (Aubrey, 2007), and global self-concept (Kistler, Rodgers, Power, Austin, & Hill, 2010). In addition, the relationship between sexual television and initiation of sexual behavior may be mediated by individuals' sexual self-efficacy (Martino, Collins, Kanouse, Elliott, & Berry, 2005). In Martino et al.'s (2005) study, they found that adolescents' sexual television exposure was positively related to

their sexual self-efficacy and their sexual self-efficacy was positively related to their initiation of sexual behavior.

Media exposure also influences individuals' perceived peer norms. Media exposure positively influences perceived normative pressure to have sex in adolescents (Bleakley, Hennessy, Fishbein, & Jordan, 2011) and perceptions of peers' hookup behavior in emerging adult women (Peters, 2012). In addition, Martino et al. (2005) also found the relationship between sexual television and imitation of sexual behavior may be mediated by individuals' perceived peer norms.

Given the preceding evidence, college students' sexual media diets may indirectly influence their propensity for engaging in unwanted hookups, but so far, there have been few explanations of the mechanisms through which this would occur. The following model will provide an explanation and test of these proposed associations, which can be used to validate future explorations of this topic.

### **Introducing the Theoretical Model**

No study has estimated the prevalence of unwanted hookups in college specifically, but about 70%-85% of college students report they have hooked up (wanted or unwanted) at least once (Aubrey & Smith, 2013; Lambert et al., 2003; E. L. Paul & Hayes, 2002; E. L. Paul et al., 2000), and about 78% of college students' unwanted oral and vaginal intercourse experiences occurred in a hookup (Flack, et al., 2007). Unwanted hookups can cause a range of negative outcomes for college women, including unwanted pregnancy, feelings of disempowerment, loss of control, or limited sexual pleasure (e.g., Lewis et al., 2012; Owen & Fincham, 2011). In addition, several negative outcomes are associated with unwanted sex for men, including increased alcohol consumption, depressive symptoms, and reduce sexual self-efficacy (Flack et

al., 2007; Larimer, Lydum, Anderson, & Turner, 1999; C. Struckman-Johnson & Struckman-Johnson, 1994). Thus, it is important to examine how the media could be involved in college students' propensity for engaging in unwanted hookups in college in order to discover ways in which these negative outcomes may be attenuated.

A recent study demonstrated that the sexual media diet indirectly influences college students' hookup experiences through their endorsement of the hookup culture (Peters, 2012). Also, believing the media contains influential sexual information directly influences college women's acquiescence to unwanted sexual contact (Conroy et al., 2014). No study has yet explained or tested the influence of sexual media exposure on college students' propensity for engaging in unwanted hookups. The following theoretical model uses scripting theory to describe how sexual media may contribute to college students' propensity for engaging in unwanted hookups through their traditional heterosexual scripts, sexual self-concepts, and perceived peer norms. See Figure 1.

Traditional heterosexual scripts are the dominant cultural scripts that guide heterosexual relations (Kim et al., 2007). They define what is sexually appropriate and generally feature very different positions for men and women (Masters et al., 2013). Eaton and Rose's (2011) review of 35 years of *Sex Roles* articles regarding dating scripts and gender roles found that cultural and interpersonal level scripts for heterosexual relations remain highly gendered, and they have not changed substantially in the past three decades. In addition, studies have confirmed that many college students' interpersonal scripts for heterosexual relations still largely conform to the traditional heterosexual script, especially in hookup situations (Armstrong et al., 2012; Masters et al., 2013).

Sexual media are filled with references to traditional heterosexual scripts, such as the sexual double standard, token resistance, and beliefs that men are sex-driven and women are sexual objects (Ward, 2003; Wright, 2009). These cultural scripts are often reflected in adolescents' and emerging adults' attitudes and beliefs about heterosexual relations (Kim & Ward, 2004; ter Bogt, Engels, Bogers, & Kloosterman, 2010; Tolman, Kim, Schooler, & Sorsoli, 2007; Ward, 2002) as well as in their interpersonal scripts for how to behave in sexual situations (Sakaluk et al., 2014; Masters et al., 2013; Eaton & Rose, 2011). Many of these beliefs may increase women's propensity for engaging in unwanted hookups because they teach women that they should prioritize men's desire and pleasure over their own (Gavey, 1992), and they undermine women's sexual agency (Crawford et al., 1994; Tolman et al., 2007). These beliefs may also increase men's propensity for engaging in unwanted hookups because they emphasize that their masculinity is defined by their sexual skill and experience (Eaton & Rose, 2011). In fact, studies have shown that watching sexual music videos increases men's and women's endorsement of rape-supportive attitudes and beliefs, such as token resistance (Treat, Farris, Viken, & Smith, 2015; van Oosten et al., 2015), and their acceptance of verbal coercion or personal experience with being a victim or perpetrator of verbal sexual coercion (Eaton & Matamala, 2014). As I have argued previously, men and women who endorse traditional heterosexual scripts may be more at risk of becoming a victim of sexual aggression or unwanted sex because the roles prescribed by these scripts relegate women to passively acquiesce and men to aggressively seek out sex, even when it may be unwanted. Given the previous correlations between sexual media (i.e., television, movies, music videos, magazines, social media) and endorsement of traditional heterosexual scripts, the following hypotheses were posed:

H<sub>1</sub>: College students' sexual media diets at Time 1 will predict their endorsement of traditional heterosexual scripts at Time 2.

H<sub>2</sub>: College students' endorsement of traditional heterosexual scripts at Time 1 will predict their propensity for engaging in unwanted hookups at Time 2.

H<sub>3</sub>: The relationship between college students' sexual media diets at Time 1 and propensity for engaging in unwanted hookups at Time 2 will be mediated by their endorsement of traditional heterosexual scripts.

A sexual self-concept is a dynamic knowledge structure that organizes individuals' perceptions of their sexual qualities into a multi-dimensional construct composed of sexual self-esteem, sexual self-efficacy, and sexual anxiety (Deutsch et al., 2014). Developing and maintaining one's sexual self-concept is an important developmental task in emerging adulthood because it helps organize and interpret sexual situations (Gagnon & Simon, 2011; Hensel et al., 2011; Longmore, 1998; Rostosky et al., 2008). Emerging adults form and maintain their sexual self-concepts by attending to messages about how one should act in sexual situations and receiving feedback from others about one's own sexual behavior (Breakwell & Millward, 1997). When one does not have experience with sexual behaviors, it is likely they obtain information about how to act in sexual situations from other sources, such as their peers and media (Huesmann, 1986; Bandura, 1977).

Previous studies have found a negative relationship between music media and self-concept (Kistler et al., 2010) and sexual television and sexual self-concept (Aubrey, 2007), but none have examined the *process* through which media influences one's sexual self-concept. Breakwell (1993) explains that individuals' self-concepts are socially derived, resulting from a complex array of social interactions ranging from one-on-one conversations to observing

interactions in the media. Similarly, Simon and Gagnon (1986) argue that media messages can be used in the intrapsychic scripting process as a guide for developing a sexual self-concept that does not stray too far from cultural norms. One could envision this an actual versus ideal comparison process (Higgins, 1987). First, individuals form scripts from the information about how one should act in sexual situations (i.e., traditional heterosexual scripts) they obtain from sexual media. Second, individuals use this information to form their self-concept in a way that conforms to cultural standards and continually compare their self-conceptions to these standards to assure they have not strayed too far from what is culturally acceptable.

Some evidence supports the link between traditional heterosexual scripts and individuals' self-concepts. First, Sanchez, Crocker, and Boike (2005) found that those who invest in traditional gender norms report that their self-esteem is more dependent upon other's approval. Second, those who feel gender norms are personally relevant and who conform more to gender norms report their actual self-concepts are closer to what they perceive their self-concept ought to be and what they would ideally like their self-concept to be (Wood et al., 1997). These results suggest there may a relationship between endorsement of traditional heterosexual scripts and college women's sexual self-concepts. Because of the women's role within the traditional heterosexual script is somewhat disempowering many authors have argued women's sexual self-concepts may suffer when they strongly endorse traditional heterosexual scripts (Bay-Cheng & Eliseo-Arras, 2008; Morokoff, 2000; Walsh, 1991; Welles, 2005). While this same process has not been examined for men, it is reasonable to argue that because traditional heterosexual scripts position men to be the initiators of sexual contact and to define their masculinity through their sexual skill and experience (Eaton & Rose, 2011; Masters et al., 2013), strongly endorsing these traditional heterosexual scripts may result in reduced sexual self-esteem and self-efficacy. This is

because it may be quite difficult for a man to truly live up to the male standard outlined within the traditional heterosexual script, leaving those who use this standard as the comparison for their self-concepts less confident about their sexual skill and less sexually efficacious. In Aubrey's (2007) study, she found women's overall television and drama television viewing negatively impacted their sexual self-concept. She suggested that this could occur because women may use traditional heterosexual scripts as the standards for their sexual self-concepts, which would reduce their sexual agency and sexual esteem. In addition, she suggested some aspects of women's sexual self-concepts may be more or less resistant to change (Aubrey, 2007). Still, the relationship between college students' endorsement of traditional heterosexual scripts and their sexual self-concept has not been directly tested for men or women. Therefore, this study will pose the following research questions:

RQ<sub>1</sub>: Will college students' endorsement of traditional heterosexual scripts at Time 1 predict their sexual self-concepts at Time 2?

RQ<sub>2</sub>: Will college students' endorsement of traditional heterosexual scripts mediate the relationship between their sexual media diets at Time 1 and their sexual self-concepts at Time 2?

Researchers have suggested that the process of internalizing the traditional heterosexual scripts from the media into one's sexual self-concept is similar to social comparison (Kistler et al., 2010; Aubrey, 2007). Men and women may compare themselves to the ideal that is constructed by the traditional heterosexual scripts in the media, which can be contradictory and unachievable (Kim et al., 2007; Ward, 1995). When they do so, they may feel they fall short of this ideal. As Wheeler (1966) theorized, this upward comparison could be damaging to one's self-concept if individuals perceive they cannot live up to the standards to which they are

comparing themselves. Some people tend to compare themselves to others more (Gibbons & Buunk, 1999). Therefore, if men and women's sexual self-concepts are formed and maintained by comparing one's self-concept to the traditional heterosexual scripts that are common in the media, those who tend to engage in social comparison should exhibit a stronger negative relationship between their endorsement of traditional heterosexual scripts and their sexual self-concepts. This theoretical model will extend the findings of Aubrey (2007) by explaining and testing the mechanisms through which sexual media influences both men and women's sexual self-concepts. Thus, the following research question is posed:

RQ<sub>3</sub>: Will the relationship between college students' traditional heterosexual scripts at Time 1 and sexual self-concepts at Time 2 be stronger when their social comparison tendencies at Time 1 are high?

Men and women's sexual self-concepts are associated with their sexual behavior, but less research has examined the relationship between these variables among men. Among adolescent girls and boys, Martino et al. (2005) found sexual self-efficacy mediated the relationship between sexual television use and initiation of sexual behavior. In their study, sexual television use was positively associated with safe-sex self-efficacy, which predicted more sexual initiation. In addition, sexual television use was negatively related to negative outcome expectancies, which predicted less sexual initiation. Martino et al.'s (2005) findings show that sexual television may increase efficacy and positive expectancies surrounding sex for adolescents. Similarly, Hensel et al. (2011) performed a longitudinal growth analysis to examine the reciprocal relationship between sexual self-concept development and sexual behavior among adolescent girls. They found that fewer negative sexual feelings about oneself (i.e., sexual anxiety), and more positive sexual feelings about oneself (i.e., sexual openness and sexual esteem) were associated with

greater sexual activity. In addition, O'Sullivan, Meyer-Bahlburg, and McKeague (2006) found adolescent girls' positive sexual self-conceptions, such as sexual agency, were associated with more experience with several sexual behaviors, whereas negative sexual self-conceptions, such as anxiety and self-monitoring, were associated with less experience with sexual behaviors. On the other hand, Paxton, Norris, Wertheim, Durkin, and Anderson (2005) argued women who more strongly endorse gender roles may be more likely to act on stereotyped perceptions of what men want. In Sanchez et al.'s (2005) study, those who strongly endorsed traditional gender norms, tended to base their self-esteem on others' approval, which was associated with less sexual autonomy and less sexual satisfaction. These studies suggest women with high sexual self-esteem and self-efficacy may be less likely to engage in unwanted hookups because they feel more confident and capable in sexual situations. Alternatively, women with low sexual self-esteem and self-efficacy may be more likely to engage in unwanted hookups because they feel less confident and capable.

For men, there have been very few studies that directly assess the effects their sexual self-concepts may have on their sexual behavior, but it seems like the relationship between their sexual self-concept and sexual behavior is a much simpler than it is for women. One study found young men generally tend to have weaker sexual self-concepts than young women, specifically, that men tend to have lower sexual self-esteem and less situational and resistive sexual self-efficacy (Rostosky et al., 2008). Another study found the stronger a man's sexual self-concept, the more sexually experienced he will be, but did not include whether these experiences were healthy or not (Andersen, Cyranowski, & Espindle, 1999). Men's low sexual self-esteem and self-efficacy, like women's, may result in less sexual agency and more sexual risk-taking.

Therefore, men's sexual self-concepts could be important to understanding why some men have a greater propensity for engaging in unwanted hookups.

The following hypothesis addresses how college students' sexual self-concepts will be related to their propensity for engaging in unwanted hookups and the research question connects the preceding hypotheses to test a model with two mediators between sexual media diet and propensity for engaging in unwanted hookups:

H<sub>4</sub>: College students' sexual self-concepts at Time 1 will negatively predict their propensity for engaging in unwanted hookups at Time 2.

RQ<sub>4</sub>: Will college students' sexual self-concepts mediate the relationship between their sexual media diets at Time 1 and their propensity for engaging in unwanted hookups at Time 2?

RQ<sub>5</sub>: Will college students' endorsement of traditional heterosexual scripts and sexual self-concepts mediate the relationship between their sexual media diets at Time 1 and their propensity for engaging in unwanted hookups at Time 2?

College students overestimate the frequency of their peers' sexual behavior and number of sexual partners (Martens et al., 2006; E. L. Paul & Hayes, 2002), as well as their peers' acceptance of casual sex and hookup behavior (Herold et al., 1998; Lambert et al., 2003). These two overestimations reveal college students may have pluralistic ignorance about two types of peer norms: descriptive and injunctive. Pluralistic ignorance is an incorrect belief that is shared by multiple people about the ideas, feelings, and actions of others (Allport, 1924). Descriptive peer norms are individuals' perceptions of the prevalence of a behavior among their peers, and injunctive peer norms are individuals' perceptions of their peers' approval of certain behaviors (Fishbein & Ajzen, 2011). These overestimated peer norms are associated with greater intentions

to engage in sexual behavior (Chia, 2006; Herold et al., 1998), and increased hookup behavior and number of partners (Fielder & Carey, 2010; Napper et al., 2015; Peters, 2012). Carey et al. (2006) explain that when people perceive a discrepancy between their own attitudes, beliefs, or behaviors and those of others, they are motivated to change their attitudes, beliefs, or behaviors to be more in-line with others (i.e., social conformity).

Emerging adults make judgments about their peers' sexual attitudes, beliefs, and behaviors based on the media they personally watch. Chia (2006) argues this process occurs in four major steps: (1) individuals consume sexual media and believe their peers consume similar media, (2) they make estimates about the influence media will have on their peers, (3) their perceptions of how their peers attitudes, beliefs, and behaviors will be affected influence their perceptions of peer norms, and (4) their perceptions of what is normative influences their own attitudes, beliefs, and behaviors. Several studies have found support for this theoretical model (Chia, 2006; Chia & Gunther, 2006; Chia & Lee, 2008).

The link between college students' perceived peer norms and their likelihood of engaging in unwanted hookups has not been directly tested, but longitudinal data confirms that when college students overestimate their peers' hookup behaviors, they are more likely to engage in hookup behaviors (Napper et al., 2015). The pressure to do so could convince college students to engage in unwanted hookup behavior. Thus, the following hypotheses and research questions are posed:

H<sub>5</sub>: College students' sexual media diets at Time 1 will predict their perceived peer norms at Time 2.

H<sub>6</sub>: College students' perceived peer norms at Time 1 will predict their propensity for engaging in unwanted hookups at Time 2.

H7: The relationship between college students' sexual media diets at Time 1 and their propensity for engaging in unwanted hookups at Time 2 will be mediated by their perceived peer norms.

In conclusion, this theoretical model is proposed to explain and test the mechanisms through which college students' sexual media diets may influence their propensity for engaging in unwanted hookups. No previous research has tested this directly, but the previous review provides support for this theoretical model by showing that previous research has found links between each of the model's constructs.

## Chapter 3: Method

### Design and Procedures

The purpose of this study was to explore potential mediators in the relationship between college students' sexual media diets and their likelihood of engaging in unwanted hookups. To achieve this goal, a 60-day panel survey design was conducted with a sample of University of Arizona undergraduate students. These data were used to test structural equation models longitudinally with the following latent variables: sexual media diet, endorsement of traditional heterosexual scripts, sexual self-concept, perceived peer norms, and likelihood of engaging in unwanted hookups.

**Pretest.** An online cross-sectional survey was conducted using Qualtrics with a sample of college students to retrieve information about the media vehicles that are popular among college students. A sample of 217 undergraduate students from Communication and Family Studies introductory level classes was recruited to participate in a 10-minute online survey for course credit about what media vehicles they regularly consume. The top 10 media vehicles listed by participants on the pretest were then rated by participants in the pilot survey for the amount of sexual topics and themes that are generally featured in each of the media vehicles. The measure-specific procedures and results are reported in the measures section.

**Pilot.** An online cross-sectional survey was conducted using Qualtrics to: (a) obtain sexy media ratings for the media vehicles provided by participants in the pretest and (b) test the reliability and validity of the propensity for engaging in unwanted hookups measure created for this study. A sample of 321 college students on Mturk was recruited to participate in a 15-minute survey. In the survey, they were asked to rate the top 10 media vehicles watched by college students, their propensity to engage in unwanted hookups in three different scenarios, and the

believability of the scenarios. In addition, pilot participants were asked to respond to questions about the relationships and situations in the scenarios, several measures to be used to validate the propensity to engage in unwanted hookups measure (e.g., past unwanted hookup experiences, sexual efficacy, refusal assertiveness), and demographic questions. The measure-specific procedures and results are reported in the measures section.

**Panel survey.** A two-wave panel study was performed over the course of about 60 days. The first panel was collected during a two-week period between February 29, 2016 and March 15, 2016, and the second panel was collected during a two-week period between April 20, 2016 and May 4, 2016. Using this design, the study's research questions and hypotheses could be examined longitudinally. This was advantageous because the causal order of the variables could be examined to determine whether sexual media exposure at Time 1 influenced propensity to engage in unwanted hookups at Time 2 through participants' endorsement of heterosexual scripts, sexual self-concept, and peer norms over the 2-month period.

In order to demonstrate fluctuations in college students' unwanted sexual behavior, it was important to collect data over a time period in which unwanted sexual behavior was likely to occur. That is why the time points for this study were chosen. The first panel was collected just before spring break, and the second panel was collected just before the end of the spring semester. This 60-day time period was chosen because evidence suggests unwanted sexual experiences often occur over spring break (Maticka-Tyndale, Herold, & Mewhinney, 1998), and because college students often engage in increased partying and drinking on spring break, which increases their chances of unwanted sexual experiences (Sönmez et al., 2006).

Approval was sought from the University of Arizona Institutional Review Board (IRB). After obtaining approval from the IRB, the pretest recruitment script was sent to the instructors

of the courses for which recruitment was approved. The recruitment script contained a short description of the study, the time it would take to complete the online survey, and a notification that participants would be contacted again in 60 days to take a second survey. Both the first and second surveys took approximately 30 minutes to complete, and students were given two weeks to complete them.

The panel survey questions consisted of the measures discussed in the measures section below and demographic information about the participant. No identifying information was obtained in the survey. Because the panel surveys were anonymous, participants were asked to create their own identification code so that their responses could be matched across the two surveys. The identification code was to be the first two letters of the participant's first name, the first two letters of the participant's mother's first name, and the last four numbers of the participant's phone number. To receive credit after completing the survey, participants were automatically redirected to a separate secure online form in which they were asked to provide their first and last names, the course and instructor information for the course they would receive credit in, and an email address that could be used to contact them when the second survey was to be completed.

### **Sample**

For the pretest and panel surveys, students were recruited from the communication participant pool and two introductory courses in the family studies and human development department. Recruitment for the pretest and panel surveys involved sending out a recruitment script to the instructors of the courses approved for recruitment. For the pilot test, U.S. Mturk participants between the ages of 18 and 26 who were enrolled in college were recruited. The

recruitment script for the pilot test was posted on Mturk announcing the opportunity to participate in a short survey to receive payment of one dollar.

The pretest sample consisted of 217 participants. Of the pretest sample participants, 59 (27.1%) were men and 158 (72.8%) were women. Their ages ranged from 18-31 ( $M = 20.73$ ,  $SD = 1.35$ ), and most were heterosexual ( $n = 209$ , 96.3%) and White ( $n = 172$ , 79.3%).

The pilot test sample consisted of 321 participants. Of the pilot test sample participants, 164 (51.1%) were men and 157 (48.9%) were women. Their ages ranged from 18-26 ( $M = 22.08$ ,  $SD = 1.62$ ), and most were heterosexual ( $n = 263$ , 81.9%) and white ( $n = 234$ , 72.9%).

Participants from the pretest and pilot samples were not eligible to take the panel surveys.

In the first wave of the panel survey, there were 467 participants. In the second wave, there were 448 participants. Therefore, attrition was 4.1%. To determine whether attrition biased the data for the panel survey, *t*-tests were conducted that compared the means of those who only completed the first survey, and those who completed both surveys (Menard, 1991). The results are reported in Table 1. Of all the variables included in the present study's analysis, only one variable, age, showed a significant difference between those who only completed the first study, and those who completed both studies. Younger participants were more likely to complete both surveys. This was likely due to the fact that the second survey was to be completed during the last two weeks of the spring semester.

The final sample for the panel survey consisted of 391 participants. Of the final sample participants, 92 (23.5%) were men and 299 (76.5%) were women. This reduced sample size is due to three main reasons. First, matching the identification codes across the two surveys proved impossible for several of the participants (~25). Second, when cleaning the data a few cases (~5) were deleted because of extreme or illogical responses (e.g., all sevens across most the

measures). Lastly, there were only 29 non-heterosexual (i.e., gay, lesbian, bi-sexual, other) participants who completed both surveys. Because many of the sexual questions were worded and validated for heterosexuals, the non-heterosexual participants were removed from the study. In the end, an additional 12.2% ( $n = 57$ ) of participants were omitted due to the previously described reasons. Additional  $t$ -tests were conducted to determine whether the participants who were kept (i.e., either completed both surveys or were not removed for other reasons) scored differently than those who were not kept (i.e., either only completed first survey or was removed for another reason) on the variables used in this study. The results are reported in Table 1. Participants who were kept in the final sample scored significantly higher on the perceived peer norms scale and significantly lower on the sociosexuality scale than participants who were not in the final sample. Also, age was still significant meaning those in the final sample were younger than those not in the final sample.

An a priori analysis of power was conducted using Soper's (2015) a-priori sample size calculator for structural equation models to determine the appropriate sample size for the proposed data analyses. The analysis revealed a sample size of 157 would be required to obtain statistical significance at  $p < .05$  if the average effect size was .20 with a power of .80. Therefore, the total sample size of 391 was adequate for predicting a small effect size ( $r = .20$ ), but the sample size goal was not met once the sample was divided by gender. The sample size for women ( $n = 299$ ) was adequate, but the sample size for men ( $n = 92$ ) fell short of the goal. This limitation is covered in the discussion.

Panel participants were on average 20.43 ( $SD = 2.26$ ) years old, ranging from 18 to 43. Of those who completed both surveys, 70.8% ( $n = 277$ ) identified themselves as White, 16.6% ( $n = 65$ ) as Hispanic/Latino, 3.8% ( $n = 15$ ) as African American, 3.8% ( $n = 15$ ) as Asian or Asian

American, 1.5% ( $n = 6$ ) as Native American, and 3.3% ( $n = 13$ ) did not identify with any of the categories provided.

## **Measures**

The panel surveys were composed of items to assess exposure to the sexual media diet, endorsement of traditional heterosexual scripts, sexual self-concept, perceived peer norms, and propensity for engaging in unwanted hookups. In addition to the main study variables, demographics (i.e., age, race, residential location, and greek membership) and covariates (i.e., sociosexuality, social desirability, nonconsensual sexual experience, hookup experience, relationship status, binge drinking, and feminist self-identification) were included. The survey is included in the Appendix. Zero-order correlations between the main study variables for the full sample, and for men and women separately, are provided in Tables 2, 3, and 4.

The following section describes the scales that were used in this study. The most reliable items for each of these scales were used to create parcels in order to reduce the number of indicators for each latent construct. Each parcel was created by averaging the most reliable items together. Little (2013) suggests parceling indicators that are congeneric and unidimensional can increase the reliability of the construct, provide greater communality, increase the ratio of common-to-unique factor variance, lower the likelihood of distributional violations, and provide better intervals. Reliability statistics are provided for all of the scales in both waves and stability statistics are provided for both the observed variables and latent constructs. For the observed variables, the stability statistics were calculated using the zero-order correlation between the Time 1 and Time 2 variables. For the latent constructs, the stability statistics were estimated using phantom constructs in the baseline measurement model. As suggested by Little (2013), strong invariance across time was established before entering in the phantom constructs into the

model. Phantom constructs do not change model fit; they are simply estimation devices that are used to convert the variance information of the Time 1 and Time 2 constructs into a standard deviation estimate and then to estimate the associations among the Time 1 and Time 2 constructs in a correlational metric. The correlations produced measure the stability of the constructs across Time 1 and Time 2.

The results of the longitudinal CFA are reported after the measurement section. It was conducted with five latent constructs that are explained in detail below. One minor change and one major change were made to the measurement model to obtain model fit and longitudinal invariance. For the minor change, the sexual double standard scale that was to be included as part of the endorsement of traditional heterosexual scripts construct did not achieve acceptable reliability in the first panel of the survey and was not included on the second panel survey. For the major change, the sexual self-esteem and self-efficacy scales that were to compose the sexual self-concept construct were clearly too different to be included in the same construct. Every time items from both scales were included in the same construct, the covariance matrix was not positive definite. Several methods of parceling the items and a second-order construct were attempted leading to the same error. Therefore, sexual self-efficacy was chosen to replace the sexual self-concept construct. The details about this change and support for this choice are provided below.

**Exogenous variables.**

*Exposure to sexual media diet.* To create this variable, the techniques of Brown et al. (2006) were followed. An index was constructed of media options that reflect both the amount and extremity of sexual content within. First, in the pretest, a list was generated of media options, or “vehicles,” for each of the five types of media that will be examined: television, movies,

music videos, magazines, and social media. Social media was specified instead of the Internet for two reasons. First, this study was not interested in including pornography, which would need to be included if all Internet websites were to be studied. Second, it was assumed that social media could be used similarly to the other mediums included in the SMD measure in that users could visit their preferred websites and view the sexual material that others post. It is known that social media can be used in other ways (e.g., posting, chatting, etc.), but the focus of the SMD measure was to assess media users' exposure to sexual content, not their creation of sexual content. Pretest participants were instructed to list their top 10 vehicles for each medium. From this list, the top 10 media vehicles that were reported as being watched by the pretest participants were retained for the main study. Table 5 lists the media vehicles chosen and the percentage of pretest participants reporting these vehicles.

Second, in the pilot test, Mturk participants judged the amount of sexual content in each of the media vehicles. Each judge was asked to rate the amount of portrayals or references to sexual content contained in the media vehicles, except for social media. The amount of sexual content in social media was judged by the panel survey participants because social media vehicles are generally personalized based on an individual's tastes and friends. Using a 5-point scale, ranging from 0 (*no sexual content*) to 4 (*a lot of sexual content*), the judges were given these instructions: rate the amount of portrayals or references each television show, movie, music video, or magazine features regarding its sexual content, including romantic relationships, body exposure or nudity, sexual innuendo, touching and kissing, and/or sexual intercourse (Brown et al., 2006). If the judges were not familiar with a particular media vehicle, they were given the option to not rate it. In order for a media vehicle to be kept for the main sample, the following criteria had to be met: (a) the standard deviations of the media vehicles' sexual content ratings

could not exceed 2.00 (on a 5-point scale) and (b) at least half of the pilot participants must have rated them (Peters, 2012). All of the media vehicles met these criteria; therefore, all of the media vehicles were kept for the panel surveys. The mean rating for each vehicle determines the “sexiness” of each vehicle. Table 5 reports the means and standard deviations of the sexiness ratings for each of the media vehicles rated by pilot test participants. As Table 5 shows, the media vehicles varied in the amount of sexiness the judges rated to be in them. For example, *Cosmopolitan* was rated as more sexual than *Time Magazine*. Similarly, the panel participants rated the sexiness within the social media vehicles and reported Tinder to be more sexual than Pinterest. It was important to have variation in the sexiness ratings between the media vehicles within each medium in order for the average sexiness ratings for each medium to reflect the range of sexiness within the media vehicles popular among college students.

Third, the panel survey participants were asked to rate how often they spend time with the 50 media vehicles on a 6-point scale, ranging from 0 (*never*) to 5 (*all of the time*). In addition to reporting how often they spend time with the social media vehicles, panel survey participants were asked to rate the amount of sexual content they encounter in each social media vehicle on a 5-point scale from 1 (*no sexual content*) to 5 (*a lot of sexual content*). If someone was not familiar with a particular media vehicle, they were given the option to not rate their use of it. This response was removed. The resulting frequency scores of all of the media vehicles were multiplied by the sexiness scores and averaged together within each type of media for each panel survey participant. The resulting variables were sexual media diet (SMD) indexes that measured both the amount and extremity of sexual content consumed for each type of media. The highest score on each of the SMD indexes could be  $(5[\text{frequency}] \times 6[\text{sexual content rating}]) = 30$ .

To assess the reliabilities of the SMD indexes, traditional methods such as Cronbach's alpha could not be used because the SMD indexes were composites of each individual's amount and extremity of sexual content consumed. Therefore, the standard deviations for each of the media vehicles rated were examined to determine whether the raters in the pilot test were consistent in their ratings of the sexual content in each media vehicle. Table 5 reports the average standard deviations of the sexiness ratings within each type of media. All of the individual standard deviations were under 1.57 on a 5-point scale. The average standard deviations of each category of media vehicles ranged from .94 to 1.31 on a 5-point scale. The social media sexiness ratings had a higher average standard deviation than the other types of media. This was expected because the social media vehicles rated could have a different amount of sexual content for each individual based on their preference settings and friends. The standard deviations examined show that raters were moderately consistent in their ratings of sexual content and were similar to the deviations found in other studies (Aubrey, Harrison, Kramer, & Yellin, 2003; Gamble & Nelson, 2015). In addition to examining the standard deviations, the mean sexiness ratings of each of the media vehicles were examined to see whether the ratings conformed to the expectations one would have for the sexual content in each of the media vehicles. For example, when examining the sexiness ratings of the television shows *Game of Thrones* and *Walking Dead*, the ratings for *Game of Thrones* were higher, as would be expected. There were some mean ratings that did not seem to fit the expectations one would have. For example, *Grey's Anatomy* and *Scandal* both had lower mean sexiness ratings than *Breaking Bad*. The likely explanation for this was that the instructions for rating included portrayals or references to romantic relationships, body exposure or nudity, and sexual innuendo. These were included to try and capture sexual content that has been studied, but that may not be immediately considered sexual content by the raters, at least

not like the other three: touching, kissing, and/or sexual intercourse. It is likely that raters took these instructions quite literally and rated *Breaking Bad* on par with *Grey's Anatomy* because of the frequent mention of the main characters' marriage and the portrayal of prostitutes.

The latent construct for SMD was composed of the five sexual media indices. The loadings for each of the indices were all above .60 indicating the factors explained the construct well. In addition, the modification indices did not suggest the SMD construct needed to be modified. The SMD construct was fairly stable across the two waves ( $r = .68, p < .001$ ).

***Social comparison tendencies.*** The Social Comparison Orientation (SCO) scale assesses individual differences in people's tendency to compare themselves to others (Gibbons & Buunk, 1999). It is an 11-item scale with two factors to address comparisons people make with others' abilities and opinions. Gibbons and Buunk (1999) found that a single-factor solution was also a good fit for the data; therefore, all of the items for this scale were combined into a single social comparison tendencies variable. Because the scale was not originally developed to assess comparisons made with media models, for this study, four of the less specific items were duplicated and the wording was changed to assess comparisons with media characters rather than real people. For example, "I always pay a lot of attention to how I do things compared to how others do things" was changed to "I always pay a lot of attention to how I do things compared to how people in media do things." The final scale totaled 15 items measured on a 7-point scale from 0 (*strongly disagree*) to 6 (*strongly agree*). Higher scores indicated greater social comparison tendencies. Cronbach's alpha was good for Time 1 at .89 and for Time 2 at .92 and the stability of the measure was acceptable ( $r = .56, p < .001$ ).

### **Endogenous variables.**

***Endorsement of traditional heterosexual scripts.*** This construct was measured using items from four scales: Sexual Double Standard (SDS) scale (Muehlenhard & Quackenbush, 1998), Illinois Rape Myth Acceptance (IRMA) scale short form (D. L. Payne, Lonsway, & Fitzgerald, 1999), Token Resistance to Sex Scale (TRSS) (Osman, 1998), and the Attitudes Towards Dating and Relationships (ATDR) measure (Ward & Rivadeneyra, 1999). Each of the scales addressed conceptually distinct, but correlated, traditional heterosexual scripts. Together they represent a belief construct that privileges stereotypical gender behavior while denouncing non-stereotypical gender behavior.

The SDS scale assesses the extent that a person endorses the sexual double standard, which allows men more sexual freedom than women (Muehlenhard & Quackenbush, 1998). It was measured using a 7-point scale from 0 (*strongly disagree*) to 6 (*strongly agree*). The full scale consists of 26 items: six items that create a summated scale and 10 paired items that reflect the same belief for men or women. The 10 paired items are scored by subtracting the scores on items about men from the scores on items about women. In the interest of reducing participant fatigue, this study used only the six summated scale items to assess endorsement of the sexual double standard among college students. Higher scores indicated stronger endorsement of the sexual double standard. Cronbach's alpha was not acceptable for Time 1 at .64; therefore it was removed from the second panel survey and was not included in the final construct.

The IRMA scale short form (D. L. Payne et al., 1999) assesses endorsement of rape myths, which are "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). It was measured using a 7-point scale from 0 (*strongly disagree*) to 6 (*strongly agree*). Both the full and short form scales assess endorsement of seven different rape

myth beliefs: she asked for it, it was not really rape, he did not mean to, she wanted it, she lied, rape is a trivial event, and rape is a deviant event. The short form scale contains 20 items: three filler items, four items to assess she asked for it, three items to assess rape is a deviant event, and two items each for the rest of the specific rape myth beliefs. A total of seven items was used from this scale: four to assess the she asked for it rape myth and three to assess the rape is a deviant event rape myth. Higher scores indicated stronger endorsement of rape myth beliefs. Cronbach's alpha for Time 1 was .89 and for Time 2 was .94.

Token resistance is the belief that women sometimes say "no" to sexual advances but mean "yes" (Muehlenhard & Hollabaugh, 1988; Muehlenhard & Rodgers, 1998). Osman's (1998) TRSS was created to assess the extent people believe women use token resistance. The original measure contains eight items, such as "Women usually say 'no' to sex when they really mean 'yes'" and "When a woman allows a man to treat her to an expensive dinner on a date, it usually indicates that she is willing to have sex with him." Most of the items in this scale actually measure a broader belief; that women's sexual consent can be determined from their behavior in sexual and dating situations. Four of the items from this scale were used to assess this broader belief. Each item was measured using a 7-point scale from 0 (*strongly disagree*) to 6 (*strongly agree*). Higher scores indicated stronger endorsement of the belief that women's sexual consent can be determined from her behavior in sexual and dating situations. Cronbach's alpha was acceptable for Time 1 at .70 and for Time 2 at .78. The rape myths and token resistance scales were so highly correlated that they were causing the model to be non-positive definite.

Therefore, a parcel was created by averaging together the rape myths and token resistance scales.

The ATDR measure assesses college students' endorsement of attitudes and beliefs regarding recreational sex and men's and women's heterosexual roles (Ward & Rivadeneyra,

1999). The items for each of the factors were based on the themes about sex and gender roles found in Ward's (1995) content analysis of television: sex is recreational, dating is a game, men are sex-driven, and women are sex objects. Some of the original items were double-barreled or worded awkwardly so the items chosen for this study were chosen to avoid these problems. Thus, six items from the men are sex-driven factor and five items from the women are sex objects factor were chosen for use in the current study. An example item from the men are sex-driven items is "It's difficult for men to resist sexual urges" and from the women are sex objects items is "Women should be more concerned about their appearance than men." The 11 items were measured on a 7-point scale from 0 (*strongly disagree*) to 6 (*strongly agree*). Higher scores indicated stronger endorsement of the beliefs that men are sex driven and women are sex objects. Cronbach's alpha for the "men are sex driven" parcel was good for Time 1 at .81 and for Time 2 at .86. Cronbach's alpha for the "women are sex objects" parcel was acceptable for Time 1 at .71 and Time 2 at .76. The "men are sex driven" and "women are sex objects" parcels were created by averaging together the items from each scale.

The latent construct for endorsement of traditional heterosexual scripts was composed of three parcels: (a) the rape myths and token resistance scales, (b) the "men are sex driven" scale, and (c) the "women are sex objects" scales. The loadings for the three parcels were above .60, and the modification indices did not indicate the construct required any changes. The scripts construct had good stability between Time 1 and Time 2 ( $r = .82, p < .001$ ).

*Sexual self-concept.* This construct was originally measured using two scales: the revised sexual esteem items from the Sexuality Scale (SS) (Snell & Papini, 1989; Wiederman & Allgeier, 1993), the sexual self-efficacy scale (Rosenthal et al., 1991). Each of these scales was included in an attempt to address conceptually distinct, but correlated, parts of the sexual self-

concept. Together they were to represent a construct that assesses the thoughts and feelings one has about oneself in sexual situations. When running the longitudinal CFA, it became clear that sexual self-esteem and sexual self-efficacy may be too conceptually distinct to be modeled as a single latent variable. Therefore, although the information about how sexual self-esteem was measured is provided, the final SEM only includes sexual self-efficacy.

Sexual esteem is defined as a person's positive thoughts about his or her capacity to perform in sexual situations (Snell & Papini, 1989). It was measured using the sexual esteem items from the SS (Snell & Papini, 1989), which were revised by Wiederman and Allgeier (1993) after they conducted a confirmatory factor analysis (CFA) and found the original factor structure of the SS was not a good fit for the data even though both samples were similar (i.e., college students). The advantage of using the revised items is that the wording of the items is simplified and do not contain double-barreled items. Examples of items are "I am a good sexual partner" and "I would rate my sexual skill quite highly." These items were measured on a 7-point scale from 0 (*strongly disagree*) to 6 (*strongly agree*). Two items in the revised scale were similar (i.e., "I sometimes have doubts about my sexual competence" and "I sometimes doubt my sexual competence"), so only one was used. Sexual esteem was assessed with a total of nine items. Five of these items were removed to improve reliability. Higher scores indicated higher sexual esteem. Cronbach's alpha was excellent for Time 1 at .90 and for Time 2 at .92. Averaging the four items together created a parcel.

Sexual self-efficacy is defined as a person's beliefs in his or her ability to control sexual situations and the outcomes of sexual situations (Rosenthal et al., 1991). It was measured using Rosenthal et al.'s (1991) sexual self-efficacy scale on a 7-point scale from 0 (*strongly disagree*) to 6 (*strongly agree*), but only the items associated with unwanted or casual sex were used,

resulting in seven items. In the original scale, each item specifies a sexual behavior and is measured using response options ranging from very unable to very able. The items were adapted slightly for this study so that the response options could stay consistent with the rest of the survey. For example, “refuse a sexual advance by your partner” was changed to “I am very capable of refusing a sexual advance by my partner.” Higher scores indicated higher sexual self-efficacy. Five items were removed to improve reliability. Cronbach’s alpha was good for Time 1 at .83 and for Time 2 at .84. Averaging the remaining four items together created a parcel.

When the latent construct for sexual self-concept was entered into the model with the two parcels (i.e., one for sexual self-esteem and one for sexual self-efficacy), the statistical package, Lavaan, warned that the covariance matrix for both men and women was not positive definite. A different method of parceling suggested by Little (2013) using multiple smaller parcels for sexual self-esteem and sexual self-efficacy was attempted, but achieved the same result. In addition, a second-order construct with two lower order constructs (i.e., sexual self-esteem and self-efficacy) was attempted, but again this achieved the same result. Looking at the covariances between the sexual self-esteem and sexual self-efficacy parcels and the other indicators in the model, it appeared that the problem may have been that the sexual self-esteem parcel was positively related to some of the other indicators in the model, whereas the sexual self-efficacy parcel was negatively related to some of the other variables in the model. To be able to run the model without the error, a construct composed of only the sexual self-efficacy items was used in the model. This decision was made because it was reasoned that sexual self-efficacy would be a more important predictor of college students’ propensity for engaging in unwanted hookups. It was more likely that college students’ sexual self-efficacy would play a role in their behavioral intentions than sexual self-esteem. Previous research has shown that sexual self-efficacy is

positively related to sexual refusal and negatively related to sexual risk taking (Rosenthal et al., 1991; Salazar et al., 2004). The sexual self-efficacy latent construct was composed of the four most reliable items from the sexual self-efficacy scale. The stability of this construct was acceptable ( $r = .63$ ).

*Perceived peer norms.* Two types of perceived peer norms were measured: descriptive norms and injunctive norms. Descriptive norms are the perceptions people have about their peers' behavior, and injunctive norms are the perceptions people have about their peers' attitudes (Fishbein & Ajzen, 2011). This study was specifically interested in college students' perceptions of their peers' hookup behavior and hookup attitudes. Thus, perceptions of peers' hookup behavior was measured by asking participants to report on a 5-point scale from 0 (*never*) to 4 (*all of the time*) how often their male and female peers engage in hookups that involve kissing, touching, performing oral sex, receiving oral sex, and sexual intercourse. Higher scores indicated more frequent peer hookup behavior. Cronbach's alpha was excellent for Time 1 at .95 and for Time 2 at .95. A parcel was created by averaging together all of the items concerning perceived peer hookup behavior.

Perceptions of peers' hookup attitudes were measured using three items about how favorable peers' attitudes are towards hooking up. Participants were asked to rate each item on a 7-point scale from 0 (*strongly disagree*) to 6 (*strongly agree*). The items included were "My peers have favorable attitudes towards hooking up," "My peers think hooking up is fun," and "My peers like hooking up." Because participants may perceive peer attitudes differently based on the gender of the peer, each of the three questions was repeated for female and male peers. Higher scores indicated stronger positive perceived peer hookup attitudes. Cronbach's alpha was

excellent for Time 1 at .93 and for Time 2 at .95. A parcel was created that averaged all of the perceived peer hookup attitude items together.

The latent construct for perceived peer norms was composed of two parcels: (a) perceived peer hookup behavior and (b) perceived peer hookup attitudes. The loadings for each of the parcels were all above .60, and the modification indices did not suggest any changes to the construct. The stability of this construct was good ( $r = .83, p < .001$ ).

*Propensity for engaging in unwanted hookups.* To measure college students' propensity for engaging in unwanted hookups, three unwanted hookup scenarios were developed to cover the range of possible relationships an individual may have with an unwanted hookup partner and the range of situations in which an unwanted hookup could occur. The hope was that in developing three slightly different scenarios some variability in participants' responses could be assured. The first scenario described a situation in which a hookup might occur with a stranger. It involved going to a party with friends, meeting someone at the party, and going back to this person's place to "watch a movie." The second scenario described a situation in which a hookup might occur with an acquaintance. It involved going on a date with someone met through a friend and going back to this person's place after dinner to "hang out." The third scenario described a situation in which a hookup might occur with a previous hookup partner. It involved hanging out and playing video games with a past hookup partner. Each of the scenarios ended with the same conundrum: the partner suggests he/she would like to engage in sexual relations, but you are not ready or prepared to engage in sexual relations with this person. Effort was made to make the scenarios as similar as possible while still varying the relationship between the partners in the scenario. The full text of the scenarios can be read in the Appendix.

In the pilot test, participants were asked to read each scenario carefully, paying attention to the relationship they were said to have with the person in the scenario and imagining how they would feel in each situation. The order of the scenarios was randomized. Following each scenario, participants were asked to rate the extent they agreed or disagreed on a 7-point scale (1 = *Strongly Disagree*; 7 = *Strongly Agree*) with 15 statements about their resistance to their partner's sexual advances to kiss, touch, perform oral sex, receive oral sex, and engage in sexual intercourse with them. The statements were derived from the sexual assertiveness scale refusal subscale (Morokoff et al., 1997), and there were three statements per sexual behavior. Example items are: "I would give in and kiss him, even if I already said no" and "If she wanted to give me oral sex, I would let her, even if I didn't want that." The items referred to a female partner for men and a male partner for women. The items are related to college students' propensity for engaging in unwanted hookups because less resistance would mean they would be more likely to engage in unwanted hookups.

To determine whether participants noticed the manipulation of the relationship in the scenarios, they were asked to report their perceptions of how close they were with the partner in the scenario from 0 (*Stranger*) to 4 (*Romantic Partner*). A repeated-measures ANOVA was run to determine if participants' responses across the scenarios were significantly different. The results show that within-subjects there was a significant difference in participants' perceptions of relationship between themselves and the partner across the three scenarios, Wilk's Lambda = .36,  $F(2, 306) = 270.87, p < .001$ , Partial Eta<sup>2</sup> = .64. Post hoc pairwise comparisons revealed the differences were significant between the stranger scenario ( $M = 1.64, SD = .05$ ) and the acquaintance scenario ( $M = 2.24, SD = .05$ ), mean difference =  $-.60, p < .001$ ; as well as between the acquaintance scenario ( $M = 2.24, SD = .05$ ) and the previous hookup partner scenario ( $M =$

2.89,  $SD = .04$ ), mean difference =  $-.65$ ,  $p < .001$ . Thus, the manipulation of the relationship in the scenarios worked because participants perceived the stranger hookup scenario to have the least close relationship and the previous hookup partner scenario to have the closest relationship.

Before setting up the CFA, the inter-item correlations were examined to determine if any of the items did not correlate as strongly with the other items. Because the reverse-coded items did not correlate strongly with the items asking about the same behaviors in the same scenarios, the reverse-coded items were removed. Therefore, the CFA was constructed with 30 items: 10 items per scenario with two items per behavior within each scenario.

A CFA was conducted to test the factor structure of the scale. A single factor model was constructed with four parcels, one parcel for each behavior (i.e., kissing, touching, receiving oral sex, performing oral sex, and sexual intercourse). Table 6 provides the model fit and invariance statistics. This configuration proved to be a good fit based on Hu and Bentler's (1999) recommendation that CFI be greater than .95 and SRMR be less than .06, to reduce Type I and Type II errors. Still, the modification indices suggested the two parcels for oral sex (i.e., performing and receiving oral sex) had high correlated residuals. Therefore, it was decided that the two oral sex parcels would be averaged into one parcel. While the RMSEA for this model was a bit lower than Little's (2013) cutoff of .10 for an acceptable RMSEA, the combination of excellent CFI and SRMR were judged to be enough to move on to testing measurement invariance between men and women. The four indicator construct reached full strong invariance between men and women, which further suggests this model was the best fitting model for the sample. Measurement invariance was determined by the amount of change in the CFI from one model to the next. Cheung and Rensvold (2002) suggest a change in CFI less than .01 indicates the equated estimates are equivalent. Strict invariance was not reached, meaning the indicator

means on the propensity for engaging in unwanted hookups were significantly different for men and women. This is not surprising because men tend to be more willing to engage in sexual behavior than women (Petersen & Hyde, 2010). The Cronbach's alpha for the four parcels was excellent,  $\alpha = .95$ , so the scale was calculated by averaging the four parcels together. Higher scores indicated higher propensity for engaging in unwanted hookups.

Convergent validity was assessed by comparing the propensity for engaging in unwanted hookups scale to the full refusal subscale from Morokoff et al.'s (1997) sexual assertiveness scale. The logic here was that if someone felt less capable of refusing sex, they may also have a higher propensity for engaging in unwanted hookups. The correlation between the propensity for engaging in unwanted hookups and the sexual assertiveness refusal subscale was  $r = .71, p < .001$ . This strong correlation suggests that propensity for engaging in unwanted hookups is related to, but not exactly the same as the sexual assertiveness refusal subscale.

Divergent validity was assessed by comparing the propensity for engaging in unwanted hookups scale to the sociosexuality scale (Penke & Asendorpf, 2008), sexual self-esteem subscale (Snell & Papini, 1989), and the sexual self-efficacy scale (Rosenthal et al., 1991). It was predicted that if someone had high sexual self-efficacy, sexual self-esteem, or sociosexuality, then they may feel more confident and capable of refusing unwanted sexual advances and would be less likely to engage in unwanted hookups. The propensity for engaging in unwanted hookups was positively related to the sociosexuality scale,  $r = .58, p < .001$ ; positively related to the sexual self-esteem scale,  $r = .13, p < .05$ ; and negatively related to the sexual self-efficacy scale,  $r = -.41, p < .001$ . While it was expected that all of these scales would be negatively related to the propensity for engaging in unwanted sex scale, only the sexual self-efficacy scale was negatively correlated with the propensity for engaging in unwanted hookups scale. In hindsight,

it makes sense that those who have a more casual orientation towards sex or higher sexual self-esteem would be more likely to engage in sex because they have positive attitudes towards casual sex and positive self-worth in sexual situations (Penke & Asendorpf, 2008; Rosenthal et al., 1991), but does this extend to unwanted hookups? Townsend, Wasserman, and Rosenthal (2015) found that unwanted sexual experiences were positively associated with sociosexual orientation, which suggests sociosexual orientation or positive sexual self-esteem may exhibit a general propensity for sex that includes even unwanted experiences. The moderate negative correlation between the propensity for engaging in unwanted hookups scale and the sexual self-efficacy scale shows that the propensity for engaging in unwanted hookups scale does differentiate between wanted and unwanted hookups because those who are sexually efficacious, or better able to refuse unwanted hookup propositions, scored lower on the propensity to engage in unwanted hookups scale.

Concurrent validity was assessed by comparing the propensity for engaging in unwanted hookups scale to the number of unwanted hookups participants had engaged in in their lifetime. Participants were asked to report how many times they had engaged in unwanted hookups involving kissing, touching, performing oral sex, receiving oral sex, and sexual intercourse. Their responses were averaged into an overall measure of unwanted hookup experience. The rationale was that those who have previously engaged in more unwanted hookups should score higher on the propensity for engaging in unwanted hookups scale than those who had not engaged in many unwanted hookups. There was a positive correlation between the propensity for engaging in unwanted hookups scale and the measure of unwanted hookup experience,  $r = .36, p < .001$ . This moderate correlation suggests that those who have previously engaged in unwanted

hookups may be more likely to engage in unwanted hookups, which is supported by previous research (Ageton, 1983, Katz & Tirone, 2010).

Based on the results of the pilot test, all three unwanted hookup scenarios were included in the final measure. In the instructions provided before each of the scenarios, participants were told to pay attention to the relationship they were said to have with the person in the scenario and how they would feel in the scenario. In the instructions provided before the survey items, participants were asked to respond how they would if they were actually in the described scenario. Participants read and responded to 10 items per scenario. For each unwanted hookup scenario, participants were asked to report on a 7-point scale from 0 (*strongly disagree*) to 6 (*strongly agree*) to two items describing their non-resistance to each unwanted sexual behavior (i.e., kissing, touching, performing oral sex, receiving oral sex, and sexual intercourse). As was suggested by the pilot test, the latent construct for propensity for engaging in unwanted hookups was composed of four parcels (i.e., kissing, touching, oral sex, and sexual intercourse). The longitudinal CFA model included correlated residuals between the Time 1 and Time 2 kissing and touching indicators. This modification was suggested by the modification indices for the longitudinal CFA and was reasonable given the two behaviors are both fairly innocent and were measured using very similar wording. Cronbach's alpha for the four parcels was excellent for Time 1 at .91 and for Time 2 at .90, and the stability of the construct was high ( $r = .77, p < .001$ ).

**Covariates.** There are a number of covariates that may be spuriously correlated with the relationships between the exogenous or endogenous variables in this study. Therefore, it is important that these covariates be measured and statistically controlled. First, because of the sensitive nature of many of the questions in this study, college students may be likely to provide socially desirable responses (Goode & Hatt, 1952). For example, Morokoff et al. (1997) found

the refusal subscale in their sexual assertiveness scale was moderately positively correlated ( $r = .31$ ) with social desirability. Second, one's previous sexual behavior may influence several variables in the hypothesized model. Both wanted and unwanted sexual experiences may influence one's sexual self-efficacy. There is theorized to be a reciprocal relationship between sexual self-efficacy and sexual behavior, such that one's sexual behavior will cause them to re-evaluate their sexual self-efficacy, which in turn would influence their future sexual behavioral choices (Hensel et al., 2011; Millward, 1995). Nonconsensual sexual experience is also positively related to future engagement in unwanted sex (Ageton, 1983; Banyard et al., 2007). In addition, hookup experience may be related to being more likely to engage in unwanted hookups because those who are more experienced may feel less inhibited or more pressured to engage in hookup behavior, even if it is unwanted. Third, relationship status may influence college students' propensity for engaging in unwanted hookups because those in relationships may be more likely to avoid casual sexual situations or feel they would be more likely to resist if put in one of these situations. Fourth, alcohol use and partying is often associated with engaging in unwanted sex (Banyard et al., 2007; Palmer, McMahon, Rounsaville, & Ball, 2010). Lastly, being a feminist may reduce men's and women's endorsement of traditional heterosexual scripts (Bay-Cheng & Zucker, 2007).

*Social desirability.* The current study used Bobbio and Manganelli's (2011) short form of the BIDR. This scale was developed to measure social desirability on a continuous scale, unlike the Marlowe-Crowne Social Desirability Scale (MCSDS) (Crowne & Marlowe, 1960). This 16-item scale was validated among student and non-student populations, reflects the same factor structure as original, and the factor structure was found to be invariant between college-aged men and women. Example items include: "My first impressions of people usually turn out to be

right” and “I have never dropped litter on the street.” Participants were asked to report the extent they agree or disagree with the statements on a 7-point scale from 0 (*strongly disagree*) to 6 (*strongly agree*). Higher scores indicated stronger social desirability. Cronbach’s alpha was almost acceptable for Time 1 at .69 and for Time 2 at .69, and the stability of the measure was good ( $r = .70, p < .001$ ).

*Nonconsensual sexual experience.* The Sexual Experiences Survey (SES) was originally developed to measure people’s experience with and perpetration of sexual aggression at varying levels of severity (Koss & Oros, 1982). The revised SES was developed to address some of the weaknesses of the previous scale and update some of the definitions and wording to be more contemporary (Koss et al., 2007). The resulting SES Short Form for Victims (SES-SFV) assesses men’s and women’s experiences with nonconsensual sexual contact ranging from fondling to penetration in response to sexual advances that range from verbal pressure to physical force being used by partner. It measures the number of times an individual has experienced five types of coercion in the past year and since age 14 for four completed sexual behaviors (i.e., kissing/fondling, oral sex [receiving or giving], vaginal penetration, and anal penetration) and three attempted sexual behaviors (i.e., oral sex [receiving or giving], vaginal penetration, and anal penetration). The shortened SES-SFV was modified for the present study. The wording of the items was simplified to make them easier to understand. Participants were presented with four different compliance-gaining strategies (i.e., verbal pressure, taking advantage of intoxication or incapacitation, threatening to physically harm, using force) that partners might use to get them to engage in five different non-consensual sexual behaviors (i.e., kissing, touching, performing oral sex, receiving oral sex, and sexual intercourse). For each non-consensual sexual behavior, participants were asked to indicate the number of times between 0

(*never/not applicable*) and three (*three or more times*) that a partner had attempted or completed the non-consensual act during their lifetime using each of the four compliance gaining strategies (See the Appendix for exact wording).

The SES is a versatile measure that can be scored in a variety of ways depending on the researcher's needs (Koss et al., 2007). For the current study, the goal was to create a scale that would account for the frequency and severity of one's unwanted experiences in one scale. Only the number of completed unwanted sexual experiences occurring in one's lifetime was included in the scale. Each response (0 = *never/not applicable*; 3 = *three or more times*) was multiplied by the severity of the unwanted experience (1 = *verbal pressure*; 4 = *using force*), and then the scores were averaged across the five sexual behaviors (i.e., kissing, touching, performing oral sex, receiving oral sex, and sexual intercourse). This resulted in a measure that ranged from 0 (*no unwanted experiences*) to 12 (*three or more forced experiences*). Those who score in the middle will have engaged in either more frequent, less severe unwanted sexual experiences or less frequent, more severe unwanted sexual experiences. Because responses were averaged across the five sexual behaviors, each sexual behavior was treated equally (i.e., kissing was the same as sexual intercourse). Participants' responses could have been multiplied by the level of intimacy of the behavior (i.e., 1 = *kissing*; 5 = *sexual intercourse*) in addition to the severity of the unwanted experience, but there was concern that this would overcomplicate the interpretation of the values of the scale and may be confounding (e.g., more severe coercion tactics may be used more for intimate sexual behaviors and less severe coercion tactics may be used more for less intimate sexual behaviors). Cronbach's alpha was excellent for Time 1 at .91 and for Time 2 at .94 and the stability of the measure was acceptable ( $r = .51, p < .001$ ).

*Hookup experience.* Peters' (2012) method was used to measure hookup behavior. First, participants were given the definition of a hookup adapted from Stepp (2007). Then, they will be asked how often they engage in hookups on a 4-point scale from 0 (*never*) to 3 (*all the time*), how open they are to hooking up in the future on a 5-point scale from 0 (*absolutely not*) to 4 (*absolutely*), and how likely they would be to hookup if someone wanted to hookup with them on a 5-point scale from 0 (*absolutely not*) to 4 (*absolutely*). Participants' responses to the three questions were standardized so that they could be combined into an overall measure of hookup experience with higher scores indicating more hookup experience. The Cronbach's alpha was good for Time 1 at .84 and for Time 2 at .84, and the stability of the measure was good ( $r = .75$ ,  $p < .001$ ).

*Relationship status.* Participants were asked whether they were currently in a committed, romantic relationship (1 = *yes*, 2 = *no*), and if they are currently in a committed relationship, how long they had been with their partner in months and years.

*Heavy drinking.* To measure heavy drinking, participants were asked to answer the following question: "During the past 30 days, how many days have you consumed four [or five for men] or more drinks of an alcoholic beverage (i.e., 1.5 ounce liquor, 12 ounce beer, 5 ounce wine) within a single day?" The National Institute on Alcohol Abuse and Alcoholism (n.d.) defines heavy drinking as a pattern of drinking in which a person consumes four drinks for women, or five drinks for men, in one day for five or more days in a month.

*Feminist self-identification.* The Self Identification as a Feminist (SIF) scale (Szymanski, 2004) assesses people's self identification as a feminist. It is a 4-item scale that measures people's public and private feminist identification, importance of feminist attitudes and beliefs to the self, and support for the goals of the feminist movement. Items were measured on a 7-point

scale from 0 (*strongly disagree*) to 6 (*strongly agree*) and averaged together to create a scale. Higher scores indicated stronger feminist self-identification. Cronbach's alpha was excellent for Time 1 at .91 and for Time 2 at .93 and the stability of the measure was high ( $r = .77, p < .001$ ).

*Demographics.* Demographics included: age (*in years*); race (1 = *White*, 2 = *Black or African American*, 3 = *Hispanic or Latino [of any race]*, 4 = *Asian or Asian American*, 5 = *Native American*, 6 = *Other*); residential location (1 = *on campus*, 2 = *off campus*); and greek organization membership (1 = *Yes*, 2 = *No*).

### **Data Analysis**

Data analysis was primarily conducted using the Lavaan structural equation modeling (SEM) package (Rosseel, 2012) in the statistical software R (R Development Core Team, 2013). Analyses proceeded as followed: (a) Time 1 and Time 2 datasets were cleaned and merged, (b) longitudinal and multi-group CFAs were run and measurement invariance across time and gender were assessed, (c) observed longitudinal structural models were specified and tested both with and without covariates, (d) cross-lagged models were specified and tested for H1, H2, RQ1, H4, H5, and H6, (e) mediation models were specified and tested for H3, RQ2, RQ4, RQ5, and H7, and (f) moderation analyses for RQ3 were conducted with Hayes' (2014) PROCESS SPSS macro. All models were estimated using 1000 bootstrap replications, and 95% confidence intervals were composed for the indirect effect estimates. If the confidence intervals failed to include 0, then the p-value was judged to be less than or equal to 0.05, and the effect was said to be significant. Missing data was handled using listwise deletion.

To determine whether the measures were equivalent across time and gender, measurement invariance analyses were conducted. First, a longitudinal multi-group null model was constructed that specified the worst possible fitting longitudinal model, which was used in

place of the default null model to calculate accurate relative fit statistics (Little, 2013). The longitudinal multi-group null model specified three constraints: (a) the indicators were not associated within each measurement time period and across all measurement time periods, (b) the variances and means of the indicators did not change over time, and (c) the variances and means did not change across groups. Second, the longitudinal multi-group configural model was constructed using fixed factor scaling and model fit was evaluated. Table 7 displays the model fit statistics for the longitudinal multi-group measurement invariance tests. The initial model fit was acceptable, but the modification indices indicated that several correlated residuals would improve model for men, women, or both. Brown (2015) argues correlated residuals due to measurement are acceptable modifications to make to a measurement model to improve model fit. It was determined that some of the correlated residuals specified by the modification indices could be added to the model to improve model fit because they were originally created as factors within the same scale (e.g., ADTR), or they were measured using very similar wording (e.g., sexual media diet and propensity for engaging in unwanted sex). Therefore, the four correlated residuals within and across each time period (i.e., two within and two across) were entered between the sexy television and sexy movie parcels, the men are sex driven and women are sex objects parcels, and the propensity for engaging in unwanted hookups with kissing and touching parcels. After these modifications, the model fit was good enough to evaluate weak invariance. The equality constraints on the factor loadings for weak invariance were entered into the model for time and gender simultaneously. To determine whether the invariance constraints held, the cutoff specified by Cheung and Rensvold (2002) of a change in CFI of .01 between the less constrained and the more constrained models was used. The weak invariance constraints resulted in a change in CFI greater than .01. After examining the factor loadings in the configural model,

it was clear that while the loadings across time did not differ considerably, the loadings between men and women were not equivalent. In fact, so many of the loadings differed between men and women that even partial weak invariance would require that multiple loadings be estimated freely. Because the goal of this study was not to make comparisons between men and women, but to observe a hypothesized process among college students, it was decided that estimating the hypothesized SEM model separately for men and women would not hinder the goals of this study. This choice was further supported by the fact that there were more than twice as many women as there were men in this sample. Brown (2015) warned that when groups have quite different sample sizes, then the larger group contributes more to model fit than the smaller group.

Longitudinal measurement invariance continued to be evaluated separately for women and men. Table 8 summarizes the fit statistics for longitudinal invariance for women, and Table 9 summarizes the fit statistics for longitudinal invariance for men. First, longitudinal null models that constrained the variances and means to be equal across time for men and women separately were constructed to use for accurate relative fit statistics (Little, 2013). Second, the configural model was constructed to be exactly the same for men and women. Similar to the longitudinal multi-group configural model, correlated residuals were added to the longitudinal configural model for the propensity for engaging in unwanted sex parcels for kissing and touching. The modification indices did not suggest that the “men are sex driven” and “women are sex objects” parcels or the sexual media television and movie parcels had correlated residuals for men or women, so no correlated residuals were added to the longitudinal model for these parcels. Contrary to the longitudinal multi-group configural model, the modification indices for the longitudinal configural model suggested the rape myths parcel within the scripts factor had

correlated residuals with the other scripts parcels and was double-loading under the perceived peer norms factor. In order to resolve these issues, it was decided that the rape myths parcel and the token resistance parcels would be combined into one parcel within the scripts factor. These changes improved model fit for both men and women. The fit for women was good, and the fit for men was acceptable. Both men and women achieved full strong invariance, which is all that is needed to be able to examine covariance relations and mean structures across time (Little, Preacher, Selig, & Card, 2007). Strict invariance was evaluated, but equating the residual variances for the indicators changed the CFI more than .01 on the model for women. Due to the fact that enforcing strict invariance can be too restrictive (Little, 2013), not reaching strict invariance in the sample of women was not a concern. The strong invariance constraints were retained in all of the following longitudinal analyses (Anderson & Gerbing, 1987).

Model fit for the following structural models was evaluated using multiple fit criteria. Because the chi-square fit test has been criticized for being biased towards significant with large sample sizes and for other undesirable qualities (Bentler, 1990; Bollen, 1989), the comparative fit index (CFI), Tucker-Lewis Index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) was used as criteria for fit. The CFI can be interpreted as the percent of variance in the covariance matrix that can be accounted for by the model (Bentler, 1990), and the CFI for acceptable models generally exceeds .90 (Bentler & Bonett, 1980). In addition, a cutoff of a change in CFI greater than .01 was used to determine whether measurement invariance constraints introduced worsened model fit. The TLI contains the ratio of the chi-square to the degrees of freedom for both the null and the tested models. Similar to the CFI, a model with a TLI that exceeds .90 is considered to have acceptable fit (Little, 2013). The RMSEA is sensitive to sample size and degrees of freedom (Kenny,

Kaniskan, & McCoach, 2015). The proposed model had a moderately large sample and many of degrees of freedom, so RMSEA values less than .05 indicated “close” fit, values between .05 and .08 indicated “fair” fit, values between .08 and .10 indicated “mediocre” fit, and values greater than .10 indicated “poor” fit (MacCallum, Browne, & Sugawara, 1996). The SRMR is a measure of model misfit that is derived from the square root of the average of the squared residuals in standardized metric (Little, 2013). The acceptable values of the SRMR generally follow the same interpretation as RMSEA. Lastly, the null model used in most SEM packages only constrains the covariances between indicators to be zero, but this is often not enough for testing the significance of longitudinal structural equation models (Little, 2013). A multi-group longitudinal null model should also specify that: (1) the means and variances should not change across time and should not be different across groups, and (2) the Time 2 measurements should be relatively equal to the Time 1 measurements (Little, 2013). Constructing a null model with these constraints allows one to calculate accurate relative fit indices, such as CFI and TLI.

The observed longitudinal structural model was constructed separately for men and women as a half-longitudinal multiple mediation model. The theoretical model proposed college students’ sexual media diets would indirectly influence their propensity for engaging in unwanted hookups through three mediators: endorsement of traditional heterosexual scripts, sexual self-concept (now sexual self-efficacy), and perceived peer norms. Because only two panel surveys were collected, full longitudinal mediation could not be assessed, but there are plans to extend the present study for another round of data collection. For the present study, with only two time points, half-longitudinal mediation was the best that could be achieved. The half-longitudinal mediation design is an improvement over a cross-sectional mediation design because it allows one to model the previous levels of a given variable in order to isolate the

change variance (Cole & Maxwell, 2003; Little, 2013). Analyzing the half-longitudinal mediation model involved modeling the path between the Time 1 predictor variable and the Time 2 mediator variable (typically labeled *a*) while controlling for the previous levels of the mediator, as well as the path between the Time 1 mediator and the Time 2 outcome variable (typically labeled *b*) while controlling for the previous levels of the outcome variable. Each of these paths was interpreted as the strength in which the predictor explains the change variance in the outcome. The mediation analyses did not require that the direct path from the Time 1 predictor variable and the Time 2 outcome variable be significant because it was believed that the effect size of this path would be small and that the mediator variables may suppress the effect (Shrout & Bolger, 2002). The simple indirect effects for the three mediators (i.e., endorsement of traditional heterosexual scripts, sexual self-efficacy, and peer norms) were calculated by multiplying the *a* and *b* paths together. The multiple indirect effect with endorsement of traditional heterosexual scripts and sexual self-efficacy as the mediators between SMD and propensity for engaging in unwanted hookups was calculated by adding together the indirect effects with endorsement of traditional heterosexual scripts and sexual self-efficacy as mediators. The significance of the indirect effects was determined by the bootstrapped 95% confidence interval. If the confidence intervals failed to include 0, then the p-value was judged to be less than or equal to 0.05, and the effect was said to be significant. Like any longitudinal structural model, the covariances between the variables within each time period (i.e., Time 1 and Time 2) were freely estimated and the strong invariance constraints (i.e., equal loadings and intercepts for the indicators across time) were kept in the model.

Covariate paths were added to the observed longitudinal structural model in order to assess the robustness of the model. The limited sample sizes and complexity of the observed

longitudinal model limited the number of covariates that could be included in the model without sacrificing power. In order to account for these limitations for the female sample, only the covariates that were significantly correlated with one of the T1 latent constructs at a level above  $r = .25$  were entered into the model, and only those that produced significant ( $p < .05$ ) regression coefficients were kept in the model. The male sample was almost half the size of the female sample; therefore, the criterion for selecting the covariates to enter into the model for men was a correlation coefficient above  $r = .30$ , and the covariate had to produce a significant regression coefficient to be kept in the model. The covariates that met these criteria were also added to the following cross-lagged, mediation, and moderation models when their respective latent constructs were included in those analyses.

Individual cross-lagged path analyses were conducted for the hypotheses and research questions separately for men and women. These analyses were conducted in order to determine the directionality of the proposed relationships between the variables in the theoretical model. Each of these models was constructed using the latent variables and strong invariance constraints from the observed longitudinal model. Paths between the Time 1 predictor and Time 2 outcome variables were constructed while controlling for the stability of the variables across time. In addition, paths between the covariates and the respective latent constructs were added to these models, and the covariances between the variables within each time period were freely estimated.

Individual half-longitudinal mediation models were constructed separately for men and women for the proposed indirect paths in the theoretical model. These analyses were performed individually in order to capture and evaluate the hypotheses and research questions on their own, without the potential confounds that may have attenuated the strength of the indirect paths in the

full model. Each of the individual mediation models used the latent variables and strong invariance constraints from the observed longitudinal model. The *a* and *b* paths were entered into the model, along with any covariate paths that met the criteria that were previously discussed. The covariances between the latent constructs within each time period were also freely estimated within the models. The indirect paths were again calculated by multiplying the *a* and *b* paths together and significance was determined by the bootstrapped 95% confidence intervals.

Individual moderation analyses were conducted for RQ3 separately for men and women. For simplicity, this analysis was conducted using Hayes' (2014) PROCESS SPSS macro with 1000 bootstrap resamples and mean-centered products. Model 1 was used to construct the moderation model and the covariates that met the previously described criteria were included in the analyses.

## Chapter 4: Results

The results chapter is divided into three main parts. First, the fit of the observed longitudinal SEM with Time 1 controls for all of the endogenous variables was evaluated and the significant direct and indirect paths were assessed, separately for men and women. Second, additional control models for men and women were constructed and evaluated to see whether the models held after the introduction of the demographic variables and covariates. Third, the hypotheses and research questions were investigated.

### Overall Model Fit

The fit of the observed longitudinal SEM was good for women,  $\chi^2(407) = 603.85, p < .001$ , CMIN/DF = 1.48, CFI = .96, RMSEA = .04, SRMR = .06, TLI = .97. The standardized path coefficients are reported in Figure 2. There were two significant paths in the model for women. SMD at Time 1 positively predicted endorsement of traditional heterosexual scripts at Time 2 ( $\beta = .10, p < .05$ ) and endorsement of traditional heterosexual scripts at Time 1 positively predicted propensity for engaging in unwanted hookups at Time 2 ( $\beta = .19, p < .01$ ). The indirect effect between SMD, endorsement of traditional heterosexual scripts, and propensity for engaging in unwanted hookups ( $\beta = .02, 95\% \text{ CI } [.001, .061]$ ) was significant. These results suggest women's SMD may be indirectly related to their propensity for engaging in unwanted hookups through their endorsement of traditional heterosexual scripts.

The fit of the final longitudinal SEM was acceptable for men,  $\chi^2(407) = 539.16, p < .001$ , CMIN/DF = 1.32, CFI = .92, RMSEA = .06, SRMR = .09, TLI = .93. The standardized path coefficients are reported in Figure 3. There was only one significant path in the model for men. SMD at Time 1 negatively predicted sexual self-efficacy at Time 2 ( $\beta = -.31, p < .05$ ). None of

the indirect effects were significant. These results suggest men's sexual media consumption may reduce their sexual self-efficacy over time.

The observed longitudinal SEM suggested there may be longitudinal relationships between SMD and the endogenous variables, but it is important to ascertain whether any of these relationships may be explained by a third variable. The zero-order correlations between the Time 1 latent constructs and the 10 demographic variables and covariates (i.e., age, race, relationship status, greek membership, sociosexuality, hookup experience, social desirability, heavy drinking, nonconsensual sexual experience, and feminist identity) were examined to determine whether any of these variables may significantly explain the relationships proposed in the observed longitudinal model. As was discussed in the previous section, only the covariates that met the specified criteria were kept in the control models for men and women.

The fit of the control model for women was acceptable,  $\chi^2(525) = 793.28, p < .001$ , CMIN/DF = 1.51, CFI = .95, RMSEA = .04, SRMR = .07, TLI = .95. The standardized path coefficients are reported in Figure 4. Four of the covariates were statistically significant in the model for women: sociosexuality, feminist identification, hookup experience, and greek membership. Sociosexuality was positively related to women's propensity for engaging in unwanted hookups ( $\beta = .26, p < .001$ ). Feminist identification was negatively related to women's endorsement of traditional heterosexual scripts ( $\beta = -.34, p < .001$ ). Hookup experience was positively related to perceived peer norms ( $\beta = .35, p < .001$ ) and SMD ( $\beta = .24, p < .001$ ). Lastly, greek membership was also positively related to perceived peer norms ( $\beta = .24, p < .001$ ) and SMD ( $\beta = .23, p < .001$ ). After these controls were added the model, the path between SMD at Time 1 and endorsement of traditional heterosexual scripts at Time 2 ( $\beta = .12, p < .01$ ), as well as the path between endorsement of traditional heterosexual scripts at Time 1 and propensity for

engaging in unwanted hookups at Time 2 ( $\beta = .20, p < .001$ ), remained statistically significant. In addition, the indirect effect of SMD on unwanted hookups through traditional scripts ( $\beta = .03$ , 95% CI [.004, .067]) remained statistically significant. The results of the control model for women supported the conclusion that women's consumption of sexual media predicts their endorsement of traditional heterosexual scripts, which may lead them to be more inclined to engage in unwanted hookups.

The fit of the control model for men was acceptable,  $\chi^2(467) = 625.93, p < .001$ , CMIN/DF = 1.34, CFI = .91, RMSEA = .06, SRMR = .10, TLI = .90. The standardized path coefficients are reported in Figure 5. Two of the covariates were significant in the model for men: sociosexuality and hookup experience. Men's sociosexuality was positively related to their perceived peer norms ( $\beta = .51, p < .001$ ) and their hookup experience was positively related to their SMD ( $\beta = .60, p < .001$ ). The path between SMD at Time 1 and sexual self-efficacy at Time 2 ( $\beta = -.33, p < .05$ ) remained significant after the addition of the covariates. These results suggest men's sexual media consumption predicts their sexual self-efficacy even after controlling for covariates.

In sum, the observed and control models show that women's sexual media diets positively predicted their endorsement of traditional heterosexual scripts and their endorsement of traditional heterosexual scripts negatively predicted their engagement in unwanted hookups. Men's sexual media diets negatively predicted their sexual self-efficacy. The following section will examine each of the hypotheses and research questions in order to isolate the effects proposed in the theoretical model and potentially rule out the causal influence that the outcome variables may have on the predictors in the model.

## **Hypothesis 1**

Hypothesis 1 stated that college students' sexual media diets at Time 1 would predict their endorsement of traditional heterosexual scripts at Time 2. Hypothesis 1 was analyzed by conducting cross-lagged path analyses separately for men and women as described in the previous data analysis section. The results are in Figures 6 and 7. For women, the fit of the cross-lagged model was good,  $\chi^2(147) = 264.08, p < .001$ , CMIN/DF = 1.80, CFI = .96, RMSEA = .05, SRMR = .07, TLI = .95. The results indicated the relationship between SMD and endorsement of traditional heterosexual scripts was unidirectional. Women's SMD at Time 1 positively predicted their endorsement of traditional heterosexual scripts at Time 2 ( $\beta = .12, p < .01$ ), but endorsement of traditional heterosexual scripts at Time 1 did not predict SMD at Time 2 ( $\beta = .00, p = .97$ ). Thus, Hypothesis 1 was supported for women.

The fit of the cross-lagged model for men was acceptable,  $\chi^2(117) = 182.82, p < .001$ , CMIN/DF = 1.56, CFI = .91, RMSEA = .08, SRMR = .11, TLI = .90. Unlike women, the results of the cross-lagged model for men revealed there was not a relationship between SMD at Time 1 and endorsement of traditional heterosexual scripts at Time 2 ( $\beta = .06, p = .60$ ), nor was there a relationship between endorsement of traditional heterosexual scripts at Time 1 and SMD at Time 2 ( $\beta = .10, p = .42$ ). Therefore, Hypothesis 1 was not supported for men. Together, the results suggested Hypothesis 1 was only partially supported because there was only a relationship between SMD and endorsement of traditional heterosexual scripts among women.

## **Hypothesis 2**

Hypothesis 2 stated that college students' endorsement of traditional heterosexual scripts at Time 1 would predict their propensity for engaging in unwanted hookups at Time 2. Hypothesis 2 was analyzed in the same way as Hypothesis 1. The results are in Figures 8 and 9. The cross-lagged model for women returned a negative variance for the oral sex indicator within

the Time 2 propensity for engaging in unwanted hookups construct. Because the two indicators for kissing and touching under the same construct already had correlated errors entered into the model from the longitudinal CFA, adding the correlated residual solved the problem for the women, but created a negative variance for the Time 2 oral sex indicator for men. The reason that the analyses were run separately for men and women in this study was that measurement varied between men and women. This difference in the magnitude of the correlated residual between the Time 2 oral sex and sexual intercourse parcels for men and women illustrates this finding. Because the goal of this study was not to make comparisons between men's and women's responses, it was decided that adding the correlated residual to women's cross-lagged models containing the propensity for engaging in unwanted hookups construct, but not the men's, was acceptable.

The fit of the cross-lagged model for women was good,  $\chi^2(95) = 168.79, p < .001$ , CMIN/DF = 1.78, CFI = .98, RMSEA = .05, SRMR = .07, TLI = .98. The paths revealed there was a unidirectional relationship between endorsement of traditional heterosexual scripts and propensity for engaging in unwanted hookups for women. Women's endorsement of traditional heterosexual scripts at Time 1 positively predicted their propensity for engaging in unwanted hookups at Time 2 ( $\beta = .21, p < .001$ ), but their propensity for engaging in unwanted hookups at Time 1 did not predict their endorsement of heterosexual scripts at Time 2 ( $\beta = .05, p = .22$ ). Thus, Hypothesis 2 was supported for women.

Men's cross-lagged model fit was good as well,  $\chi^2(70) = 103.45, p < .001$ , CMIN/DF = 1.48, CFI = .97, RMSEA = .07, SRMR = .08, TLI = .97. The paths show that there was not a relationship between men's endorsement of traditional heterosexual scripts at Time 1 and their propensity for engaging in unwanted hookups at Time 2 ( $\beta = .09, p = .34$ ), nor was there a

relationship between their propensity for engaging in unwanted hookups at Time 1 and their endorsement of traditional heterosexual scripts at Time 2 ( $\beta = .09, p = .41$ ). Therefore, Hypothesis 2 was not supported for men. In total, Hypothesis 2 was only partially supported because only women's endorsement of traditional heterosexual scripts at Time 1 was related to their propensity for engaging in unwanted hookups at Time 2.

### **Hypothesis 3**

Hypothesis 3 stated that the relationship between college students' sexual media diets at Time 1 and propensity for engaging in unwanted hookups at Time 2 would be mediated by their endorsement of traditional heterosexual scripts at Time 2. Hypothesis 3 was analyzed using half-longitudinal mediational models for men and women with Time 1 controls and covariates. The results are reported in Figures 10 and 11. The mediation model for women included the correlated residual between the Time 2 oral sex and sexual intercourse indicators for the propensity for engaging in unwanted hookups construct. The mediation model for women had good fit,  $\chi^2(213) = 333.20, p < .001$ , CMIN/DF = 1.56, CFI = .97, RMSEA = .04, SRMR = .08, TLI = .97. The direct path from women's SMD at Time 1 to their propensity for engaging in unwanted hookups at Time 2 ( $\beta = .08, p = .17$ ) was not significant, but the paths between women's SMD at Time 1 and their endorsement of traditional heterosexual scripts at Time 2 ( $\beta = .12, p < .01$ ) and women's endorsement of traditional heterosexual scripts at Time 1 and their propensity for engaging in unwanted hookups at Time 2 ( $\beta = .23, p < .001$ ) were significant. The indirect effect, which was calculated as the product of the *a* and *b* paths, was also significant ( $\beta = .03, 95\% \text{ CI } [.01, .07]$ ). Therefore, Hypothesis 3 was supported for women.

The mediation model for men had good fit,  $\chi^2(160) = 233.07, p < .001$ , CMIN/DF = 1.46, CFI = .95, RMSEA = .07, SRMR = .11, TLI = .94. None of the paths were significant for men.

In sum, these results suggest that there may be an indirect relationship between SMD and propensity for engaging in unwanted hookups through endorsement of traditional heterosexual scripts, but only for women.

### **Research Question 1**

For Research Question 1, I asked whether college students' endorsement of traditional heterosexual scripts at Time 1 would predict their sexual self-efficacy at Time 2. Research Question 1 was analyzed using cross-lagged models for men and women. The results are in Figures 12 and 13. The model fit for women was good,  $\chi^2(87) = 128.09, p < .001$ , CMIN/DF = 1.47, CFI = .98, RMSEA = .04, SRMR = .04, TLI = .98. The paths between women's endorsement of traditional heterosexual scripts at Time 1 and sexual self-efficacy at Time 2 ( $\beta = -.07, p = .27$ ), as well as their sexual self-efficacy at Time 1 and endorsement of traditional heterosexual scripts at Time 2 ( $\beta = -.02, p = .74$ ), were not significant. Therefore, there was no evidence that women's endorsement of traditional heterosexual scripts was related to their sexual self-efficacy.

The cross-lagged model for men was also good,  $\chi^2(74) = 82.67, p < .001$ , CMIN/DF = 1.12, CFI = .98, RMSEA = .04, SRMR = .07, TLI = .98. The paths between men's endorsement of traditional heterosexual scripts at Time 1 and sexual self-efficacy at Time 2 ( $\beta = .10, p = .50$ ) and their sexual self-efficacy at Time 1 and endorsement of traditional heterosexual scripts at Time 2 ( $\beta = .05, p = .72$ ) were not significant. In conclusion, there was no evidence to suggest men's or women's endorsement of traditional heterosexual scripts was directly related to their sexual self-efficacy.

### **Research Question 2**

For Research Question 2, I asked whether college students' endorsement of traditional heterosexual scripts at Time 2 would mediate the relationship between their sexual media diets at Time 1 and their sexual self-efficacy at Time 2. Research Question 2 was explored using half-longitudinal mediation models for men and women that included Time 1 controls and covariates. Figures 14 and 15 report the results. The mediation model for women had acceptable fit,  $\chi^2(200) = 309.30, p < .001$ , CMIN/DF = 1.55, CFI = .96, RMSEA = .04, SRMR = .06, TLI = .95. Only the path between women's SMD at Time 1 and their endorsement of traditional heterosexual scripts at Time 2 ( $\beta = .11, p < .05$ ) was significant for women. Therefore, the indirect effect was not significant and no evidence of an indirect effect between women's SMD, endorsement of traditional heterosexual scripts, and their sexual self-efficacy was found.

Men's mediation model had good fit,  $\chi^2(164) = 199.95, p < .001$ , CMIN/DF = 1.22, CFI = .94, RMSEA = .05, SRMR = .09, TLI = .93. Only the direct path between men's SMD at Time 1 and their sexual self-efficacy at Time 2 ( $\beta = -.30, p < .05$ ) was significant. Thus, there was no evidence to suggest an indirect effect between men's SMD, endorsement of traditional heterosexual scripts, and their sexual self-efficacy. In sum, there is no evidence that college student's endorsement of traditional heterosexual scripts mediates the relationship between their sexual media diets and their sexual self-efficacy.

### **Research Question 3**

For Research Question 3, I asked whether the relationship between college students' endorsement of traditional heterosexual scripts at Time 1 and their sexual self-efficacy at Time 2 would be stronger when their social comparison tendencies at Time 1 were high. Hayes' (2014) PROCESS SPSS macro was used to run moderation models for men and women that included controls for Time 1 levels of sexual self-efficacy and the qualifying covariates. The results are

reported in Figures 16 and 17. The full model was significant for women,  $F(4, 292) = 24.72, p < .001, R^2 = .32$ , but the interaction was not significant,  $b = .01, t(291) = .18, p = .86$ . Therefore, in this sample women's social comparison tendencies at Time 1 did not moderate the relationship between their endorsement of traditional heterosexual scripts at Time 1 and their sexual self-efficacy at Time 2.

The full model was also significant for men,  $F(4, 87) = 3.00, p < .05, R^2 = .18$ , but again the interaction was not significant,  $b = -.16, t(86) = -.83, p = .41$ . In sum, neither women nor men exhibited an interaction between their endorsement of traditional heterosexual scripts and their social comparison tendencies at Time 1 on their sexual self-efficacy at Time 2.

#### **Hypothesis 4**

Hypothesis 4 stated that college students' sexual self-efficacy at Time 1 would negatively predict their propensity for engaging in unwanted hookups at Time 2. Hypothesis 4 was analyzed using cross-lagged models for men and women. The results are in Figures 18 and 19. Again, the model for women included the correlated residual between the Time 2 oral sex and sexual intercourse parcels for the propensity for engaging in unwanted hookups construct. The model fit for women was good,  $\chi^2(112) = 178.32, p < .001, \text{CMIN/DF} = 1.59, \text{CFI} = .98, \text{RMSEA} = .04, \text{SRMR} = .05, \text{TLI} = .98$ . The paths indicated women's sexual self-efficacy at Time 1 did not predict their propensity for engaging in unwanted hookups at Time 2 ( $\beta = .02, p = .74$ ), but their propensity for engaging in unwanted hookups at Time 1 negatively predicted their sexual self-efficacy at Time 2 ( $\beta = -.15, p < .01$ ). Therefore, Hypothesis 4 was not supported for women.

Men's cross-lagged model was also a good fit,  $\chi^2(98) = 122.56, p < .001, \text{CMIN/DF} = 1.25, \text{CFI} = .98, \text{RMSEA} = .05, \text{SRMR} = .07, \text{TLI} = .97$ . The path between men's sexual self-efficacy at Time 1 and propensity for engaging in unwanted hookups at Time 2 ( $\beta = .04, p = .64$ ),

as well as the path between men's propensity for engaging in unwanted hookups at Time 1 and their sexual self-efficacy at Time 2 ( $\beta = -.17, p = .16$ ), were not significant. Therefore, Hypothesis 4 was not supported for men or women, but women's propensity for engaging in unwanted hookups may negatively impact their sexual self-efficacy over time.

#### **Research Question 4**

For Research Question 4, I asked whether college students' sexual self-efficacy at Time 2 would mediate the relationship between their sexual media diets at Time 1 and their propensity for engaging in unwanted hookups at Time 2. Research Question 4 was analyzed using half-longitudinal mediation models for men and women. The results are in Figures 20 and 21. The model for women included the correlated residual between the Time 2 oral sex and sexual intercourse parcels for the propensity for engaging in unwanted hookups construct. The model fit for women was good,  $\chi^2(239) = 375.55, p < .001$ , CMIN/DF = 1.57, CFI = .97, RMSEA = .05, SRMR = .07, TLI = .96. None of the paths were significant.

The model fit for men was also good,  $\chi^2(200) = 258.29, p < .001$ , CMIN/DF = 1.29, CFI = .95, RMSEA = .06, SRMR = .10, TLI = .94. Only the path from men's SMD at Time 1 to their sexual self-efficacy at Time 2 ( $\beta = -.28, p < .05$ ) was significant. Thus, as has been shown in the previous analyses, men's SMD may reduce their sexual self-efficacy over time. Together these results do not suggest there is an indirect effect between college students' SMD, sexual self-efficacy, and propensity for engaging in unwanted hookups.

#### **Research Question 5**

For Research Question 5, I asked whether college students' endorsement of traditional heterosexual scripts and sexual self-efficacy at Time 2 would mediate the relationship between their sexual media diets at Time 1 and their propensity for engaging in unwanted hookups at

Time 2. Research Question 5 was analyzed using half-longitudinal multiple mediation models for men and women. These models tested two indirect effects, as well as the combination of the indirect effects. The first indirect effect was between college students' SMD, endorsement of traditional heterosexual scripts, and their propensity for engaging in unwanted hookups. The second indirect effect was between college students' SMD, sexual self-efficacy, and propensity for engaging in unwanted hookups. The combined indirect effect was calculated by adding together these two indirect effects. The model fit for women was good,  $\chi^2(410) = 608.84, p < .001$ , CMIN/DF = 1.48, CFI = .96, RMSEA = .04, SRMR = .07, TLI = .96. The paths between women's SMD at Time 1 and endorsement of heterosexual scripts at Time 2 ( $\beta = .11, p < .05$ ) and their endorsement of traditional heterosexual scripts at Time 1 and propensity for engaging in unwanted hookups at Time 2 ( $\beta = .24, p < .001$ ) were significant. Like the results found in H3, the indirect effect between women's SMD, endorsement of traditional heterosexual scripts, and propensity to engage in unwanted hookups ( $\beta = .03, 95\% \text{ CI } [.004, .071]$ ) was also significant. Although the remaining paths in the model were not significant, the sum of the two indirect effects ( $\beta = .03, 95\% \text{ CI } [.001, .071]$ ) was significant. This probably occurred because one of the indirect effects was significant, so adding the two indirect effects together resulted in a significant parameter that was no more meaningful than the significant indirect effect by itself. The results of the multiple mediation model for women support those that were found previously in H3.

The model fit for men was acceptable,  $\chi^2(333) = 438.74, p < .001$ , CMIN/DF = 1.32, CFI = .93, RMSEA = .06, SRMR = .10, TLI = .92. Only the path between men's SMD at Time 1 and their sexual self-efficacy at Time 2 ( $\beta = -.31, p < .05$ ) was significant. These results for men

support those found in the preceding analyses. In sum, the results of Research Question 5 did not elicit any new information.

### **Hypothesis 5**

Hypothesis 5 stated that college students' sexual media diets at Time 1 would predict their perceived peer norms at Time 2. Hypothesis 5 was analyzed using cross-lagged models for men and women. The results are in Figures 22 and 23. The model fit for women was good,  $\chi^2(98) = 175.44, p < .001$ , CMIN/DF = 1.79, CFI = .97, RMSEA = .05, SRMR = .07, TLI = .96. The path between women's SMD at Time 1 and perceived peer norms at Time 2 ( $\beta = .07, p = .30$ ) and the path between women's perceived peer norms at Time 1 and their SMD at Time 2 ( $\beta = .06, p = .34$ ) were not significant, indicating there was not a relationship between women's SMD and perceived peer norms.

For men, the model fit was acceptable,  $\chi^2(100) = 164.50, p < .001$ , CMIN/DF = 1.65, CFI = .90, RMSEA = .09, SRMR = .13, TLI = .89. The path between men's SMD at Time 1 and their perceived peer norms at Time 2 ( $\beta = -.13, p = .26$ ) and the path between their perceived peer norms at Time 1 and their SMD at Time 2 ( $\beta = .02, p = .88$ ) were not significant. Therefore, there was no evidence to support Hypothesis 5.

### **Hypothesis 6**

Hypothesis 6 stated that college students' perceived peer norms at Time 1 would predict their propensity for engaging in unwanted hookups at Time 2. Hypothesis 6 was analyzed using cross-lagged models for men and women. The results are in Figures 24 and 25. The model for women included the correlated residual between the Time 2 oral sex and sexual intercourse parcels for the propensity for engaging in unwanted hookups construct. The model for women fit well,  $\chi^2(78) = 117.28, p < .001$ , CMIN/DF = 1.50, CFI = .99, RMSEA = .04, SRMR = .06, TLI

= .98. The path between women's perceived peer norms at Time 1 and their propensity for engaging in unwanted hookups at Time 2 ( $\beta = .10, p = .06$ ) and the path between their propensity for engaging in unwanted hookups at Time 1 and their perceived peer norms at Time 2 ( $\beta = -.07, p = .12$ ) were not significant. Thus, Hypothesis 6 was not supported for women.

Men's model fit was good,  $\chi^2(57) = 66.33, p < .001, CMIN/DF = 1.16, CFI = .99, RMSEA = .04, SRMR = .10, TLI = .99$ . The relationship between men's perceived peer norms and propensity for engaging in unwanted hookups may be unidirectional. The path between men's perceived peer norms at Time 1 and their propensity for engaging in unwanted hookups at Time 2 ( $\beta = .20, p < .05$ ) was significant, and the path between their propensity for engaging in unwanted hookups at Time 1 and their perceived peer norms at Time 2 ( $\beta = .04, p = .67$ ) was not significant. Therefore, evidence in support of Hypothesis 6 was found for men, and but not for women. These results suggest college men who perceive their peers have more positive hookup attitudes and more frequent hookup behaviors may become more inclined to engage in unwanted hookups over time.

### **Hypothesis 7**

Hypothesis 7 stated that the relationship between college students' sexual media diets at Time 1 and their propensity for engaging in unwanted hookups at Time 2 would be mediated by their perceived peer norms at Time 2. Hypothesis 7 was examined using half-longitudinal mediation models for men and women. Figures 26 and 27 report the results. The model for women included the correlated residual between the Time 2 oral sex and sexual intercourse parcels for the propensity for engaging in unwanted hookups construct. The women's model had good fit,  $\chi^2(153) = 249.43, p < .001, CMIN/DF = 1.63, CFI = .97, RMSEA = .05, SRMR = .06, TLI = .97$ . The direct path between women's SMD at Time 1 and their propensity for engaging

in unwanted hookups at Time 2 ( $\beta = -.01, p = .89$ ) was not significant, and the path between women's SMD at Time and their perceived peer norms at Time 2 ( $\beta = .05, p = .40$ ) was not significant. The path between women's perceived peer norms at Time 1 and propensity for engaging in unwanted hookups at Time 2 ( $\beta = .12, p = .07$ ) was not significant. Therefore, there was no support for H7 for women.

The model fit for men was also good,  $\chi^2(140) = 185.17, p < .001$ , CMIN/DF = 1.32, CFI = .96, RMSEA = .06, SRMR = .13, TLI = .95. The direct path from men's SMD at Time 1 to their propensity for engaging in unwanted hookups at Time 2 ( $\beta = -.03, p = .76$ ) was not significant, and the path between men's SMD at Time and their perceived peer norms at Time 2 ( $\beta = -.07, p = .58$ ) as not significant. Only the path between men's perceived peer norms at Time 1 and propensity for engaging in unwanted hookups at Time 2 ( $\beta = .19, p < .05$ ) was significant. Thus, there was not support for Hypothesis 7 for men or women.

## Chapter 5: Discussion

### Introduction

The primary goal of the present study was to examine the influence college students' SMD would have on their propensity for engaging in unwanted hookups over a two-month period. Three potential mediators were examined in the relationship between college students' SMD and their propensity for engaging in unwanted hookups: endorsement of traditional heterosexual scripts, sexual self-efficacy, and perceived peer norms. The following discussion is organized into four major sections: (a) a summary of the findings in relation to previous research, (b) theoretical and practical implications, (c) limitations and future directions, and (d) the conclusion. In the following summary section, there will first be a discussion of the new propensity for engaging in unwanted hookups measure developed for this study. After that, the results of the longitudinal SEM and the individual hypotheses and research questions are presented. These findings will be organized by the four major mediation relationships proposed in the theoretical model.

### Summary of Findings

**Propensity for engaging in unwanted hookups measure.** One of the goals of this study was to develop a measure that would unobtrusively measure whether someone may be more at risk of experiencing an unwanted sexual experience. There is currently no such measure available to researchers, but there is a need for one because all of the currently available measures only capture past unwanted sexual experiences. This limits the ability of researchers to study the theoretical mechanisms prospectively associated with putting oneself at risk of experiencing unwanted sex. The propensity for engaging in unwanted hookups measure created

for this study could provide future researchers a way to measure an individual's risk for unwanted sex.

Importantly, the propensity for engaging in unwanted hookups measure created for this study was only intended to capture college students' potential non-resistance to unwanted sexual advances from a partner of the opposite sex. The measure cannot diagnose someone's future probability of rape or sexual assault. Wording that would suggest the scenarios were consensual or nonconsensual was intentionally avoided. This choice was made because the primary purpose of this study was to assess the theoretical mechanisms underlying the relationship between college students' SMD and their unwanted sexual experiences. Still, the measure does capture whether a college student may engage in a type of risky sexual behavior that might put them in situations that could make them easier targets for rapists. For example, one of the scenarios describes the participant meeting a stranger at a party and bringing him or her back to their room to watch a movie. With little prior knowledge of this person, inviting him or her to a private place could be risky. By assessing participants' perceived resistance to sexual advances in these scenarios researchers can get a better idea of how the participants may put themselves at risk of experiencing unwanted sexual contact if a similar situation were to occur in their real lives. Therefore, it is important that the propensity for engaging in unwanted hookups measure be interpreted carefully. It is a measure of risky sexual behavior or willingness to engage in consensual unwanted sex rather than a measure of someone's probability of being raped or sexually assaulted.

The propensity for engaging in unwanted hookups measure developed for this study had good reliability and validity, and the variance estimated from the single-factor CFA was reasonable (variance at Time 2 was 1.71). The means for the propensity for engaging in

unwanted hookup measure for both men ( $M = 3.73$ ) and women ( $M = 2.22$ ) were low. There may be a couple of explanations for this. First, this sample may have felt particularly capable of resisting unwanted sexual advances, meaning this measure could have higher means among other samples. Second, it could be that the items used in the measure encouraged socially desirable responding. Either way, the low means may have weakened, or suppressed, some of the effects in this study. This will need to be addressed in future studies.

Some of the advantages of using the propensity for engaging in unwanted hookup measure are that: (a) it could be used in cross-sectional studies, (b) the wording could be changed to address more broad or more specific sexual behavior, (c) the items could potentially be separated into factors to assess the propensity of engaging in specific unwanted sexual behaviors, and (d) the scenarios could be rewritten to highlight important sources of variance other than partner familiarity, such as setting or presence of alcohol. Another important reason the propensity for engaging in unwanted hookups measure could be useful is that it measures prospective behavior via behavioral intentions. By measuring prospective behavior, the propensity for engaging in unwanted hookups measure can avoid the retrospective bias that may result from reporting prior behavior (Weiss, 2009). For example, participants may cope with their previous unwanted sexual experiences by making up excuses or justifying the experience as something other than unwanted. Some researchers may want to argue measuring prospective behavior via behavioral intentions is not as accurate as measuring prior behavior, but research using the theory of planned behavior and theory of reasoned action has shown that behavioral intentions are often accurate predictors of actual behavior (for a review, see Fishbein & Ajzen, 2011).

**Observed model.** The observed longitudinal SEM model was used to investigate several potential mediators (i.e., endorsement of traditional heterosexual scripts, sexual self-efficacy, and perceived peer norms) in the relationship between college students' SMD at Time 1 and their propensity for engaging in unwanted hookups at Time 2. For women, only the paths between SMD at Time 1 and endorsement of traditional heterosexual scripts at Time 2 and endorsement of traditional heterosexual scripts at Time 1 and propensity for engaging in unwanted hookups at Time 2 were significant. These paths were significant even after controlling for women's sociosexuality, hookup experience, feminist identification, and greek membership. For men, only the path between SMD at Time 1 and their sexual self-efficacy at Time 2 was significant, and this path remained significant after controlling for men's hookup experience. While many of the proposed paths were not supported in this 2-month longitudinal panel survey, evidence was found for some of the proposed links between the variables. This is important because it shows that even over a 2-month period of time, college women's SMD may indirectly influence their propensity for engaging in unwanted hookups through their endorsement of traditional heterosexual scripts and college men's SMD may directly influence their sexual self-efficacy.

***SMD, endorsement of traditional heterosexual scripts, and propensity for engaging in unwanted hookups.*** It was hypothesized that college students' endorsement of traditional heterosexual scripts would mediate the relationship between their SMD and their propensity for engaging in unwanted hookups. This hypothesis was supported for women, but not for men. The following section will discuss these results in relation to previous research and attempt to provide some explanation of the supporting and non-supporting evidence.

Extending the results of previous studies (e.g., Kahlor & Eastin, 2011; Kim & Ward, 2004; Seabrook et al., 2016; Ward, 2002), this study found that college women's SMD at Time 1

positively predicted their endorsement of traditional heterosexual scripts at Time 2. The present study examined the influence of multiple media on a variety of aspects of the traditional heterosexual script over time, whereas previous studies primarily looked at the cross-sectional associations between television or magazines and endorsement of traditional heterosexual scripts. The endorsement of traditional heterosexual scripts construct was composed of items from scales measuring rape myth acceptance, token resistance, and gendered beliefs that men are sex driven and women are sex objects. Thus, this result suggests that college women's consumption of sexual media may lead them to hold a variety of damaging beliefs about women's role in sexual situations.

In addition, women's endorsement of traditional heterosexual scripts at Time 1 positively predicted their propensity for engaging in unwanted sex at Time 2. Although no previous studies have examined this relationship directly, many have suggested that endorsing traditional heterosexual scripts may result in risky sexual behavior. For example, Paxton et al. (2005) found that women who endorsed more stereotypical gender roles were more likely to behave in ways that conformed to those roles. In addition, Motley and Reeder (1995) found that women who more strongly endorse traditional heterosexual scripts may believe that their male partners will get angry if they refuse sex. Therefore, it is not surprising that this result suggests women's endorsement of traditional heterosexual scripts may lead them to be more inclined to engage in unwanted hookups.

Given that the preceding two paths were significant, it was not surprising that the indirect effect between women's SMD at Time 1 and their propensity for engaging in unwanted hookups at Time 2 through their endorsement of traditional heterosexual scripts was significant. It is particularly notable that this effect remained after controls were added to the model. Although

the effect size based on the beta coefficient was small, the  $R^2$  indicated that the half-longitudinal mediation model explained 57% of the variance in women's propensity for engaging in unwanted hookups. This result suggests that women's SMD may increase their propensity for engaging in unwanted hookups because of their increased endorsement of traditional heterosexual scripts. No previous study has combined these effects to examine their comprehensive influence.

The paths between college men's SMD, endorsement of traditional heterosexual scripts, and propensity for engaging in unwanted hookups were not significant. The non-significant relationship between college men's SMD and their endorsement of traditional heterosexual scripts is somewhat consistent with previous research in that the relationship between media use and endorsement of traditional heterosexual scripts is consistently stronger for women than it is for men (Ward, 2002; Ward & Rivadeneyra, 1999). In these previous studies, the authors suggest a few explanations for why men's media use is generally found to be less related to their endorsement of traditional heterosexual scripts than it is for women. First, it could be issues with study limitations, like sample size. Because the present study, as well as the previous studies, was conducted among college students in the social sciences, the gender bias in these college student populations generally results in smaller sample sizes for men. Second, the relationship between men's endorsement of traditional heterosexual scripts and their propensity for engaging in unwanted hookups may not have been significant because men's role in the traditional heterosexual script could be interpreted in different ways. In the literature review, men's role within the traditional heterosexual script was discussed as being aggressive and highly sexual. The items within the "Men are Sex Driven" subscale (Ward & Rivadeneyra, 1999) used in this study illustrate this part of men's role, and it was hypothesized that men endorsing the traditional

heterosexual scripts would pursue sex, even when it was unwanted. Alternatively, for some men, endorsing the traditional heterosexual script may have resulted in fewer propensities for engaging in unwanted sex because they may have interpreted their role as being the person in charge of sexual initiation and progression. If some men saw their role as being sexually agreeable and some as sexually selective, then the effects between men's endorsement of traditional heterosexual scripts and their propensity for engaging in unwanted hookups may have canceled each other out.

*SMD, endorsement of traditional heterosexual scripts, and sexual self-efficacy.* A research question was asked about whether college students' SMD would be indirectly related to their sexual self-concepts through their endorsement of traditional heterosexual scripts. This research question was posed because two previous studies had found evidence that college students' media use may be related to their sexual self-concepts, but neither study tested ways in which these constructs may be related (Aubrey, 2007; Martino et al., 2005). Aubrey (2007), in a 2-year panel study of college women, found that their television consumption at Time 1 negatively predicted their sexual self-concepts at Time 2. The sexual self-concept construct used in her study did not contain sexual self-efficacy, but because sexual self-efficacy is theorized to be part of the sexual self-concept (Buzwell & Rosenthal, 1996), it was assumed that similar results could be expected when testing the relationship between SMD and sexual self-efficacy. On the other hand, Martino et al. (2005) found that safe-sex efficacy mediated the relationship between adolescents' sexual television exposure and their sexual intercourse initiation. In their study, adolescents' sexual television exposure was positively related to their safe-sex self-efficacy and positively related to their sexual intercourse initiation. The purpose of asking whether college students' endorsement of traditional heterosexual scripts mediated the

relationship between their SMD and their sexual self-efficacy was to help explain one way in which their SMD may influence their sexual self-concepts.

For women, the direct effect between their SMD and their sexual self-efficacy was not significant. This was a surprise because content analyses have shown that women, more than men, are shown as receiving negative sexual consequences (Aubrey, 2004), and women are often held solely responsible for protecting themselves against negative sexual consequences (Ward, 2003). One would think that seeing these portrayals would negatively influence women's perceived capability for managing sexual situations and resisting the negative consequences of sexual behavior. One explanation of this result may be that women's sexual self-efficacy has developed a tolerance to seeing the way the media portrays women's sexual responsibility. If women rarely encounter media messages that portray women as receiving positive consequences or their male counterparts as being responsible for preventing these negative consequences, then it is likely that they have already experienced the effects of these messages and their media use would not probably explain a significant portion of the small observable change in their sexual self-efficacy over the 2-month period in which this study was conducted. In addition, the relationship between college women's SMD at Time 1 and their endorsement of traditional heterosexual scripts at Time 2 remained significant, but the path between their endorsement of traditional heterosexual scripts at Time 1 and their sexual self-efficacy at Time 2 was not significant. These results suggest that women may not derive information from their traditional heterosexual scripts in order to support or undermine their sexual self-efficacy. Thus, the important question concerning how SMD impacts women's sexual self-concepts still remains. Alternatively, it is possible that college women's sexual self-efficacy is quite stable and would not observably change over the 2-month course of this study. If this is the case, then future

longitudinal studies with longer time periods may be able to explain how SMD influence women's sexual self-concepts.

For men, their SMD at Time 1 negatively predicted their sexual self-efficacy at Time 2, but the paths from SMD to endorsement of traditional heterosexual scripts and from endorsement of traditional heterosexual scripts to sexual self-efficacy were not significant. These results indicate men's SMD may lower their sexual self-efficacy, but it is probably not through their endorsement of traditional heterosexual scripts as is commonly suggested (e.g., Eaton & Rose, 2011; Masters et al., 2013). As has been found in past studies, young people's sexual satisfaction and sexual self-image are negatively influenced by their media use (Baran, 1976a, 1976b; Courtright & Baran, 1980). In Baran (1976a), it was young people's perceptions of media characters' sexual pleasure and prowess that may have led them to conclude their own sexual experiences could not live up to those seen on television. Most importantly, the finding that men's SMD may decrease their sexual self-efficacy suggests that new content analyses and experiments must be conducted to investigate what portrayals could be causing men's reduced sexual self-efficacy.

A research question was posed to ask whether an interaction between college students' endorsement of traditional heterosexual scripts and their social comparison tendencies may explain their sexual self-efficacy. Even though the relationship between endorsement of traditional heterosexual scripts and sexual self-efficacy was not significant for men or women, it was still possible that the relationship would be moderated by social comparison tendencies. This research question was posed because Aubrey (2007) suggested that the relationship between college women's television consumption and their sexual self-concepts may be due to some college women having a greater tendency to compare themselves to the media characters. If

some college students had a greater tendency to compare themselves and their actions to the highly gendered roles prescribed by the traditional heterosexual script, then their sexual self-efficacy may be diminished. This speculation was not supported by the data. College students' social comparison tendencies did not moderate the relationship between their endorsement of traditional heterosexual scripts at Time 1 and their sexual self-efficacy at Time 2. For women, again, it may simply be that their sexual self-efficacy did not observably change during the 2-month course of this study. It could also be that women's sexual self-efficacy is more dependent on knowledge and self-esteem (Rostosky et al., 2008) than on SMD and traditional heterosexual scripts. For men, their sexual self-efficacy may be explained more directly by the portrayals they are exposed to in the media.

*SMD, sexual self-efficacy, and propensity for engaging in unwanted hookups.* A research question was posed that asked whether college students' SMD would be indirectly related to their propensity for engaging in unwanted hookups through their sexual self-concepts. This research question was posed because of previous research that found television consumption was related to college students' sexual self-concepts (Aubrey, 2007; Martino et al., 2005), and the results of other studies that suggested those with higher sexual self-esteem and sexual self-efficacy would feel more capable of refusing unwanted hookups (Hensel et al., 2011; O'Sullivan et al., 2006). The findings of this study suggested that college women's sexual self-efficacy may be predicted by their propensity for engaging in unwanted hookups, but there was no relationship between men's sexual self-efficacy and their propensity for engaging in unwanted hookups.

Instead, the results suggested women's propensity for engaging in unwanted hookups at Time 1 may negatively predict their sexual self-efficacy at Time 2. This is contrary to the

hypothesis posed that predicted women's sexual self-efficacy at Time 1 would negatively predict their propensity for engaging in unwanted hookups at Time 2. What this finding shows is that women who perceive they would be less resistant to unwanted sexual advances report less sexual self-efficacy two months later. While not tested within this study, this reduction in sexual self-efficacy could have been due to these college women experiencing unwanted sexual contact during the two-month period of this study.

As was previously discussed, men's SMD negatively predicted their sexual self-efficacy, but the hypothesis that predicted their sexual self-efficacy at Time 1 would negatively predict their propensity for engaging in unwanted hookups at Time 2 was not supported. The non-significant relationship between men's sexual self-efficacy and propensity for engaging in unwanted hookups was surprising as previous research has shown that men generally have less sexual self-efficacy than women (Rostosky et al., 2008), which could lead them to engage in more sexual risk taking (Rosenthal, 1991). It may be possible that this particular effect was weakened by the low propensity for engaging in unwanted hookups means. Future analyses will need to be performed to determine whether men's sexual self-efficacy might predict their actual unwanted sexual behavior.

***SMD, perceived peer norms, and propensity for engaging in unwanted hookups.*** It was hypothesized that college students' perceived peer norms regarding hookups would mediate the relationship between their SMD at Time 1 and their propensity for engaging in unwanted hookups at Time 2. This hypothesis was posed because previous studies have shown that SMD can increase college students' perceptions of their peers' hookup attitudes and behavior (e.g., Chia & Lee, 2008; Peters, 2012), and that misperceptions of peers' hookup attitudes and behavior often increase college students' sexual behavior (e.g., Bersamin, Walker, Fisher, &

Grube, 2006; Lewis, Lee, Patrick, & Fossos, 2007; Napper et al., 2015). Particularly, Lewis et al. (2007) found misperceptions of peers' risky sexual behavior was positively associated with college students' own risky sexual behavior. The results of this study suggest that men's perceived peer norms at Time 1 increased their propensity for engaging in unwanted hookups at Time 2, but not women's, and there was no relationship between men's or women's SMD and perceived peer norms. Importantly, these results show that college students' perceptions about their peers' hookup attitudes and behaviors may put them at risk of engaging in unwanted hookups. This finding alone could make a difference in efforts to prevent unwanted hookups on college campuses. Still, it is surprising that the relationship between SMD and perceived peer norms was not significant in this study. Among adolescents, Martino et al. (2005) tested a mediation hypothesis between sexual television exposure, perceived peer norms about sex, and sexual intercourse initiation. They found sexual television was positively related to adolescents' perceived peer norms and that their peer norms were positively related to sexual intercourse initiation. One reason the results of this study may have differed from this previous study is that compared to adolescents, college students have more experience interacting with their peers about sex. Due to this experience, college students' estimates of their peers' hookup attitudes and behaviors are likely less influenced by media and more accurate than adolescents' estimates.

In summary, the significant findings of this study show that college students' propensity for engaging in unwanted hookups is both culturally and personally determined. Women's SMD increased their endorsement of traditional heterosexual scripts, which then increased their propensity for engaging in unwanted hookups. In addition, their propensity for engaging in unwanted hookups reduced their sexual self-efficacy. This process reveals that women's SMD may put them at risk of engaging in unwanted hookups, which may reduce their sexual self-

efficacy. Men's SMD decreased their sexual self-efficacy directly. This result suggests men may be learning from sexual media that they are sexually capable. In addition, men's perceived peer hookup norms increased their propensity for engaging in unwanted hookups. This result suggests that men perceiving their peers have favorable attitudes about hooking up and engage in more hookup behavior may lead them to feel less able to resist unwanted hookups. The following section will discuss the theoretical and practical implications of these results.

### **Theoretical and Practical Implications**

**Theoretical implications.** The previously discussed results can be best explained using the scripting framework guided primarily by the works of Simon and Gagnon (1986) and Huesmann (1986). Within the scripting framework proposed by Simon and Gagnon (1986), people form scripts from a variety of sources (e.g., peers and media) and use them to interpret and respond to social situations appropriately. Scripts exist on three levels of abstraction (i.e., cultural, interpersonal, and intrapsychic) with the more specific scripts being both culturally and personally defined through a process called interpersonal scripting. Huesmann (1986) explains scripts are acquired through observational learning, and as such, they may be acquired from the media. When consuming media, individuals learn more than specific behaviors (i.e., social scripts). They also learn about how the world works (i.e., world schemas), what behaviors are appropriate (i.e., normative beliefs), and what emotional responses are typical (i.e., emotional predispositions). Thus, because most college students will engage in sexual behavior at some time during college, it is likely they will turn to the media for information not just about what to do in sexual situations, but also for information about what will be considered culturally appropriate in sexual situations.

The results of this study generally support the processes outlined within the scripting framework. First, according to scripting theory (Simon & Gagnon, 1986), scripted information about sex that is learned from the media may be translated into behavioral guides that help individuals navigate sexual situations. This contention of scripting theory was supported by the findings that women's endorsement of traditional heterosexual scripts at Time 1 and men's and perceived peer norms at Time 1 resulting in their increased propensity for engaging in unwanted hookups at Time 2. The traditional heterosexual scripts portrayed in the media position women to be passive, sexual objects who are typically punished for actively initiating sex or resisting men's sexual advances (e.g., Aubrey, 2004; Kim et al., 2007; Smith, 2012). Despite the low means for the endorsement of traditional heterosexual scripts measure, it is apparent that some women believed that they should acquiesce to men's sexual advances and these women may be more inclined to go along with their male partners' sexual advances, even when they are unwanted. Similarly, college students frequently overestimate their peer approval of hooking up and their hookup behavior (e.g., Cohen & Shotland, 1996; E. L. Paul & Hayes, 2002). Previous studies have found these overestimations increase men and women's hookup behavior (Page, Hammermeister, & Scanlan, 2000). The results of this study found men, but not women, who believed their peers have favorable attitudes towards hooking up and believe their peers are frequently engaging in hookups, reported a higher propensity for engaging in unwanted hookups. This result suggests that men may be incorporating the information about their peers hookup attitudes and behavior into their behavioral guides. These guides may then make men think twice before rejecting their partners' unwanted advances for fear that they may be perceived by their peers as sexually inexperienced or defunct.

Second, the negative influence that men's SMD had on their sexual self-efficacy and the negative influence women's propensity for engaging in unwanted hookups had on their sexual self-efficacy may reflect another part of the interpersonal scripting process described by scripting theory. Simon and Gagnon (1986) explain that part of the interpersonal scripting process involves evaluating the outcomes of enacting interpersonal scripts and determining what may result from it. They claim that this process defines intrapsychic scripts, or individuals' perceptions of themselves and their personal desires. It is plausible that men determined from their SMD that they were less sexually capable because the media often suggests it is important for men to be sexually experienced and talented in the sexual realm (Kim et al., 2007; Ward, 1995). If they were to imagine themselves in the situations portrayed by the media, they may conclude that they are not very sexually capable and store intrapsychic scripts that would show up as lower sexual self-efficacy. Similarly, women may have concluded from their propensity for engaging in unwanted hookups, which might be considered a behavioral guide developed from their endorsement of traditional heterosexual scripts, that they were not as sexually capable as they once thought and stored this in their intrapsychic scripts.

The non-significant relationship between SMD and perceived peer norms for both men and women in this study was a surprise because other studies have found college students' perceived peer norms are influenced by sexual media (e.g., Chia & Lee, 2008; Peters, 2012). Still, as scripting theory (Simon & Gagnon, 1986) explains, the information people use to develop their cultural scripts can come from a variety of sources. It is quite possible that the college students in this sample relied less on SMD than other sources of information when developing their ideas about what is normative among their peers.

In addition, the non-significant relationship between college students' endorsement of traditional heterosexual scripts and their sexual self-efficacy illustrated that neither men's nor women's sexual self-efficacy was directly dependent upon their gender normative beliefs as has been previously suggested (e.g., Martino et al., 2008). Instead, women's sexual self-efficacy was negatively predicted by their propensity for engaging in unwanted hookups and men's sexual self-efficacy was negatively impacted by their SMD. These results show that the processes through which scripted information influences men's and women's sexual self-conceptions (i.e., intrapsychic scripts or emotional predispositions) may be quite different. Although a secondary goal of this study was to try to explain *how* college students' SMD may influence their sexual self-conceptions, additional research will be needed to answer this question.

**Practical implications.** The results of this study may be useful in constructing media-conscious sexual education programs intended to reduce unwanted sex on college campuses. Because unwanted sexual behavior is often discussed only in terms of rape and sexual assault, especially in the media (Bufkin & Eschholz, 2000), many college students may not be aware of the negative effects less serious forms of unwanted sex can have on them. It is also likely that college students may not have considered the implications their own media use, attitudes, self-conceptions, and perceived peer norms could have on their inclinations to engage in unwanted sex. This issue is important as studies have indicated college students are at high risk of engaging in unwanted sex, often in the form of hookups (Flack et al., 2007). These unwanted sexual experiences have been associated with several negative effects including, but not limited to, future victimization, unhealthy sex practices, as well as physical, psychological, and social problems (Lewis et al., 2012; Owen & Fincham, 2011). If college students were informed about the different types of unwanted sex and taught ways to resist them that include both personal

behavior changes, like media use, and interpersonal communication strategies, then they may be able to reduce their propensity for engaging in unwanted hookups and its negative consequences.

### **Limitations and Future Directions**

**Limitations.** The present study had several limitations. To begin, the amount of time between each of the panel surveys was only two months. By having such a short time period between surveys, some of the processes that may take place over longer periods of time may not have been captured. Similarly, it is possible that the changes observed would eventually level out over time. Because of this limitation, there are plans to survey the same students again one year from the last panel survey.

Another limitation of the current study was the sample size for men. While the total sample size met the a priori determined sample size needed for the analyses ( $N = 157$ ), it was discovered that the measurement model was not equivalent for men and women and that the analyses would have to be performed separately for each gender. This meant that the longitudinal SEM model for men was conducted with only 92 participants, which was well under the sample size needed to obtain power for that model. Therefore, some of the non-significant results for men may have not have reached significance because the models did not have a large enough sample to obtain power for some of the smaller effects (i.e.,  $\beta < .15$ ).

The generalizability of the results of this study is also limited. First, this study was only interested in heterosexual college students, and did not include homosexual participants. This choice was made because a majority of the participants in this study were heterosexual individuals. It would be interesting to examine the proposed theoretical model in this study among homosexual individuals, but that was beyond the scope of this study. Second, participants were not randomly selected for this study, but were invited to participate for extra credit in their

introductory level communication or family studies classes at the University of Arizona. First, the generalizability of the results is limited to students. This choice was made because studies have shown college students are at higher risk of experiencing unwanted sex (Fielder et al., 2013), but this meant the results would not be applicable among non-student populations. Also, students from the University of Arizona may differ from students at other universities.

Possibly a result of sampling bias, the means for the propensity for engaging in unwanted hookups and the endorsement of traditional heterosexual scripts measures used in this study were low for this sample. At Time 2, women reported a mean of 2.22 and men reported a mean of 3.73 on a 7-point scale. In addition, the means on the endorsement of traditional heterosexual scripts measure used in this study were low for this sample. At Time 2, women reported a mean of 2.46 and men reported a mean of 3.26. What this means is that the small effect found for women that showed their endorsement of traditional heterosexual scripts negatively predicted their propensity for engaging in unwanted hookups may have been suppressed. It is unclear why the means on these two measures were so low. Arguably, this sample of students may be exemplars of the positive influence sexual education efforts on college campuses can have in reducing harmful sexual scripts and unwanted sex. The University of Arizona administration is conscious of the hookup and rape cultures that are fostered on college campuses. Many events are held throughout the school year to inform students of the potential risks and harms associated with casual sex and to motivate students to get affirmative consent. For example, at the beginning of the Spring semester before this study was initiated, Lacy Green, a famous YouTuber who posts videos about sexual health, was invited to speak at a free event for students. It is possible that these efforts have made a difference on campus, making this sample of students more aware of harmful sexual scripts and less susceptible to their influence. The sample was also primarily

composed of communication majors who may have taken media literacy classes that would teach them about gender norms and traditional heterosexual scripts in the media. Despite the low means, it is important to recognize that a significant portion of the change variance in women's propensity for engaging in unwanted hookups was still explained by their endorsement of traditional heterosexual scripts and a significant portion of the change variance in women's endorsement of traditional heterosexual scripts was still explained by their sexual media diets. This is an important finding that should be explored further in future research.

A choice was made to not include pornographic media in the sexual media diet measure for this study. This decision was made for two reasons. First, it was assumed that college students would be more likely to resist the sexual script information that could be learned from pornographic media because of knowledge that behaviors portrayed in pornography may not be socially desirable in real life. Second, it was assumed that sexual entertainment media would contain more useful sexual information to college students. College students may not be intentionally using the media vehicles included in this study to learn sexual attitudes and beliefs, such as traditional heterosexual scripts, sexual self-efficacy, or peer norms, but it is more likely that they will encounter information that could inform their sexual attitudes and beliefs from the media vehicles included in this study than from pornographic media. These assumptions were mostly based on the idea that pornography does not typically reflect realistic picture of sexuality (P. Paul, 2007).

Lastly, the sexual self-concept construct for this study proved inappropriate for the data and only sexual self-efficacy could be examined. The intercorrelations between the indicators of sexual self-esteem and sexual self-efficacy with the indicators of the other constructs in the longitudinal CFA revealed that sexual self-esteem was positively related to several other

indicators, while sexual self-efficacy was negatively related to some of the other indicators. In addition, because the correlations between sexual self-esteem and sexual self-efficacy scales were not particularly high ( $r = \sim .60$ ), it is possible that there was not enough power in the model to account for this misfit. It is possible that the sexual self-concept construct would have had better fit if more of the theorized dimensions of the sexual self-concept (e.g., sexual anxiety, body self-consciousness during sexual interactions) were included. Future studies should try to include more dimensions within the sexual self-concept construct and be cautious of which measures they choose to operationalize each of these dimension.

Despite the sexual self-efficacy construct and propensity for engaging in unwanted hookups construct having somewhat similar items, with the sexual self-efficacy items indicating one's perceived capability for refusing unwanted sexual advances and the propensity for engaging in unwanted hookups items indicating one's perceived non-resistance to a prospective unwanted sexual advances, the results suggested these constructs were distinct. The sexual self-efficacy measure used in this study was composed of the nine items from Rosenthal et al.'s (1991) sexual self-efficacy scale that did not mention STD prevention or contraceptives. Of these nine items, the four most reliable items were used as indicators for the sexual self-efficacy construct. Three of these items specifically mentioned one's capability to refuse sexual advances and the other item mentioned one's capability to choose when and with whom to have sex. The propensity for engaging in unwanted hookups measure was slightly different. It asked participants to indicate the amount they agreed or disagreed with statements reflecting their perceived non-resistance to several prospective unwanted sexual behaviors. For example, one item in the propensity for engaging in unwanted hookups scale says, "I would give in and kiss him, even if I already said no." Upon reflection, the sexual self-efficacy construct may have

measured resistive sexual self-efficacy more than general sexual self-efficacy, which would also encompass one's perceived capabilities for STD prevention, contraceptive use, and sexual skill (e.g., pleasing one's partner). Still, the correlation between the sexual self-efficacy and propensity for engaging in unwanted hookups constructs ( $r = -.43$ ), and the correlated residuals between the indicators of the sexual self-efficacy construct and the propensity for engaging in unwanted hookups construct, were not high enough to warrant any changes in the composition of these constructs or the model estimates. This indicates that there was only moderate covariance and minimal error covariance among the constructs. Thus, it may have seemed there would be some conceptual overlap in these measures, but the results suggest they are two separate constructs.

One question in the hookup experience measure asked participants how often they engage in hookups and provided a 4-point scale for response ranging from 0 (*never*) to (*all the time*). Upon reflection, the upper most anchor of "all the time" may not have been the best choice for a response option because: (a) it is not *literally* possible and (b) it could have different meanings among different participants. The anchor "all the time" was meant to be interpreted as "a lot," but I later realized that people likely have very different ideas about how many hookups would be "a lot." For example, one person may think five hookups a year is a lot, but another person may think 20 hookups a year is a lot. It is not likely that this single anchor had a significant impact on the measurement of hookup experience as it was combined with two other items to create an average hookup experience scale, but this mistake should be corrected in future studies.

**Future directions.** The major contributions this study made to the literature were twofold: college women's SMD was indirectly related to their propensity for engaging in unwanted hookups through their endorsement of traditional heterosexual scripts and college

men's SMD negatively predicted their sexual self-efficacy. While these were not the only results, these results warrant further exploration and study more than the others because they were observed in the observed longitudinal model, the control model, and the individual analyses for the hypotheses and research questions. No previous study has looked at the potential mediating influence college women's endorsement of traditional heterosexual scripts could have between their sexual media use and their sexual behavior. Future replications of this result will validate this finding. It is also possible that it is not just college women's propensity for engaging in unwanted hookups that is influenced; other risky sexual behaviors should be tested to see whether there is a pattern between college women's SMD, their endorsement of traditional heterosexual scripts, and their risky sexual behavior. In addition, few previous studies have examined the relationship between college men's SMD and their sexual self-concepts. Most of the previous studies have examined this relationship using mixed gender samples (e.g., Martino, et al., 2005). It is unknown whether their SMD may influence other components of the men's sexual self-concepts (e.g., sexual self-esteem), so future analyses might consider examining other components of men's sexual self-concepts.

Lastly, this was one of the first studies to examine the relationship between media exposure and propensity for engaging in unwanted hookups. Other authors have examined the relationship between media exposure and risky sexual behavior (e.g. Peters, 2012), but no previous study has specifically examined unwanted sexual behavior as a risky sexual behavior. The results of this study suggest that college students' SMD may have a negative impact on their sexual attitudes, beliefs, and behaviors. Still, replications and extensions of this research are the only way that these findings will be validated and eventually contribute to efforts to increase

viewers' awareness of the portrayals that contribute to their sexual attitudes, beliefs, and behaviors.

### **Conclusion**

Despite its limitations, this study provided an initial look at the influence college students' SMD could have on their propensity for engaging in unwanted hookups over time. The major findings of this study revealed college women's SMD increased their endorsement of traditional heterosexual scripts that increased their propensity for engaging in unwanted hookups and college men's SMD decreased their sexual self-efficacy. The findings of this study supported those of previous research, and followed the processes outlined by scripting theory. Therefore, there is some initial evidence that sexual media exposure may maintain rape culture among college students, but future research will be needed to validate and extend these findings.

TABLES

Table 1. Differences between Participants Who Completed Both Surveys and Participants Who Only Took the First Survey or Were Dropped from the Sample

	Time 1 & 2			Time 1 only			Dropped from study				
	<i>M</i> ( <i>SD</i> )	Range	<i>N</i>	<i>M</i> ( <i>SD</i> )	Range	<i>N</i>	<i>t</i> ( <i>df</i> )	<i>M</i> ( <i>SD</i> )	Range	<i>N</i>	<i>t</i> ( <i>df</i> )
Exogenous variables											
Sexy media diet	6.13 (1.55)	3.45- 12.61	420	6.41 (1.50)	3.43- 10.78	46	1.19 (56)	6.20 (1.47)	3.43- 10.78	75	.30 (108)
Social comparison tendencies	4.33 (.98)	1.00- 7.00	420	4.36 (1.27)	1.00- 6.83	46	.15 (51)	4.39 (1.16)	1.00- 7.00	75	.45 (95)
Endogenous variables											
Endorsement of traditional heterosexual scripts	2.63 (.87)	1.00- 5.52	423	2.68 (.95)	1.10- 4.71	46	.34 (53)	2.59 (.89)	4.71- 3.62	78	-.46 (108)
Sexual self-efficacy	5.87 (.95)	2.50- 7.00	418	5.60 (1.18)	2.00- 7.00	46	-1.51 (52)	5.69 (1.10)	2.00- 7.00	75	-1.36 (97)
Perceived peer norms	4.65 (.70)	2.19- 5.75	424	4.55 (.61)	2.31- 5.56	46	-1.05 (58)	4.45 (.63)	2.31- 5.56	79	-2.84 (119)**
Propensity for engaging in unwanted hookups	2.41 (1.34)	1.00- 7.00	418	2.69 (1.60)	1.00- 7.00	44	1.11 (50)	2.58 (1.61)	1.00- 7.00	71	.81 (87)

*Note:* The dropped from study *t*-value is the difference between being dropped from the study (for any reason) and staying in the study. \**p* < .05, \*\**p* < .01, \*\*\**p* < .001

Table 1. Differences between Participants Who Completed Both Surveys and Participants Who Only Took the First Survey or Were Dropped from the Sample (Continued)

	Time 1 & 2			Time 1 only			Dropped from study				
	<i>M</i> ( <i>SD</i> )	Range	<i>N</i>	<i>M</i> ( <i>SD</i> )	Range	<i>N</i>	<i>t</i> ( <i>df</i> )	<i>M</i> ( <i>SD</i> )	Range	<i>N</i>	<i>t</i> ( <i>df</i> )
<b>Covariates</b>											
Sociosexuality	2.24 (1.72)	.00- 7.50	418	2.72 (2.05)	.33- 7.67	43	1.46 (48)	2.86 (1.90)	.33- 7.67	70	2.78 (90)**
Nonconsensual sexual experience	.41 (.78)	.00- 5.37	409	.46 (.95)	.00- 5.10	41	.34 (46)	.44 (.83)	.00- 5.10	67	.31 (88)
Social desirability	3.81 (.74)	1.42- 6.42	418	3.83 (.58)	2.33- 5.33	46	.22 (62)	3.78 (.63)	2.33- 5.33	73	-.57 (113)
Hookup experience	4.11 (1.98)	1.00- 7.00	418	4.10 (2.18)	1.00- 7.00	43	-.02 (49)	4.10 (2.07)	1.00- 7.00	70	-.05 (93)
Feminist identification	4.06 (1.47)	1.00- 7.00	417	3.91 (1.33)	1.00- 7.00	46	-.71 (58)	4.18 (1.45)	1.00- 7.00	73	.86 (101)
Binge drinking	4.82 (4.92)	.00- 30.00	415	4.88 (4.89)	.00- 15.00	43	.08 (51)	4.03 (4.46)	.00- 15.00	70	-1.60 (102)
Age	20.45 (2.22)	18.00- 43.00	415	(4.99)	18.00- 45.00	42	2.12 (43)*	21.55 (4.05)	18.00- 45.00	69	2.23 (75)*

*Note:* The dropped from study *t*-value is the difference between being dropped from the study (for any reason) and staying in the study. \**p* < .05, \*\**p* < .01, \*\*\**p* < .001

Table 2. Zero-Order Correlations between the Main Study Variables

	1	2	3	4	5	6
All participants, n = 391						
Exogenous variables						
1. Time 1 SMD	1					
2. Time 1 social comparison tendencies	.20***	1				
Endogenous variables						
3. Time 2 endorsement of heterosexual scripts	.05	.10*	1			
4. Time 2 sexual self-efficacy	-.09	-.03	-.25***	1		
5. Time 2 perceived peer norms	.29	.08	.10*	.17***	1	
6. Time 2 propensity for unwanted hookups	.11*	.07	.51***	.37***	.05	1
Mean	6.15	4.33	2.65	5.73	4.58	2.57
SD	1.56	.98	1.00	1.02	.74	1.31
n	391	391	391	391	391	391

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 2. Zero-Order Correlations between the Main Study Variables (Continued)

	1	2	3	4	5	6
All participants, n = 391						
Exogenous variables						
1. Time 1 SMD	1					
2. Time 1 social comparison tendencies	.20***	1				
Time 1 control variables						
3. Time 1 endorsement of heterosexual scripts	-.04	.11*	1			
4. Time 1 sexual self-efficacy	-.06	-.08	-.35***	1		
5. Time 1 perceived peer norms	.31***	.14**	.06	.04	1	
6. Time 1 propensity for unwanted hookups	.11*	.11*	.43***	-.43***	.06	1
Mean	6.15	4.33	2.64	5.87	4.68	2.50
SD	1.56	.98	.87	.95	.70	1.32
n	391	391	391	389	391	391

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 2. Zero-Order Correlations between the Main Study Variables (Continued)

	1	2	3	4	5	6	7
All participants, n = 391							
Exogenous variables							
1. Time 1 SMD	1						
2. Time 1 social comparison tendencies	.20***	1					
Covariates							
3. Sociosexuality	.19***	.04	1				
4. Social desirability	-.10*	-.21***	-.27***	1			
5. Nonconsensual sexual experience	.14**	.04	.27***	-.11*	1		
6. Hookup experience	.30***	.10*	.61***	-.21***	.17**	1	
7. Feminist identification	.08	.04	-.07	-.01	.04	-.09	1
Mean	6.15	4.33	2.18	3.82	.41	3.59	4.02
SD	1.56	.98	1.71	.74	.79	1.61	1.46
n	391	391	391	391	383	391	390

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 2. Zero-Order Correlations between the Main Study Variables (Continued)

	1	2	3	4	5	6	7
All participants, n = 391							
Exogenous variables							
1. Time 1 SMD	1						
2. Time 1 social comparison tendencies	.20***	1					
Covariates							
3. Residential location (0 = Off campus; 1 = On campus)	.06	.05	1				
4. Greek membership (0 = No; 1 = Yes)	.25***	.12*	.26***	1			
5. Relationship status (0 = Not in relationship; 1 = In relationship)	-.08	-.03	-.13*	-.11*	1		
6. Age	-.19***	-.09	-.31***	-.16**	.20***	1	
7. Race (0 = White; 1 = Non-white)	-.06	-.07	-.16**	-.28***	-.01	.13*	1
Mean	6.15	4.33	.28	.40	.42	20.43	.29
SD	1.56	.98	.45	.49	.49	2.26	.46
n	391	391	391	391	390	388	391

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 3. Zero Order Correlations between the Main Study Variables-Females Only

	1	2	3	4	5	6
Female participants, n = 299						
Exogenous variables						
1. Time 1 SMD	1.00					
2. Time 1 social comparison tendencies	.16**	1.00				
Endogenous variables						
3. Time 2 endorsement of heterosexual scripts	.04	.16**	1.00			
4. Time 2 sexual self-efficacy	-.07	-.05	-.28***	1.00		
5. Time 2 perceived peer norms	.31***	.06	.11	.14*	1.00	
6. Time 2 propensity for unwanted hookups	.12*	.17**	.41***	-.37***	.04	1.00
Mean	6.20	4.38	2.46	5.85	4.65	2.22
SD	1.58	1.00	.88	.98	.70	.98
n	299	299	299	299	299	299

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 3. Zero Order Correlations between the Main Study Variables-Females Only (Continued)

	1	2	3	4	5	6
Female participants, n = 299						
Exogenous variables						
1. Time 1 SMD	1.00					
2. Time 1 social comparison tendencies	.16**	1.00				
Time 1 control variables						
3. Time 1 endorsement of heterosexual scripts	-.06	.18**	1.00			
4. Time 1 sexual self-efficacy	-.10	-.14*	-.26***	1.00		
5. Time 1 perceived peer norms	.32***	.11	.08	.05	1.00	
6. Time 1 propensity for unwanted hookups	.11	.21***	.33***	-.40***	.11*	1.00
Mean	6.20	4.38	2.48	6.02	4.74	2.10
SD	1.58	1.00	.82	.91	.68	.96
n	299	299	299	297	299	299

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 3. Zero Order Correlations between the Main Study Variables-Females Only (Continued)

	1	2	3	4	5	6	7
Female participants, n = 299							
Exogenous variables							
1. Time 1 SMD	1.00						
2. Time 1 social comparison tendencies	.16**	1.00					
Covariates							
3. Sociosexuality	.22***	.07	1				
4. Social desirability	-.15**	-.21***	-.33***	1			
5. Nonconsensual sexual experience	.12*	.06	.34***	-.14*	1		
6. Hookup experience	.28***	.12*	.56***	-.26***	.20***	1	
7. Feminist identification	.10	.03	.09	-.03	.04	.02	1
Mean	6.20	4.38	1.79	3.83	.43	3.36	4.18
SD	1.58	1.00	1.47	.78	.77	1.57	1.44
n	299	299	299	299	294	299	299

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 3. Zero Order Correlations between the Main Study Variables-Females Only (Continued)

	1	2	3	4	5	6	7
Female participants, n = 299							
Exogenous variables							
1. Time 1 SMD	1.00						
2. Time 1 social comparison tendencies	.16**	1.00					
Covariates							
3. Residential location (0 = Off campus; 1 = On campus)	.04	.05	1				
4. Greek membership (0 = No; 1 = Yes)	.25***	.13*	.26***	1			
5. Relationship status (0 = Not in relationship; 1 = In relationship)	-.09	-.05	-.14*	-.16**	1		
6. Age	-.19**	-.07	-.32***	-.14*	.19***	1	
7. Race (0 = White; 1 = Non-white)	-.05	-.04	-.16**	-.30***	.02	.16**	1
Mean	6.20	4.38	.31	.43	.46	20.42	.26
SD	1.58	1.00	.46	.50	.50	2.43	.44
n	299	299	299	299	299	298	299

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 4. Zero Order Correlations between the Main Study Variables-Males Only

	1	2	3	4	5	6
Male participants, n = 92						
Exogenous variables						
1. Time 1 SMD	1.00					
2. Time 1 social comparison tendencies	.32***	1.00				
Endogenous variables						
3. Time 2 endorsement of heterosexual scripts	.19	.11	1.00			
4. Time 2 sexual self-efficacy	-.23*	-.06	.03	1.00		
5. Time 2 perceived peer norms	.19	.10	.33**	.15	1.00	
6. Time 2 propensity for unwanted hookups	.28**	.06	.42***	-.20	.36***	1.00
Mean	5.96	4.15	3.26	5.33	4.35	3.73
SD	1.47	.88	1.09	1.03	.81	1.56
n	92	92	92	92	92	92

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 4. Zero Order Correlations between the Main Study Variables-Males Only (Continued)

	1	2	3.16	4	5	6
Male participants, n = 92						
Exogenous variables						
1. Time 1 SMD	1.00					
2. Time 1 social comparison tendencies	.32***	1.00				
Time 1 control variables						
3. Time 1 endorsement of heterosexual scripts	.13	.06	1.00			
4. Time 1 sexual self-efficacy	-.02	.01	-.36***	1.00		
5. Time 1 perceived peer norms	.24*	.18	.26*	-.18	1.00	
6. Time 1 propensity for unwanted hookups	.33**	.19	.34***	-.26*	.28**	1.00
Mean	5.96	4.15	3.16	5.38	4.49	3.78
SD	1.47	.88	.84	.92	.72	1.53
n	92	92	92	92	92	92

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 4. Zero Order Correlations between the Main Study Variables-Males Only (Continued)

	1	2	3	4	5	6	7	
Male participants, n = 92								
Exogenous variables								
1. Time 1 SMD	1.00							
2. Time 1 social comparison tendencies	.32***	1.00						
Covariates								
3. Sociosexuality	.31**	.15	1					
4. Social desirability	.08	-.23*	-.17	1				
5. Nonconsensual sexual experience	.18	.01	.27**	.00	1			
6. Hookup experience	.45***	.18	.63***	-.02	.12	1		
7. Feminist identification	-.02	-.04	-.18	.03	.02	-.24*	1	
	Mean	5.96	4.15	3.46	3.78	.35	4.31	3.49
	<i>SD</i>	1.47	.88	1.84	.63	.86	1.53	1.40
	<i>n</i>	92	92	92	92	89	92	91

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 4. Zero Order Correlations between the Main Study Variables-Males Only (Continued)

	1	2	3	4	5	6	7	
Male participants, n = 92								
Exogenous variables								
1. Time 1 SMD	1.00							
2. Time 1 social comparison tendencies	.32***	1.00						
Covariates								
3. Residential location (0 = Off campus; 1 = On campus)	.08	.02	1					
4. Greek membership (0 = No; 1 = Yes)	.21*	.01	.18	1				
5. Relationship status (0 = Not in relationship; 1 = In relationship)	-.08	-.04	-.21*	-.05	1			
6. Age	-.17	-.22*	-.29**	-.23*	.30**	1		
7. Race (0 = White; 1 = Non-white)	-.07	-.11	-.06	-.17	-.01	-.01	1	
	Mean	5.96	4.15	.16	.28	.27	20.47	.40
	SD	1.47	.88	.37	.45	.45	1.54	.49
	n	92	92	92	92	91	90	92

Note: SMD = Sexual media diet. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 5. Media Vehicle Sexiness Means, Standard Deviations, and Average Means and Standard Deviations by Medium

Media Vehicles	Sexiness ratings					
	% Reported (pretest)	% Rated (pilot)	<i>M</i>	<i>SD</i>	Avg. <i>M</i>	Avg. <i>SD</i>
TV					3.69	.94
Game of Thrones	53.5	90.3	4.55	.87		
American Horror Story	36.9	79.4	3.98	.93		
Orange is the New Black	36.4	85.7	2.68	.98		
Grey's Anatomy	34.1	72.6	3.55	1.10		
Breaking Bad	34.1	86.6	4.29	.81		
The Bachelor	31.3	79.1	3.44	.95		
Walking Dead	28.1	86.0	3.08	.94		
Scandal	28.1	83.5	3.74	1.05		
House of Cards	27.2	62.9	3.93	.96		
Keeping Up with the Kardashians	21.2	66.7	3.67	.85		
Movies					2.77	.98
Star Wars: The Force Awakens	67.7	74.8	1.85	.93		
Straight Outta Compton	45.2	57.6	3.43	1.01		
The Hunger Games: Mockingjay Part 2	35.5	78.5	2.38	.99		
Jurassic World	34.6	79.4	2.01	.93		
Trainwreck	31.3	55.5	3.61	1.24		
The Martian	30.9	64.8	1.81	1.03		
Mad Max	29.5	64.5	2.86	1.09		
Inside Out	26.3	67.9	1.61	1.09		
Fifty Shades of Grey	24.9	88.8	4.83	.55		
Fast & Furious 7	23.0	64.2	3.30	.91		
Music videos					2.86	1.19
Bad Blood - Taylor Swift	51.2	71.7	2.85	1.16		
Hello - Adele	41.0	81.9	1.89	.99		
Sorry - Justin Bieber	38.2	59.8	2.79	1.18		
Sugar- Maroon 5	36.9	65.4	2.91	1.21		
Hotline Bling - Drake	33.2	70.7	3.28	1.24		
Elastic Heart - Sia	29.0	58.6	2.66	1.28		
What Do You Mean? - Justin Bieber	26.3	55.1	2.90	1.17		
See You Again- Wiz Khalifa	19.4	59.2	2.48	1.36		
Silentó - Watch Me (Whip/Nae Nae)	19.4	65.1	2.74	1.32		
Feelin Myself - Nicki Minaj ft Beyonce	17.1	73.2	4.08	.99		

Table 5. Media Vehicle Sexiness Means, Standard Deviations, and Means and Average Standard Deviations by Medium

Media Vehicles	Sexiness ratings					
	% Reported (pretest)	% Rated (pilot)	<i>M</i>	<i>SD</i>	Avg. <i>M</i>	Avg. <i>SD</i>
Magazines					3.03	1.09
People	74.2	90.0	3.02	1.05		
Cosmopolitan	68.2	90.3	4.08	1.03		
Sports Illustrated	47.9	91.0	3.28	1.17		
Vogue	41.9	84.4	3.38	1.00		
Time Magazine	37.8	89.7	2.04	1.05		
Glamour	26.7	81.6	3.37	1.10		
US Weekly	25.8	81.6	2.42	1.16		
GQ	24.9	79.1	3.54	1.12		
Seventeen	24.9	82.6	3.15	1.10		
ESPN	20.3	81.9	2.05	1.09		
Social media*					3.22	1.22
Instagram	97.7	93.9	3.77	1.16		
Facebook	97.2	96.9	3.32	1.11		
Twitter	91.7	78.5	3.58	1.31		
Snapchat	89.4	93.1	3.48	1.31		
Tinder	53.5	64.7	4.00	1.40		
Pinterest	44.2	76.2	2.04	1.07		
Tumblr	30.9	63.9	3.68	1.52		
Vine	27.2	64.7	2.56	1.30		
Yik Yak	24.9	57.8	3.02	1.57		
GroupMe	16.6	67.3	1.98	1.26		

*Note:* The percentage reported (pretest) column indicates the percentage of participants in the pretest who indicated each media vehicles was in the top 10 media vehicles among individuals like them. The percentage rated (pilot) column indicates the percentage of participants in the pilot who rated the amount of sexual content in each of the media vehicles. The mean and standard deviation of the SMD scale is reported in Tables 2-4.

\*Social media sexiness was rated by panel participants, not pilot participants.

Table 6. Measurement Invariance between Men and Women on the Propensity for Engaging in Unwanted Hookups Measure

Model	Compared model	$\chi^2$ ( <i>df</i> )	<i>p</i>	RMSEA	SRMR	CFI	$\Delta$ CFI	TLI	$\Delta\chi^2$ ( $\Delta$ <i>df</i> )
A. Configural invariance		35.87 (10)	<.001	0.13	0.02	0.984		0.97	
B. Configural invariance with one oral parcel		14.31 (4)	<.01	0.13	0.01	0.992		0.98	3.35
C. Weak invariance	B	17.65 (7)	<.001	0.10	0.04	0.992	0.000	0.99	(3)
D. Strong Invariance	C	18.49 (10)	<.001	0.07	0.04	0.993	0.001	0.99	.84 (3)
E. Strict Invariance	D	150.92 (11)	<.001	0.29	0.57	0.889	0.014	0.90	132.43 (1)***

Note: \**p* < .05, \*\**p* < .01, \*\*\**p* < .001

Table 7. Multi-group Longitudinal Measurement Invariance

Model	Compared model	$\chi^2$ (df)	$p$	RMSEA	SRMR	CFI	$\Delta$ CFI	TLI	$\Delta\chi^2$ ( $\Delta$ df)
0. Null model-Longitudinal		10718.61 (1332)	<.001	0.19	0.26	0.000		0.05	
A. Configural invariance		1815.53 (1202)	<.001	0.05	0.07	0.935		0.93	
B. Configural invariance w/ correlated residuals		1609.27 (1178)	<.001	0.04	0.07	0.956		0.94	
C. Weak invariance	B	1813.32 (1216)	<.001	0.05	0.11	0.939	0.017	0.93	204.04 (38)***

Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 8. Longitudinal Measurement Invariance for Women

Model	Compared model	$\chi^2$ (df)	$p$	RMSEA	SRM R	CFI	$\Delta$ CFI	TLI	$\Delta\chi^2$ ( $\Delta$ df)
0. Null model-Longitudinal		7788.74 (666)	<.001	0.19	0.25	0.000		0.05	
A. Configural invariance		964.66 (601)	<.001	0.05	0.06	0.951		0.94	
B. Configural invariance with fixes		741.38 (527)	<.001	0.04	0.06	0.969		0.96	
C. Weak invariance	B	772.90 (540)	<.001	0.04	0.06	0.967	0.002	0.96	31.52 (13)**
D. Strong Invariance	C	795.04 (553)	<.001	0.04	0.06	0.965	0.002	0.96	22.14 (13)
E. Strict Invariance	D	900.84 (571)	<.001	0.05	0.06	0.953	0.012	0.94	105.08 (18)***

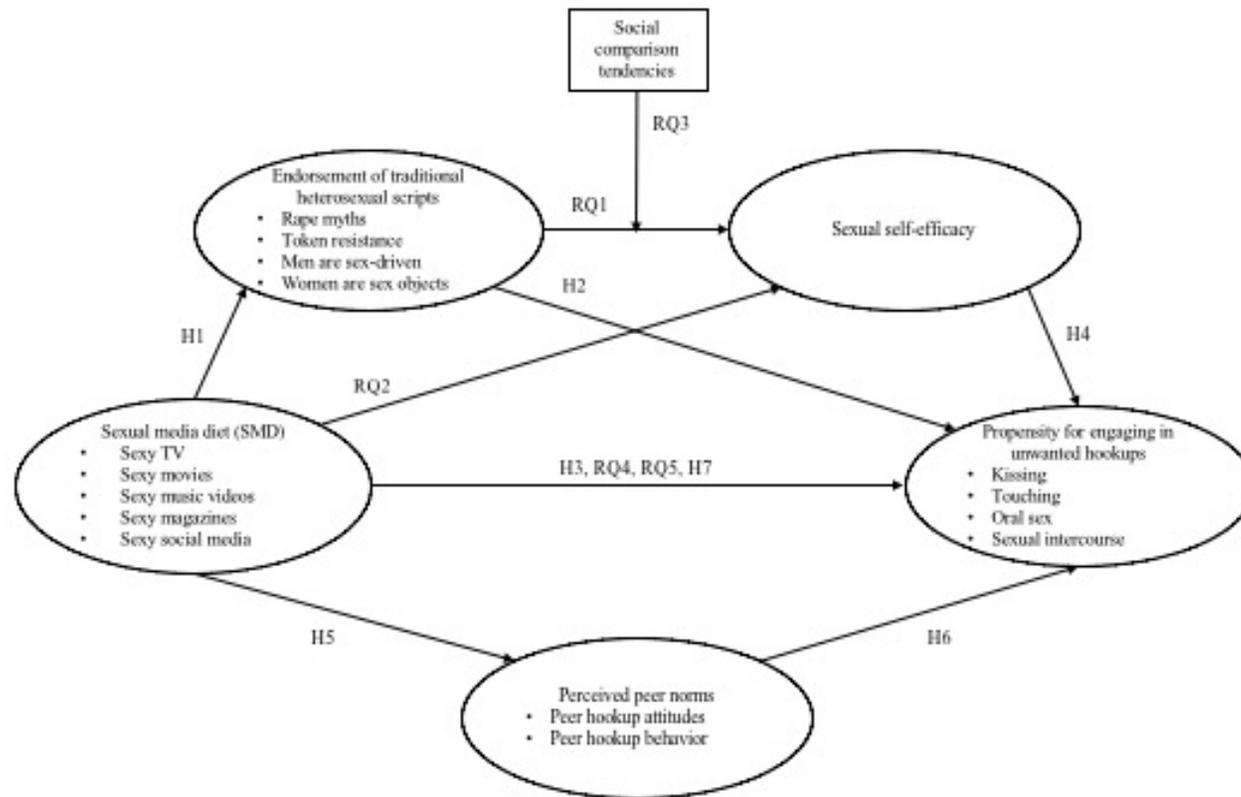
Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 9. Longitudinal Measurement Invariance for Men

Model	Compared model	$\chi^2$ (df)	$p$	RMSE A	SRM R	CFI	$\Delta$ CFI	TLI	$\Delta\chi^2$ ( $\Delta$ df)
		2929.87							
0. Null model-Longitudinal		(666)	<.001	0.19	0.26	0.000		0.05	
		850.87							
A. Configural invariance		(601)	<.001	0.07	0.10	0.893		0.87	
		712.89							
B. Configural invariance with fixes		(527)	<.001	0.06	0.10	0.914		0.89	
		744.97							32.08
C. Weak invariance	B	(540)	<.001	0.07	0.10	0.906	0.007	0.89	(13)**
		757.13							12.16
D. Strong Invariance	C	(553)	<.001	0.06	0.10	0.907	0.001	0.88	(13)
		769.83							12.70
E. Strict Invariance	D	(571)	<.001	0.06	0.10	0.909	0.002	0.89	(18)

Note: \* $p$  < .05, \*\* $p$  < .01, \*\*\* $p$  < .001

## FIGURES



*Figure 1.* Theoretical model. *Notes:* Parcels used for latent constructs listed under the variable names. The direct path from SMD to propensity for engaging in unwanted hookups illustrates the mediation hypotheses and research questions.



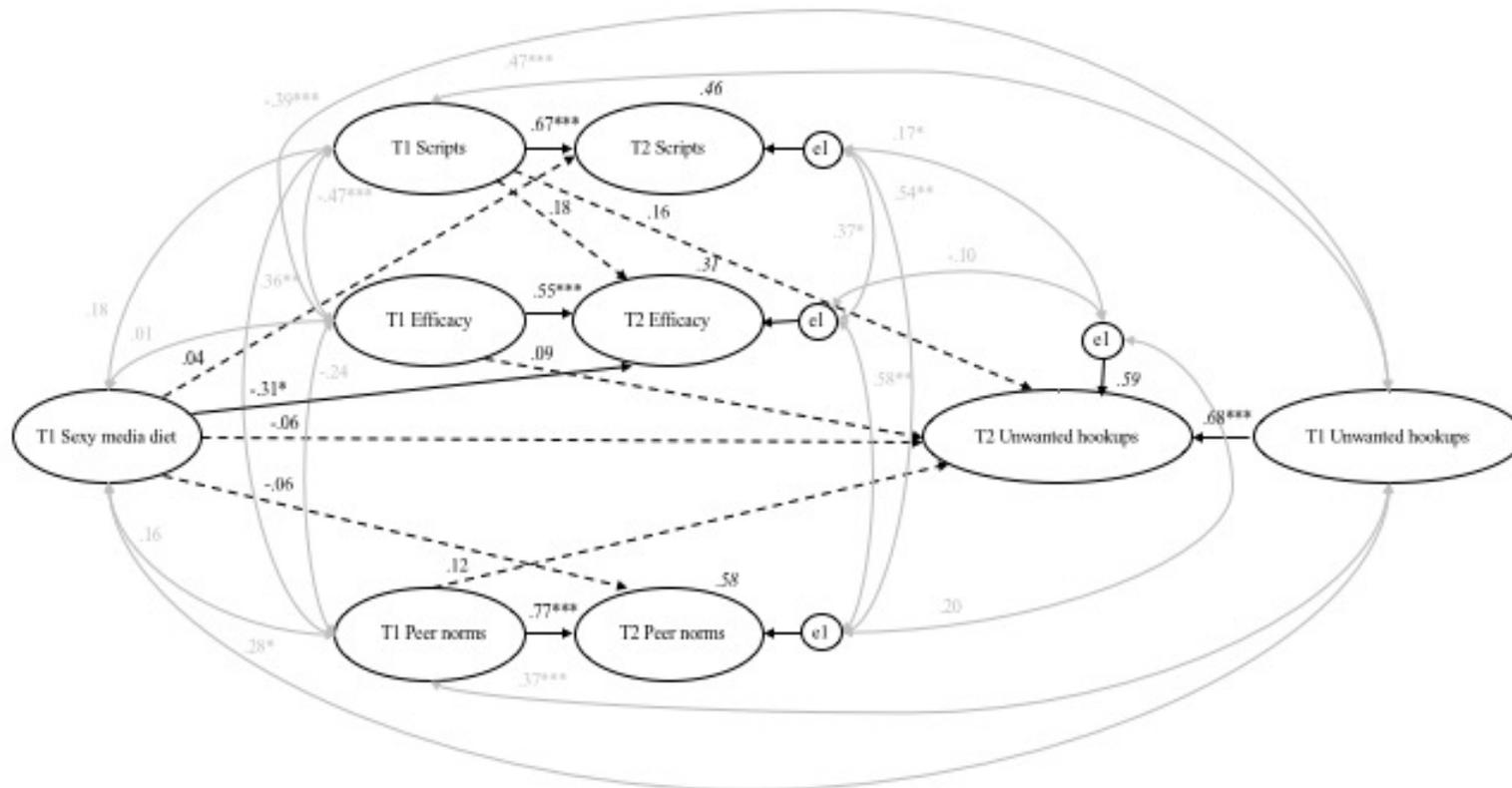


Figure 3. Observed longitudinal SEM for men. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Grey bi-directional paths indicate covariances. Model fit:  $\chi^2(407) = 539.16, p < .001, CMIN/DF = 1.32, CFI = .92, RMSEA = .06, SRMR = .09, TLI = .93. *p < .05, **p < .01, ***p < .001.$



Figure 5. Control Model Fit for Men

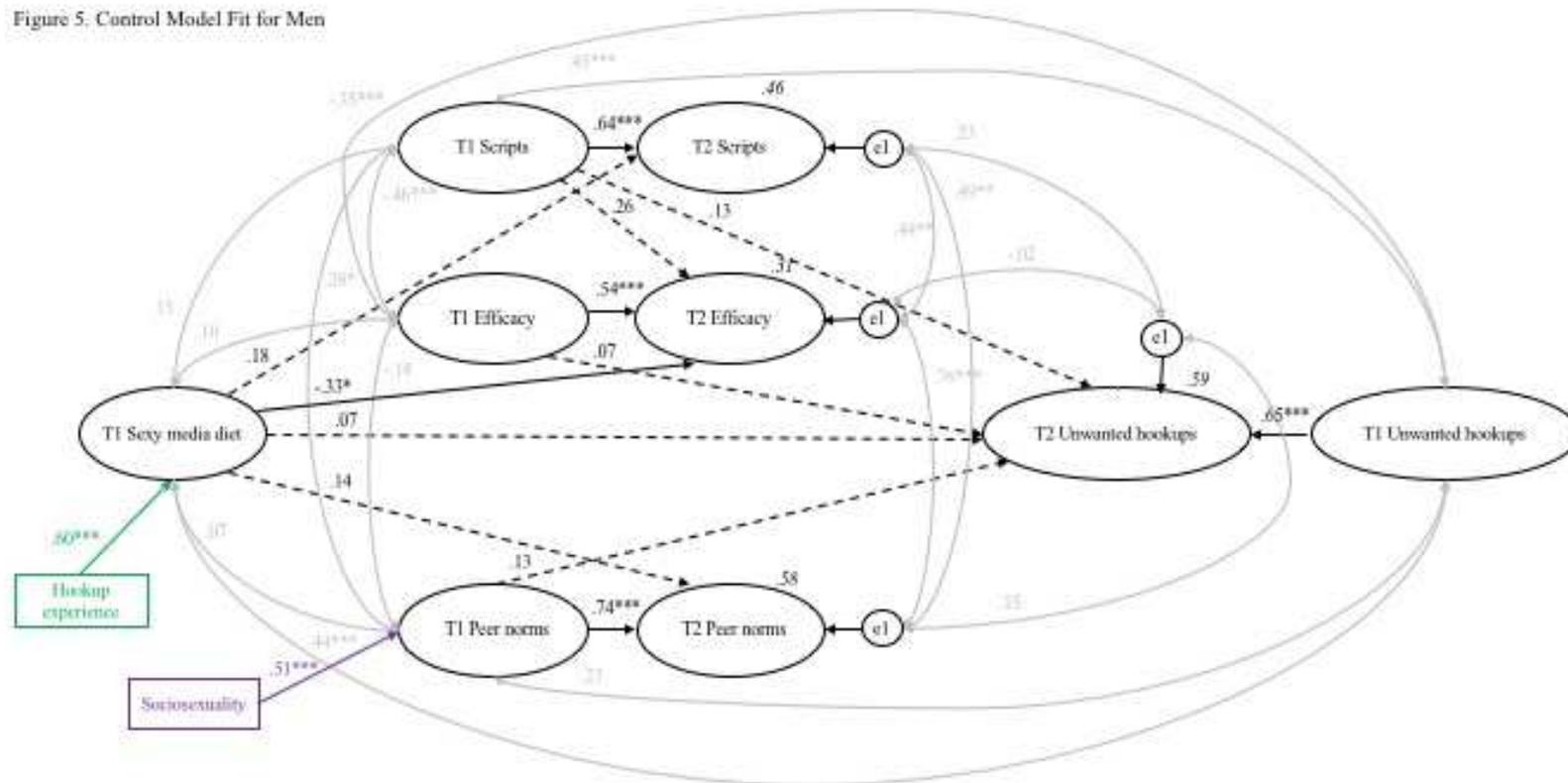


Figure 5. Observed longitudinal SEM with covariates for men. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Grey bi-directional paths indicate covariances. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(474) = 635.82, p < .001, CMIN/DF = 1.34, CFI = .91, RMSEA = .06, SRMR = .13, TLI = .90, *p < .05, **p < .01, ***p < .001.$

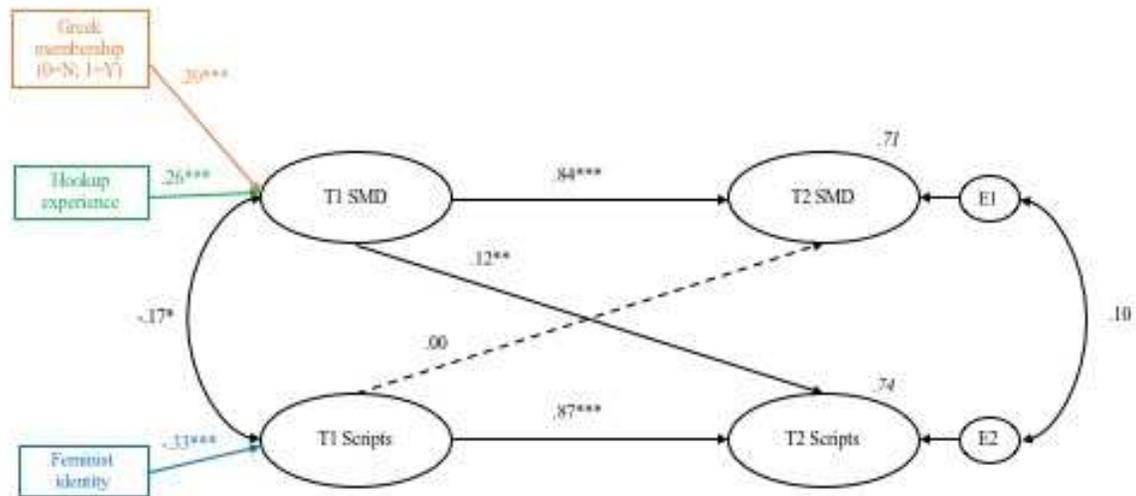


Figure 6. Cross-lagged relationships between women's sexual media diet (SMD) and endorsement of traditional heterosexual scripts. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(147) = 264.08, p < .001, CMIN/DF = 1.80, CFI = .96, RMSEA = .05, SRMR = .07, TLI = .95. *p < .05, **p < .01, ***p < .001.$

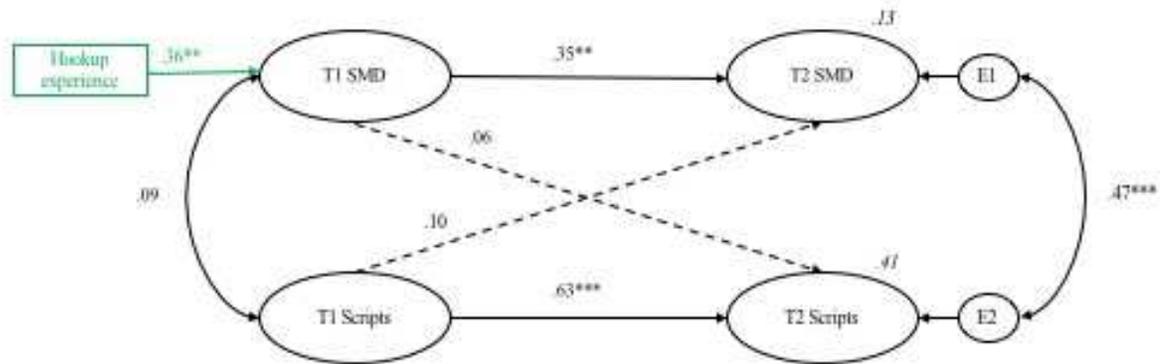


Figure 7. Cross-lagged relationships between men's sexual media diet (SMD) and endorsement of traditional heterosexual scripts. *Note:* Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(117) = 182.82, p < .001$ , CMIN/DF = 1.56, CFI = .91, RMSEA = .08, SRMR = .11, TLI = .90. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

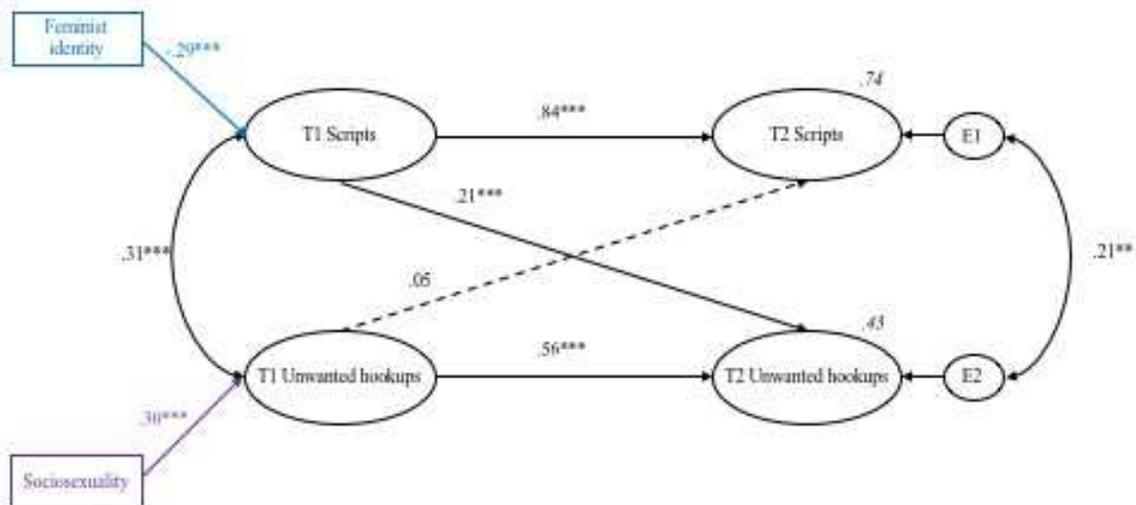


Figure 8. Cross-lagged relationships between women's endorsement of traditional heterosexual scripts and propensity for engaging in unwanted hookups. Note: Estimates are standardized, R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(95) = 168.79, p < .001$ , CMIN/DF = 1.78, CFI = .98, RMSEA = .05, SRMR = .07, TLI = .98. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

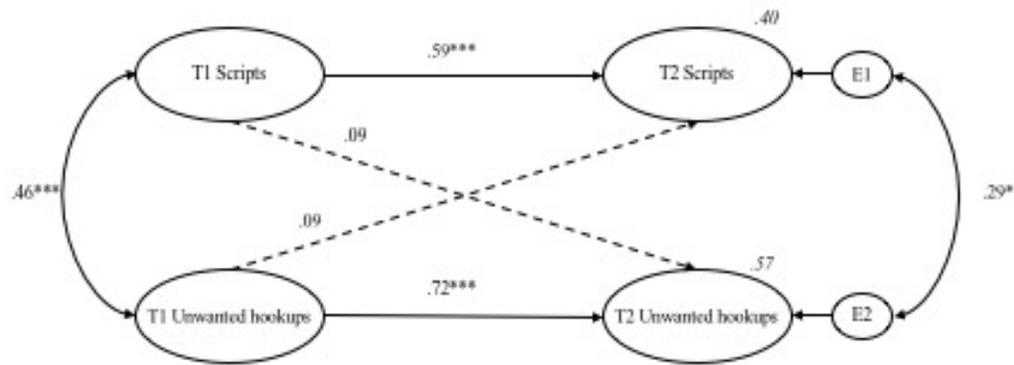


Figure 9. Cross-lagged relationships between men's endorsement of traditional heterosexual scripts and propensity for engaging in unwanted hookups. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Model fit:  $\chi^2(70) = 103.45, p < .001, CMIN/DF = 1.48, CFI = .97, RMSEA = .07, SRMR = .08, TLI = .97. *p < .05, **p < .01, ***p < .001.$

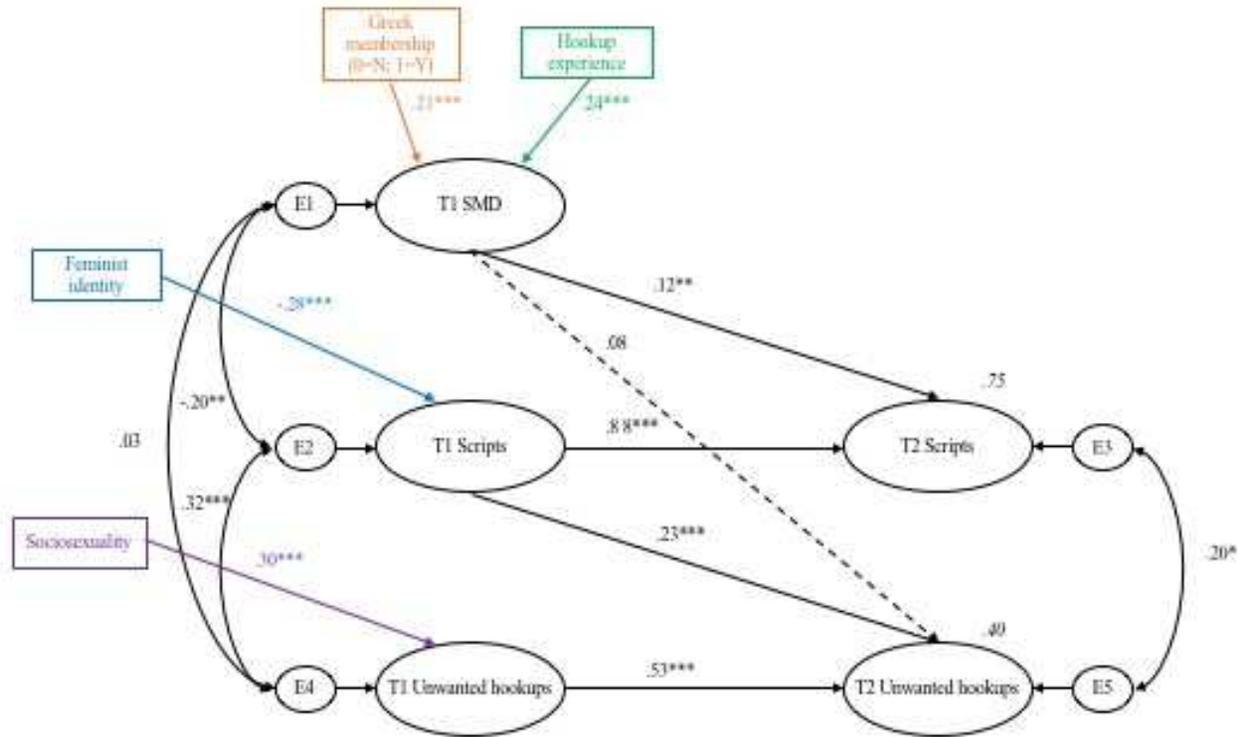


Figure 10. Half-longitudinal mediation between women's sexual media diet (SMD), endorsement of traditional heterosexual scripts, and propensity for engaging in unwanted hookups. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(216) = 364.91, p < .001, CMIN/DF = 1.69, CFI = .96, RMSEA = .05, SRMR = .11, TLI = .96. *p < .05, **p < .01, ***p < .001.$

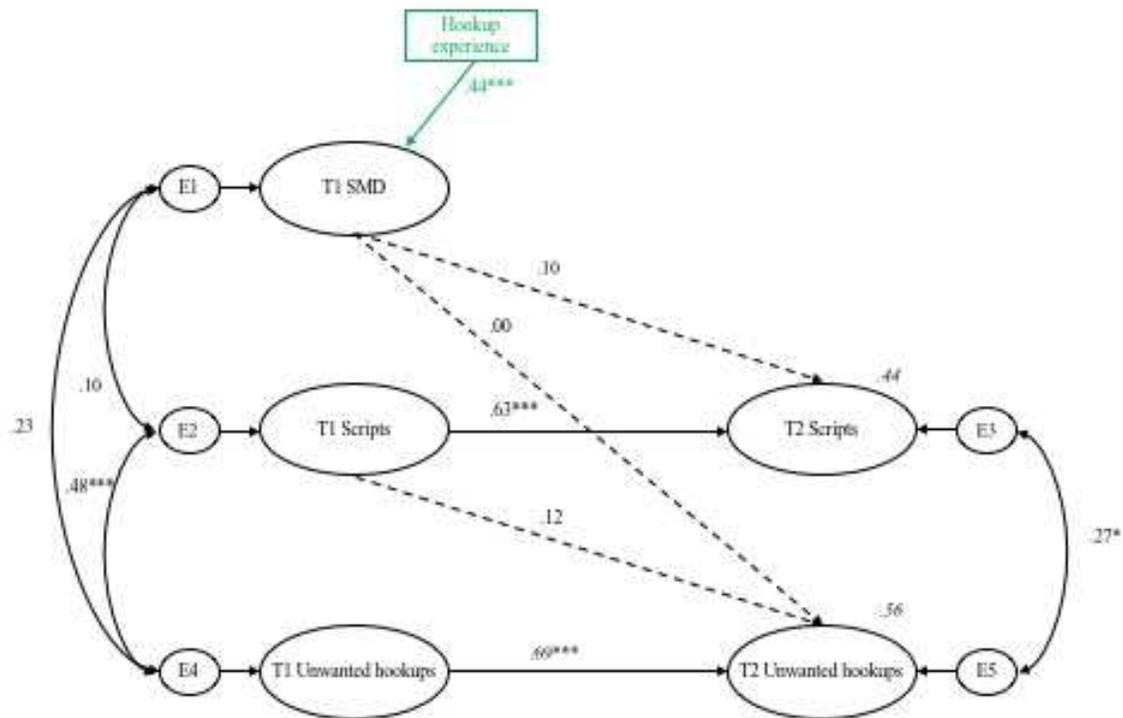


Figure 11. Half-longitudinal mediation between men's sexual media diet (SMD), endorsement of traditional heterosexual scripts, and propensity for engaging in unwanted hookups. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(160) = 233.07, p < .001, CMIN/DF = 1.46, CFI = .95, RMSEA = .07, SRMR = .11, TLI = .94. *p < .05, **p < .01, ***p < .001.$

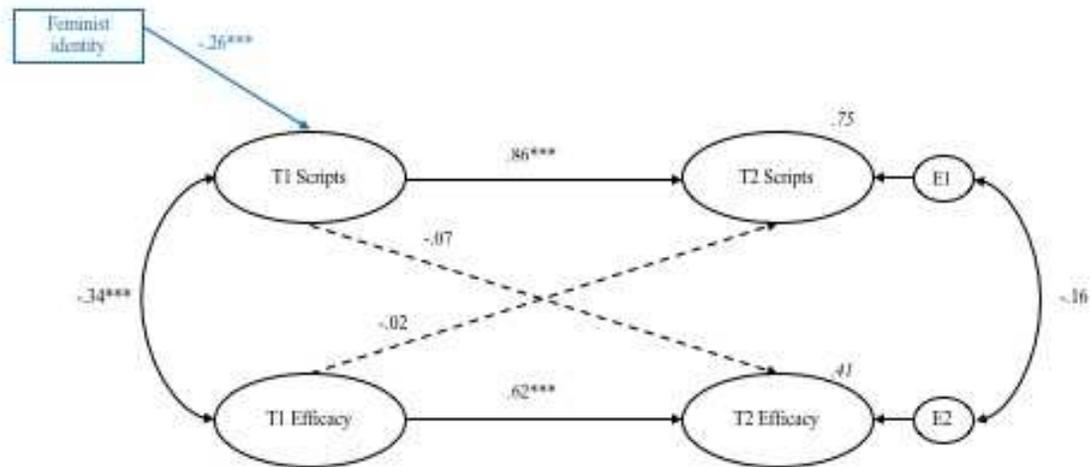


Figure 12. Cross-lagged relationships between women's endorsement of traditional heterosexual scripts and sexual self-efficacy. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(87) = 128.09, p < .001, CMIN/DF = 1.47, CFI = .98, RMSEA = .04, SRMR = .04, TLI = .98. *p < .05, **p < .01, ***p < .001.$

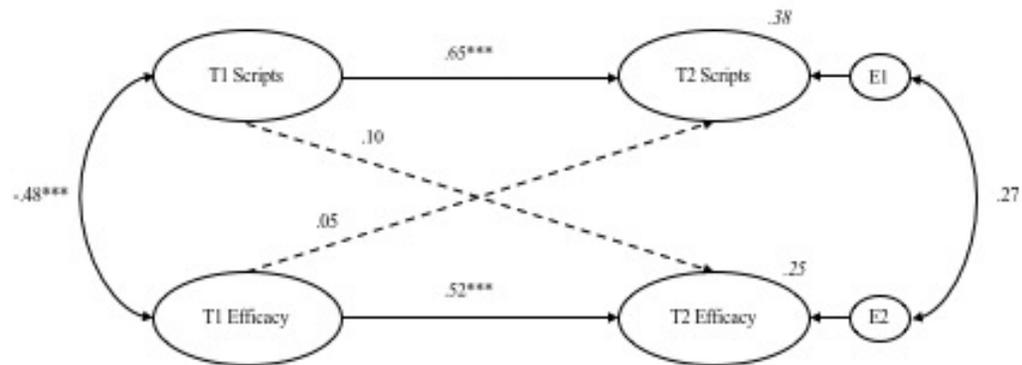


Figure 13. Cross-lagged relationships between men's endorsement of traditional heterosexual scripts and sexual self-efficacy. *Note:* Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Model fit:  $\chi^2(74) = 82.67, p < .001, CMIN/DF = 1.12, CFI = .98, RMSEA = .04, SRMR = .07, TLI = .98$ . \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

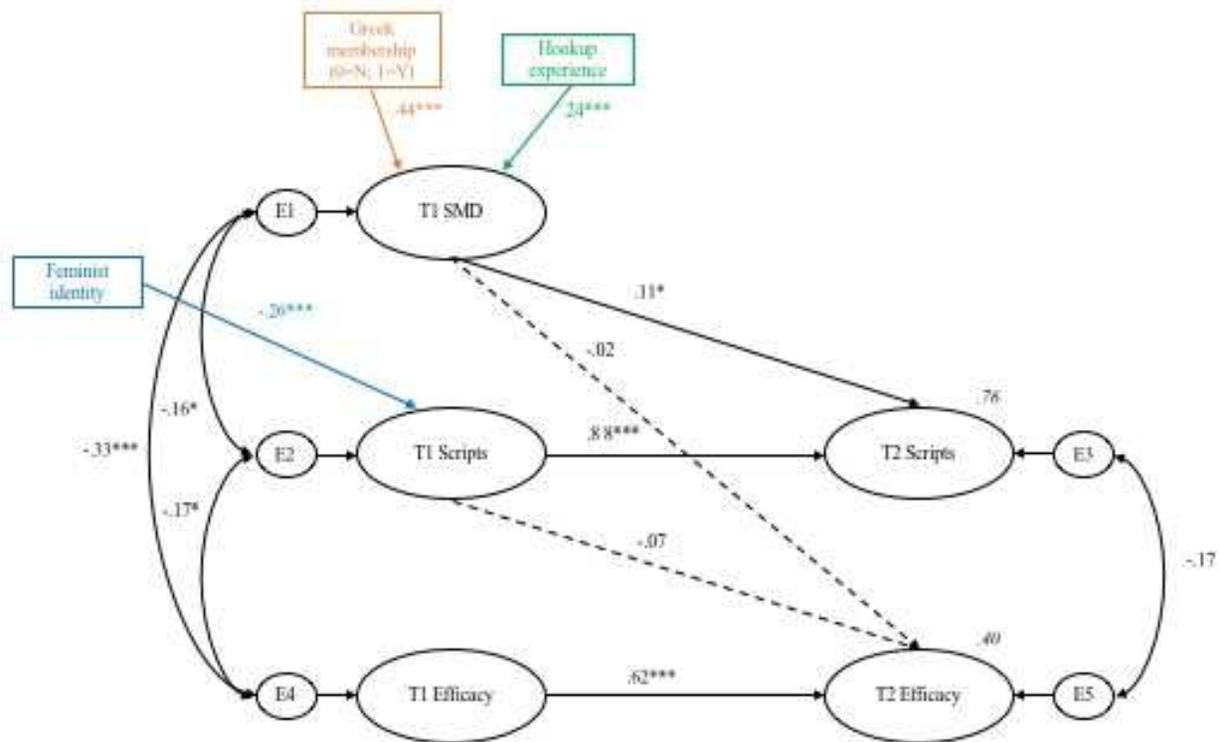


Figure 14. Half-longitudinal mediation between women's sexual media diet (SMD), endorsement of traditional heterosexual scripts, and sexual self-efficacy. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(200) = 309.30, p < .001, CMIN/DF = 1.55, CFI = .96, RMSEA = .04, SRMR = .06, TLI = .95. *p < .05, **p < .01, ***p < .001.$

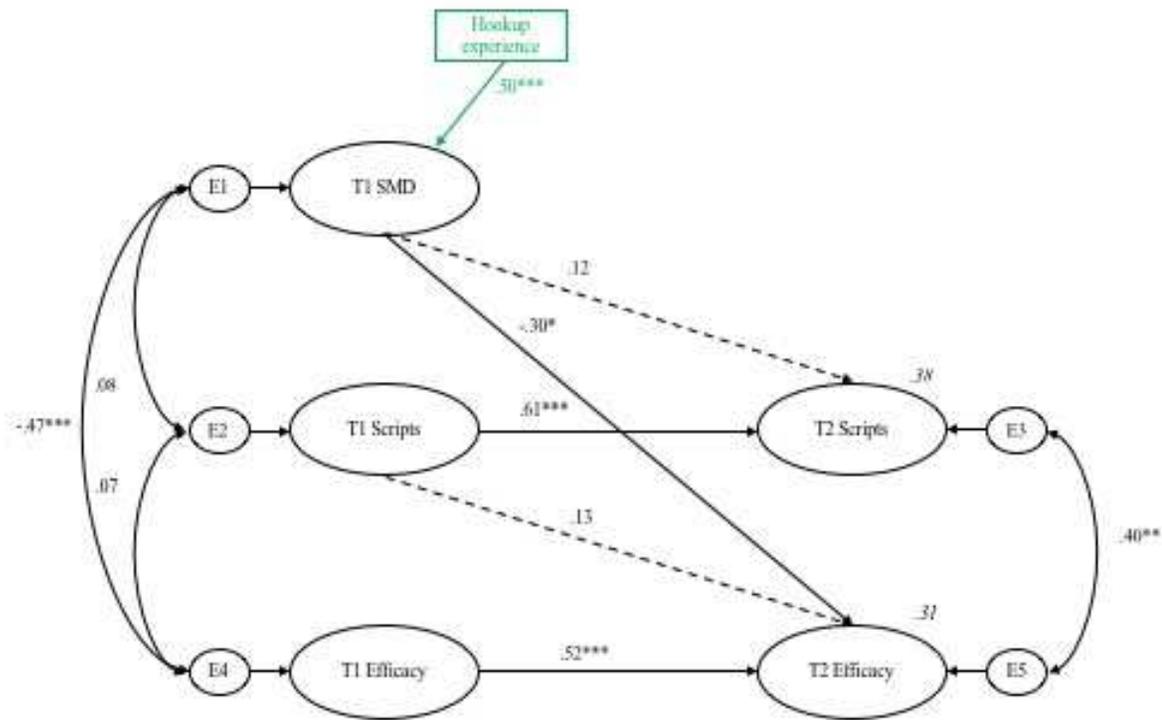


Figure 15. Half-longitudinal mediation between men's sexual media diet (SMD), endorsement of traditional heterosexual scripts, and sexual self-efficacy. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(164) = 199.95, p < .001$ , CMIN/DF = 1.22, CFI = .94, RMSEA = .05, SRMR = .09, TLI = .93. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

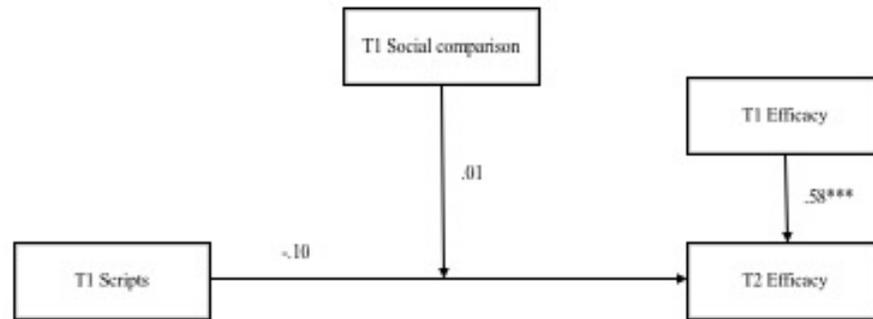
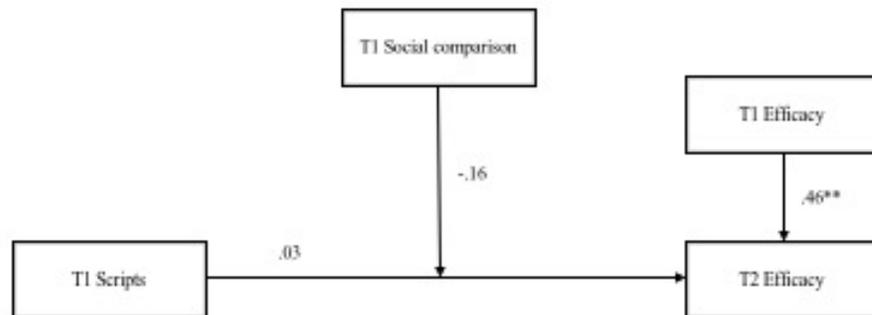


Figure 16. Moderation model testing the influence women's social comparison tendencies have on the relationship between endorsement of traditional heterosexual scripts and sexual self-efficacy. Estimates are unstandardized. Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .



*Figure 17.* Moderation model testing the influence men's social comparison tendencies have on the relationship between endorsement of traditional heterosexual scripts and sexual self-efficacy. *Note.* Estimates are unstandardized. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

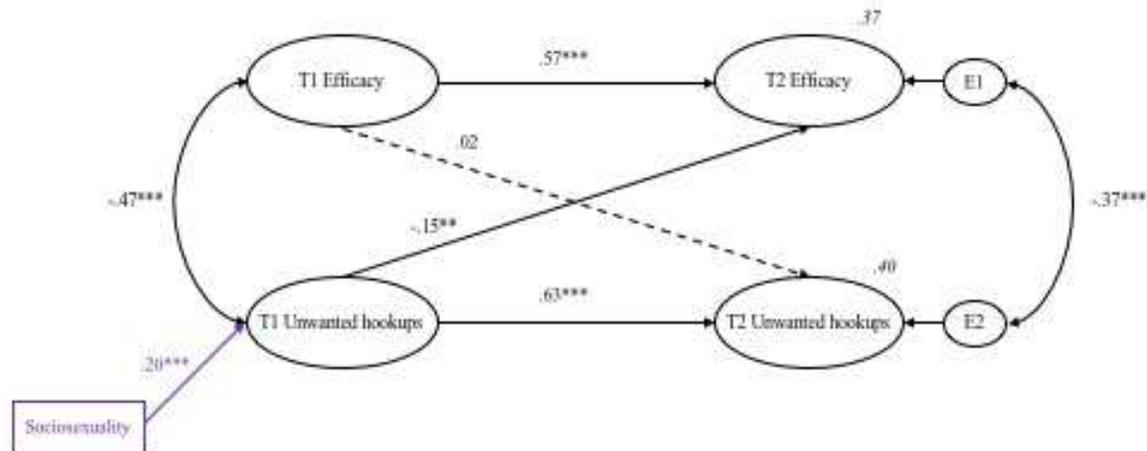


Figure 18. Cross-lagged relationships between women's sexual self-efficacy and propensity for engaging in unwanted hookups. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(112) = 178.32, p < .001, CMIN/DF = 1.59, CFI = .98, RMSEA = .04, SRMR = .05, TLI = .98. *p < .05, **p < .01, ***p < .001.$

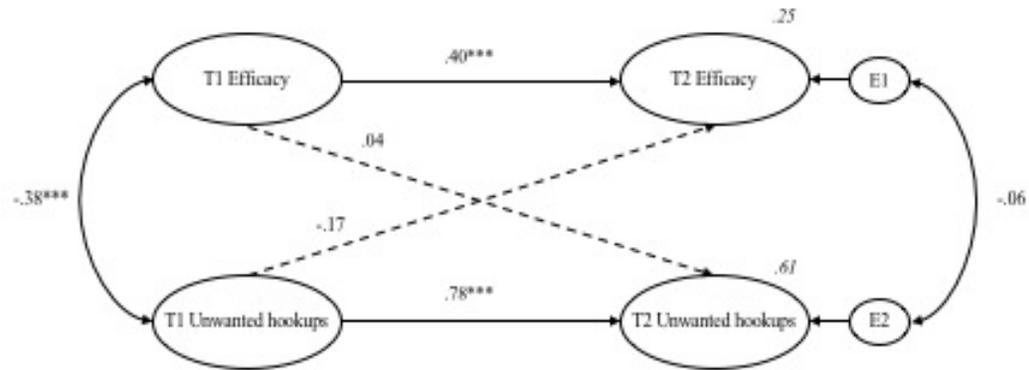


Figure 19. Cross-lagged relationships between men's sexual self-efficacy and propensity for engaging in unwanted hookups. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Model fit:  $\chi^2(98) = 122.56, p < .001$ , CMIN/DF = 1.25, CFI = .98, RMSEA = .05, SRMR = .07, TLI = .97. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

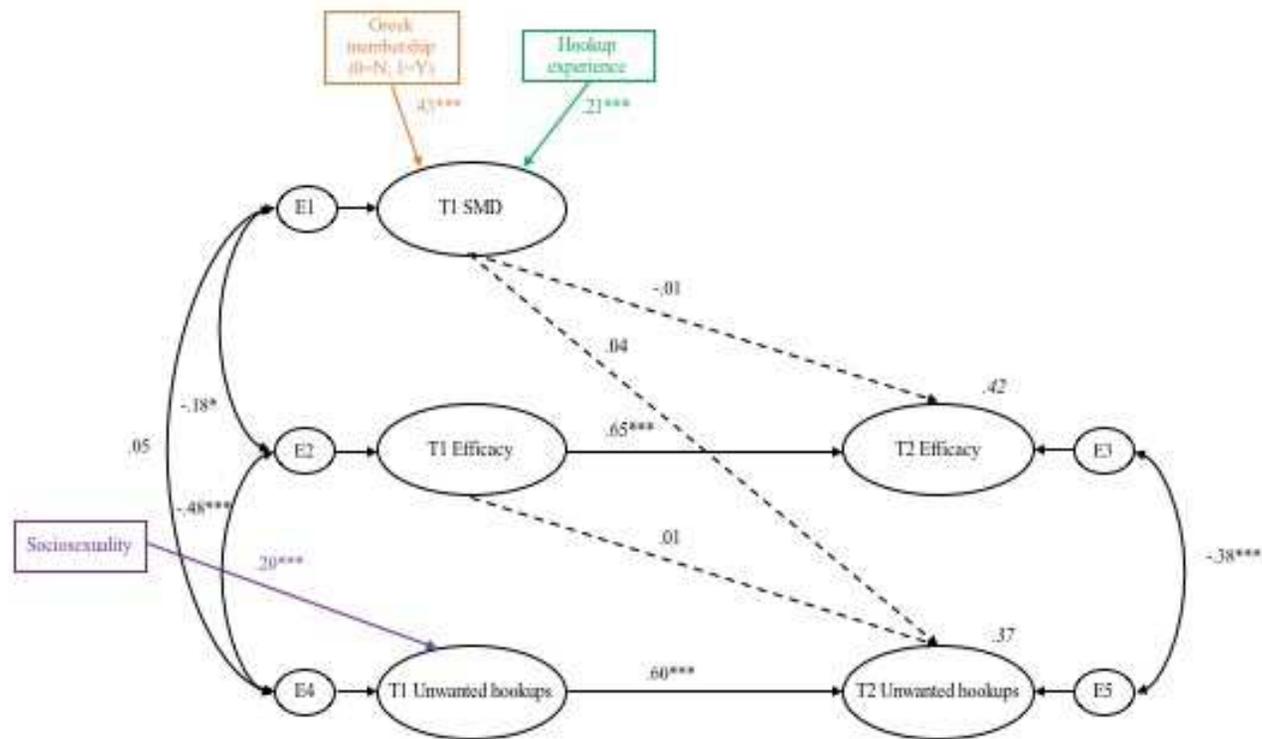


Figure 20. Half-longitudinal mediation between women's sexual media diet (SMD), sexual self-efficacy, and propensity for engaging in unwanted hookups. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(239) = 375.55, p < .001, CMIN/DF = 1.57, CFI = .97, RMSEA = .05, SRMR = .07, TLI = .96, *p < .05, **p < .01, ***p < .001.$

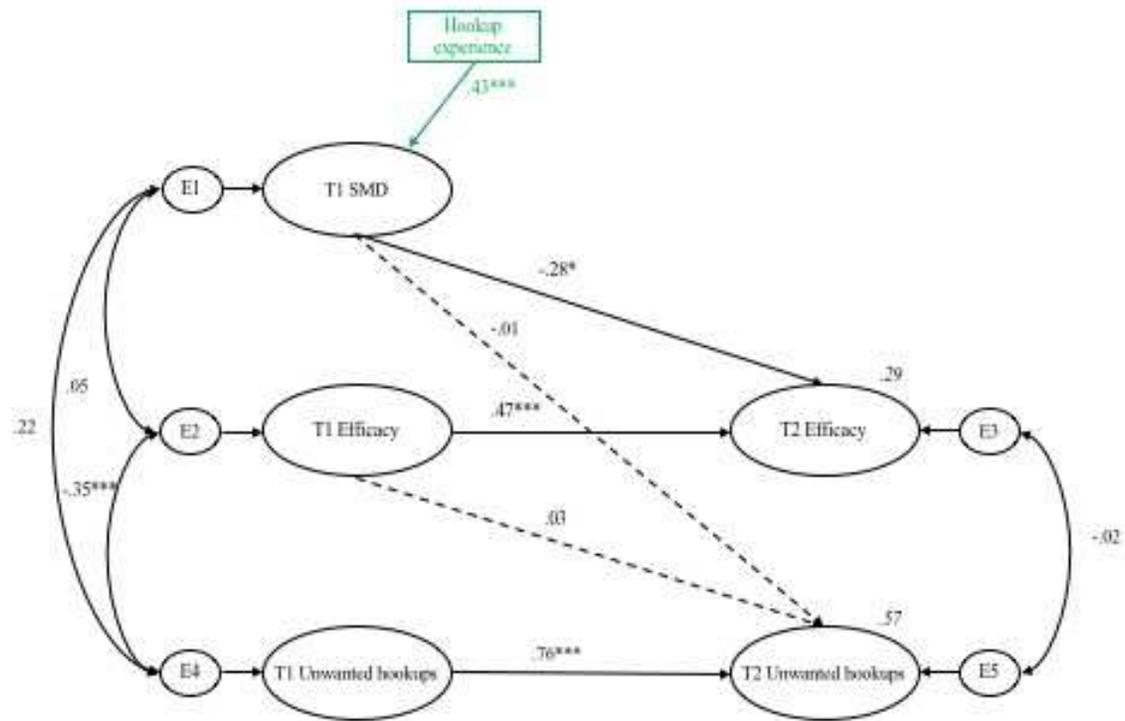


Figure 21. Half-longitudinal mediation between men's sexual media diet (SMD), sexual self-efficacy, and propensity for engaging in unwanted hookups. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(200) = 258.29, p < .001$ , CMIN/DF = 1.29, CFI = .95, RMSEA = .06, SRMR = .10, TLI = .94. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

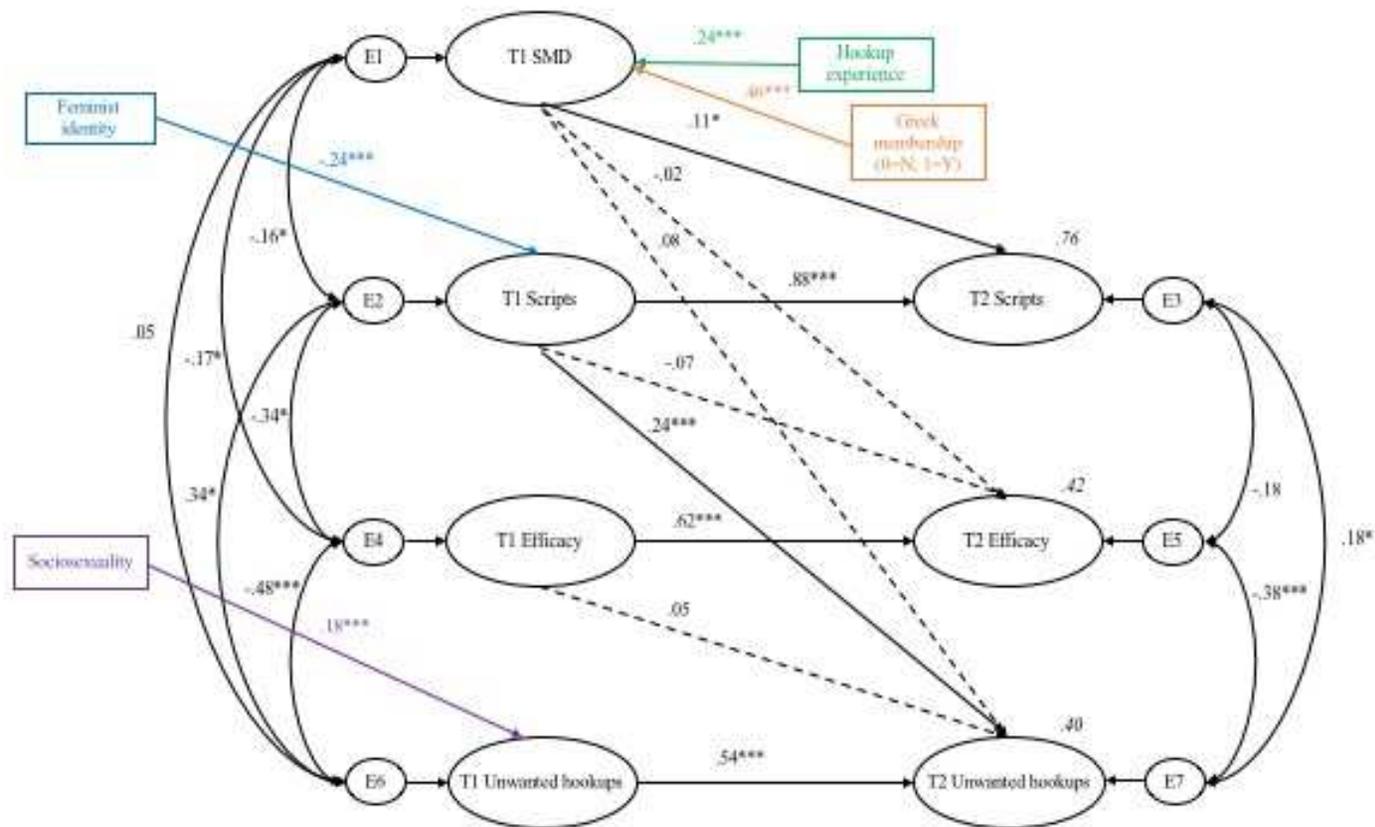


Figure 22. Half-longitudinal multi-mediation between women's sexual media diet (SMD), endorsement of traditional heterosexual scripts, sexual self-efficacy, and propensity for engaging in unwanted hookups. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(410) = 608.84, p < .001$ , CMIN/DF = 1.48, CFI = .96, RMSEA = .04, SRMR = .07, TLI = .96. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

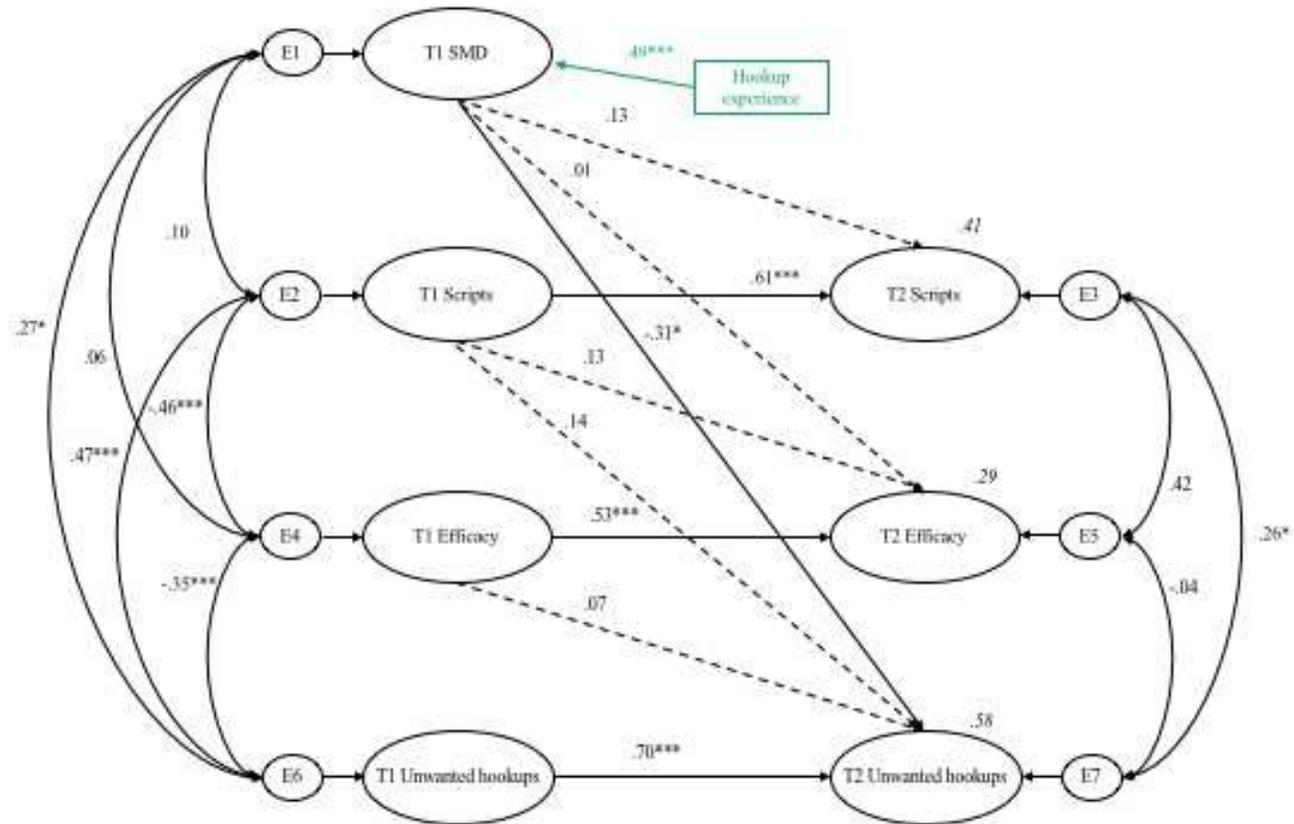


Figure 23. Half-longitudinal multi-mediation between men's sexual media diet (SMD), endorsement of traditional heterosexual scripts, sexual self-efficacy, and propensity for engaging in unwanted hookups. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(333) = 438.74, p < .001, CMIN/DF = 1.32, CFI = .93, RMSEA = .06, SRMR = .10, TLI = .92, *p < .05, **p < .01, ***p < .001.$

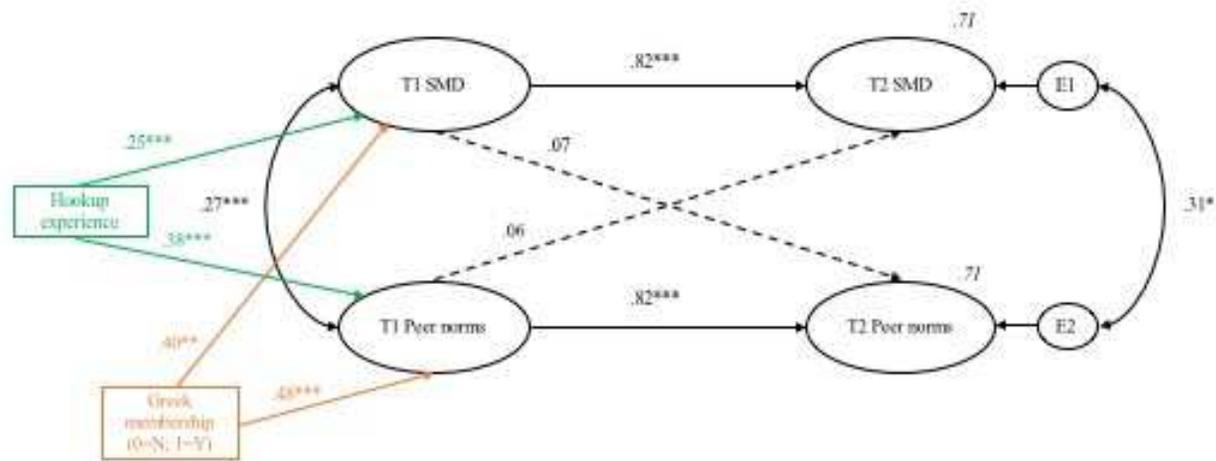


Figure 24. Cross-lagged relationships between women's sexual media diet (SMD) and perceived peer norms. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(98) = 175.44, p < .001, CMIN/DF = 1.79, CFI = .97, RMSEA = .05, SRMR = .07, TLI = .96, *p < .05, **p < .01, ***p < .001.$

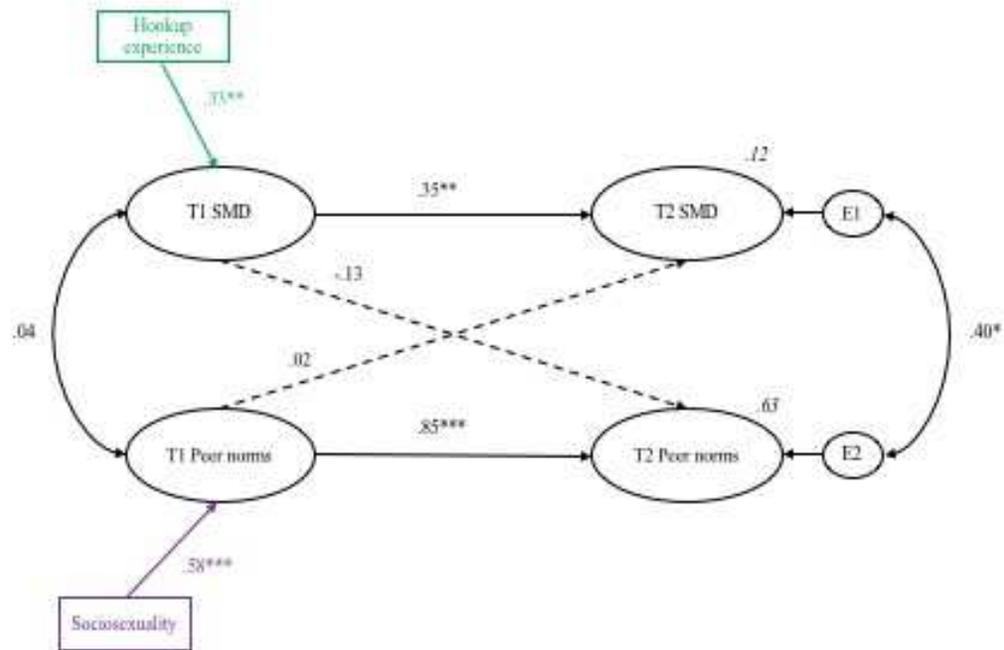


Figure 25. Cross-lagged relationships between men's sexual media diet (SMD) and perceived peer norms. *Note:* Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(100) = 164.50, p < .001$ , CMIN/DF = 1.65, CFI = .90, RMSEA = .09, SRMR = .13, TLI = .89.  $^*p < .05$ ,  $^{**}p < .01$ ,  $^{***}p < .001$ .

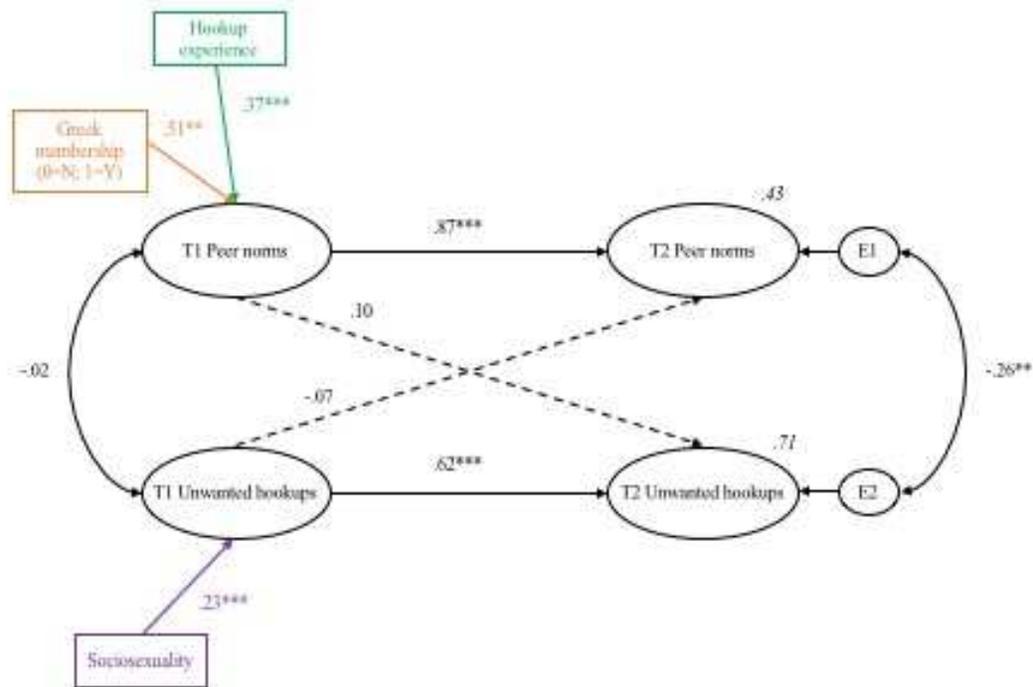


Figure 26. Cross-lagged relationships between women's perceived peer norms and propensity for engaging in unwanted hookups. *Note:* Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(78) = 117.28, p < .001$ , CMIN/DF = 1.50, CFI = .99, RMSEA = .04, SRMR = .06, TLI = .98. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

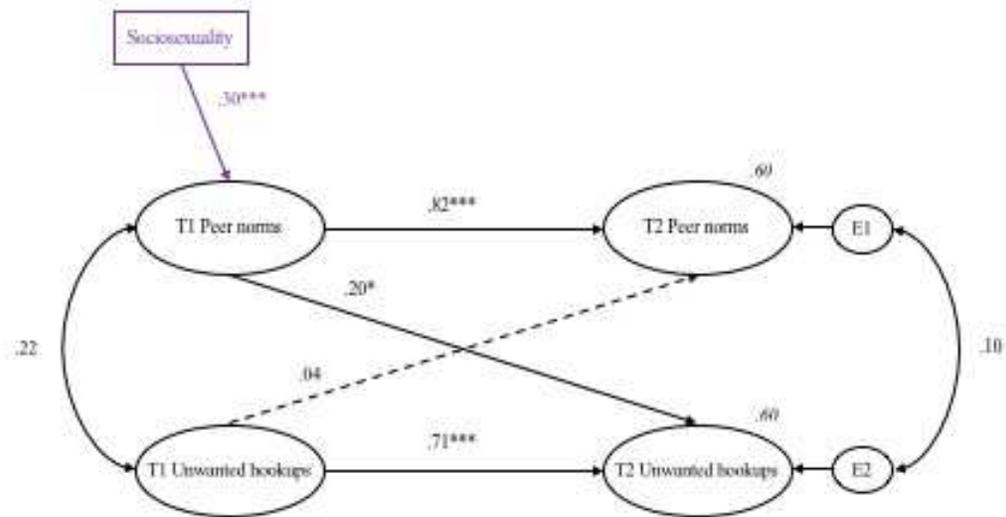


Figure 27. Cross-lagged relationships between men's perceived peer norms and propensity for engaging in unwanted hookups. *Note:* Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(57) = 66.33, p < .001, CMIN/DF = 1.16, CFI = .99, RMSEA = .04, SRMR = .10, TLI = .99$ . \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

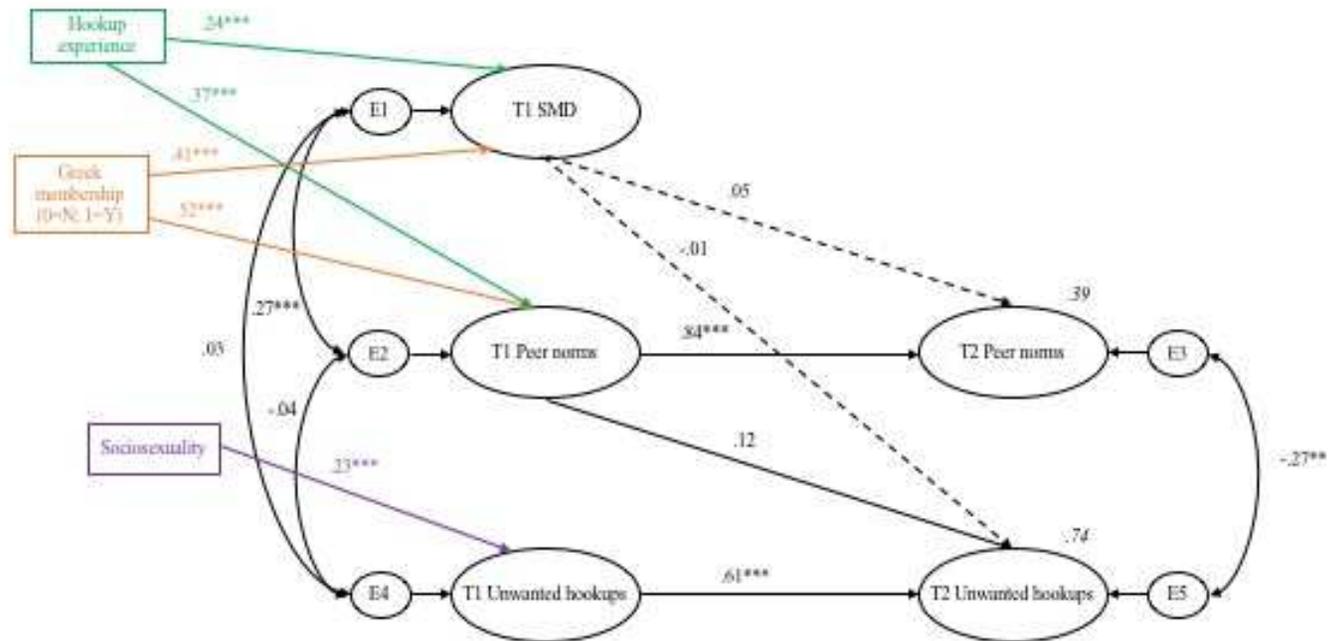


Figure 28. Half-longitudinal mediation between women's sexual media diet (SMD), perceived peer norms, and propensity for engaging in unwanted hookups. Note: Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(153) = 249.43, p < .001, CMIN/DF = 1.63, CFI = .97, RMSEA = .05, SRMR = .06, TLI = .97. *p < .05, **p < .01, ***p < .001.$

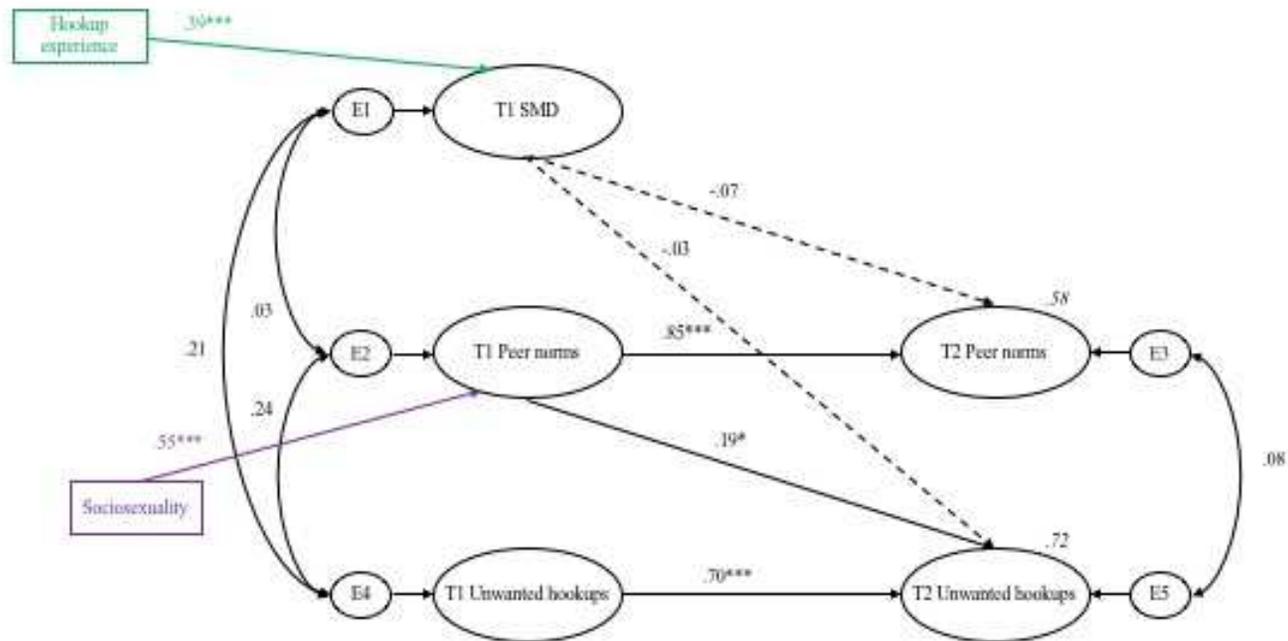


Figure 29. Half-longitudinal mediation between men's sexual media diet (SMD), perceived peer norms, and propensity for engaging in unwanted hookups. *Note:* Estimates are standardized. R-squared estimates are italicized. Dotted lines indicate non-significant paths. Colored boxes and paths indicate covariates. Model fit:  $\chi^2(140) = 185.17, p < .001, CMIN/DF = 1.32, CFI = .96, RMSEA = .06, SRMR = .13, TLI = .95, *p < .05, **p < .01, ***p < .001.$

## APPENDIX

### Pilot Survey

#### Demographic Questions

1. How old are you? \_\_\_\_\_
2. What gender do you most identify with?
  - a. Male
  - b. Female
3. What is your race/ethnicity?
  - a. White (non-Hispanic)
  - b. Black or African American
  - c. Hispanic or Latino (of any race)
  - d. Asian or Asian American
  - e. Native American
  - f. Other
4. What is your current year in school?
  - a. Freshman
  - b. Sophomore
  - c. Junior
  - d. Senior
5. Are you currently in a committed, romantic relationship (i.e., only dating one person)?
  - a. Yes
  - b. No
6. What sexuality best describes you?
  - a. Heterosexual
  - b. Gay or Lesbian
  - c. Bisexual
  - d. Other
7. Do you consider yourself a virgin?
  - a. Yes
  - b. No

#### Sexy Media Diet Questions (Part 1)

1. Please list your top 10 television shows.
2. Please list your top 10 movies.
3. Please list your top 10 music videos.
4. Please list your top 10 women's magazines.
5. Please list your top 10 social media sites or apps.

#### Sexy Media Diet Questions (Part 2)

Of the following television shows, please rate the amount of portrayals or references each television show, movie, music video, or magazine features regarding its sexual content, including romantic relationships, body exposure or nudity, sexual innuendo, touching and kissing, and/or sexual intercourse.

- 0 = Don't know/never seen
- 1 = No sexual content
- 2 = Very little sexual content
- 3 = A little sexual content
- 4 = Some sexual content
- 5 = A lot of sexual content

*Television shows*

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

*Movies*

- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.

*Music videos*

- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.

*Magazines*

- 31.
- 32.
- 33.
- 34.
- 35.

- 36.
- 37.
- 38.
- 39.
- 40.

### **Unwanted Hookup Scenarios And Propensity for Engaging In Unwanted Sex Questions**

Please read the following scenario. While reading, pay close attention to the relationship you are said to have with the person in the scenario and imagine how you would feel in each situation.

**Scenario 1:** You go to a party with friends and meet an attractive guy who seems nice. While you are talking, you realize that you have many of the same interests. After talking for a while, the guy asks if you can go to a more private place. You both decide to go back to your room to watch a movie.

When you get to your room and start the movie, the guy starts to indicate he's more interested in your body than the movie. You like the guy, but you aren't ready to have physical relations with him yet. The guy is attractive and you like him, but you aren't ready and don't want to deal with the potential consequences of having sex with him in this situation. If he were to initiate the following behaviors, please indicate the extent you would consent or resist his advances. Respond as you would if you were really in the situation described; your responses are completely confidential.

**Scenario 2:** You go out with a guy you recently met through a friend. He is attractive and seems fun. You both have a lot in common. When you decide to head home, the guy suggests going back to his place to hang out. You decide you would like to get to know him better and he says he will drive you home later when you are ready to go.

After getting to his place, you realize he wants to do more than talk. You like the guy, but you would like to go on another date before having physical relations with him. The guy is attractive and you like him, but you aren't ready and don't want to deal with the potential consequences of having sex with him in this situation. If he were to initiate the following behaviors, please indicate the extent you would consent or resist his advances. Respond as you would if you were really in the situation described; your responses are completely confidential.

**Scenario 3:** You have hooked up with a guy from one of your classes before, and you decide to hang out with him again as friends. He is attractive and you have been feeling like you might like him as more than a friend. Together you decide to stay in and play video games for the night.

It starts to get late and the guy seems like he would rather be hooking up than playing video games. Problem is, you don't really feel like it. This was supposed to be hanging out as friends, so you weren't really prepared to have physical relations with him. The guy is attractive and you like him, but you aren't ready and don't want to deal with the potential consequences of having sex with him in this situation. If he were to initiate the

following behaviors, please indicate the extent you would consent or resist his advances. Respond as you would if you were really in the situation described, your responses are completely confidential.

- 0 = Strongly disagree
- 1 = Disagree
- 2 = Somewhat disagree
- 3 = Neither agree nor disagree
- 4 = Somewhat agree
- 5 = Agree
- 6 = Strongly agree

1. I would give in and kiss him, even if I already said no.
2. I would not resist his kisses, even if I didn't want to kiss him.
3. If I didn't want him to kiss me, I would not allow him to, even if he pressured me.
4. If I didn't want him to touch my genitals, I would refuse to let him, even if he insisted.
5. Even if I said no, I would let him touch my genitals.
6. I would allow him to touch my genitals, even if I didn't want that.
7. Even if I already said no, I would still give him oral sex.
8. I would give him oral sex, even if I didn't want to.
9. I would resist giving him oral sex if I didn't want to, even if he pressured me.
10. I would refuse to let him give me oral sex, even if he insisted.
11. If he wanted to give me oral sex, I would let him, even if I didn't want that.
12. I would allow him to give me oral sex, even if I already said no.
13. I would have sex if he wanted to, even if I didn't want to.
14. If he pressured me, I would have sex with him, even if I already said no.
15. I would refuse to have sex if I didn't want to, even if he insisted.

### **Unwanted Hookup Scenario Questions**

Please respond to the following questions for each scenario.

1. How believable is scenario 1?
  - 0 = Not at all believable
  - 1 = Somewhat unbelievable
  - 2 = Neither believable or unbelievable
  - 3 = Somewhat believable
  - 4 = Very believable
2. How much would you want to engage in sexual behaviors with the guy in scenario 1?
  - 0 = Very unwanted
  - 1 = Somewhat unwanted
  - 2 = A little unwanted
  - 3 = No opinion
  - 4 = A little wanted
  - 5 = Somewhat wanted
  - 6 = Very wanted
3. How likely would sexual behavior, in general, be in scenario 1?
  - 0 = Not at all likely

- 1 = Somewhat unlikely
  - 2 = Neither likely or unlikely
  - 3 = Somewhat likely
  - 4 = Very likely
4. To what extent does scenario 1 fit the definition of a hookup?
- 0 = Not at all
  - 1 = A little
  - 2 = Somewhat
  - 3 = Very
5. Which of the following best classifies the relationship between you and the guy described in scenario 1?
- 0 = Stranger
  - 1 = Acquaintance
  - 2 = Friend
  - 3 = Best friend
  - 4 = Romantic partner

### **Main Survey**

#### **Exposure To Sexual Media Diet**

How often do you spend time with the following media?

- 0 = Never
- 1 = Rarely
- 2 = Sometimes
- 3 = Often
- 4 = All of the time

#### *Television shows*

- 1.
- 2.
- 3.
- 4.
- 5.

#### *Movies*

- 6.
- 7.
- 8.
- 9.
- 10.

#### *Music videos*

- 11.
- 12.
- 13.
- 14.
- 15.

### Magazines

- 16.
- 17.
- 18.
- 19.
- 20.

*Social media*-Also, for each social media vehicle: How often do you see people talking about sex or posting sexually suggestive photos, videos, or statuses on \_\_\_\_\_?

- 21.
- 22.
- 23.
- 24.
- 25.

### Social Comparison Tendencies

Please rate the extent you agree or disagree with the following statements.

- 0 = Strongly disagree
- 1 = Disagree
- 2 = Somewhat disagree
- 3 = Neither agree or disagree
- 4 = Somewhat agree
- 5 = Agree
- 6 = Strongly agree

1. I often compare how my loved ones (boy or girlfriend, family members, etc.) are doing with how others are doing.
2. I always pay a lot of attention to how I do things compared to how others do things.
3. If I want to find out how well I have done something, I compare what I have done with how others have done.
4. I often compare how I am doing socially (e.g., social skills, popularity) with other people.
5. I am not the type of person who compares often with others.
6. I often compare myself with others regarding what I have accomplished in life.
7. I often like to talk with others about mutual opinions and experiences.
8. I often try to find out what people think who face similar problems as I face.
9. I always like to know what others in a similar situation would do.
10. If I want to learn more about something, I try to find out what others think about it.
11. I *never* consider my situation in life relative to that of other people.
12. I always pay a lot of attention to how I do things compared to how people in media do things.
13. If I want to find out how well I have done something, I compare what I have done with how people in the media do things.
14. I often try to find out what people in the media think who face similar problems as I face.
15. If I want to learn more about something, I try to find out what people in the media think about it.

### Endorsement Of Traditional Heterosexual Scripts

Please rate the extent you agree or disagree with the following statements.

- 0 = Strongly disagree
- 1 = Disagree
- 2 = Somewhat disagree
- 3 = Neither agree or disagree
- 4 = Somewhat agree
- 5 = Agree
- 6 = Strongly agree

1. It's worse for a woman to sleep around than it is for a man.
2. It is just as important for a man to be a virgin when he marries as it is for a woman.
3. I approve of a 16-year old girl's having sex just as much as a 16-year old boy's having sex.
4. A woman's having casual sex is just as acceptable to me as a man's having casual sex.
5. A man should be more sexually experienced than his wife.
6. Women are naturally more monogamous (inclined to stick with one partner) than are men.
7. If a woman is raped while she is drunk, she is at least somewhat responsible for letting things get out of control.
8. Men from nice middle-class homes almost never rape.
9. It is usually only women who dress suggestively that are raped.
10. Rape is unlikely to happen in the woman's own familiar neighborhood.
11. A woman who "teases" men deserves anything that might happen.
12. When women are raped, it's often because the way they said "no" was ambiguous.
13. A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex.
14. When a man only has to use a minimal amount of force on a woman to get her to have sex, it probably means she wanted him to force her.
15. When a woman waits until the very last minute to object to sex in sexual interaction, she probably really wants to have sex.
16. When a woman allows a man to treat her to an expensive dinner on a date, it usually indicates that she is willing to have sex with him.
17. Going home with a man at the end of a date is a woman's way of communicating to him that she wants to have sex.
18. Men are mostly interested in women as potential sex partners.
19. Men don't want to be "just friends" with a woman.
20. It's difficult for men to resist sexual urges.
21. Something is wrong with a guy who turns down a chance to have sex.
22. Men are always ready and willing for sex
23. Men think about sex all the time.
24. Women should be more concerned about their appearance than men.
25. The best way for a woman to attract a man is to use her body and looks.
26. No one wants to date a woman who has "let herself go."
27. There's nothing wrong with men whistling at shapely women.
28. It bothers me when a man is interested in a woman only if she is pretty.

**Sexual self-concept.**

Please rate the extent you agree or disagree with the following statements.

- 0 = Strongly disagree
- 1 = Disagree
- 2 = Somewhat disagree
- 3 = Neither agree or disagree
- 4 = Somewhat agree
- 5 = Agree
- 6 = 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.
5. I am not very confident in sexual encounters.
6. I think of myself as a very good sexual partner.
7. I would rate myself low as a sexual partner.
8. I am confident about myself as a sexual partner.
9. I am not very confident about my sexual skill.
10. I am very capable of refusing a sexual advance by a partner.
11. I am very capable of having a sexual encounter without feeling obligated to have intercourse.
12. I am very capable of controlling my sexual urges while under the influence of alcohol or drugs.
13. I am very capable of choosing when and with whom to have sex.
14. I am very capable of telling a partner how to treat me sexually.
15. I am very capable of refusing to do something sexually which I don't feel comfortable about.
16. I am very capable of admitting being inexperienced to sexually experienced peers.
17. I am very capable of rejecting unwanted sexual advances from someone other than my partner, e.g., an acquaintance.
18. I feel anxious when I think about the sexual aspects of my life.
19. I worry about the sexual aspects of my life.
20. Thinking about the sexual aspects of my life often leaves me with an uneasy feeling.
21. I worry about the sexual aspects of my life.
22. I feel nervous when I think about the sexual aspects of my life.

**Perceived peer norms (descriptive).**

Please estimate how often the average female students at your school are engaging in hookups that involve:

- 0 = Never
- 1 = Rarely
- 2 = Sometimes
- 3 = Often
- 4 = All of the time

1. Kissing (e.g., peck on the lips, long kiss with tongue, kissing body parts)

2. Fondling (e.g., over the clothes touching, under the clothes touching, fondling genital areas)
3. Receiving oral sex (i.e., partner using tongue and/or mouth to stimulate your genital region)
4. Giving oral sex (i.e., using tongue and/or mouth to stimulate a partner's genital region)
5. Intercourse (i.e., a man's penis entering a woman's vagina)

**Perceived peer norms (injunctive).**

Please rate the extent you agree or disagree with the following statements.

- 0 = Strongly disagree
- 1 = Disagree
- 2 = Somewhat disagree
- 3 = Neither agree or disagree
- 4 = Somewhat agree
- 5 = Agree
- 6 = Strongly agree

1. My peers have favorable attitudes towards hooking up.
2. My peers think hooking up is fun.
3. My peers like hooking up.

**Propensity for engaging in unwanted hookups.**

Please read the following scenario. While reading, pay close attention to the relationship you are said to have with the person in the scenario and imagine how you would feel in each situation.

**Scenario 1:** You go to a party with friends and meet an attractive guy who seems nice. While you are talking, you realize that you have many of the same interests. After talking for a while, the guy asks if you can go to a more private place. You both decide to go back to your room to watch a movie.

When you get to your room and start the movie, the guy starts to indicate he's more interested in your body than the movie. You like the guy, but you aren't ready to have physical relations with him yet. The guy is attractive and you like him, but you aren't ready and don't want to deal with the potential consequences of having sex with him in this situation. If he were to initiate the following behaviors, please indicate the extent you would consent or resist his advances. Respond as you would if you were really in the situation described; your responses are completely confidential.

**Scenario 2:** You go out with a guy you recently met through a friend. He is attractive and seems fun. You both have a lot in common. When you decide to head home, the guy suggests going back to his place to hang out. You decide you would like to get to know him better and he says he will drive you home later when you are ready to go.

After getting to his place, you realize he wants to do more than talk. You like the guy, but you would like to go on another date before having physical relations with him. The guy

is attractive and you like him, but you aren't ready and don't want to deal with the potential consequences of having sex with him in this situation. If he were to initiate the following behaviors, please indicate the extent you would consent or resist his advances. Respond as you would if you were really in the situation described; your responses are completely confidential.

**Scenario 3:** You have hooked up with a guy from one of your classes before, and you decide to hang out with him again as friends. He is attractive and you have been feeling like you might like him as more than a friend. Together you decide to stay in and play video games for the night.

It starts to get late and the guy seems like he would rather be hooking up than playing video games. Problem is, you don't really feel like it. This was supposed to be hanging out as friends, so you weren't really prepared to have physical relations with him. The guy is attractive and you like him, but you aren't ready and don't want to deal with the potential consequences of having sex with him in this situation. If he were to initiate the following behaviors, please indicate the extent you would consent or resist his advances. Respond as you would if you were really in the situation described, your responses are completely confidential.

- 0 = Strongly disagree
- 1 = Disagree
- 2 = Somewhat disagree
- 3 = Neither agree nor disagree
- 4 = Somewhat agree
- 5 = Agree
- 6 = Strongly agree

- 16. I would give in and kiss him, even if I already said no.
- 17. I would not resist his kisses, even if I didn't want to kiss him.
- 18. If I didn't want him to kiss me, I would not allow him to, even if he pressured me.
- 19. If I didn't want him to touch my genitals, I would refuse to let him, even if he insisted.
- 20. Even if I said no, I would let him touch my genitals.
- 21. I would allow him to touch my genitals, even if I didn't want that.
- 22. Even if I already said no, I would still give him oral sex.
- 23. I would give him oral sex, even if I didn't want to.
- 24. I would resist giving him oral sex if I didn't want to, even if he pressured me.
- 25. I would refuse to let him give me oral sex, even if he insisted.
- 26. If he wanted to give me oral sex, I would let him, even if I didn't want that.
- 27. I would allow him to give me oral sex, even if I already said no.
- 28. I would have sex if he wanted to, even if I didn't want to.
- 29. If he pressured me, I would have sex with him, even if I already said no.
- 30. I would refuse to have sex if I didn't want to, even if he insisted.

**Covariates.**

***Social desirability.***

Please rate the extent you agree or disagree with the following statements.

- 0 = Strongly disagree
- 1 = Disagree
- 2 = Somewhat disagree
- 3 = Neither agree or disagree
- 4 = Somewhat agree
- 5 = Agree
- 6 = Strongly agree

1. My first impressions of people usually turn out to be right.
2. I always know why I like things.
3. Once I've made up my mind, other people can seldom change my opinion.
4. I am fully in control of my own fate.
5. I never regret my decisions.
6. I am a completely rational person.
7. I am very confident of my judgments.
8. It's all right with me if some people happen to dislike me.
9. I sometimes tell lies if I have to.
10. There have been occasions when I have taken advantage of someone.
11. I always obey laws, even if I'm unlikely to get caught.
12. I have said something bad about a friend behind his or her back.
13. I have never dropped litter on the street.
14. I have done things that I don't tell other people about.
15. I have taken sick-leave from work or school even though I wasn't really sick.
16. I have some pretty awful habits.

***Sexual risk taking.***

Please read the following statements and report how many times you have engaged in each of the behaviors in the past 6 months. In the following questions "sex" includes oral, anal, and vaginal sex and "sexual behavior" includes passionate kissing, making out, fondling, petting, oral-to-anal stimulation, and hand-to-genital stimulation. Please consider only the last 6 months when answering and please be honest.

- 0 = Never or not applicable
- 1 = One time
- 2 = 2-3 times
- 3 = More than 3 times

In the past six months:

1. How many times have you engaged in sexual behavior with but not had sex with someone?
2. How many times have you left a social event with someone you just met?
3. How many times have you "hooked up" but not had sex with someone you didn't know or didn't know well?
4. How many times have you gone out to bars/parties/social events with the intent of

- “hooking up” and engaging in sexual behavior but not having sex with someone?
5. How many times have you gone out to bars/parties/ social events with the intent of “hooking up” and having sex with someone?
  6. How many times have you had an unexpected and unanticipated sexual experience?
  7. How many times have you had a sexual encounter you engaged in willingly but later regretted?
  8. How many times have you had vaginal intercourse without a latex or polyurethane condom? Note: Include times when you have used a lambskin or membrane condom.
  9. How many times have you had vaginal intercourse without protection against pregnancy?
  10. How many times have you given or received fellatio (oral sex on a man) without a condom?
  11. How many times have you given or received cunnilingus (oral sex on a woman) without a dental dam or “adequate protection”?
  12. How many times have you had sex with someone you know but are not involved in any sort of relationship with (i.e., “friends with benefits”, “fuck buddies”)?
  13. How many times have you had sex with someone you don’t know well or just met?
  14. How many times have you or your partner used alcohol or drugs before or during sex?
  15. How many times have you had sex with a new partner before discussing sexual history, IV drug use, disease status and other current sexual partners?
  16. How many times (that you know of) have you had sex with someone who has had many sexual partners?
  17. How many times have you had sex with someone who had been sexually active before you were with him but had not been tested for STIs/HIV?
  18. How many times have you had sex with someone that you didn’t trust?
  19. How many times (that you know of) have you had sex with someone who was also engaging in sex with others during the same time period?

***Nonconsensual sexual experience.***

The following questions concern sexual experiences that you may have had that were unwanted. We know that these are personal questions, so we do not ask for your name or other identifying information. Your information is completely confidential. We hope this helps you feel comfortable answering each question honestly.

In the following questions, please indicate the number of times each experience has happened to you. If several experiences occurred on the same occasion--for example, if one night someone kissed you and touched your private areas by taking advantage of you while you were drunk, you would report a 1 for *each* of these experiences. Similarly, if one night someone verbally pressured you and threatened you to perform oral sex on them, you would report a 1 for *each* of these experiences.

Also, there will be different columns for reporting *completed* acts and *attempted* acts. Please pay attention to the columns you are reporting in.

1. Without my consent, someone kissed me by:
  - a. Verbally pressuring me (telling lies, threatening relationship, making promises, or continually asking after I said I didn’t want to)
  - b. Taking advantage of me when I was too drunk or out of it to stop what was

- happening.
    - c. Threatening to physically harm me or someone close to me.
    - d. Using force (holding me down with their body weight, pinning my arms, or having a weapon)
  - 2. Without my consent, someone touched my private areas (breast/chest, crotch, butt) by:
    - a. Verbally pressuring me (telling lies, threatening relationship, making promises, or continually asking after I said I didn't want to)
    - b. Taking advantage of me when I was too drunk or out of it to stop what was happening.
    - c. Threatening to physically harm me or someone close to me.
    - d. Using force (holding me down with their body weight, pinning my arms, or having a weapon)
  - 3. Without my consent, someone performed oral sex on me by:
    - a. Verbally pressuring me (telling lies, threatening relationship, making promises, or continually asking after I said I didn't want to)
    - b. Taking advantage of me when I was too drunk or out of it to stop what was happening.
    - c. Threatening to physically harm me or someone close to me.
    - d. Using force (holding me down with their body weight, pinning my arms, or having a weapon)
  - 4. Without my consent, someone made me perform oral sex on them by:
    - a. Verbally pressuring me (telling lies, threatening relationship, making promises, or continually asking after I said I didn't want to)
    - b. Taking advantage of me when I was too drunk or out of it to stop what was happening.
    - c. Threatening to physically harm me or someone close to me.
    - d. Using force (holding me down with their body weight, pinning my arms, or having a weapon)
  - 5. Without my consent, someone had sexual intercourse with me by:
    - a. Verbally pressuring me (telling lies, threatening relationship, making promises, or continually asking after I said I didn't want to)
    - b. Taking advantage of me when I was too drunk or out of it to stop what was happening.
    - c. Threatening to physically harm me or someone close to me.
    - d. Using force (holding me down with their body weight, pinning my arms, or having a weapon)

***Hookup experience.***

1. According to the following definition, have you ever experienced a hookup? (yes/no)  
 Hooking up can consist entirely of one kiss or it can involve fondling, oral sex, anal sex, intercourse, or any combination of those things. It can happen only once with a partner, several times during one week, or over many months. Partners may know each other very well, only slightly, or not at all, even after they have hooked up regularly. A hookup often happens in a bedroom, although other places will do: dance floors, bars, bathrooms, auditoriums, or any deserted room . . . . Feelings are discouraged, and both partners share an understanding that either of them can walk away at any time. (Stepp, 2007, p. 24)

2. [If yes, on 1] How often do you engage in hookups?
  - 0 = Never
  - 1 = Rarely
  - 2 = Sometimes
  - 3 = Often
  - 4 = All the time
3. How likely is it that you will hookup sometime in the future?
  - 0 = Very unlikely
  - 1 = Unlikely
  - 2 = Somewhat unlikely
  - 3 = Undecided
  - 4 = Somewhat likely
  - 5 = Likely
  - 6 = Very likely
4. If someone wanted to hookup with you, how likely is it that you would hookup with him or her?
  - 0 = Very unlikely
  - 1 = Unlikely
  - 2 = Somewhat unlikely
  - 3 = Undecided
  - 4 = Somewhat likely
  - 5 = Likely
  - 6 = Very likely

***Relationship status.***

1. Are you currently in a committed, romantic relationship?
  - a. Yes
  - b. No
2. [If yes, on 1] About how long have you been with your partner?
  - a. Years
  - b. Months

***Binge drinking.***

1. During the past 30 days, how many days have you consumed four or more drinks of an alcoholic beverage (i.e., 1.5 ounce liquor, 12 ounce beer, 5 ounce wine) within a single day?

***Feminist self-identification.***

Please rate the extent you agree or disagree with the following statements.

- 0 = Strongly disagree
- 1 = Disagree
- 2 = Somewhat disagree
- 3 = Neither agree or disagree
- 4 = Somewhat agree
- 5 = Agree
- 6 = Strongly agree

1. I consider myself a feminist
2. I identify myself as a feminist to other people
3. Feminist values and principles are important to me
4. I support the goals of the feminist movement

***Demographics.***

1. How old are you? \_\_\_\_\_
2. What is your race/ethnicity?
  - a. White (non-Hispanic)
  - b. Black or African American
  - c. Hispanic or Latino (of any race)
  - d. Asian or Asian American
  - e. Native American
  - f. Other
3. What is your current year in school?
  - a. Freshman
  - b. Sophomore
  - c. Junior
  - d. Senior
4. Where do you currently live?
  - a. On campus
  - b. Off campus
5. What sexuality best describes you?
  - a. Heterosexual
  - b. Gay or Lesbian
  - c. Bisexual
  - d. Other
6. Are you a member of a greek organization?
  - a. Yes
  - b. No

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