LET'S TALK ABOUT SEX: THE INFLUENCE OF A SEXY MEDIA DIET ON COLLEGE FRESHMEN'S ENDORSEMENT OF THE HOOKUP CULTURE, PEER INFLUENCE, AND BEHAVIORS REGARDING CASUAL SEX AND SEXUAL RISK TAKING

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by
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DEDICATION

To Mom and Dad: Thank you for traveling all the way from Australia to be with me on my special day. This has been a long journey for all of us. So it goes. Thank you for always being supportive through everything, in every way possible. I hope to one day return the gift you have given me. I love you both very much.

To my beautiful sister, Melissa: Miss, thank you for being my best friend. I am very proud of the amazing woman you have become.

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"The beautiful thing about learning is that no one can take it away from you."

B.B. King

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ABSTRACT

The present study examined the impact of college freshmen's sexual media diets (SMD) on perception of their peers' sexual activity, endorsement of the hookup culture (EHC), hookup experiences, and sexual risk-taking behaviors. A panel method approach was taken to investigate the influence of exposure to sexual media content across six different formats (TV, movies, music, magazines, Internet, and social networking sites) on peer influence and sexual attitudes and behaviors. The mediating effect of peer influence and EHC were explored on the relationships between (a) SMD and hookup experiences and (b) SMD and sexual risk taking. The moderating effects of gender, wishful identification, self-efficacy, alcohol consumption, concern for safe sex, number of sex partners, and relationship status were also measured on the main relationships.

Results revealed that those who consumed higher amounts of sexual media content were more likely to accept the norms and expectations of the hookup culture, overestimate their peers' sexual activity, and engage in hookups and sexual risk taking. The relationship between (a) SMD and hookup experiences as well as (b) SMD and sexual risk taking was mediated through EHC. Additionally, those who had less concern for safe sex, lower levels of self-efficacy, more sex partners, and who consumed higher volumes of alcohol were more likely to engage in sexual risk-taking behaviors.

Chapter I: Introduction

In 1990 Salt 'N' Pepa sang "*Let's talk about sex, baby. Let's talk about you and me. Let's talk about all the good things And the bad things that may be*." Two years after its release, at the request of ABC news anchor Peter Jennings, the controversial hit song was modified into a rewritten version that addressed the AIDS epidemic directly entitled *Let's Talk about AIDS.* In this new version of the song, the hip-hop trio took a blunt approach to promoting safe sex with lyrics like "*Yo, let's talk about AIDS (go on) to the unconcerned and uninformed. You think you can't get it? Well you're wrong…You get it from sex or a dirty drug needle. Anal or oral now, people. Protect yourself or don't have sex anymore….There's no debate, conversate with your mate. And don't wait until it's too late."* The charity single premiered on ABC and was used as a public service announcement by the New York State Department of Health to promote safe sex and the use of condoms.

This re-recording of the female rap group's song had become part of a safe-sex education campaign and became an anthem for individuals everywhere who were struggling to deal with the AIDS crisis. The socially responsible mega hit catapulted the artists to the forefront of the national discussion about the importance of safe sex. However, despite such efforts to use their song as a platform for bringing awareness to the AIDS epidemic and the consequences of sexual risk taking, overall media coverage of the AIDS epidemic has decreased since the time of the song's initial release (KFF, 2004). Fast forward to 2012 and the spread of sexually transmitted infections (STIs), including

the AIDS epidemic, is still a global and national problem. According to the Centers for Disease Control and Prevention (2011), it is estimated that currently more than one million people are living with an HIV infection in the United States and about half a million are living with an AIDS diagnosis. Furthermore, approximately 25% of those who are currently living with HIV became infected before their 22nd birthday (CDC, 1998).

In addition to the continued spread of HIV/AIDs, it is estimated today that the total number of people living in America with a viral STI is over 65 million (American Social Health Association, 1998) and an estimated 19 million new STI cases are spread each year (CDC, 2010) with about half of these new cases occurring among 15- to 24-year-olds (Weinstock, et al., 2004). Public health statistics show that more than half of all people will contract an STI at some point in their lifetime with one in two sexually active persons contracting an STI by the age of 25 (CDC, 2010). As recently as 2010, women and men aged 15-24 years had the highest rates of Chlamydia, gonorrhea, and syphilis. Based on this reported data, it appears that the spread of new STI cases occurs most often among adolescents and young adults. Thus, the sample under investigation in the present study were college-aged in an effort to examine how exposure to a sexual media diet (SMD), which is the combination of an individual's exposure to sexual content across six media formats, contributes to these alarming statistics.

In this chapter, I briefly cover (a) the reasons for a lack of sexual responsibility among college students, (b) explore the influence that their life stage of emerging adulthood has on the choices they make, (c) discuss the hookup culture phenomenon on college campuses, and (d) detail the media's influence on young adults' sexual

attitudes and behaviors. This chapter concludes with the study's main purpose, proposes a theoretical guide, addresses current gaps in existing literature on the predictors of sexual risk taking, and ends with a preview of the remaining chapters.

Reasons for a Lack of Sexual Responsibility

Although about half of all college freshmen enter campus having already experienced some form of sexual intercourse (CDC, 2004), only 26.4% of sexually active college students report always using condoms (American College Health Association, 2007). Condoms are not used on a consistent basis (CDC, 2004), even though consistent and correct use of the male latex condom reduces the risk of STI and HIV transmission (CDC, 2011). According to a national survey of adolescents' and young adults' sexual health practices, 38.0% of sexually active adolescents and 68.0% of young adults have reported engaging in sex without the use of a condom at least once (Hoff, Greene, & Davis, 2003). Thus, unprotected sex is still widespread among the college-student population (Gilbert & Alexander, 1998; Lance, 2001) and America's teenagers (Hoff, Greene, & Davis, 2003), despite the fact that much of these risks are preventable with the use of a condom (CDC, 2011).

One possible reason for the low incidence rate in condom use may be due to misconceptions about their effectiveness. For instance, according to a survey by the Kaiser Family Foundation, approximately one-fifth of adolescents and young adults believe that condoms are not effective methods in preventing the spread of STIs including HIV/AIDS; instead, one in five young people believe that birth control pills offer the protection needed against the transmission of STIs and HIV/AIDS (Hoff,

Greene, & Davis, 2003). Contrary to this popular belief, however, condoms are one resource that are able to provide substantial protection against many STIs when used consistently (Crosby, DiClemente, Wingood, Lang, & Harrington, 2003; Holmes, Levine, & Weaver, 2004; Shlay, McClung, Patnaik, & Douglas, 2004).

Influence of Emerging Adulthood on Sexual Experiences

Given that such a lack of accurate knowledge regarding safe sex protection methods has the potential to have profound consequences, the present study directed its focus toward the attitudes and behaviors of college freshmen as they encounter sexual situations during their transition from being a teenager to becoming an adult. Caught in between adolescence and young adulthood, college freshmen are in the midst of what Arnett (2000) defines as "emerging adulthood," a period of extended adolescence that individuals in their late teens through their twenties go through in which they encounter profound change. This time of frequent change holds various possibilities as different options in love, work, and worldviews are explored (Erikson, 1968; Rindfuss, 1991). It is within this period that independent exploration of life's possibilities is greater for most people than at any other life stage (Arnett, 2000).

College freshmen are exposed to one of their first tastes of freedom the moment they step onto campus. With their newfound independence, college freshmen get a chance to experience a diverse array of situations without direct parental influence. Emerging adulthood is the time for a variety of sexual experiences due to the fact that parental surveillance has diminished and there is more independence from normative expectations (Arnett, 2000). However, during the time of exploration and

independence, emerging adulthood can also lead to engagement in risky behaviors, which include having unprotected sex. Therefore, at the age of emerging adulthood, college freshmen are a special subset of the college student population in that they will be exposed to risky situations with the added pressure that stems from their need to fit in to the pre-scripted ways of adapting to college life (Flannery & Ellingson, 2003).

Hookup Culture Phenomenon on College Campuses

One of the most prominent and pressing potential risky situations that these college first timers will face is the hookup. College is the time for exploring one's sexuality and part of this exploration may include participation in and/or endorsement of casual, commitment-free, and relationally ambiguous sexual encounters that make up what has been termed the hook-up culture on college campuses (Stepp, 2007). Within this stage of emerging adulthood there are no longer clear steps, stages, or statuses in dating relationships (Owen et al., 2010). Moving away from their parents' days of dating, courting, or going steady, the majority of today's college youth engage in what is known as "hookups" as part of their sexual and romantic behavior. Given the view that a culture is a set of shared attitudes, values, goals, and practices (Samovar & Porter, 2001), hooking up is more than a behavior, it is a culture on today's college campuses. Within this culture there are agreed-upon rules, norms, and expectations regarding the act of hooking up shared amongst college students; thereby, endorsement of the hookup culture (EHC) reflects acceptance of these rules, despite whether or not they match the individual's personal experience (Aubrey & Smith, 2011). Overall, evidence reveals that the majority of college students have had some experience with

the hookup culture. In fact, between 60-85% of college men and 50-85% of college women have participated in hooking-up (Grello, Welsh, Harper, & Dickson, 2003; Paul, McManus, & Hayes, 2000; Puentes, Knox, & Zusman, 2008).

With such a high participation in the hookup culture, it raises the concern about the practice, or lack thereof, of sexual responsibility that occurs during these casual sexual encounters (e.g., hookups), particularly given the fact that alcohol is usually involved as part of the hookup experience (Feldman, Turner, & Araujo, 1999; Grello et al., 2006; Lambert, Kahn, & Apple, 2003; Maticka-Tyndale, & Herold, 1999; Paul et. al, 2000). Because hookups commonly involve alcohol consumption, and can even include indulgence in binge drinking, hooking up can be linked to sexual risk-taking behaviors (Lambert et al., 2003; Paul & Hayes, 2002). This is because adolescents are more likely to engage in high-risk behaviors when they are under the influence of drugs or alcohol (Leigh & Stall, 1993). In addition to engaging in sexual acts while under the impairment of alcohol, sexual risk-taking behaviors among college students can include having unprotected sex and involvement with multiple sex partners (CDC, 1995; Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, 2002). A national study that assessed the alcohol-related behaviors of college students aged 18- to 24-years-old from 1998-2005 found that 400,000 college students reported that they had had unprotected sex due to drinking alcohol and 97,000 were victims of alcohol-related sexual assault or date rape (Hingson, Heeren, Zakocs, Kipstein, & Wechsler, 2002; Hingson, Zha, & Weitzman, 2005). As a result of these risky behaviors, those who

hookup have the potential to experience unplanned pregnancies, STIs, and sexual violence (CDC, 1995b; Flack et al., 2007).

Due to the potential threats to college students' sexual, physical, and psychological health that can arise from the risk-taking practices that may occur during hookups (Downing-Matibag & Geisinger, 2009), it will be a primary focus of this study to explore the relationship between hooking up and sexual risk taking in combination with heavy exposure to a sexual media content, which will be further explored in the following section.

Media Influence on Sexual Attitudes and Behaviors

Misconceptions about resources for STI prevention and the importance of sexual responsibility may be partly to blame on the media. Given that pop culture displayed in television, movies, music, social networking sites and other forms of mass media are integral parts of youth culture, the core messages portrayed in these media have the potential to significantly affect young peoples' sexual behavior (Collins et al., 2004). Because of this, youth have reported to use the information presented in the media to inform their decisions about reasons for and against engaging in sexual behavior. For instance, more than half of all teens have reported learning about sexual information from television and movies (Sutton, Brown, Wilson, & Klein, 2002). However, the sexual information that is portrayed in the media is not necessarily accurate and often omits important facts. For example, more than two out of every three television programs, more specifically 70%, involve sexual behavior or talk about sex (Kunkel et al., 2005) and fail to consistently provide context for the possible consequences that can arise from

risky sexual behavior. Furthermore, findings for the *Sex on TV 4* report showed that 35% of all television shows displayed some form of sexual behavior, averaging approximately two scenes per hour, while only 4% of these sexual scenes contained any sexual risk or responsibility message (Kunkel et al., 2005).

Previous studies that have examined young peoples' use of the media have shown evidence regarding the influence of media portrayals on the sexual attitudes and normative expectations they might have regarding their own sexual experiences (Brown et al., 1993; Brown, 2002; Greenberg et al., 1993; Gunter, 2002; Malamuth, 1993; Malamuth & Impett, 2001). This is because media portrayals of sex as prevalent, fun, and risk-free (Kunkel et al., 2005; Pardun et al., 2005) may influence youth to believe that sex without commitments, consequences, or concerns is normative and desirable. According to social cognitive theory (SCT), adolescents may model their sexual behavior based on the media models they are exposed to when a particular behavior is rewarded in the media (Bandura, 2002). Thereby, it seems logical given that the majority of media portrayals of sexual behavior are portrayed without consequences (Kunkel et al., 2005), viewers may imitate and adopt that behavior into their own personal experiences. In fact, evidence supports this theoretical assumption as research has shown that the amount of sexual content exposure an individual consumes does impact the sexual attitudes and behaviors he or she makes. For example, Aubrey et al. (2003) found that college students' sexual expectations were associated with their amount of exposure to sexually-oriented television. Additional studies also support this notion such that after being exposed to high levels of sexual content on television, youth tend to feel

dissatisfied with being a virgin (Courtright & Baran, 1980), are more likely to endorse casual sex (Bryant & Rockwell, 1994), and are twice as likely to engage in intercourse the following year in comparison to light viewers of sexual content (Collins et al., 2004). Furthermore, according to a national longitudinal study on determinants of sexual behavior, adolescents whose parents limited their television viewing to less than two hours per day were half as likely to engage in sexual initiation with a partner than those adolescents who were allowed to consume more than two hours of television daily (Ashby, Arcari, & Edmonson, 2006).

Broadening beyond television, Brown, L'Engle, Pardun, Guo, Kenneavy, and Jackson (2006) conducted a longitudinal study assessing the influence of exposure to sexual content in four media popular among adolescents (e.g., television, movies, music, and magazines). The authors found that those who consumed the greatest amount of sexual media content were more than twice as likely as those with lighter sexual media diets to have initiated sexual intercourse by the time they were 16-years-old. Thus, the frequency of exposure to sexual content can have profound consequences on youth such that a greater amount of exposure to sexual media content can predict young peoples' sexual behaviors in the years to follow.

Based on the high volume of sexual content in the media and the lack of safer sex messages contained in the majority of that content, a major purpose of the present study was to explore how an individual's sexual media consumption patterns influenced his or her attitudes and tendencies toward engagement in risky behaviors based on what sexual content is being consistently presented and that which is being omitted.

Goals of the Present Study

The main purpose of this study was to investigate how exposure to media portrayals of sexual content influenced college freshmen's sexual risk-taking behaviors. It was important to take a longitudinal approach to investigating the impact that sexual media consumption had on a college freshman in order to better assess whether exposure to sex in the media had a long-term impact on their sexual behavior. Therefore, this study evaluated the extent to which college freshmen's media habits, peer influence, and EHC contributed to their hookup experiences and sexual-risk taking behaviors over time using a panel method approach.

Given the statistics regarding the spread of new STI cases among 15- to 24-year-olds and the transitions that college newborns face within the first months of college life, this study examined whether the media habits of first-year college students shaped their behaviors toward sexual risk taking over the course of their first year of college. College students were also a target for the present study because scholars have proposed that between the ages of 18 to 25, young people are undergoing a new life stage known as "emerging adulthood" (Arnett & Tanner, 2006) in which they encounter profound change. Due to several factors, many young people are putting off marriage until the age of 25 for women and 27 for men on average in the United States (U.S. Census Bureau, 2005a, 2005b). This large gap between the onset of puberty and first marriage affects patterns of sexual behavior even into early adulthood (Brown, 2009). Therefore, individuals within this age group were important to examine in regards to the decisions made about their sexual behaviors and were the focus of the present study.

To examine the impact of sexual media exposure on college freshmen, social cognitive theory (SCT) was used as a theoretical guide. SCT was used to help explain how longitudinal exposure to risky sexual content that was rewarded (i.e., a hookup with no consequences) influenced college freshmen to emulate sexual risky behaviors similar to those portrayed in the media they regularly consumed. Unlike cultivation theory, SCT does not focus primarily on the amount of exposure nor exclusively on television programming. Because this study aimed to be more inclusive by investigating six types of media – television, music, movies, magazines, Internet, and social media – that make up an individual's sexy media diet (SMD), SCT was a strong fit to use as the theoretical framework. Thus, this study used SCT to examine the combined product of the amount and the extremity of the content promoting sexual norms, expectations, attitudes, and behaviors across multiple media platforms. Employing SCT also allowed for important variables to be included as part of the study's model, including normative expectations regarding their peers' sexual behavior, and the influence of self-efficacy and wishful identification on determining their sexual risk-taking practices.

The present study attempted to fill the current gaps in the research on the topic of predictors of sexual risk taking, thereby contributing to the literature that already exists by expanding on it in the following ways. First, recent reviews of the existing literature found that most studies examining college freshmen's sexual behaviors dates from the early-to-mid 1990's. Although previous research has also shown that while sexual risk behaviors typically increase with years in college, freshmen behaviors are significant enough to merit concern for this particular population's sexual health

practices (Siegal et al., 1999). Therefore, focusing exclusively on the college freshmen population during their first year on campus was important given that this is a transition phase in their life, allowing them to have greater freedom in the choices they make regarding their sexual behaviors.

Second, this study contributed to previous media effects literature by speaking to the issue of long-term effects resulting from naturalistic, non-manipulated media habits rather than employing a cross-sectional survey or a snapshot experiment. By taking a longitudinal approach, this study was able to explain whether the media, peers, and EHC have a long-term socializing influence on college students' sexual risking-taking behaviors.

Lastly, the present study expanded on previous research that has mainly directed its focus toward sexual content portrayed on television to instead inspecting the college freshman's full media diet. Because most theories of media effects assume that different forms of content will have different kinds of effects, it was important to expand to include multiple media outlets that young adults use regularly. Building from Brown et al.'s (2006) sexual media diet measure, six media formats were examined in this study – television, movies, music, magazines, Internet, and social media – in an attempt to demonstrate how sexual content exposure influenced the sexual risk-taking practices of college freshmen. The present study expanded on Brown and colleagues' study by including Internet and social networking sites and differed from their study in that the present study's participants were college freshmen, not adolescents who were not asked about their alcohol consumption coinciding with their sexual activity.

Likewise, sexual risk behaviors were examined beyond looking just at the age of the participants' first sexual intercourse, as Brown and colleagues did. Finally, the present study explored the influence of EHC on sexual risk taking practices which the aforementioned study did not investigate.

The present chapter was intended to specifically address the question of how consumption of a sexy media diet (SMD) and its interactions with peer influence and EHC affected hookup experiences and sexual risk-taking behaviors among college freshmen. Therefore, the following chapters have five major goals. First, chapter two begins with a detailed explanation of SCT as the chosen theoretical framework of the present study and reasons for its application in explaining how symbolic modeling across multiple media outlets can lead to the adoption of sexual risk-taking behaviors among college freshmen. Second, four global arcs that encompass the present study – media effects of sexual content, peer influence, EHC, and sexual risk taking – are explored in chapter two along with the potential individual differences that might have moderated how these four global components connected to one another. Third, chapter three presents the path analysis approach that was used to test for the main relationships between SMD and the four criterion variables examined in the present study. Fourth, a description of the data analysis procedures is described in chapter four along with the significant findings for the present study. Lastly, chapter five presents a discussion of the results, theoretical and social implications, limitations as well as suggestions for future research, and, finally, a conclusion of the study's findings.

Chapter 2: Literature Review

Theoretical Framework

Social Cognitive Theory

Social cognitive theory (SCT) is a learning theory, describing how people acquire knowledge and learn their behaviors from observing models (Bandura, 1977). Introduced by Albert Bandura, the theory posits that learning does not only come from direct reinforcement of a person's actions, but can take place from watching other people through a process known as observational learning. This is at the core of SCT, a concept also known as modeling.

SCT differs from other learning theories in two distinct ways. First, SCT follows the cognitive stimulus-organism-response approach (Ormrod, 1999). In this approach, the organism, or person, has an active role in the learning process such that it is assumed that the person has a degree of motivation and choice. The second distinction that SCT has from the other learning theories is that of perceived consequences. Similar to operant conditioning, SCT does assume that humans associate behaviors with rewards or punishments. However, there is an internal motivation process that happens in SCT; therefore, behavior acquisition and change are functions of positive and negative reinforcement.

In order for modeling to be successful in influencing behavior acquisition, there needs to be a greater ratio of positive reinforcements in comparison to negative reinforcements (Bandura, 2002). SCT states that a person is more likely to model a rewarded behavior. For example, in the context of the present study, if a viewer sees a

television character shown passing an STI screening because the character practiced safe sex by wearing a condom, then the viewer is more inclined to adopt the behavior of using a condom. However, if the character is punished for engaging in the sex behavior (i.e., fails an STI test), without any coping strategy present, then the viewer will likely not adopt the modeled behavior. SCT acknowledges that people differ on what they find rewarding and the value of that reward will influence the extent to which learning will occur. The theory also accounts for additional adoption determinants that can impact the observational learning process. One of these adoption determinants Bandura accounted for is the complexity of a behavior, which is important to consider when measuring the influence of a persuasive message. For example, if the modeled behavior is too difficult to do, a person would not likely be persuaded to model the behavior because he or she would be unable to physically do so or lack the necessary resources to implement it. Within the same vein, cognitive factors such as self-efficacy determine whether these modeled behaviors will then be adopted (Sheeshka, Woolcott, & MacKinnon, 1993) such that an individual will be more inclined to adopt a behavior in which he or she has confidence in his or her ability to successfully carry out. Another contingency for SCT that is relevant to address for the purposes of the current study is that an individual's choice whether or not to adopt a modeled behavior is determined by the perceived or actual consequences of the behavior (Bandura, 2004). Modeled benefits increase adoption decisions as well such that adopting a particular behavior may be a means of gaining social recognition or status.

Observational learning can also be derived from an individual's peers who can serve as role models and contribute to an individual's normative expectations regarding sexual behavior. Individuals may observe the behaviors of their peers and recognize the positive and negative reinforcements associated with their peer group's behavior and decide to emulate the behavior in their own lives (Bandura, 1977). Peer pressure is particularly influential given that people are more likely to model behaviors from those individuals with whom they identify (Bandura, 2002). Thus, if an individual perceives that engagement in sexual activity is an expected norm among members of his or her peer group, he or she may be more likely to participate in sexual activity.

According to the theory, in addition to direct modeling or observational learning where an individual watches live models performing a task, modeling can also be symbolic, which means that an active audience can learn behaviors from various media sources as well (Bandura, 1977; 1982; 1986). SCT argues that media exposure leads to the cognitive acquisition of behaviors as well as their expected social, emotional, and cognitive consequences (Bandura, 2002). This implies that when a mediated behavior is shown to lead to negative outcomes, this will likely deter individuals from enacting the punished behavior. Thus, both the type of content portrayed (e.g., sexual) and the nature in which that content is depicted (e.g., negative consequences of sex) are both necessary to make a casual claim between media consumption and adoption of modeled behaviors.

For the purposes of the present study, symbolic modeling was the most relevant form of modeling as described by SCT given that the college freshmen included in the

study were asked to indicate how much sexual content they consume to help understand how exposure to that content influenced their sexual risk-taking behaviors. Understanding the components of a person's sexual media intake was also related to the perception they formulated in regards to their peers' sexual behavior. This was particularly true for the social media vehicles examined in this study, such as Facebook and Twitter, in which college students use to post comments and pictures of themselves, some of which depict them modeling or referencing sexual activities.

However, not all observed behaviors are effectively learned. Although as little as only one exposure may be needed for the modeled behavior to have a significant impact, this is not always guaranteed (Bandura, 1986). Instead there are certain requirements that must be followed in order to determine whether social learning can be successful. According to SCT, the modeling process occurs in four major steps: attention, retention, reproduction, and motivation. In the first process, attention, a person consumes information from the media, their interpersonal relationships, or their environment. It is within this process that a person observes a model and if that model happens to be interesting or novel, there is a stronger chance that the person will dedicate his or her full attention to learning. During retention, a person stores information that he or she will use at a later date that will affect his or her future actions. The more salient the information is to a person, the more likely that information is to stick in a person's memory bank. Likewise, with repetition, the model can be reinforced. However, it should be noted here that content is important, not solely the number of exposures to a mediated model as it is with cultivation theory. In

reproduction, if a person has the ability to replicate the modeled behavior, he or she then has the potential to enact the observed behavior. The last process is motivation where a person is motivated to imitate the modeled behavior in the future. It is here that reward and punishment play important roles within the motivation process such that a person will be more likely to be motivated by the rewards of enacting a behavior and less motivated to adopt a behavior that is punished (Bandura, 1986).

Theoretically it is assumed that a person will be motivated to use condoms when he or she is convinced that using a condom will prevent the possible threats of having unprotected sex. In addition, it is assumed that the person will be motivated to use condoms if he or she believe they can perform the behavior (i.e., use a condom properly). This gets to the heart of human agency, termed by Bandura as self-efficacy, in which a person believes "that they are able to control their functioning and the events that influence their lives" (Bandura, 2002, p. 125). Therefore, a person with a strong sense of self-efficacy will believe that they are able to prevent the possible negative repercussions of having sex and are able to avoid those outcomes that were previously considered unavoidable.

In addition to self- efficacy, other factors that can moderate observational learning are identification and individual differences. Media identification is important to measure because if the receiver can relate to the model, both through physical attributes and/or emotional attachment, he or she will likely be persuaded to implement the behaviors demonstrated by the model (Bandura, 2004). Beyond assessing general media identification, however, for the purposes of the present study,

wishful identification (Hoffner, 1996) was measured. Wishful identification was theoretically defined as the media users' desire to be like or behave in ways similar to a media character (Feilitzen & Linne, 1975). Wishful identification relates to SCT because, according to SCT, the more similar to the media model an individual feels that he or she is, the more that individual will identify with the model featured on the television program, movie, in the magazine, referenced to in the song, or appearing in an online posting. Therefore, if a media character that an individual desires to be like is shown being rewarded for using a condom (i.e., avoided unintended pregnancy, passed an STI test), then the individual is more inclined to wear a condom themselves because he or she desires to behave in a similar fashion as the model with whom that individual feels a connection to or feels similar to in some way.

Thus, the influence of sexual content portrayed in the media may be compounded by the desire to be like the characters and actors appearing in the role, making the symbolic modeling of the characters' behavior that much more persuasive on the receiver. For example, if a male viewer of the show *Glee* saw hot quarterback Finn Hudson make sexual advances toward a girl in the show, the male viewer may model the sexual behavior of the show's heartthrob. Likewise, if a female viewer saw the November 2010 cover of *GQ* in which Finn Hudson played by Cory Monteith was grabbing the butt of his female co-stars Lea Michele and Dianna Agron, that same female may be influenced by the fame of these celebrities and encourage her to lose weight and model the sexy attire and of the *Glee* stars on the magazine cover. That is, the image insinuates that if the female viewer was to conform to the thin ideal and

dress in revealing tops and short skirts, or just underwear, that she too could have an attractive guy lusting after her body.

SCT was an appropriate theory to employ in the present study on the impact of sexual media consumption on sexual risk-taking behaviors for several reasons. First, SCT recognizes that individual differences exist in the modeling process instead of making the assumption that all people will be influenced similarly (Bandura, 2002). Specifically, SCT considers an individual's beliefs, experiences, and environment. For instance, individuals differ in their previous sexual history and their experience with the hookup culture, which will likely influence their choices toward engaging in sexual risk-taking behaviors and therefore were needed to be measured in the present study.

Second, the theory is concerned with important human social behaviors and has been applied to studies that consider how entertainment messages can be used to bring about behavioral and social change (Singhal & Rogers, 2002). SCT has had a particularly strong impact in the study of media violence (Gunter, 1994), supporting the idea that the media can have unintended consequences on members of the viewing audience. Likewise, the theory has been applied to media effects studies examining persuasive communication campaigns such as getting adolescents to quit smoking (Van Zundert, Nijhof, & Engels, 2009), encouraging kids to eat their fruits and vegetables (Bere & Klepp, 2005), and persuading college students to not binge drink (Gilles, Turk, & Fresco, 2006). Thus, SCT has been used both to explain the effect of specific media portrayals on audiences (i.e., the effect of violence) and to plan media campaigns for behavioral change (i.e., in health promotion campaigns).

In fact, several studies have applied the theoretical lens of SCT to explain sex-related health behaviors, for instance, such as HIV prevention (O'Leary, Goodhart, Jemmott, & Boccher-Lattimore, 1992; Wulfert & Wan, 1993). According to Wulfert and Wan (1995), substantial support was shown for the SCT as a useful framework for understanding safer sex behavior in that condom-use intentions were significantly explained by the strength of the person's self-efficacy beliefs, the person's subjective evaluation of the expected consequences of condom use, and the support the person perceived from his or her social environment as a result of using condoms. Witte (1994) also showed support for the concept of self-efficacy in response to AIDS-related media messages. Witte found that individuals had to feel that they were in control over the threat that was presented to them in the messages; thus, those messages that provided the viewers with a sense of self-efficacy increased condom use. Therefore, given the success of SCT as applied to previous studies related to the topic under investigation in the present study, SCT was applied to this particular study's examination of factors influencing sexual risk-taking behaviors.

Third, SCT is an evolving theory that is open to change and has been applied to studies that examine new media such as video games and virtual worlds (Behm-Morawitz & Mastro, 2009). This was important in the present study given that the participants' media diet was that was measured encompassed six different media formats, including their use of Internet and social networking sites. By considering the influence of models across multiple media outlets from television to the Internet on important outcomes regarding sexual consequences (Brown et al., 2006), the theory

was able to provide strong social implications for the application of the present study's findings.

Finally, SCT mapped onto the present study quite well according to content analytic work and qualitative findings examining both the amount of and degree of sexual content in popular media vehicles. In particular, there are three primary areas that clearly demonstrate the connection of SCT to the present study: (a) the lack of punishment of sexual acts, (b) the plethora of rewards regarding sexual behaviors, and (c) the portrayals of sex that are salient to the age group under investigation in the present study's sample.

Content analyses investigating the frequency of and type of sexual acts among popular media vehicles continually find that the sex is often portrayed as fun and risk-free (Kunkel, Eyal, Finnerty, Biely, & Donnerstein, 2005; Pardun, L'Engle, & Brown, 2005). According to SCT, behaviors need to be punished in order for them not to be adopted; thus, if a risky sexual act is not shown being punished, then it is likely the mediated risky sexual act will be enacted. In fact, content analytic work has routinely shown just the opposite – risky sexual behaviors being rewarded. For instance, male characters are often depicted as being rewarded for their sexual behavior onscreen (Aubrey, 2004; Ward, 1995) and as a result, research has shown that males are twice as likely as females to think that having unprotected sex occasionally is not a big concern offscreen (Hoff, Greene, & Davis, 2003), which may be due to the expectations regarding their gender played out in the media. Lastly, because the phenomena under investigation (sexual attitudes and behavior) is particularly salient to the population of

interest (college freshmen), it would make sense that a significant amount of attention is drawn to media content on the subject. For instance, according to an ethnographic study on adolescent girls' use of sexual media content, a subset was described as intrigued with such content, as active seekers who used the content as a learning tool to for "advice, models, and fantasy" (Brown, White, & Nikopoulou, 1993, p. 193) and used to gain popularity amongst their peer group. This is important because those behaviors deemed to be more salient to an individual are likely to be more fully retained in their memory for later use. Therefore, these stored memory representations of sexualized media behavior will likely affect an individual's future decision-making regarding his or her own sexual attitudes and behaviors.

Four Global Arcs of the Literature

Media Effects of Sexual Content on Sexual Attitudes and Behaviors

The media in which America's youth attend to are flooded with scripts of how romantic and sexual relationships unfold and serve as models for their own behavior in relationships. Brown, Halpern, and L'Engle (2005) argue that adolescents may seek out sexually explicit media to acquire information about sexuality that they cannot get from their peers, making the media a primary source for sex education. Adolescents have reported gaining knowledge regarding AIDS, STIs, and condoms (Bradner, Ku, & Lindberg, 2000), despite the fact that content analyses of the sexual content in media have found that sexual portrayals are frequent and sex is portrayed as risk free and recreational, with little to no mention or depiction of negative physical consequences (i.e., spread of STIs or occurrence of unplanned pregnancies) (Kunkel et al., 2007).

In addition to the portrayal of sex as risk free and recreational, the media also readily depict hookups, which are defined as casual sexual encounters (Stepp, 2007). The term hookup has become part of the cultural vernacular, in part due to the media's continued portrayal of hookup scripts through reality stars' behaviors played out on shows like MTV's *Jersey Shore* and *The Real World*. These scripts are designed to attract viewers while at the same time provide knowledge about what an individual is to expect to occur in a particular situation, norms for how the individual should behave within the situation, and what should likely result after engaging in the modeled behavior (Gagnon & Simon, 1973). Similar to SCT, scripts are acquired through observational learning from a variety of sources, including the media (Huesmann, 1997). Likewise, a sexual script is more likely to influence a young person's sexual attitudes and behaviors when the individual identifies with the character, is confident that they could perform the proposed script, and when the portrayed behavior is rewarded. For example, a television viewer will be more likely to encode the portrayal of a hookup on a reality show and accept it as appropriate for their own life when the characters onscreen are shown receiving a positive consequence after hooking up (i.e., gaining status amongst their fellow peers). This particular sexual script may then enhance the viewer's sexual self-confidence, which may ultimately reinforce his or her acceptance of the rules and norms of the hookup culture.

Previous research on the effects of the sexual media suggests that because media portrayals of sexuality tend to be so consistent, frequent media users may begin to believe the world view portrayed and may begin to adopt the media's social norms as

their own (Bandura, 1994). In fact, evidence has found that exposure to sexual content in media has consistently been associated with sexual attitudes and behaviors among youth (Brown & Newcomer, 1991; Collins et al., 2004; Peterson, Moore, & Furstenberg, 1991; Tolman, Kim, Schooler, & Sorsoli, 2007; Ward, 2002). For example, Collins and colleagues (2004) surveyed a national sample of 12-to-17 year olds over the course of a year regarding the frequency with which they watched television programs that varied in their amount of sexual content. Results indicated that those who began the study as virgins and who saw more sex on television were more likely to initiate intercourse over the intervening year than those who reported seeing less televised sexual content.

Brown et al. (2006) expanded on this work by exploring the impact of exposure to sexual content across a variety of media platforms, instead of focusing exclusively on television. Brown and colleagues conducted a longitudinal study to understand how the exposure to a sexual media diet for 12- to 14-year-olds predicted their risky sexual behavior two years later. The researchers examined whether exposure to content in television, movies, music, and magazines used by white and black adolescents predicted their sexual behavior over time. A measure of each teen's sexual media diet was constructed by weighting the frequency of use of each of the four media types by the frequency of sexual content contained in each television show, movie, music album, and magazine the teen used regularly. Results revealed that adolescents' with a higher sexual media diet score were at an increased risk of engaging in early sexual intercourse. According to Cohen's standards (1988), having a high sexual media diet at baseline predicted a medium effect size for whites (r = 0.30) and small effect size for blacks (r =

0.13) regarding their sexual intercourse status measured in the follow-up analysis. This study demonstrated that individuals' sexual media consumption patterns impacted their risk for early sexual intercourse, which can contribute to teenage pregnancy and contraction of STIs (Abma & Sonenstein, 2001).

Another national, longitudinal study found that the proportion of 12- to 17-year-olds who were most likely to become pregnant or be responsible for a pregnancy in their teen years was two times greater among those who viewed high levels of televised sexual content than among those who viewed low levels. The researchers found that frequent exposure to sexual content on television was associated with a significantly greater likelihood of teen pregnancy in the following three years (Chandra, Martino, Collins, Elliott, Berry, Kanouse, & Miu, 2008).

Because young people use a variety of media (Roberts & Foehr, 2004) and because sexual content varies both within and across media types (Huston, Wartella, & Donnerstein; Kunkel, Biely, Eyal, Cope-Farrar, Donnerstein, & Fandrich, 2003; Pardun et al., 2005), a rigorous assessment of a college freshman's exposure to sexual media content required a consideration of both their frequency of use and the type of sexual content contained in varied media formats. Thus, the present study examined the influence of sexual portrayals across multiple media platforms. Taking a cue from Brown et al.'s (2006) sexual media diet measure, six media format types were examined – television, movies, music, magazines Internet, and social networking sites. This was done in an attempt to demonstrate how sexual content across a wide range of media platforms influenced the sexual risk-taking practices of college freshmen. It was a

primary goal of the present study to understand the longitudinal influence of college freshmen's SMD had on their perception of their peers' sexual activity, EHC, hookup experiences, and sexual risk-taking behaviors. In order to investigate this relationship over time, however, a model was constructed to test the significance of each of these relationships. Thus, the following research question was first explored:

RQ1: Will the overall model show significant longitudinal relations between SMD at time-1 and peer influence, EHC, hookup experiences, and sexual risk taking at time-2?

As will be outlined in the methods section, four steps were taken to create the predictor variable, SMD, which was modeled after similar techniques used to measure sexual media content in previous research (Brown et al., 2006). Because college students use a variety of media and because sexual content varies both within and across media (Huston, Wartella, & Donnerstein, 1998; Kunkel et al., 2003; Pardun, L'Engle, & Brown, 2005), both frequency-of-exposure and extremity-of-exposure scores were collected to create the SMD. However, one drawback of this procedure is that it makes the resulting scores a challenge to interpret. For instance, because the scores are products, it is not possible to distinguish between the individual who consumes a lot of moderately sexual media from an individual who consumes a little of highly sexual media. This leads to an in-depth consideration of the weight of arousing content. In other words, is a little bit of highly arousing content more significant than a high amount of little arousing content? According to the processes proposed in SCT, people pay attention to and learn more from arousing content (Bandura, 1986); therefore, even if an individual watches only a little amount of highly sexual content, this is more significant than watching a lot of content that is moderately sexual, which suggests that extremity-of-exposure would be

more impactful than frequency-of-exposure. In other words, because a great deal of attention is paid to sexually arousing content, it is likely that the degree of the sexual nature of the media content will be more impactful on the outcome variables of interest in the present study. Because there is a theoretical distinction based on the issue of arousal, the present study will need to establish that the main effects are not based on a single dimension of SMD (e.g., frequency or extremity) and therefore can be combined as a product of both dimensions. Thus, the following research question was included:

RQ2: Does extremity-of-exposure or frequency-of-exposure at time-1 relate to the outcome variables of interest at time-2?

The next sections that follow explore the individual impact that each of the six media platforms, which combine to make up the SMD index, have on young adults' sexual attitudes and behaviors.

Sexual Content in Television

Television has been found to be a significant sex educator, particularly when viewers have limited experience with sex and have little countervailing information (Gunter, 2002). In America, the majority of teenagers cite television as one of their primary sources for sex information (Sutton, Brown, Wilson, & Klein, 2002). Adolescents use the information presented in the media to form their own attitudes toward sexual behavior, and, following the arguments set forth in SCT, may model their sexual behavior based on the media models they are exposed to who engage in or make reference to sexual acts (Bandura, 2002).

Media effects literature shows that when sexual health messages are present in entertainment media, they do have a positive influence on viewers' behavior (Collins et

al., 2003; Shapiro, Meekers, & Tambashe, 2003). Although television's portrayal of sexual messages can contain safe sex messages, previous research has consistently found that they rarely do. Instead, programs that target teen viewers, in particular, rarely touch on the topic of safe sex. Kunkel and colleagues (2005) found that sexual precaution messages were a rare occurrence in teen programming. Kunkel et al. provided a recent assessment of the sexual content on television, focusing on the frequency with which risk or responsibility issues appeared in television's portrayal of sexual themes and topics. In total, 1,154 programs were analyzed for any messages involving sex and sexuality that occurred. The study found that 4% of all scenes with sexual content included some mention or depiction of a risk or responsibility concern. When safe sex issues did appear, the majority of scenes involved strictly minor or inconsequential treatment of the issue. However, when programs presented more advanced sexual situations, such as when shows include scenes with talk about sexual intercourse that has already occurred, the rate at which sexual risk or responsibility topics were addressed was markedly higher because these issues were more salient. Additionally, shows that are watched most frequently by teenagers place a greater emphasis on risk or responsibility issues than did the broader television landscape overall (Kunkel et al., 2005).

In place of sexual health references, more common are presentations of sexual content that is frequent, glamorized, and consequence free (Brown, Steele, & Walsh-Childers, 2002). Programming popular among youth, in particular, often features portrayals of sexual content in both the form of sexual references and the display of

sexual acts. For instance, a study examining 1,276 youth-directed programs broadcast in 2001-2002 showed that 82% of the episodes featured sexual talk and 67% included sexual behavior (Fisher, Hill, Grube, & Gruber, 2004). When sexual behavior is portrayed on television, it is more likely to occur between unmarried couples than married couples (Cope-Farrar & Kunkel, 2002; Pardun, L'Engle, & Brown, 2005), and exposure to prime-time programs and music videos focusing on sex outside marriage has shown to predict more permissive attitudes about premarital sex (Aubrey et al., 2003; Bryant & Rockwell, 1994; Greeson & Williams, 1986; Strouse, Buerkel-Rothfuss, & Long, 1995).

Frequent viewing of television programs featuring sexual content has also been found to increase the likelihood of the viewer's initiation of sexual intercourse and their risk of pregnancy (Chandra et al, 2008; Collins et al., 2004). When focusing exclusively on the impact of MTV, studies have found that among the college student population, watching MTV was the most powerful predictor of females' permissive sexual attitudes and number of sexual partners, and it was the fourth most significant predictor of the number of sexual partners for their male counterparts (Strouse & Buerkel-Rothfuss, 1987). Likewise, Greeson and Williams (1986) discovered that watching MTV was positively correlated with harboring more permissive attitudes toward premarital sex.

Sexual content depicted on television also has shown to influence viewers' perception of their peers' sexual activity. For instance, Taylor (2005) found that college students who were shown sexual content on television and perceived it as realistic were more likely to endorse permissive sexual attitudes and to estimate that more of their female peers were sexually active than did those who did not see the sexual television

content (Taylor, 2005). Ward and Rivadeneyra (1999) add further support to these results in their finding that viewing sexual content on television has been positively correlated with the overestimation of sexual activity among peers. Overall, television programming varying from dramas to soap operas that feature some form of sexual content does influence an individual's attitudes, expectations, and behaviors regarding sex.

Sexual Content in Movies

Compared to other media, movies contain the second highest percentage of sexual content (Pardun, L'Engle, & Brown, 2005). Sexual content is more explicit in movies than on television, partly because the motion picture rating system offers the potential for segmenting the audience into those who are deemed mature enough for adult-oriented content (Thompson & Yokota, 2004). It seems appropriate to include movies as part of the college freshman's media diet because it is this age group who are frequent viewers of ''R'' rated movies (Greenberg et al. 1993). Likewise, "R" rated films have steadily increased the amount of sexual content over the past 10 years (Thompson & Yokota, 2004).

Comparing popular film to popular television, Greenberg et al. (1993) argued that ''Film…contains stronger messages about sexual activity and more concrete models and examples, in contexts more relevant to young viewers'' (p. 56–7). This observation is supported by findings that popular films contain frequent references to and depictions of sexual activity but feature very few messages about the risks and consequences associated with being sexually active and because casual, non-committed

sex is portrayed as more normative and satisfactory in popular films than married sex (Greenberg et al, 1993). A consistent finding is that popular films portray sex as an activity primarily engaged in by unmarried people. Sexual intercourse between unmarried participants has found to be the most commonly depicted form of sexual activity in movies and that it is often paired with profanity, alcohol, drug use, and nudity (Huston et al., 1998). For example, a content analysis found that 85% of the sexual acts in movies occurred between unmarried partners (Dempsey & Reichert, 2000) while a second, separate content analysis found that the ratio of unmarried intercourses to married intercourses was 32:1 (Greenberg et al., 1993). Instead, sex is more likely in popular film to occur between non-committed partners who have only recently met (Gunasekera et al., 2005).

In addition to the consistent portrayal of causal sexual activity among unmarried couples in popular film, a significant proportion of that sexual activity occurs among young adults. Specifically, Greenberg et al. (1993) analyzed R-rated films popular among teen audiences and found that 22 was the average age in which the characters engaged in sexual behavior in movies. Dempsey and Reichert's (2000) study of the most popular films with a PG-13 or R rating concluded that almost 30% of the characters engaging in sexual activity were in high school or college. Given that young adults comprise a significant proportion of the popular film audience and that sex in popular films often occurs between the young and newly acquainted, it seems reasonable to conclude that movies would contain a fair amount of sexual risk and responsibility themes. However, this is not the case. Research has found that references to contraception are virtually

nonexistent (Abramson & Mechanic, 1983; Greenberg et al., 1993; Gunasekera et al., 2005), children resultant from pre or extramarital sex do not exist (Dempsey & Reichert, 2000), and HIV transmission or other STIs are not mentioned (Gunasekera et al., 2005).

Similar to television programming, movies contain a significant amount of sexual content. For example, in Greenberg et al.'s (1993) analysis of R-rated movies, each contained 17.5 depictions of or verbal references to sex on average. Similarly, about one-third of the PG and PG-13 films in Bufkin and Eschholz's (2000) sample contained a sex scene compared to 57% of R rated movies in their sample that contained a sex scene. In the 25 PG-13 to R rated movies in Dempsey and Reichert's (2000) study, 23 of the movies contained at least one instance of sexual behavior. However, unlike television, when films are rated PG-13 or R for sexual content, there is also a possibility that they feature partially nude actors. Greenberg et al.'s (1993) content analysis of R-rated films found that every film portrayed at least one incidence of nudity, the majority being female breasts, and approximately a quarter of the sexual scenes in Dempsey and Reichert's (2000) sample featured nudity. In addition to nudity, those exposed to sexual content in movies are also at an elevated risk for depictions of both light and heavy sexual activity (e.g. oral sex, intercourse) (Pardun et al., 2005). As for the portrayal of advanced sexual situations, for example, approximately 50% of all sexual depictions and references in Greenberg et al.'s (1993) sample were in regards to heterosexual intercourse, and 32% of the movies in Gunasekera et al.'s (2005) sample featured at least one depiction of heterosexual intercourse, with some films in the sample featuring up to seven depictions of heterosexual intercourse. Thus, it appears as though sexual

content in movies is quite explicit and occurs most often among young, unmarried partners.

Sexual Content in Magazines

Research has found that consumption of teen-oriented television programs and lifestyle magazines is related to young people's perceptions of and expectations about sexuality (e.g., Ward, 2002). Specifically for college-aged individuals, magazines have been found to correlate with their sexual attitudes. Kim and Ward (2004), for instance, found that female college students' reading of women's magazines, such as *Cosmopolitan*, was associated with an attitude that equated sex with risk. The researchers also found that reading these types of magazines intently for sex advice was linked with stronger support for male sexual stereotypes as well as conditioned the reader to accept the portrayal of the sexually assertive female role.

In addition, magazines that are popular with college students tend to include storylines and narratives related to hookups and, in effect, may make them appear normative to the media consumer (Stepp, 2007). Therefore, sexual attitudes have also shifted in terms of accepting engagement in the act of physical sexual behavior without concern for a relationship. According to Prusank et al. (1993), ''the new attitude seems to be to enjoy sex for its physical pleasure…without concern for a long-term relationship'' (p. 312). Thus it appears that along with television, youth-oriented magazines can be an influential source for sex information and for perpetuating norms and motivations for sexual activity.

Unlike television depictions of sex, however, descriptions of sex in women's magazines can be quite graphic. Sexual content has been shown to comprise much of the editorial content in women's magazines (e.g., McMahon 1990; Prusank et al. 1993) and consistently describes sexual behavior in explicit language. Similarly, teen magazines have been shown to place a heavy emphasis on sex (Duffy & Gotcher, 1996; Evans et al., 1991) with the coverage of sexual behavior and other sexual issues becoming more frank and explicit over the years (Garner et al. 1998). For instance, between 1974 and 1994, *Seventeen*, a popular U.S. magazine for female adolescents, nearly double the number of stories containing sexual content and themes, increased its portrayals of female sexual desire and recreational sex, and described a wider variety of sexual activity for readers to engage in (Carpenter, 1998).

Similar narratives about and strategies for romance and sexuality are prevalent in other teen magazines. However, these narratives can be contradictory in their portrayal of social norms and sexual power dynamics. Teen magazines link female physical appearance with female sexuality, and by doing so, send mixed sexual messages. For example, a content analysis of *Seventeen* and *YM* magazines found that both magazines teach their readers to be sexually alluring while at the same time to be pure and innocent regarding their sexuality (Durham, 1998). Similar studies support this notion that female-driven magazines do not send consistent messages to their readers about sexual attitudes and values. For instance, magazine content will emphasize that lustful sexual relations are encouraged for physical pleasure (Prusank et al., 1993), however, monogamous long-term relationships are necessary for happiness and

contentment and lustful passion should ultimately lead to a loving and committed romantic relationship (Farvid & Braun, 2006).

Sexual content is not found in just the editorial content of magazines either. Research that has examined portrayals of sex in the advertising present in teen magazines has found that ads with a predominately youth readership were 60% more likely to show couples engaged in sexual activity compared with ads in general audience publications (Reichert, 2003).

Despite the more graphic nature and contradictory messages regarding an individual's sexuality that lifestyle magazines provide their readers in comparison to other forms of media, research has found that these magazines are also more apt to include content pertaining to sexual health issues. Walsh-Childers et al. (1997) performed a content analysis on *Seventeen*, *YM*, *Teen Magazine*, and *Sassy* and found 42% of the articles featuring sexual content made a reference to unplanned pregnancy, contraception, or STIs. However, although a significant amount of editorial content is devoted to sexual health issues, the effects of these sexual health messages may be muted by certain visual elements that accompany the editorial content as research has found that even articles about sexual patience and responsibility in teen magazines feature contradictory messages (Durham, 1998).

As for male lifestyle magazines, content analyses have found that these magazines privilege male sexuality over female sexuality, portray sex between strangers as normative, and contain little to no information about sexual risks or responsibilities, particularly those magazines that target adolescent males. Although Walsh-Childers et

al.'s (1997) analysis of popular male magazines found that 28% of articles about sex included at least some mention of sexual risk and responsibility, other content analyses have found no presence of sexual health information in magazines targeting a male audience. For example, Taylor (2005) content analyzed three lad magazines, *Maxim*, *FHM*, and *Stuff*, and did not find any articles regarding sexual risk and responsibility even though 19% of all articles about sex across the three lad magazines were about sex with women men had never met before. All in all, magazines tend to be more graphic in their depictions of sex and send contradictory messages regarding sexuality in comparison to other forms of media.

Sexual Content in Music

Sexual content is also referenced to in song lyrics and featured in music videos. In comparison to the other three media formats mentioned previously, research has shown that music contains dramatically more sexual content. According to a content analysis of the amount of sexual content found in music, television, movies, and magazines, Pardun et al. (2005) discovered that 40% of music lyrics analyzed contained sexual content in comparison to the 12% of scenes in movies, the 11% of television scenes, or the 8% found in the headlines, pictures, and paragraphs in magazines.

Likewise, research shows that, depending on the genre of music, songs can feature a significant amount of sexual references while excluding the consequences of sexual behavior and often using degrading lyrics while doing so. For example, Gentile (1999) examined teen-oriented popular songs played both on radio and released on top-selling CDs. It was found that 44% of songs randomly selected from the radio and 42% of

the songs selected on the CDs included in the study's sample contained sexual content while only 3% of the songs on the CDs and 1% of the songs played on the radio featured references to the consequences or risks of sexual behavior. Martino et al. (2006) conducted one of the most recent and inclusive content analyses of sexuality in popular songs. In their analysis, the authors examined 16 popular CDs featuring both male and female artists across various genres. The songs were coded on each CD to determine if the song contained any reference to sexual behavior and, if a sexual reference was present, coded the reference as either degrading or non-degrading. A total of 13 of the 16 albums contained at least one song that made a sexual behavior reference. The coders found that rap albums contained the highest percentage of songs with sexual content, with two albums having more than 70% of the songs containing sexual references.

The significant presence of sexual content in music lyrics can form young people's romantic ideals and expectations. For instance, exposure to specific sexual content in music can affect college students' attitudes about what is expected of them in relationships (Rich, 2011). Recent research has associated frequent listening to music that includes degrading sexual lyrics with adolescents' higher likelihood of initiating sexual intercourse (Martino et al., 2006). Similarly, Pardun, L'Engle, and Brown (2005) found that there was a positive correlation between the time teens spent listening to music with sexual content and the teens' intent for future sexual encounters.

Music genres also have influence on sexual attitudes. For example, research has found that females who listen to heavy metal music have shown to be more likely to

have sex without contraception (Arnett, 1991) while male heavy metals listeners tend to have more sexual partners and lower respect for women than fans of other music genres (Hansen & Hansen, 1991). St. Lawrence and Joyner (1991) found that when male college students were exposed to sexually violent and Christian heavy metal rock music, this exposure increased the male listeners' gender-role stereotyping and acceptance of violence against women. Additionally, experimental research on the effects of exposure to rap lyrics has found that male listeners were more likely to accept hostile relationships with their partners than female listeners (Wester, Crown, Quatman, & Heesacker, 1997). Thus, research has shown that music contains dramatically more sexual content than other traditional forms of media, impacting listeners' sexual behaviors, attitudes, and expectations while often using degrading lyrics that contribute toward gender-stereotyping.

Sexual Content in Internet and Social Networking Sites

Young people are frequent users of the Internet; specifically, more than 90% of teens are online, which is more than any other age group (Jones & Fox, 2009). According to Rich (2011), the Internet provides young people with easy access to sexually explicit images that rarely include depictions of safe sex practices.

Studies have shown that sex partners who meet online report engaging in more sexual risks than those who meet through traditional means (Bolding, Davis, Sherr, Hart, & Elford, 2004; McFarlane, Ross, & Elford, 2004). An explanation for this increased risk in sexual activities when partners meet online is that the Internet allows users to discuss their sexual preferences in a relatively anonymous fashion (Shernoff, 2005). Specifically,

online chat rooms have been found to be highly sexualized environments. Bremer and Rauch (1998) found that a sexual comment was made in AOL teen chat rooms every four minutes in a sample taken of 321 minutes during after-school and weekend hours. Another more recent content analysis examined 600 minutes of two popular teen chat services and found that 19% of users' nicknames were sexual in nature, sexual themes constituted 5% of all utterances, and males were more likely than females to contribute explicitly sexual comments to the chat room conversations (Subrahmanyam, Smahel, & Greenfield, 2006). Further evidence suggests that youth who use chat rooms to connect with others are more likely to engage in a variety of risk behaviors, including initiating sexual intercourse (Beebe et al., 2004).

In addition to allowing sexual posts to be made in online chat rooms, the internet also allows for videos to be posted and commented on. According to a 2008 national survey conducted by the Pew Internet & American Life Project, 57% of 12- to 17-year-olds watch videos online and 14% have actually posted videos online (Lenhart et al., 2008). Of all internet video sites, YouTube ranks as the most popular with approximately 5.4 billion views, which accounts for 40% of all online video-viewing in total. In fact, the Kaiser Family Foundation (2010) identified visits to YouTube as one of the top three online activities for young people to do. Because YouTube allows for the creation of personal profiles, a network of friends, and the ability to post comments about videos, it also affords the same opportunities for social influence and sexual involvement provided by social networking sites (Collins et al., 2011).

Social networking sites provide users the opportunity to construct identities that may not fit the users' offline personas. This is partly because an individual can create their sexual identity online by adapting they way they physically appear in posted photos and claiming to be any gender, race, or age that they desire (Subrahmanyam, Greenfield, & Tynes, 2004). In addition, the postings and messages users make on social networking sites may result from perceived peer or other social pressures, which may be inconsistent with the individual's actual prior sexual experience and sexual intentions. If other users react in such a way that then reinforces the individual's sexualized online persona, he or she may adapt their behavior to match their online identities, which could accelerate their sexual activity or lead to more casual or risky behaviors (Collins et al., 2011).

Moreno and colleagues (2009) conducted a content analysis of 500 MySpace profiles of 18-year-olds and found that 24% of these profiles contained sexual content, with females displaying more sexual content than their male counterparts. An analysis of 100 Internet blogs created by 16- to 18-years-olds revealed that 16% contained references to sexual activity, and 17% of the photos posted on these blogs were coded as inappropriate because they featured scanty clothing and/or risky behavior, sexually suggestive body positioning, or alcohol use.

According to a recent review of the association between new media on adolescent sexual health outcomes, no study has attempted to determine a causal effect of social networking sites on young people's sexual attitudes and behaviors (Collins et al., 2011). Thus, the present study sought to address this gap in the literature

as well as expand on Brown and colleagues (2006) diet measure beyond looking at only traditional forms of media (e.g., TV, movies, music, magazines) to instead include Internet and social networking sites.

Overall conclusion based on sex and media literature. Content analyses confirm that there are six consistent patterns in talk about and depictions of sexual behavior across youth-oriented media in the United States (Ward, 2003). The six patterns include: (1) sexual content is more likely to be verbal innuendo or jokes than graphic visual depictions, which are most often precursory (flirting, kissing); (2) most sexual activity in the media occurs outside of marital relationships; (3) contraception or the physical consequences of sexual activity are rarely discussed or depicted; (4) the quantity of different kinds of sexual content vary within and across television genres and across media; (5) women's bodies are more frequently sexually objectified than men's; and (6) sexual references are increasing over time in some media. Therefore, based on these patterns, the significant amount of sexual content contained in youth-oriented television, movies, magazines, music, Internet, and social networking sites and the effects exposure to this content has had on adolescents and young adults in terms of accelerating sexual activity (Brown et al., 2006) and increasing their risk for pregnancy (Collins et al., 2004), the following research questions and hypothesis were posed:

H1: Will college freshmen's sexual media diets predict an endorsement of the hookup culture?

RQ3: Will college freshmen's sexual media diets predict their participation in hookup experiences?

RQ4: Will college freshmen's sexual media diets predict sexual risk-taking behaviors?

Because the combined SMD measure obscures the effects of the individual media that make up the diet (Brown et al., 2006), the present study also investigated the individual influence each of the six media formats had on sexual risk-taking behaviors. Therefore, the following research question was also asked:

RQ5: Which type of sexual media that college freshmen consume contributes most to their sexual risk-taking behaviors?

Perception of Peers' Sexual Activity

Peer influence also plays a part in determining how likely a person is to engage in sexual risk-taking practices. Brown et al. (2006) found that one of the strongest predictors of risk for early sexual intercourse for both black and white teens was the perception that his or her peers were having sex. The researchers concluded that these perceptions may be influenced by the kind of media the adolescent attends to. Thus, the relationship between a person's SMD and his or her sexual behavior can be explained by his or her perception that one's peers are having sex given that frequent media viewers may believe the worldview that is portrayed on the media formats they consume (i.e., the more sexual content you watch, the more you believe everyone is having sex). For example, college freshmen frequently access Facebook and other social networking sites to keep tabs on their peers' activities, which may influence their normative perceptions regarding their peers' sexuality based on the sexual posting and comments their peers make (Collins et al., 2011). In turn, if visitors of these sites then engage in social comparison, this could potentially impact their own sexual behaviors in an effort to match those of their peers.

However, young people's perceptions regarding their peers' sexual experiences often miss the mark. Research has shown that college students overestimate the frequency of their peers' sexual behavior and number of sexual partners as well as their rate of acceptance of casual sex (Cohen & Shotland, 1996). As a result, young adults' misperceptions about their peer groups' sexual practices are associated with their own likelihood for increased sexual activity and engagement with multiple partners (Page, Hammermeister, & Scanlan, 2000). Students also overestimate the percentage of their peers with hookup experience (Paul & Hayes, 2002); in turn, the perception that ''everyone's doing it'' may encourage some students to hook up themselves at an early rate than they would otherwise.

These misperceptions may be influenced in particular by the amount of sexual content the individual consumes. Because media portrayals of sexuality are consistent, heavy users of media may be more likely to adopt the social norms presented in media narratives than lighter users (Brown et al., 2004). Heavy media consumers often have fewer alternative sources of information concerning sexual norms, such as parental guardians, thus, they may turn to the media as a source to form their peer perceptions, encouraging them to emulate their mediated sexual behaviors (Brown, Halpern, & L'Engle, 2005). This can be explained through SCT's symbolic modeling process in which young media consumers who frequently engage in viewing various sexual behaviors would be more likely to model this desired behavior in order to be closer to the model they aspire to be like (Bandura, 2004). These models are from whom adolescents and young adults acquire knowledge about sexual norms and expectations. By normalizing

and providing sexual scripts for what is expected of adolescents regarding their own sexual behaviors, the media may be the most powerful and universal influence on young people's sexual attitudes and decision-making (Rich, 2011). Given the influence that peers have on an individual's expectations regarding sexual behavior, and how the media may influence the depictions of those expectations, the following hypotheses were tested:

H2: College freshmen's sexual media diets will predict perceptions regarding their peers' sexual activity.

H3: College freshmen's perceptions of their peers' sexual activity will predict their participation in hookup experiences.

H4: College freshmen's perceptions of their peers' sexual activity will predict their sexual risk-taking behaviors.

Hookup Culture on College Campuses

Unlike traditional dating that follows a predictable pattern in which there is the prospect of a future relationship, a hookup is a casual sexual encounter, which usually occurs with the assumption that there will be no future relationship (e.g., Epstein, Calzo, Smiler, & Ward, 2009; Glenn & Marquardt, 2001; Owen et al., 2010). A hookup allows a person to "unhook" from a partner at any point in time, providing individuals with independence without emotional ties to their partner. Hookups are similar to "friends with benefits" relationships (FWBRs), which are "relationships between cross-sex friends in which the friends engage in sexual activity but do not define their relationship as romantic" (Hughes, Morrison, & Asada, 2005, p. 49). The distinctive factor between the two is that FWBRs have the possibility of a future relationship whereas a hookup typically does not.

Like traditional dating, however, hooking up typically follows a fairly routine script (Paul & Hayes, 2002) in which two people, who are likely either strangers or acquaintances, meet at a bar or a party scene in which alcohol consumption is typically involved. The pair indicate interest in each other through physical and verbal flirting, which ultimately lead to sexual behaviors. The specific behaviors can vary greatly from a kiss to sexual intercourse. Usually the day following the hookup the individuals will discuss their experiences with their friends (Bogle, 2008). During this "storytelling" stage, the individuals involved in the hookup might then express or process their emotional reactions following the encounter.

For the present study, the following definition of what a hookup is was used:

> 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 a 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 on campus. Feelings are discouraged, and both partners share an understanding that either of them can walk away at any time (Stepp, 2007, p. 24).

This particular definition was used because it is inclusive enough to encompass a variety of sexual activities and the two most common types of hookups – those that are short term and occur outside of a relationship and FWBRs, which allow the possibility of long-term involvement (Hughes, Morrison, & Asada, 2005).

A hookup is not just a behavior as it has evolved into a culture on college campuses. As with any culture there are agreed-upon rules, norms, and expectations that an individual must accept and abide by in order to endorse the culture regardless of

whether or not these standards match the individual's personal experience (Aubrey & Smith, 2011). Similar to many party scenes on college campuses, alcohol use is an expected component of the hookup culture (Feldman, Turner, & Araujo, 1999; Grello et al., 2006; Lambert et al., 2003; Maticka-Tyndale, & Herold, 1999; Paul et. al, 2000). Consuming alcohol serves two functions in the hookup process. First, drinking alcohol makes hooking up more likely because of its disinhibiting effects (Owen et al., 2010), and second, it is used to justify hooking up with someone in the first place (Vander Ven & Beck, 2009).

Conceptualized as a segment of the larger party culture that exists on college campuses, research has shown that the hookup culture is an accepted part of the overall college experience and provides function for those students who endorse it. For instance, Armstrong, Hamilton, and Sweeney (2006) conducted a nine-month long ethnography of college students living in an undergraduate residence hall to investigate how the party scene operates on a large Midwestern university. Results from the in-depth interviews revealed that students mostly have a desire to participate in the hookup culture as a way to be a part of college life and are willing to submit to the rules that the culture has established. Interviewees acknowledge that hooking up is fun and an essential component to the college experience. According to the ethnographic study, hooking up is functional for both genders, particularly in terms of securing status among their peers. College females endorse the culture because they derive status and self-esteem from securing attention from their male counterparts while for male students

who endorse the hookup culture receive higher status from hooking up with high-status women.

In addition to serving many functions, endorsement and acceptance of the hookup culture may be due to a number of reasons. First, there are many positive social and emotional benefits from hooking up (Paul & Hayes, 2002). This may be why the majority of college students involved in hookups tell their same-sex friends about their hookup experiences. Furthermore, when it is perceived that their same-sex friends are supportive of their casual sex relationships, an individual is then more likely to have hookups in the future (Herold, Maticka-Tyndale, & Mewhinney, 1998; Hughes et. al, 2005). Second, hookups allow individuals to get sexual gratification without the issues that come with relationship maintenance, which is perceived by young adults to require a lot of effort (Grello et al., 2006; Hughes et al., 2005; Paul et al., 2000).

Although both genders accept the rules of the hookup culture, recent research has found that more women than men still prefer traditional dating while men rate hooking up as more desirable than dating (Bradshaw, Kahn, & Saville, 2010). According to a survey of college students at a midsized southeastern university, women fear becoming emotionally attached to their partner in both dating and hooking up. As for men, the survey found that males fear a loss of independence such that even in commitment-free hookups, a woman might want to establish a relationship with them and engage in a D.T.R. or "define the relationship" talk. In the survey, Bradshaw et al. (2010) exposed 150 female and 71 male college students to a variety of dating or hooking up scenarios, including: when there was potential for a relationship, when their

partner had a great personality, and when drinking was involved. The students where then asked the extent to which they would prefer dating or hooking up in each situation. Results showed that when considering the possibility of a long-term relationship, both women and men preferred dating over hooking up. However, when the possibility of a relationship was not mentioned, men preferred hooking up and women preferred dating.

In addition to media portrayals of sex and peer influence toward sexual norms and expectations, college students are also influenced by the hookup culture regarding their engagement in risky sexual behavior. Given that both males and females highly endorse the hookup culture and given the fact that alcohol is typically used as either leading to or justifying a hookup experience, it raises the concern about whether sexual responsibility occurs during these casual sexual encounters. In fact, studies have shown that there is a correlation between hooking up and the engagement of sexual risk-taking behaviors (Lambert, Kahn, & Apple, 2003; Paul & Hayes, 2002), especially because young people are likely to engage in high-risk behaviors, such as unprotected sex, when they are under the influence of drugs or alcohol (Leigh & Stall, 1993).

In the present study, a major goal was to expand on these previous findings by investigating how EHC impacts an individual's likelihood in engaging in sexual risk-taking behaviors. To accomplish this goal, the present study examined individual difference variables that predict individuals' tendency to endorse the hookup culture. The specific individual difference variables will be further detailed in the following section. The

present study also explored how EHC predicted individuals' likelihood of hooking up and/or engagement in sexual risk-taking behaviors.

In order to do so, the Endorsement of the Hookup Culture Index (EHCI) was employed, which measures college students' multi-dimensional reasons for accepting the culture's norms and expectations (Aubrey & Smith, 2011). Examining multiple dimensions allows for the possibility that individuals might endorse a few of the dimensions of the culture more so than others. The five indicators of the EHCI included: (1) a belief that hooking up is a way to avoid emotional *commitment*; (2) a belief that hooking up is *fun*; (3) a belief that hooking up will enhance one's *status* in one's peer group; (4) a belief that hooking up allows one to assert *power* and *control* over one's sexuality; and (5) a belief that hooking is a reflection of one's *sexual freedom*.

Although it is possible that a person can engage in hooking up without endorsing the hookup culture or can endorse the hookup culture without engaging in hookups, research has shown that college students' scores on the EHCI are correlated with their hooking up behavior. More specifically, researchers have found support for the link between EHC and participation in hookup experiences such that a person who has previous hookup experience, more sexual experience, and a greater openness to hooking up are more accepting of the hookup culture's norms and rules (Aubrey & Smith, 2011).

In addition to evidence of the EHCI and hookup experience link, research has established an association between EHCI and media exposure. According to Aubrey and Smith (2011), popular media can influence young adults' understanding and EHC

primarily in two ways. First, media portrayals of hooking up can define and reinforce the hookup script, even for those who have already engaged in hooking up. Second, for those who have not yet participated in the hookup culture, the media can offer a source of anticipatory socialization. This means that young adults are taught the assumptions related to hooking up even if they do not have any previous experience with the culture. Basically, the media provide a tool kit for the college student complete with the rules, norms, and expectations of how the hookup culture operates and what is expected of them if they choose to engage in it.

It seems logical that media content that socializes young people to the norms of the hookup culture influence media consumers' beliefs about their participation in hooking up and their agreement with the rules associated with it. This may be particularly true for college freshmen who are going through the developmental stage of emerging adulthood, which may make them more likely to adapt to the hookup culture given their need to fit in to the pre-scripted ways of college life (Flannery & Ellingson, 2003). Based on the popularity of the hookup culture on college campuses and the willingness of both female and male students to accept the culture's rules and expectations, the following hypothesis and research question were posed:

RQ6: Will college freshmen's endorsement of the hookup culture predict sexual risk-taking behaviors?

H5: College freshmen's endorsement of the hookup culture will predict their participation in hookup experiences.

In addition to examining the direct effects previously mentioned, indirect effects of a SMD on one's hookup experiences and/or sexual risk-taking behaviors were examined

through one's perceptions of their peers' sexual activity and/or EHC. A mediating effect of peer influence on the relationship between (a) SMD and hookup experiences and (b) SMD and sexual risk taking was tested based on the assumptions of SCT that would argue that hooking up and sexual risk-taking behaviors would be adopted because engagement in sexual activity that is casual and risk-free is a social norm that is perpetuated by a SMD, which would suggest to individuals that this is an expected norm among members of their peer group, influencing them to emulate the same behavior in their own lives (Bandura, 1977). A mediating effect of EHC on the relationship between (c) SMD and hookup experiences and (d) SMD and sexual risk taking theoretically makes sense as well because if heavy consumers of sexual media content are exposed to the social norms and expectations of the hookup culture (Aubrey & Smith, 2011) as well as rare depictions of sexual consequences that are not usually punished (Kunkel et al., 2005), then individuals will likely adopt an acceptance for the rules of the hookup culture and be more likely to engage in hookups and sexual risky behaviors. Thus, the following hypotheses were posed:

H6a: College freshmen's perceptions of their peers' sexual activity will mediate the relationship between their sexual media diets and hookup experiences.

H6b: College freshmen's perceptions of their peers' sexual activity will mediate the relationship between their sexual media diets and sexual risk-taking behaviors.

H6c: College freshmen's endorsement of the hookup culture will mediate the relationship between their sexual media diets and hookup experiences.

H6d: College freshmen's endorsement of the hookup culture will mediate the relationship between their sexual media diets and sexual risk-taking behaviors.

Individual Difference Variables

One of the strengths of SCT is that it accounts for individual difference variables. Although the media and peer communication can influence an individual to endorse the hookup culture and participate in a hookup or engage in sexual risk-taking behaviors, the magnitude and the direction of the influence typically depends on the characteristics of the individual. For instance, research on the predictors of hooking up typically include personal standards with regard to the acceptability of casual sex, previous casual sex behaviors, environmental/situational expectations (Herold et al., 1998), love styles, and relationship status (Grello et al., 2006). For the purposes of the present study, the following were investigated as moderating variables that might have impacted sexual media exposure on college freshmen's perception of their peers' sexual activity, EHC, hookup experiences, and sexual risk taking: gender, wishful identification, self-efficacy, alcohol consumption, concern for safe sex, number of sex partners, and current relationship status.

These conditional variables were chosen because each comes from previous SCT and hookup culture literature that support their impact on an individual's sexual behaviors. More specifically, extant research has shown the influence of previous sexual history (Moyer-Guse, Chung, & Jain, 2011), wishful identification (Feilitzen & Linne, 1975), and self-efficacy (Wulfert & Wan, 1995) on whether an individual adopts a modeled behavior. Likewise, hookup culture research has shown that there exists gender differences in terms of one's view of sexuality (Roe, 1998) and that alcohol consumption during hookup experiences increases one's risk for sexual risk-taking

activities (Lambert, Kahn, & Apple, 2003; Paul & Hayes, 2002). Each of these conditional variables is detailed below.

Gender

Gender differences have been found in sexuality, which is important to understand in conceptualizing how males and females might be differently influenced through exposure to sexually-oriented media content. For instance, Petersen and Hyde (2010) conducted a meta-analytic review of studies on gender differences in sexuality from 1993-2007. The researchers analyzed gender differences in 30 reported sexual behaviors and attitudes and found that men overall reported to be more sexually experienced. More specifically, men reported to have more frequent intercourse (r = 0.10), to have more sex partners (r = 0.16), to have engaged more often in casual sex (r = 0.38), to have more permissive sexual attitudes toward casual sex (r = 0.45), to be more sexually satisfied than females (r = 0.17), and more likely to endorse the sexual double standard (r = 0.10) perpetuated by the media (Aubrey, 2004; Ward, 1995) in which men's sexuality may be seen as rewarded while women's sexuality may be seen as punished. Unlike their male counterparts, females reported to have more fear, anxiety, and guilt about sex (r = 0.19) and to have more permissive attitudes toward having sex with an emotional commitment established in the relationship (r = 0.18).

As for gender differences regarding depictions of sexual responsibility, Hust, Brown, and L'Engle (2008) found in their analysis of sexual content in the media that boys are obsessed with sex and sexual performance, whereas girls are depicted as being responsible for teen pregnancy, contraception, and STI prevention. Aubrey (2004) also

found gender differences for sexual consequences presented in prime-time television programs featuring young adult characters. The specific findings revealed that negative emotional, social, and punitive sexual consequences were more frequent when female characters initiated a sexual activity than when their male partners did. Research has also shown that gender is an important variable to account for when it comes to studies on the topic of safe sex-related behaviors. According to a 2003 national survey of young adults' sexual health attitudes, males are twice as likely as females to think that having unprotected sex occasionally is not a big concern (Hoff, Greene, & Davis, 2003). In addition to differing attitudes about unprotected sex in general, gender differences also exist in attitudes toward condoms (Campbell, Peplau, & DeBro, 1992; Helweg-Larsen & Collins, 1994), intentions to use condoms (Morrison, Gillmore, & Baker, 1995; von Haefton, Fishbein, Kaspryzk, & Montano, 2000), attitudes toward buying or carrying condoms (Jadack, Hyde, & Keller, 1995), and negotiating condom use with a partner (Carter, McNair, Corbin, & Williams, 1999; DeBro, Campbell, & Peplau, 1994). Furthermore, gender differences have been shown to exist when it comes to discussing the issue of safer sex practices and sexual health risks as well as implementing such behaviors (Nahom et al., 2001). More specifically, research has shown that women are more likely to communicate about safer sex practices than men (Allen, Emmer-Sommer, & Crowell, 2002; Debro, Campbell, & Peplau, 1994; Noar et al., 2006). Females are also more likely to discuss AIDS issues with their partners then men (Bowen & Michal-Johnson, 1989; Cline, Freeman, & Johnson, 1990). Research finds that women more so

than men tend to cite communication in relationships as an important component for implementing safer sex practices (Manning, Balson, Barenberg, & Moore, 1989).

An individual's gender also influences both which media content is chosen to consume and how it is interpreted (Brown, 2009). Males and females may be getting very different views of sexuality from the media content they choose to attend to as females tend to watch more relationship-oriented content whereas males tend to watch sports and action-adventure content (Roe, 1998) and are more likely to attend to pornography on the Internet than females (Peter & Valkenburg, 2006). Based on the varying media content males and females choose to consume, research has shown that men and women might value different things when it comes to sex and have different expectations regarding the variety and timing of sexual activity in relationships. This may be due to the fact that men and women will use and process messages about sexuality that are salient to the demands and expectations of their gender. For instance, sexually-oriented television content regarding the types of sexual activities expected in a relationship are more salient to men because television has been shown to define male sexuality by competition to lure women to bed (Ward, 1995) and they are socialized to seek as much sex as possible to fulfill their goals of pleasure and social desirability (De Gaston, Weed, & Jensen, 1996). On the other hand, women are receptive to messages about the timing of sexual relations because messages regarding female sexuality portray women as delimiters of sexual engagement (Ward, 1995) and gatekeepers of when sexual activities are to take place in relationships (Peplau, Rubin, & Hill, 1977). Aubrey, Harrison, Kramer, and Yellin (2003) had similar findings,

demonstrating that exposure to sexually-oriented television was related to an expectation of a variety of sexual activities in a relationship for males but not for females. In contrast, exposure to sexually-oriented television content was related to an expectation of earlier sex in relationships for females but not for males. Thus, men and women will likely vary in their vulnerability to the portrayal of sexy media based on what is expected of them in relationships.

Based on the assertion that males and females may be getting very different views of sexuality from the media content they choose to attend to, it seems likely that they would form different expectations regarding the variety and timing of sexual activity in relationships among members of their peer group. In fact, evidence suggests that college students' perceptions of their peers' sexual activity often miss the mark. For instance, research has shown that college students tend to overestimate the frequency of their peers' sexual behavior, number of sexual partners, rate of acceptance of casual sex (Cohen & Shotland, 1996), and the percentage of their peers with hookup experience (Paul & Hayes, 2002). These misperceptions may be influenced in part by the amount and type of sexual content favored by each gender.

As for gender differences regarding expectations of the hookup culture, results are mixed. Research has shown that no gender differences exist in college students' openness to the idea of hooking up (Paul et al., 2000), men and women enter into a hookup experience with similar intentions, neither gender expects long-term relationships to result from a hookup beyond casual sex (Grello et al., 2006), and both share similar perceptions about the hookup culture. However, other research has shown

that gender differences do exist in certain aspects of the hookup culture, revealing that hooking up is less preferred among female college students than among their male counterparts (Bradshaw, Kahn, & Saville, 2010). Other differences include men participating in more hookups than women (Grello et al., 2006) while women are more likely to experience negative emotional consequences from hooking up than men. For instance, women are more likely to experience shame and regret from a hookup more so than men (Eshbaugh & Gute, 2008; Grello et al., 2006; Paul & Hayes, 2000), risk being labeled a "slut" in hookup situations compared to traditional dating situations, and also risk becoming emotionally attached to the men in these hookups who more than likely are not interested in a commitment (Bradshaw, Kahn, & Saville, 2010).

Both sexes agree with the premise of the hookup culture rules (Kratzer & Aubrey, 2010) but women experience more negative emotional outcomes as a result of their participation in the culture. In particular, previous research has shown that hooking up is associated with some emotional and psychological risks, especially for women (Eshbaugh & Gute, 2008; Owen et al., 2010; Paul & Hayes, 2002). A theoretical explanation for these findings would be that hookups are more risky for women such that women would be more vulnerable to the media's influence on EHC. According to Aubrey and Smith (2011), there was a gender difference on EHC; however, this relationship was found for men only. An explanation for this finding was that men might be more susceptible to media messages addressing the hookup culture because engagement in the hookup culture is overall more beneficial to them.

Based on the mixed findings regarding gender differences, the following research questions and hypotheses were posed:

RQ7: Will the relationship between college freshmen's sexual media diet and their engagement in sexual risk-taking practices differ for men and women?

H7: The relationship between college freshmen's sexual media diet and their likelihood of endorsing the hookup culture will be stronger for men than for women.

RQ8: Will the relationship between college freshmen's sexual media diet and their perception of their peers' sexual activity differ for men and women?

H8: The relationship between college freshmen's sexual media diet and their engagement in hookups will be stronger for men than for women.

Sexual Status Variables

For the purposes of the present study, sexual status variables will consist of an individual's number of sex partners in the previous month, current relationship status, and concern for safe sex.

Number of Sex Partners. Research has established a relationship between exposure to sexual content and sexual status. Bleakley, Hennessy, Fishbein, and Jordan (2008) demonstrated that this relationship could be characterized by a feedback loop such that sexually active adolescents are more likely to expose themselves to sex in the media and those exposed to sex in the media are more likely to progress in their sexual activity. According to one of the primary assumptions of the uses and gratifications approach, media use is purposive and motivated, implying that individuals are active participants who select specific media to satisfy their needs, interests, and/or desires (Rubin, 2002). Thus, it seems logical that people who have had more sex partners are also more sensitive to the portrayal of sexual content in the media, including both

depictions of hookups and sexual risk-taking behaviors, using these sexual content portrayals to refine their own sexual scripts. Evidence supports this as exposure to a SMD in adolescence has been shown to predict their risky sexual behavior (Brown et al., 2006; Collins et al., 2004; Martino et al., 2006). This is in part due to the findings that having a higher SMD can accelerate a person's sexual activity level and put them at increased risk of engaging in early sexual intercourse. Prior research has found that for adolescents who do initiate sex at earlier ages are at risk for negative health outcomes. For instance, Smith (1997) found that young people who report early sexual debut are less likely to report regular condom use, more likely to report multiple sex partners, more likely to have been pregnant or gotten someone pregnant, and are more likely to have had a child. Campbell et al. (1992) further supports the notion that an individual's previous sexual history impacts their future sexual practices. Specifically, the researchers found that men and women who had more sexual partners in their past were less likely to use a condom with their future partners. Similarly, Bishop and Lipsitz (1990) discovered that college students who had more sexual partners in the past were significantly less likely to say that they would use a condom with a new partner in the future. Thus, the following hypotheses were tested:

H9a: The relationship between college freshmen's sexual media diet and their likelihood of engaging in sexual risk-taking practices will be stronger for those who had more sex partners within the past month.

H10a: The relationship between college freshmen's sexual media diet and their likelihood of endorsing the hookup culture will be stronger for those who had more sex partners within the previous month.

Current relationship status. As previously mentioned, content analyses confirm that one of the consistent patterns in talk about and depictions of sexual behavior across youth-oriented media is that most sexual activity in the media occurs outside of marital relationships (Ward, 2003). Likewise, a recent content analysis of youth-oriented programming found that sexual intercourse not only occurred more often between unmarried persons than married persons at a rate of 5:1, but in nearly 60% of all portrayals of intercourse the couple was in a casual, non-committed relationship (Fisher et al. 2004). Theoretically, SCT would argue that young people are particularly likely to use these sexual scenarios portrayed by the media as scripts to guide their own sexual practices, which may then lead them to adopt norms favorable to non-exclusive or uncommitted sex. In fact, research does indicate that young peoples' sexual experiences frequently occur outside of established relationships. For example, one study found that over a one-year period, 24% of sexually active adolescents reported having had only a non-romantic sexual partner, and 14% reported having had both a romantic and non-romantic partner (Manning et al. 2005). Another study of randomly selected undergraduate students found that 78% had some sexual interaction with a stranger in college while 48% had engaged in sexual intercourse with a stranger or brief acquaintance in college (Paul et al. 2000).

Previous research reveals that engagement in exclusive romantic versus casual sexual relationships is an important distinction to make when investigating an individual's likelihood to participate in sexual risk-taking behaviors given that adolescents engaging in sex within casual partnerships may be at increased risks of

disease transmission due to involvement with a greater number of sexual partners, lack of knowledge of their partners' sexual or drug use history, and less frequent use of condoms (Bender & Kosunen 2005; Crosby et al. 2003; Manlove et al. 2004; Manning et al. 2000; Misovich et al. 1997; Rosengard et al. 2005). For instance, results from one national study demonstrate that young people who had engaged in a one-night stand were significantly more likely to report an STI than those who had not had a one-night stand (Tanfer et al. 1995).

In addition to engagement in risky behaviors, it seems reasonable that those students who report being in a committed romantic relationship would have fewer opportunities for participating in the hookup culture. Thus, it is expected that there would be a stronger relationship between SMD and EHC for those who are not in a committed relationship in comparison to those who are. Based on these expectations, the following hypotheses were examined:

H9b: The relationship between college freshmen's sexual media diet and their likelihood of engaging in sexual risk-taking practices will be stronger for those who are not involved in a romantic relationship.

H10b: The relationship between college freshmen's sexual media diet and their likelihood of endorsing the hookup culture will be stronger for those who are not involved in a romantic relationship.

Concern for safe sex. Although individuals may accept the rules of the hookup culture, this does not equate them to having no concern for safe sex practices. In fact, research has shown that 8 in 10 adolescents and young adults, including those who do not report to be sexually active, claim to be personally worried about HIV/AIDS, other STIs, or unintended pregnancy (Hoff et al., 2003). According to a 2003 national survey

by the Kaiser Family Foundation, a large portion of young people have a significant concern about sexual health issues than any other issue, including being the victim of violence, discrimination, and the health risks associated with smoking. Given this high level of concern for safe sex, it seems as though these people would be less susceptible to the media's depictions of risky sexual behaviors whereas those who do not have a concern about safe sex would be more vulnerable to the media's influence on sexual risk-taking practices. Therefore, the following hypotheses were explored:

H9c: The relationship between college freshmen's sexual media diet and their likelihood of engaging in sexual risk-taking practices will be stronger for those who have less concern for safe sex.

H10c: The relationship between college freshmen's sexual media diet and their likelihood of endorsing the hookup culture will be stronger for those who have less concern for safe sex.

Wishful Identification

According to SCT, the more similar to the media model an individual feels that he or she is, or the more the individual can relate to the model, the more that individual will identify with the model featured on the television program, movie, in the magazine, referenced to in the song, or appearing in an online posting. For the purposes of this study, the concept known as wishful identification was used that refers to the media users' desire to be like or behave in ways similar to a media character (Feilitzen & Linne, 1975). Thus, it follows that if an individual sees a media character, whom he or she can relate to because of the model has similar characteristics to the individual (i.e., same gender, close age, comparable appearance), being rewarded for using a condom (i.e., avoided unintended pregnancy, passed an STI test), then the individual is more inclined

to wear a condom themselves because he or she desires to behave in a similar fashion as the model who they feel a connection to or feel similar to in some way.

Research has shown that identification was positively associated with learning outcomes and perceived vulnerability to health risk (Moyer-Gusé, & Nabi, 2010). For instance, Moyer-Gusé and Nabi's entertainment-education experiment testing the effects of exposure to an episode of a popular teen television drama on college students found that identification was positively correlated with intention to practice safe sex, and identification was also positively related to the students' perceived vulnerability to unplanned pregnancy. Therefore, people are particularly responsive to models with whom they indentify. Based on this assumption of SCT, the following research questions were asked:

RQ9: Will the relationship between college freshmen's sexual media diet and their likelihood of endorsement of the hookup culture will be stronger for those who engage in wishful identification with the media models than those who do not wishfully identify with the models?

RQ10: Will the relationship between college freshmen's sexual media diet and their likelihood of engaging in sexual risk-taking practices will be stronger for those who wishfully identify with the media models than those who do not wishfully identify with the models?

Alcohol

Alcohol use has been known to impair an individual's judgment; thus, the effects of alcohol intoxication on college freshmen may serve as an excuse for their engagement in risky behavior (Cooper, 2002). For instance, heavy drinking has been shown to correspond with decreased condom use (Wechsler, Lee, Kuo, & Lee, 2000). According to the 1999 Harvard College Alcohol Study, 8.4% of college students reported

that they had had unprotected sex due to drinking alcohol. In line with typical party scenes on college campuses, alcohol use is an expected component of the hookup culture (Feldman, Turner, & Araujo, 1999; Grello et al., 2006; Lambert et al., 2003; Maticka-Tyndale, & Herold, 1999; Paul et. al, 2000). Conceptualized as a segment of the larger party culture that exists on college campuses, research has shown that the hookup culture is an accepted part of the overall college experience and provides function for those students who endorse it. However, when heavy alcohol consumption is involved and part of endorsing the culture, hooking up can be linked with a number of sexual risk-taking behaviors (Lambert, Kahn, & Apple, 2003; Paul & Hayes, 2002).

In addition to traditional party scenes on college campuses, ritualistic events such as homecoming festivities and spring break vacations are occasions where overindulgence in alcohol consumption is more socially acceptable and expected. This phenomenon, referred to as a "time-out" period, is a moment of tolerance for deviant acts associated with heavy drinking, sexual activity, and impulsive behavior (Listiak, 1974; Voas, Furr-Holder, Lauer, Bright, Johnson, & Miller, 2006). Thus, because an individual's perception of their peers' sexual activity may be skewed given the overindulgence that is expected from all persons partaking in the festivities, an individual's own sexual risk-taking behaviors and hookup experiences will likely be influenced. Thus, the following research questions investigating alcohol's moderating effect between both EHC and peer influence on engagement in hookups and sexual risk taking were asked:

H11a: Consumption of alcohol will moderate the relationship between college freshmen's endorsement of the hookup culture and engagement in hookups.

H11b: Consumption of alcohol will moderate the relationship between college freshmen's endorsement of the hookup culture and engagement in risky sexual behaviors.

H12a: Consumption of alcohol will moderate the relationship between college freshmen's perception of their peers' sexual activity and engagement in hookups.

H12b: Consumption of alcohol will moderate the relationship between college freshmen's perception of their peers' sexual activity and engagement in risky sexual behaviors.

Although alcohol use has been shown to be featured in sexual media content (Kunkel et al., 2005), its moderating effect on the relationship between SMD and the sexual behavior outcome variables was not investigated in the present study for two reasons. First, a content analysis comparing the patterns of sexual portrayals on television over time showed that alcohol use was included in very few scenes involving sexual intercourse. Kunkel and colleagues (2007) compared sexual content trends over a five-year period on 2,817 television programs aired on both broadcast and cable channels. The researchers found that although the percentage of shows portraying sexual intercourse doubled from 7% to 14% over time, very few of the scenes depicting sexual intercourse included any use of alcohol. Likewise, the presence of alcohol in scenes in which sexual intercourse took place actually decreased from 15% to 11% between 1997/1998 and 2001/2002. Furthermore, the majority of media characters who engaged in sexual intercourse were adults aged 25 or older (89%), whereas only a small proportion were young adults aged 18-24 years (7%) and even fewer were teenagers (3%). According to the authors, there has been a shift toward portraying characters who engage in sexual intercourse to be older and less likely to fall into the demographic

category referred to as emerging adulthood (Arnett, 2000). Therefore, because there are fewer mediated examples of sexual intercourse involving characters who would be salient role models for college freshmen given their age range, and because there are fewer instances of alcohol use depicted in scenes that portray sexual intercourse, SCT would assume that alcohol consumption may not moderate a relationship between SMD and sexual behaviors. Second, according to a meta-analysis examining whether exposure to media depictions of risky behaviors increased risk-taking inclinations, a stronger effect was discovered when there was a high degree of contextual fit between the media content and the type of risk-taking outcome (Fisher et al., 2011). Therefore, because the specific risk behaviors under investigation in present study were sex risk taking and hookup experiences, alcohol's moderating influence on the relationship between SMD and these sexual behaviors was not explored.

Self-Efficacy toward Safe Sex

Adolescents and young adults have mixed feelings about the importance of using condoms. Although it has been reported that the majority of young people say that sex without a condom is not worth the risk, a small percentage still believe that infrequent use of condoms is not a big deal and that condoms are not necessary unless a person engages in sexual intercourse with a lot of sexual partners (KFF, 2003).

College students need to believe in their own ability to practice safe sex in order to do so. According to SCT, self-efficacy is defined as a person's perceived ability to engage in a behavior in a variety of situations (Bandura, 1986). Research has shown that having self-efficacy is a strong predictor of whether that person will or will not engage in

a behavior. Bradford and Beck (1991) found that when a person lacks self-efficacy to use a condom, a condom may not be used. Alarape, Olapegba, and Chovwen (2008) also found that condom self-efficacy plays a significant role in reported condom use among college students. Results showed that those students who reported having high condom self-efficacy used more condoms than those with low self-efficacy. Likewise, Richard and Plisth (1991) further suggest that feeling competent about wearing a condom is determined by that person's level of self-efficacy. These results show that when a person lacks the confidence to use a condom correctly and when a person doubts a condom's ability to be a protective barrier during multiple forms of intercourse, that person may not be likely to use a condom and engage in sexual risky behaviors instead. Based on these findings, there is support for the argument that people will use caution and not engage in unprotected sex if they have self-efficacy toward safe sex. Therefore, the following research questions were posed:

RQ11: Does college freshmen's self-efficacy toward safe sex moderate the relationship between their endorsement of the hookup culture and engagement in sexual risk-taking behaviors?

RQ12: Does college freshmen's self-efficacy toward safe sex moderate the relationship between their sexual media diet and engagement in sexual risk-taking behaviors?

Lastly, given the abovementioned individual differences that could potentially impact college freshmen's sexual risk-taking practices, the following research question was asked:

RQ13: Which individual difference of college freshmen contributes most to their sexual risk-taking behaviors?

Chapter 3: Method

Design

To test the abovementioned research questions and hypotheses, it was especially important to sort out the temporal order of all variables. While the central argument is that exposure to a sexual media diet (SMD) will influence college freshmen's EHC, perception of their peers' sexual activity, hookup experiences, and sexual risk-taking behaviors, it was also possible that the order of these variables was reversed. Thus, all relevant measures were taken at two time points. By doing so, this approach permitted comparisons of individuals' responses at both time intervals, thereby examining the extent and direction of any changes that may have occurred within the individuals (Shoemaker & McCombs, 1989).

The design was a two-wave panel study in which nearly six months passed between waves. The first wave was collected during the week of October 9-14, 2011, and the second wave was collected during the week of April 1-6, 2012. A longitudinal approach to test this study's research questions and hypotheses was useful for two main reasons. First, this approach was useful for the examination of the long-term relationships that formed between an individual's non-manipulated media diet habits, peer influence, EHC, hookup experiences, and sexual risk-taking behaviors as opposed to the short-term effects that may have resulted due to experimenter-selected media stimuli. Some scholars have argued that although media effects research is useful for explaining short term and immediate effects, it is limiting beyond this. Thus, the present

study addressed this concern by using a longitudinal approach and by examining an individual's SMD, which incorporated the influence of different media sources over a period of time. Lang and Ewoldsen (2010) claim that the power of media is not in the effect of one exposure or even in the cumulative effect – it is in the process of continuous exposure over time. Furthermore, applying SCT to the study of media influence on sexual attitudes and behaviors, research has shown that observational learning is more firmly established with continued reinforcement (Bandura, 2002). More specifically, an observer can acquire lasting attitudes and behavioral intentions following each exposure to a modeled behavior, such as the portrayal of a mediated hookup experience. Consequently, for those individuals who consume media that continuously portray extensive modeling of hookup behavior, these symbolic observations may become more accessible in the long term with continued exposure to these sexual scripts, which can potentially influence the individuals' future sexual experiences.

Second, the longitudinal approach allowed for an examination of the reciprocal relationship that could emerge between the exposure to sexual media content and sexual behaviors. Previous research has characterized the relationship between an individual's exposure to sexual content and sexual activity as a feedback loop such that the more exposure a young adult has to sexually-oriented media content, the more likely that person is to engage in sexual activity and vice versa (Bleakley et al., 2008). Therefore, the more conventional 'media effects' perspective – estimating exposure effects on behavior – is now adjusted to allow for exposure to sexual media content to

be considered as a behavior in its own right (Slater, 2007), suggesting that exposure to sexual content can be a result of engaging in sexual behaviors.

Based on these two main reasons, all measures were taken at two different time points. Time 1 data collection occurred just before the university's homecoming week festivities (October) while Time 2 data collection took place five months later following spring break (April). The first wave of data collection began just prior to homecoming week and the second wave occurred just after spring break because evidence suggests these are two events during the academic year in which college students are more likely to partake in heavy drinking and risky sexual activity. Thus, in order to demonstrate any fluctuation that may have occurred in the participants' sexual behavior, the researcher needed to collect data surrounding two events that would give the participants an opportunity to engage in hookups and risky sexual behaviors. In particular, homecoming is often the first major event of the school year that is often associated with an increase in drinking before, during, and after the event (Neighbors, Walters, Lee, Vader, Vehige, Szigethy, & DeJong, 2007) and is typically coupled with alcohol-related consequences, including unsafe sexual behavior (Neal & Fromme, 2007). Spring break is also associated with elevated levels of alcohol use and sexual behavior, which have been shown to be the two strongest motivators for college students going on spring break trips and for choosing particular destinations (Sonmez, Apostolopoulos, Yu, Yang, Mattila, & Yu, 2006). According to a study on college students' spring break high-risk practices, 53% reported that alcohol influenced their sexual decisions during their vacation, and 42% of men and 18% of women intended to "experiment sexually" while on their break.

Additionally, 30% of all the spring break goers in the study's sample reported having sex with someone they had recently met during their spring break trip (Sonmez et al., 2006). These ritualistic events are occasions where overindulgence in alcohol consumption is more socially acceptable and expected. This phenomenon, referred to as a "time-out" period, is a moment of tolerance for deviant acts, basically, a time out from the status quo. Time-out events, which would include homecoming festivities and spring break parties, are associated with heavy drinking, sexual activity, and impulsive behavior (Listiak, 1974; Voas, Furr-Holder, Lauer, Bright, Johnson, & Miller, 2006).

The design of the present study used a two-wave panel to explain possible variation in college freshmen's EHC, perception of their peers' sexual activity as well as their participation in hookup experiences and engagement in sexual risk-taking behaviors. Thus, in order to maximize the amount of variation in the key variables under analysis, it was beneficial to the study to sample participants at a time right before a spike in sexual risk-taking and a time right after a spike in sexual risk-taking. It was assumed that variation would occur between these two waves based on literature exploring the hookup culture and emerging adulthood that suggests the college environment exposes young adults to many situations involving possible hookup opportunities (Arnett, 2002; Herold, Myticka-Tyndale & Mewhinney, 1998; Stepp, 2007) and situations allowing for engagement in sexual risk-taking practices (American College Health Association, 2001; CDC, 1997; Douglas, Collins, & Warren, 1997; Lewis, Malow, & Ireland, 1997). Significant fluctuation for the college freshmen population was also expected given that this will most likely be the first time that this particular sub-

population is exposed to the hookup culture on a college campus and potential threats to students' sexual health can arise from the risk taking practices that may occur during these hookups within this particular environment (Downing-Matibag & Geisinger, 2009).

Sample

The present study used a random sample of undergraduate freshmen students from a large Midwestern university. It should also be noted that for the purposes of the present study, undergraduates were a more appropriate sample than adolescents due to the sensitive nature of the measures included in the surveys' questionnaire. Because of this, not only would it be difficult to obtain permission to ask adolescents questions regarding their risky sexual experiences and alcohol use, but this population may not have had time yet to have engaged in these experiences. Instead, it was more appropriate to focus on undergraduates because research shows that the majority of college students are sexually experienced and many practice behaviors that put them at risk for STIs and unintended pregnancies. For example, less than half of sexually active students report using condoms consistently every time they engage in a sexual act (American College Health Association, 2001; CDC, 1997; Douglas, Collins, & Warren, 1997; Lewis, Malow, & Ireland, 1997). Likewise, the majority of sexually active students have had multiple partners, with approximately one-third of students reporting six or more lifetime partners (CDC, 1997; Lewis, Malow, & Ireland, 1997) and one-fourth reporting having two or more partners within the past school year (American College Health Association, 2001). Furthermore, research has characterized college campuses as being social environments for sexual permissiveness and patterns of sexual activity with

multiple or serial partners (Chung & Moore, 1994) and has portrayed college freshmen as going through emerging adulthood, a period of independence from normative expectations in which a variety of sexual experiences can occur (Arnett, 2000).

Participants were recruited through a random sample that was created by the university's registrar's office. First, a complete list of all currently registered undergraduate freshmen who were at least 18 years in age was complied. From this list, a total of 3,000 freshmen were randomly selected to participate and contacted via email with instructions on how to partake in the study. For the second wave of measurement, all participants were re-contacted 5 months from when they originally completed the survey. Only those who completed the survey in October 2011 were re-contacted in April 2012. Participants were entered into a prize drawing for a chance to win an iPad 3 upon completion of both waves.

The retention rate between the waves was 37.8%. In the first wave, there were 920 participants, and in the second wave, there were 348. Assuming that there will always be at least some attrition in panel research, it was important to investigate whether the participants who completed both waves of measurement were fundamentally different from those who only completed the first wave. Therefore, in order to assess whether the attrition impacted the analyses, the scores on the variables for participants who took part only in the first wave were compared to those who completed both wave questionnaires (Menard, 1991). In order to do so, t-tests were conducted on the time-1 measures for those who participated in the first wave only and for those who participated in both waves. The results are presented in Table 1. Of all the

variables included in the present study's analysis, there were only two that showed a significant difference. First, those who dropped out of the study after wave 1 reported having significantly higher sexual risk-taking behaviors than those who stayed in the study for both waves. Second, those who dropped out of the study reported having significantly more sex partners in the previous month than the participants who completed both waves.

A possible explanation for these differences might be that those who dropped out consume more sexual media and engage in more sexual behavior and prefer not to report these activities that could be considered socially undesirable. While these differences on these variables should be noted, it is perhaps more noteworthy that no significant differences were found on the remaining variables. Overall, it appears that the difference between those who participated in only the first wave and those who participated in both waves was relatively unsystematic.

In total, 348 participants took part in both waves of the study. Participants were 67.8% (*N* = 236) female and 32.2% (*N* = 112) male college freshmen students. Of the total sample, only 18 indicated that they did not consider themselves heterosexual. Because the main variables of interest did not differ substantively when the non-heterosexual participants were left in the sample versus taken out of the sample, the data from these 18 participants were left in the final sample for data analysis.

The total sample size of 348 participants was more than adequate for predicting a medium effect size (*r* = .30). According to the power analysis procedures described by Cohen (1988), to reach a medium effects size, 150 college freshmen were needed,

preferably even by gender. This was considered adequate because previous research has shown that small to medium effects are normal for the relevant relationships regarding exposure to a high sexual media diet at baseline predicting sexual behaviors in a follow-up analysis (Brown et al., 2006).

In wave 1, the participants were on average 18.26 years old (*SD* = .51), ranging from 18 to 20. In wave 2, participants were on average 18.76 years old (*SD* = .57), ranging from 18 to 20. Of the 348 that completed both waves, 81.4% (*N* = 284) identified themselves as Anglo-American, 6.3% (*N* = 22) identified as African-American, 4.0% (*N* = 14) identified as Latino, 2.6% (*N* = 9) identified as Asian-American, and 0.9% (*N* = 3) identified as Native American/Alaskan Native. The remaining 3.7% (*N* =13) did not identify with any of these categories.

Because the research questions and hypotheses of the present study dealt with issues concerning sexual behavior, participants' virginity status was measured to see whether the participants had ever experienced sexual intercourse. In wave 1, 41.8% (*N* = 146) of the sample reported that they had never experienced sexual intercourse. According to the CDC (2004), about half of all college freshmen enter campus having already experienced some form (e.g., oral, anal, or vaginal) of sexual intercourse. Thus, this sample of college freshmen appeared to be slightly more sexually liberal than a nationally representative sample. In wave 2, 37.2% (*N* = 130) reported that they had never experienced sexual intercourse. During this period of five months between waves of measurement, 16 participants (4.6% of the final sample) experienced sexual intercourse for the first time.

Procedures

The survey that participants completed at both wave 1 and wave 2 was administered via a web interface. This was done because research has shown that participants are more likely to report participation in sensitive behaviors (i.e., sexual activities) via computer-assisted questionnaires than via face-to-face interviews or paper-and-pencil, self-administered questionnaires (e.g., Wright, Aquilino, & Supple, 1998). By using online surveys, it was thought that participants would be encouraged to be more candid in their responses to the sensitive questions about their sexual behaviors using a web format than via a more traditional mode.

The randomly selected participants were sent an email generated via the online survey software service SurveyMonkey that invited them to participate in the survey. At this time, they were notified that they would be contacted to complete the second portion of the study nearly six months later. If they wanted to take the survey, a web link was provided in the email for participants to click on to access the survey. The participants were able to access the survey from any computer of their choosing and at any time. Nearly six months later, participants received a second email inviting them to complete the survey again. Participants who had not filled out the survey by the final day the link was open were omitted from the second wave of measurement. The final webpage of the survey at wave 2 asked for the participants to type in their pawprint, which was then used to enter them into the prize drawing.

Measures

The survey consisted of five main groups of variables: (a) sexual media exposure, (b) peer influence, (c) hookup culture, (d) sexual risk taking, and (e) individual difference variables. The measures are included in the Appendix.

In the following descriptions of the variables measured in the present study, reliability was assessed using two main criteria: (a) the internal consistency of the scale was judged using Cronbach's α, and (b) the stability of the measure was based according to the correlations between the time-1 and time-2 measures of the same variables. Validity of the measures was assessed by examining the face validity. For most variables, multiple measures were taken; thus, the goal was to demonstrate that like measures were strongly correlated.

Predictor Variables

Exposure to sexual media diet. Four steps were taken to create this variable, which was modeled after similar techniques used to measure sexual media content in previous research (Brown et al., 2006). The primary investigator of the present study constructed an index that reflected both the amount of exposure to sexual media content and the extremity of the content promoting sexual norms, expectations, attitudes, and behaviors, which, according to Brown et al. (2006), is better for insight into the effects of sexual content exposure than only measuring the frequency of use and only measuring one type of media platform.

Given that college students use a variety of media within a single day and that sexual content varies both within and across media (Huston, Wartella, & Donnerstein, 1998; Kunkel et al., 2003; Pardun, L'Engle, & Brown, 2005), both an examination of the

frequency of use of a variety media platforms and the amount of sexual content contained in those varied media was required to fully investigate a college student's overall exposure to sexual content in the media (Brown et al., 2006). Further support of this method comes from using SCT as the theoretical guide for this study. Using this approach, this study has insight into the types of models and behaviors (i.e., hooking up, sexual risk taking), as well as the amount of exposure to this content that the college students' consume in their SMDs. This study used a measure similar to Brown et al.'s (2006) SMD measure that computed the overall proportion of sexual content contained in college students' media diet in six different media platforms, specifically, television, magazines, movies, music, Internet, and social media.

The first step in constructing this index was to generate a list of specific media offerings or "vehicles" for each of the six types of media examined in this study. Respondents were presented with 36 vehicles for television shows, movies, musical artists, magazines, Internet sites, and social media sites. This list was created by an independent sample that was instructed to list the top 15 vehicles they regularly consume in each of the six media platforms investigated in the present study. From this list, the top six vehicles were then selected to create a final list of 36 media vehicles that were used in the main study. Six vehicles were chosen for each of the six media types because all were watched by at least half of the independent sample. It should be noted that this sample who listed their top media choices were separate from the main sample of college freshmen. The rationale for using a separate sample of college students to generate this list of popular media vehicles was that this procedure ensured that the list

of media vehicles were composed by a group of college students similar to the main sample of freshmen, meaning that the respondents in the independent sample were likely to consume the same media as the main sample. These respondents were recruited from an undergraduate communication course and were awarded with course credit for their participation. The respondents were 29.4% (*N* = 32) male and 69.7% (*N* = 76) female. Of the 108 respondents, there were 17.4% (*N* = 19) sophomores, 50.5% (*N* = 55) were juniors, and 31.5% (*N* = 34) were seniors, with a mean age of 20.67 years (*SD* = 1.37).

The second step in creating the index included having another independent sample of college students serve as judges of the sexually-oriented content within this study's list of media vehicles. This second, independent sample of judges was also separate from the main sample. The rationale for using a separate sample of college students again, this time to judge the content, was that this procedure ensured that the content was judged by a group of college students similar to the main sample of freshmen. That is, these judges in the independent sample would likely perceive the content in a similar manner as the main sample. This second sample of judges was recruited from a different undergraduate communication course the same way as the first independent sample and was awarded in the same manner for their participation. The judges were 34.7% (*N* = 84) male and 65.0% (*N* = 156) female. Of the 240 judges, there were 23.1% (*N* = 56) freshmen, 56.2% (*N* = 136) were sophomores, 18.6% (*N* = 45) were juniors, and 1.3% (*N* = 3) were seniors, with a mean age of 19.73 years (*SD* = .93). However, only the 56 freshmen judges' ratings were used. Each judge was asked to rate

the amount of portrayals or references to sexual content contained in 36 different media vehicles (e.g., six TV shows, six movies, six musical artists, six magazines, six Internet sites, and six social media sites). Using a 7-point scale, ranging from 0 (*no sexual content*) to 6 (*high amount of sexual content*), the judges were given the following instructions on rating each program: rate the amount of portrayals or references each television show, movie, musical artist, magazine, Internet site, or social media site feature regarding its sexual content, including pubertal development, romantic relationships, body exposure or nudity, sexual innuendo, touching and kissing, and/or sexual intercourse (Brown et al., 2006). It is important to note here that the judges had the option to not evaluate those vehicles that they were not familiar with. The "sexiness" rating for each vehicle was made up of the mean score of all judges rating the television program, movie, musical artist, magazine, Internet site, or social media site.

Third, to obtain an index of college freshmen's SMD, the main sample of college freshmen participants rated how often they spend time with the 36 vehicles on a 6-point scale, ranging from 0 (*never*) to 5 (*always*). These resulting frequency-of-viewing scores indicated the amount of time participants watch, listen, read, and access each of these media vehicles. In order for the media vehicles to be included in the main sample's analysis, the following criteria had to be met: (a) the media vehicle could not have widely varying ratings for sexual content and (b) only those vehicles could be included in which more than half of the participants reported consuming them (at least 174 participants). Given these criteria, five media vehicles for TV, movies, and music were kept while three media vehicles for magazines, Internet, and social media sites

were kept and used in the final measure. Thus, 24 total vehicles were kept for the creation of the index. Table 2 shows the ranks, means, standard deviations, and sample sizes for each of the 24 media vehicles included in the final measure.

Fourth, the sexually-oriented content ratings by the 56 freshmen judges were multiplied by the frequency-of-viewing scores reported by the 348 freshmen participants, and the resulting products were averaged together for each participant in the main sample. The resulting variable created a SMD index made up of the degree of sexually-oriented content and amount of exposure. Thus, the highest score on the SMD index could be (5[frequency] x 6[sexually-oriented content rating]) = 30. An advantage of this procedure is that the resulting measures capture not only the frequency with which participants consume the content but also the extremity of the sexual nature of that content. However, one drawback of this procedure is that it makes the resulting scores a challenge to interpret. For instance, because the scores are products, it is not possible to distinguish between the individual who consumes a lot of moderately sexual media from an individual who consumes a little of highly sexual media. Because of this, research question 2 asks whether it is the extremity of the sexual content or the frequency with which sexual content is consumed that is more impactful on the outcome variables of interest in the present study.

In order to assess the reliability and validity of each participant's SMD, different means other than factor analysis and Cronbach's α must be used because of the fact that the scores were averages of products and that vehicles varied in the amount of sexual content featured in each. To assess the reliability, the stability of the measure

was based according to the correlations between the time-1 and time-2 measures of the SMD index. The resulting SMD index was fairly stable across the two waves. The time-1 and time-2 measures of SMD were strongly correlated (r = .62, p<.001). To assess validity of this measure, face validity of the ratings was used to see if the vehicles that are rated as having the most and least amount of sexually-oriented content conform to obvious expectations of the sexual content for the vehicles. For example, *Cosmopolitan* was ranked as having the highest amount of sexually-oriented content for magazines. This makes sense given that this magazine is a women's lifestyle magazine that is known for its high volume of sexual content and has been found to feature twice as many sex tips as similar magazines do such as *Glamour* and *Redbook* and has a strong focus on sexual variety (Menard & Kleinplatz, 2008). In contrast, *People,* which focuses on celebrity news, had the least amount of sexually-oriented content. A similar face validity method was applied to examine the sexiness ratings of the other five medium types. Overall, those vehicles rated as having the most and least amount of sexually-oriented content conform to obvious expectations regarding the sexual content for the vehicles.

Perception of peers' sexual activity. Perception of peer sexual activity was tested using an adapted measure utilized by a previous study that examined misperceptions of sexual behavior college students had regarding their peers (Lewis, Lee, Patrick, & Fossos, 2007). In order to capture college freshmen's perceptions of peer norms concerning casual sex and sexual risk, participants were asked six items related to their perceptions of typical male and female students' sexual experiences within the past month. Participants used a scale ranging from 1 (*never*) to 4 (*all the time*) to estimate

the frequency with which their peers engaged in various casual and risky sexual activities. Cronbach's α was acceptable for wave 1 at .74 and for wave 2 at .76 and the stability of the measure was high (r = .43, p<.001) as well.

Criterion Variables

Endorsement of the hookup culture. Endorsement of the hookup culture (EHC) was measured using a 20-item index examining the five components of the EHC: (1) a belief that hooking up is *harmless* and best without emotional commitment; (2) a belief that hooking up is *fun*; (3) a belief that hooking up will enhance one's *status* in one's peer group; (4) a belief that hooking up allows one to assert *control* over one's sexuality; and (5) a belief that hooking up is a reflection of one's *sexual freedom* (Aubrey & Smith, 2011).

For the purposes of the present study, the 20 items were combined to represent an overall comprehensive measure or index of the EHC. Participants rated how strongly they agreed with each of the items on a 5-point scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The items were worded in a way that allowed each participant to answer regardless if he or she had never hooked up or had the opportunity yet to do so. For example, some of the items included: "Hooking up is just for fun," "Hooking up makes me more popular," "I feel powerful during a hookup," and "Hooking up is a fun and natural thing to do in college." Cronbach's α was excellent for wave 1 at .95 and for wave 2 at .96. The stability of the measure was high as well (r = .78, p<.001).

Hookup experiences. Although an individual may endorse the hookup culture, this does not translate into that person actually engaging in a physical hookup

experience. Thus, the present study also measured each participant's hookup behaviors. Given the definition of a hookup adapted from Stepp (2007), participants were asked to report whether they had ever hooked up (yes/no). If participants indicated that they had experienced a hookup, they were asked to report how often they engage in hookups on a 4-point scale (1 = *never*, 2 = *sometimes*, 3 = *regularly*, 4 = *all the time*). Finally, participants rated how open they were to hooking up in the future on a 4-point scale (1 = *absolutely not*, 2 = *probably not*, 3 = *maybe*, 4 = *absolutely*). The measure was standardized to combine the categorical yes/no item with the two scaled items. Cronbach's α was acceptable for wave 1 at .72 and for wave 2 at .74. The stability of the measure was high (r = .75, p<.001).

Sexual risk-taking behaviors. The Sexual Risk Survey (SRS) developed for college students with or without sexual experience and implemented by Turchik and Garske (2009) was used in the present study to measure an individual's likelihood for engaging in sexual risk-taking behaviors. The 23-item survey was designed to assess an individual's frequency of sexual risk behaviors in the past six months (i.e., "How often have you had sex with who had been sexually active before you were with them but had not been tested for STIs/HIV?"). Each item was scored from 0 (*does not apply or never*) to 4 (*all the time*), with higher scores indicating greater sexual risk taking. Cronbach's α was good for wave 1 at .89 and for wave 2 at .90. The stability of the measure was high as well (r = .77, p<.001).

Individual Difference Variables

There were several variables that were reasoned to be related to an individual's peer influence, EHC, engagement in hookup culture experiences, and likelihood to practice sexual risk-taking behaviors. Each of these variables, introduced as both a moderating variable and a control variable (depending on the analysis), are described below.

Sexual status variables. In order to measure an individual's sexual status, three components were examined: number of sexual partners, current relationship status, and concern for safe sex. To measure the participants' number of sexual partners, each person was asked to report the number of previous sexual partners they have had in the past month. For the purposes of the present study's analysis, this variable was transformed into a categorical variable such that participants were coded as either having none or one sexual partner versus two or more sexual partners within the previous month. Relationship status was measured by asking participants if they were currently in a committed, romantic relationship (yes/no). Participants were finally asked a question regarding their personal concern for safe sex (e.g., "Do you think it is always necessary to practice safe sex?"), which was transformed into a categorical variable in which participants were coded as either feeling concern for safe sex was very important or not at all important. Table 3 reports the means, standard deviations, and differences by gender for each of these sexual status variables.

Wishful identification. This variable included the measurement of wishful identification, which was conceptualized as the media users' desire to be like or behave in ways similar to a character (Feilitzen & Linne, 1975). Using a 5-point Likert scale (1 =

disagree a lot to 5 = *agree a lot*), participants were asked three items that addressed the extent to which they desired to be like their favorite media characters (Hoffner, 1996). Specifically, the three items were: "I'd like to do the kinds of things he/she does," "He/She is the sort of person I want to be like myself," and "I wish I could be more like him/her." The wishful identification scale was constructed by averaging the ratings for the three individual items, with higher scores indicating greater wishful identification toward the participants' favorite media models. For each of the television, music, and movie vehicles provided, the participant listed who their favorite media model was and rated how sexual they perceived the media model to be. Each participant used a scale ranging from 1 (*not at all*) to 5 (*extremely*) regarding their favorite media model's sexual character: "How sexual is the media model?"; "How risky is the media model in their sexual behavior?"; "How likely would the media model engage in hooking up?". The participant also evaluated the character regardless if the media model they selected had engaged in a sexual behavior yet. To construct the wishful identification score, the product of the mean of the wishful identification score and the perception of sexual risk-taking score was computed. Table 3 reports the means, standard deviations, and differences by gender for the wishful identification variable. A median split was then performed on the mean score at time-2 in order to compare those who identified a lot with their selected media character versus those who did not. Thus, those with a score lower than 2.78 were coded as having low wishful identification (53.7%; *N* = 187) while those with a score of 2.78 or higher were coded as having high wishful identification (46.3%; *N* = 161) toward the media models.

Alcohol. To measure drinking behavior, participants were asked to answer the following question: "During the past 30 days, how many days have you consumed four or more drinks of an alcoholic beverage within a single day?" Responses ranged from 0 to 8. According to the National Institute on Alcohol Abuse and Alcoholism (2004), binge drinking is a pattern of drinking that brings a person's blood alcohol concentration (BAC) to 0.08 grams percent or above. The BAC limit is typically reached when men consume 5 or more drinks and when women consume 4 or more drinks in 2 hours. This variable was also coded into a categorical variable, 1 (*0 to 1 day*) to 2 (*2 or more days*) for data analysis purposes. Table 3 reports the means, standard deviations, and differences by gender for alcohol. However, it should be noted that this variable was only measured at time-2 due to time constraints that would not allow for IRB approval prior to the time-1 data collection timeline.

Self-Efficacy toward Safe Sex. Self-efficacy was measured according to the participants' perception of their ability to practice safe sex. Participants' level of self-efficacy was measured using Koch et al.'s Sexual Health Practices Self-Efficacy Scale (Fisher, Davis, Yarber, & Davis, 2010). Reponses were based on a 5-point scale, ranging from 1 (*not at all confident) to* 5 (*extremely confident*) for 20 items. The items included statements such as "Getting tested for a sexually transmitted infection (STI)," "Negotiating with a sexual partner to practice safer sex," and "Practicing sexual abstinence." Cronbach's α was good for wave 1 at .90 and for wave 2 at .90. Due to data analysis procedures, this variable was transformed into a categorical variable based on a median split of 3.6 at time-2 in order to compare those who had high levels of

confidence versus those who had low levels of confidence. Thus, all those with a score lower than 3.6 were coded as having low confidence (47.7%; *N* = 166) while those with a score of 3.6 or higher were coded as having high confidence (50.9%; *N* = 177). Table 3 reports the means, standard deviations, and differences by gender for the self-efficacy variable.

Chapter 4: Results

Data Analysis

Six main steps were taken to conduct the complete data analysis on this two-wave panel study. First, to assess RQ1, a structural equation model was run without any individual difference variables to test the three-stages of variables present in the model (e.g., SMD → EHC → sexual risk-taking behaviors). This analysis assessed any indirect influence that SMD had on college freshmen's hookup experiences and/or sexual risk-taking behaviors, examined through their perceptions of their peers' sexual activity and/or EHC. This full model was tested a second time using the time-1 controls for the four criterion variables (as shown in Figure 2). Furthermore, to explore the individual dimensions of the SMD variable, the full model with time-1 controls was run again using only the participants' frequency-of-exposure scores or the extremity-of-exposure scores as the predictor variable to address RQ2. The robustness of this original model was then tested after six individual difference variables were introduced to create a control model. The following fit criteria were used to judge the fit of these models – CFI, CMIN/DF, RMSEA, AIC, and NFI.[1]

Second, to examine the relations between (a) exposure to a sexy media diet (SMD = frequency x exposure; frequency only; extremity only) and (b) participants' perception of their peers' sexual activity, endorsement of the hookup culture (EHC),

[1] The following were the standards used to assess adequate fit of the model: CFI > .95; CMIN/DF < 5; RMSEA < .08; AIC smaller value = better fit; NFI > .90.

hookup experiences, and sexual risk-taking behaviors (e.g., RQ2-4, RQ6 and hypotheses 1-5), zero-order correlations were run between the time-1 variables and the time-2 variables of interest for all participants together as well as for females and males separately.

Third, to further investigate relations between the main variables, the data were analyzed using cross-lagged path analyses with the Analysis of Moment Structures program (AMOS). This method allowed for simultaneous investigation of the impact of time-1 SMD on time-2 EHC and the impact of time-1 EHC on time-2 SMD as well as for the reciprocal relations between the perception of peers' sexual activity, hookup experiences, and sexual risk-taking behavior variables (e.g., RQ3-4, RQ6 and hypotheses 1-5).

Fourth, mediation analysis was conducted to assess the intervening influence that participants' perceptions of their peers' sexual activity and EHC may have on the direct effect between time-1 SMD and time-2 hookup experiences and the direct effect between time-1 SMD and time-2 sexual risk-taking behaviors (e.g., hypotheses 6a-d). To test for mediation, procedures outlined by Baron and Kenny (1986) and the bootstrapping technique suggested by Preacher and Hayes (2004) were employed to test the significance of the indirect effects of peer influence and EHC. According to Baron and Kenny (1986), mediation is demonstrated when four conditions are met such that (a) the independent variable (SMD) is significantly related to the dependent variables (sexual risk-taking behaviors and hookup experiences), (b) the independent variable is significantly related to the mediator variable (perception of peers' sexual

activity or EHC), (c) the mediator is significantly related to the dependent variables, and (d) the direct effect of the independent variable on the dependent variable decreases significantly when the mediator variable is controlled. In order to test the indirect effects (e.g., SMD → EHC, EHC → sexual risk-taking behaviors), the mediation bootstrapping method was applied. As described by Preacher and Hayes (2004), bootstrapping is a nonparametric statistical approach that is the most powerful method of obtaining confidence limits for specific indirect effects of mediation without assumptions of sampling distribution. Thus, analyses using 5,000 bootstrap resamples were conducted to generate 95.0% confidence intervals to estimate the indirect effects within the present study's four mediation models.

Fifth, the moderating influences of gender, wishful identification, sexual status (i.e., relationship status, number of sex partners, and concern for safe sex), alcohol consumption, and self-efficacy toward safe sex on the main relationships for the time-1 and time-2 variables (e.g., RQ7-12, hypotheses 7-12b) was investigated. In order to accomplish this, the procedure outlined by Byrne (2010) was followed. Continuous moderating variables were transformed into categorical variables by median splits. Next, multiple-group analyses of structural models were estimated. In each model, all four paths between the time-1 SMD variable and the time-2 moderating variables (e.g., time-1 SMD → time-2 EHC, time-1 EHC → time-2 SMD; time-1 SMD → time-2 SMD, time-1 EHC → time-2 EHC) were constrained to be invariant for multiple groups, determined by level of the moderating variable (e.g., single v. relationship). In the unconstrained model, all four parameters were allowed to vary for multiple groups. If

the fit of the unconstrained model was significantly better than that of the constrained model, it was concluded that the models were not equivalent across separate groups, and thus the relations were moderated by a third variable (Byrne, 2010).[2]

The final step was to discover which of the six media types (RQ5) and which of the six individual difference variables (RQ13) contributed the most toward sexual risk-taking behaviors. To investigate which media type and which individual difference variable was the most influential in predicting sexual risk-taking behaviors, a structural equation model was run between each of the time-1 media vehicle types and time-2 sexual risk-taking behaviors and a second structural equation model was run between each of the time-1 individual difference variables and time-2 sexual risk-taking behaviors. Both of these models were run a second time, controlling for the influence of time-1 sexual risk-taking behaviors (see Figures 17; 27).

Descriptive Statistics

Descriptive statistics for the measures, displayed according to gender, are shown in Table 3. As expected, men and women were significantly different on a variety of the key variables included in the present study's analysis. For the predictor variables, the amount of sexual content * frequency of viewing scores both for magazines and social media vehicles differed considerably by gender. Previous research has shown that gender influences both the type of media content an individual attends to and how it is interpreted (Brown, 2009). This suggests that males and females may be getting

[2] Interaction analysis was also used to assess the moderating influence of any possible third variables because it has been deemed a more sensitive analysis in comparison to the multiple-group analysis that requires the continuous variables to be transformed into categorical variables. However, when the continuous moderating variables were run using interaction analyses, the same inferences were found as were produced by the multiple-group analyses. Therefore, the multiple-group analyses are only reported.

different views of sexuality from the media content they choose to consume. In the present study, it was found that women read magazines featuring greater amounts of sexual content more often than men, while men accessed social media outlets containing higher ratings of sexual content more frequently than women.

As for the mediating variables, EHC also differed considerably for men and women. Specifically, men reported having higher levels of EHC in comparison to women. An empirical explanation for a gender difference on EHC would be that hooking up for men is more often attributed to positive benefits while negative emotional consequences are attached to the same behavior for women (Aubrey & Smith, 2011).

There was also a significant difference between men and women regarding their perception of their peers' sexual activity (wave 2 only) in which women estimated higher levels of sexual activity among their peers than did their male counterparts.

As for the moderating variables, wishful identification to the media models present in the sexual content the participants reported regularly consuming was found to differ between gender. Wishful identification refers to the media users' desire to be like or behave in ways similar to a media character (Feilitzen & Linne, 1975). Women reported higher levels of wanting to be more like their favorite television and movie characters as well as musical artists than men. According to SCT, the more similar to the media model an individual feels that he or she is, the more that individual will identify with the media model. Because more than half of the favorite television, movie, and musical artists chosen by all the participants were female, it makes sense that women would be more inclined to report higher levels of wishful identification to these media

models because they share the characters' gender.

Next, relationship status showed significant gender differences such that women indicated being in a relationship more so than men. Lastly, as for the control variables, virginity status considerably differed by gender such that more men were virgins than women.

Research Questions and Hypotheses

The results section is divided into six main parts. First, the overall model was tested for its fit to the data, specifically to see which direct and indirect paths were significant among the five main variables – SMD [(a) frequency x exposure; (b) frequency only; (c) extremity only], EHC, perceptions of peers' sexual activity, sexual risk-taking behaviors, and hookup experiences (both with and without time-1 controls for the four criterion variables). In addition, a control model was run in which six individual difference variables were introduced to test the robustness of the original model. Second, the main predictor variable of this study, exposure to a SMD, was investigated in regards to its influence on the four criterion variables: EHC, perception of peers' sexual activity, sexual risk-taking behaviors, and hookup experiences. Third, the impact peer influence had on college freshmen's participation in hookup experiences and sexual risk-taking behaviors was examined. Fourth, the effects EHC had on sexual risk-taking behaviors and hookup experiences were explored. Fifth, the mediating influence of EHC and perceptions of peers' sexual activity on the relationships between SMD and sexual risk-taking behaviors and hookup experiences were explored. Sixth, moderating variables (e.g., gender, sexual status, wishful identification, alcohol consumption, and

self-efficacy toward safe sex) were analyzed to investigate their influence on the main relationships between the predictor (SMD) and criterion variables (perception of peers' sexual activity, EHC, sexual risk-taking, and hookup experiences).

Overall Model Fit

RQ1: What is the Overall Fit of the Full Model?

RQ1 investigated the fit of the full model constructed in Figure 1. Analysis showed that there was an overall adequate fit, χ^2 (30) = 49.233, p = .015, CFI = .963, CMIN/DF = 1.641, RMSEA = .041, AIC = 119.233, NFI = .915. Results found that there was a statistically significant direct path between SMD and EHC (β = .24, p<.01) as well as statistically significant paths between (a) EHC and sexual risk-taking behaviors (β = .39, p<.001), (b) EHC and hookup experiences (β = .74, p<.001), and (c) perception of peers' sexual activity and sexual risk-taking behaviors (β = .12, p<.05). After time-1 controls for the four criterion variables were included in the model (see Figure 2), in which case adequate fit of the model remained, χ^2 (62) = 105.031, p = .001, CFI = .974, CMIN/DF = 1.694, RMSEA = .042, AIC = 219.031, NFI = .941, the statistically significant direct path between SMD and EHC still held but slightly decreased (β = .15, p<.01) while the paths between (a) EHC and sexual risk-taking behaviors (β = .15, p<.001), (b) EHC and hookup experiences (β = .46, p<.001), and (c) perception of peers' sexual activity and sexual risk-taking behaviors (β = .08, p<.05) remained statistically significant as well but again slightly decreased the strength of the coefficients.

When split by gender, the full model with time-1 controls showed that the direct path between SMD and EHC decreased even more for females (β = .11, p = .07) while it

slightly increased for males (β = .21, p<.05). Separated by gender, the paths between (a) EHC and sexual risk-taking behaviors slightly increased for females (β = .16, p<.001) and decreased for males (β = .09, p = .17), (b) EHC and hookup experiences slightly increased for females (β = .48, p<.001) and slightly decreased for males (β = .41, p<.001), and (c) perception of peers' sexual activity and sexual risk-taking behaviors slightly decreased for females (β = .05, p = .27) and increased for males (β = .14, p<.01). These findings suggest that the relationship between SMD and EHC and the relationship between peer influence and sexual risk taking became smaller for females and larger for males while the relationship between EHC and sexual risk taking and the relationship between EHC and hookups became larger for females and smaller for males. The full model with time-1 controls for females only and males only had adequate fit as well, χ^2 (124) = 192.614, p = .001, CFI = .959, CMIN/DF = 1.553, RMSEA = .040, AIC = 420.614, NFI = .900.

While the full model showed that there were significant longitudinal relations between SMD and the criterion variables, the results might be due to the variance shared with some third variable. To test for this possibility, the full model was re-computed, this time controlling for possible alternative influences on EHC, perception of peers' sexual activity, sexual risk-taking behaviors, and hookup experiences.

Six variables were included as control variables: wishful identification, self-efficacy, alcohol consumption, concern for safe sex, number of sex partners, and relationship status. The rationale for including these particular individual difference variables was based on suggestions of past findings. For instance, research has shown that college students' identification is positively associated with their intentions to

practice safe sex (Moyer-Gusé & Nabi, 2010). Alarape et al. (2008) also found that condom self-efficacy plays a significant role in condom use among college students. Alcohol was also included as a control variable because evidence suggests that hookups commonly involve alcohol consumption and has been linked to sexual risk-taking behaviors (Lambert et al., 2003; Paul & Hayes, 2002). Previous findings also have shown that individuals who do not have concern regarding safe sex issues will be more vulnerable to sexual risk taking. According to Bishop and Lipsitz (1990), college students who had more sexual partners in the past were significantly less likely to report condom use with a new partner in the future. Lastly, studies have demonstrated that those who engage in casual sex outside of a committed relationship may be at an increased risk of disease transmission due to their involvement with a greater number of sexual partners, lack of knowledge regarding their partner's sexual history, and less frequent use of condoms (Bender & Kosunen 2005; Crosby et al. 2003; Manlove et al. 2004; Manning et al. 2000; Misovich et al. 1997; Rosengard et al. 2005).

An empirical approach was taken to assess the robustness of the full model by running a control model that included each of these six individual difference variables. First, all possible control variables were introduced into the structural equation model shown in Figure 5, with paths of influence leading to the four endogenous variables (i.e., EHC, perception of peers' sexual activity, sexual risk-taking behaviors, hookup experiences). Then, those paths that were not statistically significant were removed so that only the significant control paths remained. Table 4 shows the path coefficients of the original model and compares those coefficients to those of the control model.

Results revealed that the corresponding path between time-1 SMD and time-2 perception of peers' sexual activity stayed the same (from β = .13† to β = .13†); thus, this path was not altered by the introduction of the control variables. Next, the corresponding path between time-1 SMD and time-2 sexual risk-taking behaviors slightly decreased (from β = .11 to β = .09), still the introduction of the control variables did not substantively reduce this path. Analysis also showed that the corresponding path between time-1 SMD and time-2 hookup experiences also slightly decreased (from β = .01 to β = -.03); however, the relationship was not substantively altered by the introduction of the control variables. The largest change occurred for the corresponding path between time-1 SMD and time-2 EHC. The strength of the coefficients was reduced by .11 (from β = .24** to β = .13†), which was a large enough change to reduce the path to marginal significance. Thus, the results imply that the relationship between SMD and EHC is smaller when important individual difference variables are controlled.

All in all, the major implication of this control model is that the longitudinal relations between SMD and the four criterion variables over the course of nearly six months are largely unaltered. Therefore, the most plausible conclusions that can be made based on the control model are the same conclusions that can be made based on the original model without controls. Thus, the robustness of the original model (Figure 1) after these individual difference variables are introduced in the control model (Figure 5) still holds and an adequate fit to the data is demonstrated, χ^2 (82) = 123.034, p = .002, CFI = .948, CMIN/DF = 1.500, RMSEA = .036, AIC = 263.034, NFI = .967.

RQ2: Does Extremity or Frequency of Exposure Relate to Outcome Variables?

To address whether the main predictor variable was not based on only a single dimension of SMD (e.g., frequency or extremity), the full model with time-1 controls was run again, using only the frequency-of-exposure scores and only the extremity-of-exposure scores separately, split by gender (see Figures 6-11).

The frequency-of-exposure model had adequate fit, χ^2 (62) = 110.568, p = .001, CFI = .971, CMIN/DF = 1.783, RMSEA = .045, AIC = 224.568, NFI = .937, and featured little change among the main relationships. In fact, the corresponding path between time-1 frequency-of-exposure scores and time-2 hookup experiences remained the same (from β = -.03 to β = -.03). The corresponding paths slightly decreased between time-1 frequency-of-exposure scores and time-2 sexual risk taking (from β = .02 to β = .01) and time-2 EHC (from β = .15** to β = .13*) with only a minor change in the level of statistical significance as well. Finally, the corresponding path between time-1 frequency-of-exposure scores and time-2 peer influence slightly increased (from β = .11† to β = .14†). All in all, the major implication of this frequency-of-exposure model is that the longitudinal relations between frequency only scores and the four criterion variables over the course of nearly six months are largely unaltered from the model that includes the combined product of frequency-of-exposure and extremity-of-exposure scores. Therefore, the most plausible conclusions that can be made based on the full model with time-1 controls using both dimensions of SMD are the same conclusions that can be made based on the full model with time-1 controls using only frequency-of-exposures scores.

Adequate fit was demonstrated for the frequency only model when it was split by gender as well, χ^2 (124) = 199.153, p = .001, CFI = .957, CMIN/DF = 1.606, RMSEA = .042, AIC = 427.153, NFI = .900. When the frequency only model is split by gender, large relationship changes are demonstrated between the time-1 frequency-of-exposure scores and the time-2 criterion variables. For males, although the corresponding path between time-1 frequency-of-exposure scores and time-2 hookup experiences remained the same (from β = -.04 to β = -.04), the strength of the coefficients for the corresponding path between time-1 frequency-of-exposure scores and time-2 peer influence was reduced by .13 (from β = .15 to β = .02). Moreover, the corresponding paths between time-1 frequency-of-exposure scores and time-2 EHC doubled (from β = .21* to β = .42), although it became non-significant, and between time-1 frequency-of-exposure scores and time-2 sexual risk taking increased by .26 (from β = .01 to β = .27). For females, the corresponding paths decreased between time-1 frequency-of-exposure scores and time-2 sexual risk taking (from β = .04 to β = .01) and time-2 EHC (from β = .11† to β = .03), moving further from statistical significance. The opposite was found for the corresponding paths between time-1 frequency-of-exposure scores and time-2 peer influence that increased (from β = .10 to β = .12) and time-2 hookup experiences (from β = -.02 to β = .01), which also demonstrated a slight increase. These results imply that the relationship between frequency-of-exposure and peer influence was weakened for males and strengthened for females (along with frequency-of-exposure and hookup experiences strengthened for females only) while the relationship between both frequency-of-exposure and EHC and frequency-of-exposure and sexual risk taking was

strengthened for males and weakened for females. However, although these corresponding paths did show large changes in the strength of the coefficients between the time-1 frequency-of-exposure scores and time-2 criterion variables, none were statistically significant for either gender. Table 6 shows the zero-order correlations for the frequency-of-exposure scores for all participants as well as for female and males only.

The extremity-of-exposure model had adequate fit, χ^2 (62) = 103.437, *p* = .001, CFI = .974, CMIN/DF = 1.668, RMSEA = .042, AIC = 217.437, NFI = .940, and featured little change among the main relationships, except for the direct effect of extremity on sexual risk taking. The corresponding path between time-1 extremity-of-exposure scores and time-2 peer influence decreased by .12 (from β = .11† to β = -.01). The corresponding paths slightly increased between time-1 extremity-of-exposure scores and time-2 EHC (from β = .15** to β = .22**) and time-2 hookup experiences (from β = -.03 to β = .03). Finally, the corresponding path between time-1 extremity-of-exposure scores and time-2 sexual risk taking showed the biggest change, increasing by .34 and becoming statistically significant (from β = .02 to β = .36**). All in all, the major implication of this extremity-of-exposure model is that the longitudinal relations between extremity only scores and the four criterion variables over the course of nearly six months are largely unaltered from the model that includes the combined product of frequency-of-exposure and extremity-of-exposure scores. Therefore, the most plausible conclusions that can be made based on the full model with time-1 controls using both

dimensions of SMD are the same conclusions that can be made based on the full model with time-1 controls using only extremity-of-exposures scores.

Adequate fit was demonstrated for the extremity only model when it was split by gender as well, χ^2 (124) = 168.356, p = .005, CFI = .972, CMIN/DF = 1.358, RMSEA = .032, AIC = 396.356, NFI = .907. When the extremity only model is split by gender, large relationship changes are demonstrated between the time-1 extremity-of-exposure scores and the time-2 criterion variables. For males, the corresponding path between time-1 extremity-of-exposure scores and time-2 sexual risk taking increased by .20 (from β = .01 to β = .21) while the path between time-1 extremity and time-2 EHC only slightly increased (from β = .21* to β = .22*). The strength of the coefficients for the corresponding path between time-1 extremity-of-exposure scores and time-2 peer influence was reduced by .07 (from β = .15 to β = .08). Moreover, the corresponding paths between time-1 extremity-of-exposure scores and time-2 hookup experience decreased by .14 (from β = -.04 to β = -.18). For females, the corresponding path decreased by .11 between time-1 extremity-of-exposure scores and time-2 peer influence (from β = .10 to β = -.01). The strength of the coefficients for the corresponding path between time-1 extremity-of-exposure scores and time-2 sexual risk taking increased by .77 (from β = .04 to β = .81). Despite this large increase, however, no statistical significance was found. Next, the corresponding paths between time-1 extremity-of-exposure scores and time-2 EHC slightly increased (from β = .11† to β = .13†) whereas the path between time-1 extremity and time-2 hookup experiences increased by .11 (from β = -.02 to β = .09). These results imply that the relationship

between extremity-of-exposure and peer influence was weakened for both males and females while the relationship between both extremity-of-exposure and EHC and extremity-of-exposure and sexual risk taking was strengthened for both males and females. Finally, the relationship between extremity-of-exposure and hookup experiences was weakened for males and strengthened for females. However, although these corresponding paths did show large changes in the strength of the coefficients between the time-1 extremity-of-exposure scores and time-2 criterion variables, none were statistically significant for either gender. Table 7 shows the zero-order correlations for the extremity-of-exposure scores for all participants as well as for female and males only.

Exposure to Sexual Media Diet

H1: College Freshmen's Sexual Media Diet will Predict their Endorsement of the Hookup Culture

Hypothesis 1 was explored in two ways. First, zero-order correlations, displayed in Table 5, revealed a statistically significant positive relationship between time-1 SMD and time-2 EHC for all participants (r = .17, p<.001). For females, the correlation was positive but only approached significance (r = .13, p = .054), while for males, the correlation remained in the same direction and was statistically significant (r = .28, p<.01). Based on these zero-order correlations, path models between these two variables were worth further investigating. Cross-lagged path analyses with AMOS were run, which allowed for simultaneous investigation of the impact of time-1 SMD on time-2 EHC and the impact of time-1 EHC on time-2 SMD (see Figure 12). Analysis showed

that there was an excellent fit to the data, χ^2 (1) = .401, *p* = .527, CFI = 1.000, CMIN/DF = .401, RMSEA = .000, AIC = 26.401, NFI = .999. Results showed that there was a statistically significant direct effect between time-1 SMD and time-2 EHC (β = .10, *p*<.01), suggesting that SMD at time-1 predicted an increase in EHC at time-2; however, there was not a statistically significant direct path between time-1 EHC and time-2 SMD and the covariance between time-1 SMD and time-1 EHC only approached significance (β = .10, *p* = .09). In all, the results suggest that the more sexual media college freshmen were exposed to at time-1, the more they endorsed the hookup culture at time-2. Thus, hypothesis 1 was supported.

RQ3: Will Sexual Media Diet Predict Hookup Experiences?

Zero-order correlations shown in Table 5 revealed a statistically significant positive relationship between time-1 SMD and time-2 hookup experiences for all participants (*r* = .14, *p*<.01) as well as for males (*r* = .20, *p*<.05) but only approached significance for females (*r* = .12, *p* = .07). To further examine these variables, cross-lagged path analysis was conducted, allowing for simultaneous investigation of the impact of time-1 SMD on time-2 hookup experiences and the impact of time-1 hookup experiences on time-2 SMD (see Figure 13). Analysis showed that there was an adequate fit to the data, χ^2 (2) = 2.092, *p* = .351, CFI = 1.000, CMIN/DF = 1.046, RMSEA = .011, AIC = 26.092, NFI = .996. Results showed that there was not a statistically significant direct path between time-1 SMD and time-2 hookup experiences nor was there a statistically significant direct path between time-1 hookup experiences and time-2 SMD; however, there was a statistically significant covariance between time-1 SMD

and time-1 hookup experiences (β = .19, p<.001), suggesting that as SMD at time-1 increases, hookup experiences at time-1 increase. Thus, although time-1 SMD was correlated to time-2 hookup experiences, college freshmen's SMD did not predict their hookup experiences over time.

RQ4: Will Sexual Media Diet Predict Sexual Risk-Taking Behaviors?

RQ4 examined the relationship between SMD and sexual risk-taking behaviors. Table 5 shows the zero-order correlations that revealed a statistically significant positive relationship between time-1 SMD and time-2 sexual risk-taking behaviors for all participants (r = .15, p<.01) as well as for females only (r = .17, p<.01) but not for males (r = .13, p = .19). Based on these statistically significant findings, further analysis was conducted using cross-lagged path analysis, allowing for simultaneous investigation of the impact of time-1 SMD on time-2 sexual risk-taking behaviors and the impact of time-1 sexual risk-taking behaviors on time-2 SMD (see Figure 14). Analysis showed that there was an adequate fit to the data, χ^2 (2) = 7.254, p = .027, CFI = .989, CMIN/DF = 3.627, RMSEA = .072, AIC = 31.254, NFI = .985. Results showed that there was not a statistically significant direct path between time-1 SMD and time-2 sexual risk-taking behaviors yet there was a statistically significant direct path between time-1 sexual risk-taking behaviors and time-2 SMD (β = .09, p<.05) and a statistically significant covariance between time-1 SMD and time-1 sexual risk-taking behaviors (β = .17, p<.001), suggesting that as SMD at time-1 increases, sexual risk-taking behaviors at time-1 increase as well. Likewise, as sexual risk taking at time-1 increases, participants are more likely to engage in exposure to sexual media content at time-2. However, even though

college freshmen's engagement in sexual risk taking predicted their exposure to sexual media content, their SMD did not predict their sexual risk-taking behaviors over time.

H2: College Freshmen's Sexual Media Diets will Predict their Perceptions of Peers' Sexual Activity

Hypothesis 2 stated that college freshmen's SMD would predict their future perceptions of their peers' sexual activity. The zero-order correlations displayed in Table 5 showed positive relationships between time-1 SMD and time-2 perception of peers' sexual activity for all participants (r = .11, p<.05) as well as for females that approached statistical significance (r = .13, p = .051); however, the correlation was not statistically significant for males (r = .07, p = .44). Further analysis was conducted using cross-lagged path analysis, allowing for simultaneous investigation of the impact of time-1 SMD on time-2 perception of peers' sexual activity and the impact of time-1 perception of peers' sexual activity on time-2 SMD (see Figure 15). Analysis showed that there was an adequate fit to the data, χ^2 (2) = 2.710, p = .258, CFI = .997, CMIN/DF = 1.355, RMSEA = .030, AIC = 26.710, NFI = .989. Results showed that there was a statistically significant direct path between time-1 SMD and time-2 perception of peers' sexual activity (β = .11, p<.05); however, there was not a statistically significant direct path between time-1 perception of peers' sexual activity and time-2 SMD. In addition, there was not a statistically significant covariance between time-1 SMD and time-1 perception of peers' sexual activity. The results suggest that with increased exposure to sexual media content came a greater chance that college freshmen perceived their peers' to be more sexually active. Thus, hypothesis 2 was supported.

RQ5: Which Type of Sexual Media Vehicle Contributes Most to Sexual Risk-Taking Behaviors?

RQ5 asked which of the six sexual media vehicle types (TV, movies, music, magazines, Internet, or social media) had the most influence in predicting college freshmen's sexual risk-taking behaviors. A structural equation model was run between each of the time-1 media vehicle type variables and time-2 sexual risk-taking behaviors (see Figure 16). Analysis showed that there was an excellent fit to the data, χ^2 (1) = .229, p = .632, CFI = 1.000, CMIN/DF = .229, RMSEA = .000, AIC = 68.229, NFI = .999. Results revealed that time-1 music contributed the most toward time-2 sexual risk taking (β = .18, p<.01). Thus, musical artists influence college freshmen's sexual risk-taking behaviors more so than TV shows, movies, magazines, Internet sites, or social media vehicles. As for the second largest contributor toward sexual risk taking, results found that time-1 magazines contributed the most toward time-2 sexual risk-taking behaviors (β = .15, p<.05). The remaining sexual media vehicle types – TV, movies, internet, and social media— did not individually predict sexual risking-taking behaviors at time-2.

Additionally, a structural equation model was run between each of the time-1 media vehicle type variables and time-2 sexual risk-taking behaviors while sexual risk-taking behaviors at time-1 were controlled (see Figure 17). Analysis showed that there was an excellent fit to the data for this control model as well, χ^2 (1) = .248, p = .618, CFI = 1.000, CMIN/DF = .248, RMSEA = .000, AIC = 86.248, NFI = .999. Although all paths between each of the time-1 media vehicles and the time-2 sexual risk-taking behavior variable were reduced to non-significance, time-1 music contributed the most toward

time-1 sexual risk-taking behaviors (β = .28, p<.001) while time-1 magazines was the second largest contributor toward time-1 sexual risk-taking behaviors (β = .18, p<.01). Table 2 shows the specific media vehicles used for each of the six types in the present study's data collection procedures.

Perception of Peers' Sexual Activity

H3: College Freshmen's Perceptions of Peers' Sexual Activity Predicts their Hookup Experiences

Hypothesis 3 proposed that college freshmen's perceptions of their peers' sexual activity predict their own hookup experiences. Zero-order correlations displayed in Table 5 revealed a positive correlation between time-1 perception of peers' sexual activity and time-2 hookup experiences for all participants (r = .10, p = .07) that approached statistical significance. However, the correlations run separately for males (r = .14, p = .15) and females (r = .09, p = .16) did not reach statistical significance. Cross-lagged path analysis was then conducted, allowing for simultaneous investigation of the impact of time-1 perception of peers' sexual activity on time-2 hookup experiences and the impact of time-1 hookup experiences on time-2 perception of peers' sexual activity (see Figure 18). Analysis showed that there was an excellent fit to the data, χ^2 (1) = .149, p = .700, CFI = 1.000, CMIN/DF = .149, RMSEA = .000, AIC = 26.149, NFI = 1.000. Results showed that there was not a statistically significant direct path between time-1 perception of peers' sexual activity and time-2 hookup experiences nor was there a statistically significant direct path between time-1 hookup experiences and time-2 perception of peers' sexual activity; however, there was a statistically significant

covariance between time-1 perception of peers' sexual activity and time-1 hookup experiences (β = .12, p<.05). This finding suggests that as perception of peers' sexual activity at time-1 increased, hookup experiences at time-1 increased as well. Thus, although time-1 perception of peers' sexual activity was correlated to time-2 hookup experiences, college freshmen's peer influence did not predict their hookup experiences over time. Therefore, hypothesis 3 was not supported.

H4: College Freshmen's Perceptions of Peers' Sexual Activity Predicts their Sexual Risk-Taking

Hypothesis 4 stated that college freshmen's perceptions of peers' sexual activity would predict their sexual risk-taking behaviors. First, zero-order correlations demonstrated a statistically significant positive relationship between time-1 perception of peers' sexual activity and time-2 sexual risk-taking behaviors for all participants (r = .12, p<.05). The correlation did not reach significance for females (r = .09, p = .18) separately while a positive correlation that approached significance was found for males (r = .18, p = .06). Next, cross-lagged path analysis examined for simultaneous investigation of the impact of time-1 perception of peers' sexual activity on time-2 sexual risk-taking behaviors and the impact of time-1 sexual risk-taking behaviors on time-2 perception of peers' sexual activity (see Figure 19). Analysis showed that there was an adequate fit to the data, χ^2 (1) = 5.654, p = .017, CFI = .988, CMIN/DF = 5.654, RMSEA = .075, AIC = 31.654, NFI = .986. Results showed that there was not a statistically significant direct path between time-1 perception of peers' sexual activity and time-2 sexual risk-taking behaviors nor was there a statistically significant direct path between

time-1 sexual risk-taking behaviors and time-2 perception of peers' sexual activity; however, there was a statistically significant covariance between time-1 perception of peers' sexual activity and time-1 sexual risk-taking behaviors (β = .16, p<.01), suggesting that as perception of peers' sexual activity at time-1 increases, sexual risk-taking behaviors at time-1 increase as well. When examining the full model, there was a statistically significant positive relationship between peer influence and sexual risk taking (β = .12, p<.05). Thus, hypothesis 4 was supported.

Endorsement of the Hookup Culture

RQ6: Will Endorsement of the Hookup Culture Predict Sexual Risk-Taking Behaviors?

To examine the relationship between EHC and sexual risk-taking behaviors, zero-order correlations were run. A statistically significant positive relationship was found between time-1 EHC and time-2 sexual risk-taking behaviors for all participants (r = .39, p<.01) as well as for females (r = .40, p<.01) and males (r = .41, p<.01). Based on these statistically significant findings, further investigation was conducted using cross-lagged path analysis. Path analysis allowed for the simultaneous investigation of the impact of time-1 EHC on time-2 sexual risk-taking behaviors and the impact of time-1 sexual risk-taking behaviors on time-2 EHC (see Figure 20). Analysis showed that there was an adequate fit to the data, χ^2 (1) = 8.077, p = .004, CFI = .990, CMIN/DF = 8.077, RMSEA = .064, AIC = 34.077, NFI = .989. Results revealed statistically significant direct paths between both time-1 EHC and time-2 sexual risk-taking behaviors (β = .10, p<.01) and between time-1 sexual risk-taking behaviors and time-2 EHC (β = .08, p<.05). These findings suggest that as college freshmen's EHC increased at time-1, this predicted an

increase in their sexual risk-taking behaviors at time-2. Likewise, college freshmen's sexual risk-taking behaviors at time-1 predicted their EHC at time-2. A statistically significant covariance was also discovered between time-1 EHC and time-1 sexual risk-taking behaviors as well (β = .40, p<.001). Overall, the findings suggest that college freshmen's EHC did predict their sexual risk-taking behaviors and the relationship appears to be reciprocal.

H5: College Freshmen's Endorsement of the Hookup Culture will Predict Hookup Experiences

Hypothesis 5 stated that college freshmen's EHC would predict their hookup experiences. Table 5 shows zero-order correlations that reveal a statistically significant positive relationship between time-1 EHC and time-2 hookup experiences for all participants (r = .69, p<.01), including females (r = .68, p<.01) and males (r = .71, p<.01) separately. Further analysis using cross-lagged paths examined for simultaneous investigation of the impact of time-1 EHC on time-2 hookup experiences and the impact of time-1 hookup experiences on time-2 EHC (see Figure 21). Analysis showed that there was an adequate fit to the data, χ^2 (2) = 7.046, p = .043, CFI = .983, CMIN/DF = 3.523, RMSEA = .076, AIC = 31.046, NFI = .987. Results found statistically significant direct paths between both time-1 EHC and time-2 hookup experiences (β = .28, p<.001) and between time-1 hookup experiences and time-2 EHC (β = .21, p<.001). These findings suggest as college freshmen's EHC increased at time-1, this predicted an increase in their hookup experiences at time-2. Likewise, college freshmen's hookup experiences at time-1 predicted their EHC at time-2. A statistically significant covariance was also found

between time-1 EHC and time-1 hookup experiences as well (β = .75, p<.001), suggesting that as EHC at time-1 increased, hookup experiences at time-1 increased. Overall, the findings suggested that college freshmen's EHC did predict their hookup experiences, and that the relationship between the two variables was reciprocal. Thus, hypothesis 5 was supported.

Mediational Analyses

H6a: College Freshmen's Perceptions of their Peers' Sexual Activity will Mediate the Relationship between their Sexual Media Diets and Hookup Experiences

Hypothesis 6a examined the mediating effect that college freshmen's perceptions of their peers' sexual activity had on the relationship between time-1 SMD and time-2 hookup experiences. First, a structural equation model was run on the mediation model (see Figure 22).

Analysis showed that there was an excellent fit to the data, χ^2 (1) = .017, p = .898, CFI = 1.000, CMIN/DF = .017, RMSEA = .000, AIC = 16.017, NFI = .999. The effect of time-1 SMD on time-2 perception of peers' sexual activity was statistically significant (β = .11, p<.05) while the effect of time-2 perception of peers' sexual activity on time-2 hookup experiences was not statistically significant (β = .00, p = .99). The indirect effect (.00) through peer influence was not statistically significant and explained 2.1% of the observed predictor-criterion relationship. When time-2 perception of peers' sexual activity was controlled, the effect of time-1 SMD on time-2 hookup experiences was statistically significant (β = .15, p<.01). Based on the mediation criteria, proposed by Baron and Kenny (1986), mediation was not demonstrated. Additionally, bootstrapping

procedures (Preacher & Hayes, 2004) were applied to test the indirect effect of time-1 SMD on time-2 hookup experiences. The standard estimate for the indirect effect was .0002 (SE = .004; 95% CI = -.01, .01). Because the bootstrap confidence interval included zero, there is no mediation effect. Thus, hypothesis 6a was not supported.

H6b: College Freshmen's Perceptions of their Peers' Sexual Activity will Mediate the Relationship between their Sexual Media Diets and Sexual Risk-Taking Behaviors

Hypothesis 6b investigated the mediating effect that college freshmen's perceptions of their peers' sexual activity had on the relationship between their time-1 SMD and time-2 sexual risk-taking behaviors. Mediation was determined by testing the significance of the indirect effects of time-2 peer influence on the direct effect of time-1 SMD on time-2 sexual risk-taking behaviors. Analysis showed that there was an excellent fit to the data, χ^2 (1) = .017, p = .898, CFI = 1.000, CMIN/DF = .017, RMSEA = .000, AIC = 16.017, NFI = .999. According to the mediation model (see Figure 23), the effect of time-1 SMD on time-2 perception of peers' sexual activity was statistically significant (β = .11, p<.05) while the effect of time-2 perception of peers' sexual activity on time-2 sexual risk-taking behaviors (β = .11, p<.05) did yield a statistically significant result as well. The indirect effect (.01) through peer influence approached significance and explained 3.6% of the observed predictor-criterion relationship. After controlling for time-2 perception of peers' sexual activity, the effect of time-1 SMD on time-2 sexual risk-taking behaviors did not substantively differ from the direct effect and remained statistically significant (β = .14, p<.01). According to Baron and Kenny (1986), mediation was not fully demonstrated. Bootstrapping procedures as described by Preacher and Hayes (2004)

were applied to test the indirect effect of time-1 SMD on time-2 sexual risk-taking behaviors. Results found the standard estimate for the indirect effect to be .0056 (SE = .004; 95% CI = .00, .02). Because the bootstrap confidence interval does not include zero, there was support for a mediation effect; however, according to the procedures outlined by Baron and Kenny (1986), mediation was not fully demonstrated. Thus, hypothesis 6b was not fully supported.

H6c: College Freshmen's Endorsement of the Hookup Culture will Mediate the Relationship between their Sexual Media Diets and Hookup Experiences

Hypothesis 6c tested the mediating effect that college freshmen's EHC had on the relationship between time-1 SMD and time-2 hookup experiences. The significance of the indirect effects of time-2 EHC on the direct path between time-1 SMD and time-2 hookup experiences was examined using a structural equation model (see Figure 24). Analysis showed that there was an excellent fit to the data, χ^2 (1) = .017, p = .898, CFI = 1.000, CMIN/DF = .017, RMSEA = .000, AIC = 16.017, NFI = 1.000. Results revealed that the effect of time-1 SMD on time-2 EHC was statistically significant (β = .17, p<.001) and so was the effect of time-2 EHC on time-2 hookup experiences (β = .74, p<.001). The indirect effect (.08) through EHC was statistically significant and explained 55.3% of the observed predictor-criterion relationship. When time-2 EHC was controlled, the effect of time-1 SMD on time-2 hookup experiences was not statistically significant, and the effect was substantially reduced (β = .02, p = .40). According to Baron and Kenny (1986), mediation was fully demonstrated. Finally, bootstrapping procedures (Preacher & Hayes, 2004) were applied to test the indirect effect of time-1 SMD on time-2 hookup

experiences. The standard estimate for the indirect effect was .0827 (SE = .03; 95% CI = .02, .14). Because the bootstrap confidence interval did not include zero, there is a mediating effect for time-2 EHC between time-1 SMD and time-2 hookup experiences. Thus, hypothesis 6c was supported.

H6d: College Freshmen's Endorsement of the Hookup Culture will Mediate the Relationship between their Sexual Media Diets and Sexual Risk-Taking Behaviors

Hypothesis 6d examined the mediating effect that college freshmen's EHC had on the relationship between their time-1 SMD and time-2 sexual risk-taking behaviors. The significance of the indirect effects of time-2 EHC on the direct path between time-1 SMD and time-2 sexual risk-taking behaviors was examined using a structural equation model (see Figure 25). Analysis showed that there was an excellent fit to the data, χ^2 (1) = .017, p = .898, CFI = 1.000, CMIN/DF = .017, RMSEA = .000, AIC = 16.017, NFI = 1.000. Results revealed that the effect of time-1 SMD on time-2 EHC was statistically significant (β = .17, p<.001) and so was the effect of time-2 EHC on time-2 sexual risk-taking behaviors (β = .40, p<.001). The indirect effect (.03) through EHC was statistically significant and explained 17.9% of the observed predictor-criterion relationship. After time-2 EHC was controlled, the effect of time-1 SMD on time-2 sexual risk-taking behaviors only approached statistical significance while the effect slightly decreased (β = .06, p<.10). Therefore, mediation was fully demonstrated (Baron & Kenny, 1986). Bootstrapping procedures outlined by Preacher and Hayes (2004) were then applied to test the indirect effect of time-1 SMD on time-2 sexual risk-taking behaviors. The standard estimate for the indirect effect was .0314 (SE = .01; 95% CI = .01, .06). Because

the bootstrap confidence interval did not include zero, there is a mediating effect for time-2 EHC between time-1 SMD and time-2 sexual risk-taking behaviors. Thus, hypothesis 6d was supported.

Moderating Influence of Individual Differences on the Main Relationships

Gender

RQ7: Will the Relationship between Sexual Media Diet and Sexual Risk-Taking Differ by Gender?

As found for RQ4, zero-order correlations revealed a statistically significant positive relationship between time-1 SMD and time-2 sexual risk-taking behaviors for all participants (r = .15, p<.01) as well as for females (r = .17, p<.01); however, there was not a statistically significant direct path between time-1 SMD and time-2 sexual risk-taking behaviors. Therefore, RQ7 questions whether such a relationship may be moderated by gender. To investigate for gender differences, multiple-group analyses of structural models were estimated. First, an unconstrained model of the overall SEM model (as in Figure 1) was calculated, in which the parameters were allowed to differ for male and female participants (Byrne, 2010). Second, the parameters were then constrained to be invariant for male and female participants. The results of the χ^2 difference test showed that the unconstrained model did not fit significantly better than the constrained model $\chi^2_{difference}(1) = 2.6$, p = .11. Therefore, because the models are equivalent across males and females, this suggests that the relationship between time-1 SMD and time-2 sexual risk-taking behaviors does not differ by gender.

H7: The Relationship between Sexual Media Diet and Endorsement of the Hookup Culture will be Stronger for Men than for Women

As found for H1, zero-order correlations revealed a statistically significant positive relationship between time-1 SMD and time-2 EHC for all participants (r = .17, p<.001) as well as for males (r = .28, p<.01) and approached significance for females (r = .13, p = .054); furthermore, there was a statistically significant direct effect between time-1 SMD and time-2 EHC (β = .10, p<.01), suggesting that SMD at time-1 predicted an increase in EHC at time-2. Hypothesis 7 suggested that this relationship may be stronger for men than for women. Multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed for male and female participants (Byrne, 2010). The parameters were then constrained to be invariant for male and female participants to show if the male group produced a stronger relationship between time-1 SMD and time-2 EHC than the female group. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models approached significance $\chi^2_{difference}(1) = 3.2$, p = .07. Therefore, because the models are equivalent across males and females, this suggests that the relationship between time-1 SMD and time-2 EHC does not differ by gender. Thus, hypothesis 7 was not supported.

RQ8: Will the Relationship between Sexual Media Diet and Peer Influence Differ by Gender?

As found for hypothesis 2, zero-order correlations revealed a statistically significant positive relationship between time-1 SMD and time-2 peer influence for all

participants (r = .11, p<.05) as well as for females (r = .13, p = .051) that approached statistical significance. Likewise, there was a statistically significant direct path between time-1 SMD and time-2 perception of peers' sexual activity (β = .11, p<.05). Therefore, RQ8 questions whether such a relationship may be moderated by gender. To investigate for gender differences, multiple-group analyses of structural models were estimated. First, an unconstrained model of the overall SEM model (as in Figure 1) was calculated, in which the parameters were allowed to differ for male and female participants (Byrne, 2010). Second, the parameters were then constrained to be invariant for male and female participants. The results of the χ^2 difference test showed that the unconstrained model did not fit significantly better than the constrained model $\chi^2_{difference}(1) = .00$, p = 1.00. Therefore, because the models are equivalent across males and females, this suggests that the relationship between time-1 SMD and time-2 peer influence does not differ by gender.

H8: The Relationship between Sexual Media Diet and Engagement in Hookups will be Stronger for Men than for Women

As found for RQ3, zero-order correlations revealed a statistically significant positive relationship between time-1 SMD and time-2 hookup experiences for all participants (r = .14, p<.01) as well as for males (r = .20, p<.05) and approached significance for females (r = .12, p = .07). However, there was not a statistically significant direct effect between time-1 SMD and time-2 hookup experiences. Even so, hypothesis 8 suggested that this relationship may be stronger for men than for women. Multiple-group analyses of structural models were estimated in which an unconstrained

model was calculated and parameters differed for male and female participants (Byrne, 2010). The parameters were then constrained to be invariant for male and female participants to show if the male group produced a stronger relationship between time-1 SMD and time-2 hookup experiences than the female group. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models did not significantly differ, $\chi^2_{difference}(1) = 0.5$, $p = .48$. Therefore, because the models are equivalent across males and females, this suggests that the relationship between time-1 SMD and time-2 hookup experiences does not differ by gender. Thus, hypothesis 8 was not supported.

Sexual Status Variables

H9a: The Relationship between Sexual Media Diet and Sexual Risk-Taking will be Stronger for those with More Sex Partners

Zero-order correlations revealed a statistically significant positive relationship between time-1 SMD and time-2 sexual risk-taking behaviors for all participants as well as for females. However, there was not statistically significant direct effect between time-1 SMD and time-2 sexual risk-taking behaviors, suggesting that college freshmen's SMD effect on their sexual risk-taking behaviors may be moderated by a third variable. Hypothesis 9a examined whether the more sex partners college freshmen had in the previous month would moderate the main relationship between time-1 SMD and time-2 sexual risk-taking behaviors.

Multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed for participants with one

or no sex partners versus two or more sex partners within the previous month (Byrne, 2010). The parameters were then constrained to be invariant for the two groups to show if the higher number of sex partners group produced a stronger relationship between time-1 SMD and time-2 sexual risk-taking behaviors than the group of college freshmen who reported having a lower number of sex partners. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was not statistically significant $\chi^2_{difference}(1) = .2$, $p = .65$. Because the models are equivalent across groups, this suggests that the relationship between time-1 SMD and time-2 sexual risk-taking behaviors does not differ by college freshmen's number of sex partners. Thus, hypothesis 9a was not supported.

H9b: The Relationship between Sexual Media Diet and Sexual Risk-Taking will be Stronger for those who are Not in a Relationship

Results showed a statistically significant positive relationship between time-1 SMD and time-2 sexual risk-taking behaviors for all participants and females only; however, there was not statistically significant direct effect between time-1 SMD and time-2 sexual risk-taking behaviors, implying that college freshmen's SMD effect on their sexual risk-taking behaviors may be moderated by a third variable. Hypothesis 9b investigated whether college freshmen's relationship status would moderate the main relationship between time-1 SMD and time-2 sexual risk-taking behaviors.

To test for a moderating effect of relationship status on the main relationship, multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed according to relationship status (Byrne,

2010). The parameters were then constrained to be invariant for the two groups to show if being single produced a stronger relationship between time-1 SMD and time-2 sexual risk-taking behaviors than for those in a relationship. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was not statistically significant $\chi^2_{difference}(1) = .00$, $p = 1.00$. Because the models were equivalent across groups, this suggests that the relationship between time-1 SMD and time-2 sexual risk-taking behaviors did not differ by college freshmen's relationship status. Thus, hypothesis 9b was not supported.

H9c: The Relationship between Sexual Media Diet and Sexual Risk-Taking will be Stronger for those who have Less Concern for Safe Sex

Findings suggest that a statistically significant positive relationship exists between time-1 SMD and time-2 sexual risk-taking behaviors for all participants and females only; however, a statistically significant direct effect does not exist between time-1 SMD and time-2 sexual risk-taking behaviors, suggesting that college freshmen's SMD effect on their sexual risk-taking behaviors may be moderated by a third variable. Hypothesis 9c investigated whether college freshmen's concern for safe sex would moderate the main relationship between time-1 SMD and time-2 sexual risk-taking behaviors. The moderating influence for safe sex concern was examined on the main relationship by employing multiple-group analyses of structural models. First, an unconstrained model was calculated allowing for parameters to differ according to college freshmen's level of safe sex concern (Byrne, 2010). Second, the parameters were then constrained to be invariant for the two groups to show if having less concern for

safe sex produced a stronger relationship between time-1 SMD and time-2 sexual risk-taking behaviors than for those who reported having more concern regarding safe sex.

The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models were statistically significant $\chi^2_{difference}(1) = 4.9$, $p<.05$, suggesting that the models were not equivalent across groups. This finding suggests that the relationship between time-1 SMD and time-2 sexual risk-taking behaviors does differ by college freshmen's concern for safe sex. Results showed that there was an adequate fit to the data, with a low RMSEA and CMIN/DF ratio, χ^2 (60) = 76.254, p = .077, RMSEA = .031, CMIN/DF = 1.271. For those who reported having less concern for safe sex, the direct effect between time-1 SMD and time-2 sexual risk-taking behaviors was statistically significance (β = .57, $p<.05$), suggesting that SMD at time-1 did predict an increase in sexual risk-taking behaviors at time-2 for those with less safe sex concern. For college freshmen who reported having more safe sex concern, the direct path between time-1 SMD and time-2 sexual risk-taking behaviors was not statistically significant (β = .07, p = .23). Thus, college freshmen who consumed more sexual media content had less concern regarding safe sex. Hypothesis 9c was supported.

H10a: The Relationship between Sexual Media Diet and Endorsement of the Hookup Culture will be Stronger for those with More Sex Partners

Results revealed a statistically significant positive relationship between time-1 SMD and time-2 EHC for all participants and males only as well as a statistically significant direct effect between time-1 SMD and time-2 EHC, indicating that SMD at time-1 predicted an increase in EHC at time-2. Hypothesis 10a examined whether this

prediction would be stronger for those college freshmen who had more sexual partners in the previous month. To test this hypothesis, multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed for participants with one or no sex partners versus two or more sex partners within the previous month (Byrne, 2010). The parameters were then constrained to be invariant for the two groups to show if the higher number of sex partners group produced a stronger relationship between time-1 SMD and time-2 EHC than the group of college freshmen who reported having a lower number of sex partners. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was statistically significant $\chi^2_{difference}(1) = 6.8$, $p<.01$, such that the models were not equivalent across groups. This finding suggests that the relationship between time-1 SMD and time-2 EHC does differ by college freshmen's number of sex partners. Results showed that there was an adequate fit to the data, with a low RMSEA and CMIN/DF ratio, χ^2 (60) = 79.829, $p<.05$, RMSEA = .035, CMIN/DF = 1.330. For those who reported having one or no sexual partners within the previous month, there was not a statistically significant direct effect between time-1 SMD and time-2 EHC ($\beta = .02$, $p = .80$), such that SMD at time-1 did not predict an increase in EHC at time-2 for those with fewer sex partners. For college freshmen who reported having two or more sexual partners, the direct path between time-1 SMD and time-2 EHC was statistically significant ($\beta = .53$, $p<.05$), suggesting that SMD at time-1 did predict an increase in EHC at time-2 for those with more sex partners; thus, the

relationship was stronger for college freshmen who had more sex partners within the previous month. Hypothesis 10a was supported.

H10b: The Relationship between Sexual Media Diet and Endorsement of the Hookup Culture will be Stronger for those who are Not in a Relationship

A statistically significant positive relationship was found between time-1 SMD and time-2 EHC for all participants as well as males only and a statistically significant direct effect was also found between time-1 SMD and time-2 EHC, suggesting that SMD at time-1 predicted an increase in EHC at time-2. Hypothesis 10b explored whether this relationship would be stronger for college freshmen who reported being single in comparison to those who reported being in a relationship. To test for a moderating effect of relationship status on the main relationship, multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed based on relationship status (Byrne, 2010). The parameters were then constrained to be invariant for the two groups to show if being single produced a stronger relationship between time-1 SMD and time-2 EHC than for those in a relationship. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was not statistically significant $\chi^2_{difference}(1) = .3$, $p = .58$. Because the models are equivalent across groups, this suggests that the relationship between time-1 SMD and time-2 EHC does not differ by college freshmen's relationship status. Thus, hypothesis 10b was not supported.

H10c: The Relationship between Sexual Media Diet and Endorsement of the Hookup Culture will be Stronger for those who have Less Concern for Safe Sex

Findings showed a statistically significant positive relationship between time-1 SMD and time-2 EHC for all participants and males only as well as a statistically significant direct effect between time-1 SMD and time-2 EHC, indicating that SMD at time-1 predicted an increase in EHC at time-2. Hypothesis 10c investigated whether college freshmen's concern for safe sex would moderate the direct effect of time-1 SMD and time-2 EHC, producing a stronger relationship for those who had less safe sex concern. Multiple-group analyses of structural models was employed to test for moderation such that an unconstrained model was calculated allowing for parameters to differ according to college freshmen's level of safe sex concern (Byrne, 2010). Next, the parameters were then constrained to be invariant for the two groups to show if having less concern for safe sex produced a stronger relationship between time-1 SMD and time-2 EHC than for those who reported having more concern regarding safe sex.

The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was not statistically significant $\chi^2_{difference}(1) = 1.3$, $p = .25$, such that the models were equivalent across groups. According to this finding, the relationship between time-1 SMD and time-2 EHC did not differ according to college freshmen's concern for safe sex.

Therefore, hypothesis 10c was not supported.

Wishful Identification

RQ9: Will the Relationship between Sexual Media Diet and Endorsement of the Hookup Culture be Stronger for those who Wishfully Identify with the Media Models?

Results revealed a statistically significant positive relationship between time-1 SMD and time-2 EHC for all participants and males only, as well as a statistically significant direct effect between time-1 SMD and time-2 EHC, indicating that SMD at time-1 predicted an increase in EHC at time-2. RQ9 questioned whether having high levels of wishful identification with media models present within the sexual content college freshmen regularly consume would moderate the main relationship between time-1 SMD and time-2 EHC. To test for a moderating effect of wishful identification, multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed according to level of wishful identification reported (Byrne, 2010). The parameters were then constrained to be invariant for the two groups to show if high levels of wishful identification with the media models produced a stronger relationship between time-1 SMD and time-2 EHC than for those who reported low levels of wishful identification. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was not statistically significant $\chi^2_{difference}(1) = .3$, $p = .58$. Thus, because the models were equivalent across groups, suggesting that the relationship between time-1 SMD and time-2 EHC did not differ according to participants' level of wishful identification with media models.

RQ10: Will the Relationship between Sexual Media Diet and Sexual Risk-Taking be Stronger for those who Wishfully Identify with the Media Models?

Results showed a statistically significant positive relationship exists between time-1 SMD and time-2 sexual risk-taking behaviors for all participants and females only;

however, a statistically significant direct effect did not emerge between time-1 SMD and time-2 sexual risk-taking behaviors, suggesting that college freshmen's SMD effect on their sexual risk-taking behaviors may be moderated by a third variable. RQ10 questioned whether having high levels of wishful identification with the media models present within sexual content college freshmen regularly consume would moderate the main relationship between time-1 SMD and time-2 sexual risk-taking behaviors. To test for a moderating effect, multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed according to reported levels of wishful identification (Byrne, 2010). The parameters were then constrained to be invariant for the two groups to show if having high levels of wishful identification with the media models produced a stronger relationship between time-1 SMD and time-2 sexual risk-taking behaviors in comparison to those who reported having low levels of wishful identification to the models. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was not statistically significant $\chi^2_{difference}(1) = 1.7$, $p = .19$. Therefore, the models were equivalent across groups, implying that the relationship between time-1 SMD and time-2 sexual risk-taking behaviors did not differ according to the level of wishful identification reported.

Alcohol

H11a: Alcohol Consumption will Moderate the Relationship between Endorsement of the Hookup Culture and Hookup Experiences

Zero-order correlations in hypothesis 5 revealed a statistically significant positive relationship between time-1 EHC and time-2 hookup experiences for all participants (r = .69, p<.01), including females (r = .68, p<.01) and males (r = .71, p<.01) separately. Likewise, cross-lagged paths found statistically significant direct paths between time-1 EHC and time-2 hookup experiences (β = .28, p<.001), implying that college freshmen's time-1 EHC does predict their hookup experiences at time-2. Hypothesis 11a investigated whether alcohol consumption moderated the relationship between EHC and hookup experiences. To test for a moderating effect of alcohol use on the main relationship, multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed based on the number of days college freshmen reported consuming four or more alcoholic beverages within a 30-day time span (e.g., one or no days versus two or more days) (Byrne, 2010). The parameters were then constrained to be invariant for the two groups to show if the relationship between time-1 EHC and time-2 hookup experiences differed by amount of alcohol consumption. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was not statistically significant $\chi^2_{difference}(1)$ = 1.2, p = .27. Therefore, because the models were equivalent across groups, the relationship between time-1 EHC and time-2 hookup experiences did not differ by level of alcohol consumption. Hypothesis 11a was not supported.

H11b: Alcohol Consumption will Moderate the Relationship between Endorsement of the Hookup Culture and Sexual Risk-Taking Behaviors

According to the zero-order correlations conducted in RQ6, a statistically significant positive relationship between time-1 EHC and time-2 sexual risk-taking behaviors for all participants (r = .39, p<.01) was found as well as for females (r = .40, p<.01) and males (r = .41, p<.01) separately. Additionally, path analysis showed statistically significant direct paths between time-1 EHC and time-2 sexual risk-taking behaviors (β = .10, p<.01), indicating that as college freshmen's EHC increased at time-1, this predicted an increase in their sexual risk-taking behaviors at time-2. Hypothesis 11b examined whether alcohol consumption would moderate the relationship between EHC and sexual risk-taking behaviors. In order to test for this moderating effect, multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed based on the number of days college freshmen reported consuming four or more alcoholic beverages within a 30-day time span (e.g., one or no days versus two or more days) (Byrne, 2010). The parameters were then constrained to be invariant for the two groups to show if the relationship between time-1 EHC and time-2 sexual risk-taking behaviors differed according to the number of days large volumes of alcohol was consumed. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was not statistically significant $\chi^2_{difference}(1) = .80$, p = .37. Thus, the models are equivalent across groups, suggesting that the relationship between time-1 EHC and time-2 sexual risk-taking behaviors did not differ by level of alcohol consumption. Hypothesis 11b was not supported.

H12a: Alcohol Consumption will Moderate the Relationship between Peer Influence and Hookup Experiences

Zero-order correlations in hypothesis 3 revealed a positive relationship between time-1 peer influence and time-2 hookup experiences for all participants that approached statistical significance (r = .10, p = .07). There was also no statistically significant direct path between time-1 peer influence and time-2 hookup experiences. Hypothesis 12a investigated whether alcohol consumption moderated the relationship between college freshmen's perception of their peers' sexual activity and hookup experiences. To test for a moderating effect of alcohol use on the main relationship, multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed based on the number of days college freshmen reported consuming four or more alcoholic beverages within a 30-day time span (e.g., one or no days versus two or more days) (Byrne, 2010). The parameters were then constrained to be invariant for the two groups to show if the relationship between time-1 peer influence and time-2 hookup experiences differed by amount of alcohol consumption. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was not statistically significant $\chi^2_{difference}(1)$ = 1.00, p = .32. Therefore, because the models were equivalent across groups, the relationship between time-1 perception of peers' sexual activity and time-2 hookup experiences did not differ by level of alcohol consumption. Hypothesis 12a was not supported.

H12b: Alcohol Consumption will Moderate the Relationship between Peer Influence and Sexual Risk-Taking Behaviors

According to the zero-order correlations conducted in hypothesis 4, a statistically significant positive relationship between time-1 peer influence and time-2 sexual risk-taking behaviors was found for all participants (r = .12, p<.05) as well as approached significance for males (r = .18, p = .06). Additionally, path analysis showed there was not a statistically significant direct path between time-1 peer influence and time-2 sexual risk-taking behaviors. Hypothesis 12b examined whether alcohol consumption would moderate the relationship between college freshmen's perception of their peers' sexual activity and sexual risk-taking behaviors. In order to test for this moderating effect, multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed based on the number of days college freshmen reported consuming four or more alcoholic beverages within a 30-day time span (e.g., one or no days versus two or more days) (Byrne, 2010). The parameters were then constrained to be invariant for the two groups to show if the relationship between time-1 peer influence and time-2 sexual risk-taking behaviors differed according to the number of days large volumes of alcohol was consumed. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was not statistically significant $\chi^2_{difference}(1) = .50$, p = .48. Thus, the models are equivalent across groups, suggesting that the relationship between time-1 perception of peers' sexual activity and time-2 sexual risk-taking behaviors did not differ by level of alcohol consumption. Hypothesis 12b was not supported.

Self-Efficacy toward Safe Sex

RQ11: Does Self-Efficacy toward Safe Sex Moderate the Relationship between Endorsement of the Hookup Culture and Sexual Risk-Taking Behaviors

Findings showed a statistically significant positive relationship between time-1 EHC and time-2 sexual risk-taking behaviors for all participants and females and males separately as well as a statistically significant direct path between time-1 EHC and time-2 sexual risk-taking behaviors. These findings suggest that as college freshmen's EHC increased at time-1, this predicted an increase in their sexual risk-taking behaviors at time-2. RQ11 asked whether having self-efficacy toward safe sex would moderate this main relationship. To test for the moderating effect of self-efficacy on the relationship between EHC and sexual risk taking, multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed for reported levels of self-efficacy toward safe sex (Byrne, 2010). The parameters were then constrained to be invariant for the two groups to show if the relationship between time-1 EHC and time-2 sexual risk-taking behaviors would differ for those high or low in self-efficacy. The results of the χ^2 difference test showed that the fit between the unconstrained and constrained models was not statistically significant $\chi^2_{difference}(1) = .00$, $p = 1.00$. Thus, given that the models were equivalent across groups, the relationship between time-1 EHC and time-2 sexual risk-taking behaviors did not differ by level of self-efficacy reported toward safe sex.

RQ12: Does Self-Efficacy toward Safe Sex Moderate the Relationship between Sexual Media Diet and Sexual Risk-Taking Behaviors

Findings showed a statistically significant positive relationship exists between time-1 SMD and time-2 sexual risk-taking behaviors for all participants and females only; however, a statistically significant direct effect did not emerge between time-1 SMD and time-2 sexual risk-taking behaviors, suggesting that college freshmen's SMD effect on their sexual risk-taking behaviors may be moderated by a third variable. Therefore, RQ12 questions whether self-efficacy toward safe sex moderates this main relationship. To test for the moderating influence of self-efficacy, multiple-group analyses of structural models were estimated in which an unconstrained model was calculated and parameters differed based on college freshmen's level of self-efficacy regarding safe sex practices (Byrne, 2010). The parameters were then constrained to be invariant for the two groups to show if the relationship between time-1 SMD and time-2 sexual risk-taking would differ for those who reported being low or high in self-efficacy.

According to the χ^2 difference test, the fit between the unconstrained and constrained models was statistically significant $\chi^2_{difference}(1) = 6.5$, $p<.01$, which means that the models were not equivalent across groups. Therefore, the relationship between time-1 SMD and time-2 sexual risk-taking behaviors did differ according to college freshmen's reported self-efficacy levels. Results showed that there was an adequate fit to the data, with a low RMSEA and CMIN/DF ratio, χ^2 (60) = 109.401, $p<.001$, RMSEA = .049, CMIN/DF = 1.823. For those who reported low levels of self-efficacy, there was a statistically significant direct effect between time-1 SMD and time-2 sexual risk-taking behaviors ($\beta = .31$, $p<.05$), suggesting that SMD at time-1 did predict an increase in sexual risk taking at time-2 for this group. For those who reported high levels of self-

efficacy, the direct path between time-1 SMD and time-2 sexual risk-taking behaviors was not statistically significant (β = .002, *p* = .96), indicating that SMD at time-1 did not predict an increase in sexual risk taking at time-2 for this group. Therefore, the relationship between SMD and sexual risk taking behaviors was moderated by self-efficacy toward safe sex, and this relationship was stronger for college freshmen who reported low levels of self-efficacy.

RQ13: Which Individual Difference Contributes Most to their Sexual Risk-Taking Behaviors?

RQ13 asked which of the individual difference variables examined in the present study (wishful identification, self-efficacy toward safe sex, alcohol, safe sex concern, number of sex partners, and relationship status) at time-1, had the most influence in predicting college freshmen's sexual risk-taking behaviors. A structural equation model was run between each of the time-1 individual difference variables, excluding gender, and time-2 sexual risk-taking behaviors (see Figure 26). Analysis showed that there was an adequate fit to the data, χ^2 (8) = 21.917, *p* = .005, CFI = .935, CMIN/DF = 2.740, RMSEA = .071, AIC = 75.917, NFI = .909. Results revealed that time-1 number of sex partners contributed the most toward time-2 sexual risk-taking behaviors (β = .55, *p*<.001). Thus, the number of sex partners college freshmen have had influenced their sexual risk-taking behaviors significantly more so than their wishful identification to sexual media models, their self-efficacy toward safe sex, alcohol consumption, safe sex concern, and relationship status. As for the second largest contributor toward sexual risk-taking, results found that time-2 alcohol contributed the most toward time-2 sexual

risk-taking behaviors (β = .18, p<.001). The remaining individual difference variables – wishful identification, self-efficacy, concern for safe sex, and relationship status — did not significantly predict sexual risking-taking behaviors at time-2.

Additionally, a structural equation model was run between each of the time-1 individual difference variables and time-2 sexual risk-taking behaviors while sexual risk-taking behaviors at time-1 were controlled (see Figure 27). Analysis showed that there was an adequate fit to the data for this control model as well, χ^2 (8) = 22.332, p = .004, CFI = .976, CMIN/DF = 2.792, RMSEA = .072, AIC = 94.332, NFI = .965. The only path that remained statistically significant between each of the time-1 individual differences and the time-2 sexual risk-taking behavior variable in the control model was number of sex partners (β = .18, p<.001).

Chapter 5: Discussion

The present discussion chapter is divided into five main sections. The first section describes the robustness of the overall model used to investigate the direct effect of SMD on each of the four endogenous variables – EHC, perception of peers' sexual activity, sexual risk-taking behaviors, and hookup experiences – as well as the indirect effects included in the mixed model's design. The second section explores (a) the effect of SMD, perception of peers' sexual activity, and EHC on *sexual risk-taking behaviors*, (b) the direct effect of SMD on the *perception of peers' sexual activity*, (c) the direct effect of SMD on *EHC*, and (d) the effect of SMD, perception of peers' sexual activity, and EHC on *hookup experiences*. Both mediating and moderating influences are also examined in this section as well as an exploration of the specific media vehicle types and individual difference variables that contributed the most toward determining college freshmen's sexual risk-taking behaviors over time. The third section discusses the theoretical and social implications of the findings. The fourth section examines the limitations and future directions of the present study. The final section concludes with the overall significance of the study.

Robustness of Mixed Model Design

The overall model used to examine the main relationships within the present study was investigated to examine relations between time-1 predictor (SMD) and time-2 criterion variables (EHC, perceptions of peers' sexual activity, sexual risk-taking behaviors, and hookup experiences). It was discovered that when all statistically

significant paths of the full model were included, SMD did predict EHC, EHC predicted both sexual risk-taking behaviors and hookup experiences, and perception of peers' sexual activity predicted sexual risk-taking behaviors. Likewise, the strength of the full model was upheld even after the four time-1 criterion variables were entered into the overall model. The full model was also upheld when the predictor variable only included the frequency-of-exposure scores and only included the extremity-of-exposure scores to demonstrate that a single dimension of SMD did not change the predictor variable's relation to the outcome variables of interest. Moreover, the robustness of the relations was also upheld even after the control variables, which included the individual difference variables that showed to significantly contribute to the model's endogenous variables, were introduced. Thus, the present study largely supported the main theoretical model.

Predictors of Sexual Risk-Taking Behavior

In this section, four levels of predictors on sexual risk taking will be considered. First, the direct effect that (a) SMD, (b) perception of peers' sexual activity, and (c) EHC had on sexual risk-taking behaviors will be explored. Second, indirect effects testing the mediating influence that perception of peers' sexual activity and EHC had between SMD and sexual risk-taking behaviors will be examined. Third, the moderating effect that gender, number of sex partners, relationship status, concern for safe sex, wishful identification, and self-efficacy had on SMD and sexual risk-taking will be investigated along with the moderating effect of alcohol consumption and self-efficacy on EHC and sexual risk-taking behaviors and, finally, the moderating effect of alcohol consumption

on peer influence and sexual risk taking. Fourth, the contributing influence that each media vehicle type and individual difference variable had toward predicting sexual risk-taking behaviors will be discussed.

SMD on Sexual Risk-Taking Behaviors. The correlation between time-1 SMD and time-2 sexual risk-taking behaviors was statistically significant for all participants as well as females only. Despite this positive association, path analysis did not find that college freshmen's SMD predicted their sexual risk-taking behaviors over time. One possible explanation for this would be that of the six media vehicle types that combined to create the SMD index, only music and magazines were discovered to have a significant individual impact on sexual risk-taking behaviors. Pardun et al. (2005) found a similar finding in their study investigating the impact of exposure to four media types on adolescents' sexual behaviors. Specifically, the authors discovered that when the media types were analyzed separately, movies had the strongest relationship with sexual behavior, followed by music, with TV and magazines producing substantially weaker associations with sexual behavior variables. Thus, the SMD predictor variable may not have been able to determine sexual risk-taking behaviors when the individual media types were combined to create the SMD index.

The mediating effect of peer influence on the relationship between SMD and sexual risk-taking behaviors was also tested. However, a mediation effect of peer influence on this main relationship was not demonstrated. This may be because the main effect of SMD on peer perceptions only approached statistical significance.

Next, a mediating effect of EHC on the relationship between SMD and sexual risk-taking behaviors was examined. A mediation effect was demonstrated, with the indirect effect through EHC explaining 17.9% of the relationship between SMD and sexual risk-taking behaviors. Research has shown that after exposure to high levels of sexual content, youth are more inclined to endorse casual sex (Bryant & Rockwell, 1994) and are at an increased risk of engaging in early sexual intercourse (Brown et al., 2006), which is a risk factor for teenage pregnancy and STIs (Abma & Sonenstein, 2001). Thus, it follows that an individual's EHC would mediate the relationship between SMD on sexual risk-taking behaviors because by consuming sexual media content, a person is more likely to endorse casual sex, which is a primary component of EHC, and engage in risky sexual behaviors. Furthermore, if a person accepts the norms and expectations of the hookup culture, he or she is also acknowledging the possible sexual risk behaviors that may result from participation in the culture, especially because alcohol use is an expected feature of it (Feldman et al., 1999; Grello et al., 2006; Lambert et al., 2003; Maticka-Tyndale & Herold, 1999; Paul et al., 2000). Lastly, this mediating effect makes sense theoretically because if heavy consumers of sexual media content are exposed to the social norms and expectations of the hookup culture (Aubrey & Smith, 2011) as well as rare depictions of sexual consequences that are not usually punished (Kunkel et al., 2005), then individuals will likely adopt an acceptance for the rules of the hookup culture and be more likely to engage in sexual risky behaviors.

Possible moderating influences on the main relationship between SMD and sexual risk-taking behaviors were then explored. The present study investigated

whether the main relationship would be moderated by gender. Multiple-group analysis determined that the relationship between SMD and sexual risk-taking behaviors did not differ by gender, however. This finding was surprising given all the literature that supports gender differences in regards to sexual activity (e.g., Petersen & Hyde, 2010). Specifically, research has shown that because males and females may be getting very different views of sexuality from the media content they choose to attend to (Brown, 2009), men and women might value different things when it comes to sex. Thus, men and women will use and process messages about sexuality that are salient to the demands and expectations of their gender (Aubrey et al., 2003).

Next, this study examined whether the number of sex partners college freshmen reported having within the previous month moderated the relationship between SMD and sexual risk taking. Again, the relationship between SMD and sexual risk-taking behaviors did not differ, this time according to college freshmen's number of sex partners. However, when examining the direct effect of individual difference variables on sexual risk taking, it was found that the number of sex partners college freshmen reported within the previous month contributed the most toward their sexual risk-taking behaviors. Previous research supports this finding that individuals' previous sexual history impacts their future sexual practices (Campbell et al., 1992). For instance, it has been shown that college students who reported having more sexual partners in the past were significantly less inclined to use a condom with a new partner in the future (Bishop & Lipsitz, 1990). Thus, it appears that number of sex partners has a main effect on sexual risk taking but it does not moderate the relationship between SMD and

sexual risk-taking behaviors. The third moderator that was tested was the relationship status of the participants. Similar to college freshmen's gender and number of sex partners, their relationship status also did not moderate the relationship between SMD and sexual risk-taking behaviors. This suggests that whether participants were in a relationship or not did not affect whether their SMD impacted their sexual risk taking.

College freshmen's concern for safe sex was also examined as a moderator of the main relationship. Support for this moderating relationship was discovered, which showed that the relationship between SMD and sexual risk-taking behaviors did differ by level of concern regarding safe sex. Specifically, SMD at time-1 did predict an increase in sexual risk-taking behaviors for those with less safe sex concern. This finding makes sense given that those who do not have concern about safe sex would be more vulnerable to the media's influence on sexual risk-taking practices that frequently portray sex as risk-free (Kunkel et al., 2005). However, there was no such effect for those who did have a concern for safe sex, suggesting that this variable can be a protective factor in the media's influence on individuals' sexual risk taking.

Next, it was explored whether the effect of SMD on sexual risk taking differed according to an individual's level of wishful identification with the media models present within sexual content he or she regularly consumes. According to SCT's symbolic modeling process (Bandura, 2004), heavy media consumers may model the behaviors of the media characters they desire to be like; thus, theoretically, it would make sense that those who wishfully identify with the media characters would engage in more sexual risk taking provided that sexual activity is frequently portrayed in the media as risk-free

(Kunkel et al., 2005). However, multiple-group analysis revealed that the relationship between SMD and sexual risk-taking behaviors did not differ according to the level of wishful identification reported. A possible explanation for this lack of theoretical support may be because the media models selected as the top three favorites in the TV, movie, and music categories were some of the least sexualized media models among the possible choices (e.g., Taylor Swift, Adele, Rachel Green from "Friends").

The final moderator tested for the SMD and sexual risk taking relationship was an individual's self-efficacy toward safe sex practices. It was discovered that the relationship between SMD and sexual risk-taking behaviors did differ according to college freshmen's reported self-efficacy levels, and this relationship was stronger for college freshmen who reported low levels of self-efficacy. Based on the assumptions of SCT, individuals who believe they have the ability to successfully practice safe sex will be more likely to do so. Thus, if college freshmen have low levels of self-efficacy, they will be less likely to engage in safe sex practices especially when they have consumed a media diet in which sexual risk behaviors are not punished in the media they regularly consume.

After exploring the composite SMD variable on sexual risk-taking behaviors, the components of the index were then examined to assess which of the six media vehicle types contributed the most toward predicting sexual risk-taking behaviors over time. Brown and colleagues (2006) suggest subsequent analysis to look more closely at the individual media that make up the diet to determine the relative influence of each on sexual behavior. Musical artists who rated high in sexual content contributed the most

toward determining college freshmen's sexual risk-taking behaviors. Previous findings examining the specific sexual content contained in each of these media vehicle types suggests that music would be a significant contributor to sexual risk-taking behaviors (Arnett, 1991; Hansen & Hansen, 1991; Martino et al., 2006; St. Lawrence & Joyner, 1991; Wester et al., 1997). According to a content analysis of the amount of sexual content contained in music, TV, movies, and magazines, music contained dramatically more sexual content than the other three medium types (Pardun et al., 2005). Songs have also shown to feature a significant amount of sexual references while excluding the consequences of sexual behavior often in a degrading manner (Gentile 1999; Martino et al., 2006). Likewise, musical lyrics have shown to impact sexual risk taking; specifically, influencing listeners to have sex without contraception (Arnett, 1991).

An alternative explanation for this finding is that a contextual eliciting condition occurs given that sexual music is likely to be played in places where sexual risk taking takes place. Therefore, when college students are exposed to sexual song lyrics in places like bars or fraternity houses, more sexual risky behaviors occur, suggesting future research is needed to further test for this possibility.

Magazines featuring high amounts of sexual content were the second largest contributor toward sexual risk taking, which may be because of two reasons. First, the magazines included in the present study were mostly women's magazines, and there has been an increase in explicit descriptions of sexual activities in women's magazines over the years (Garner et al., 1998). Second, consumption of magazines has been found to correlate with college students' sexual attitudes (Kim & Ward, 2004). Specifically,

magazines that are popular among college students feature narratives related to hookups, making the culture appear normative to the reader (Stepp, 2007) and shift sexual attitudes toward support for engagement in sexual activities without concern for a relationship. Likewise, men's magazines have been shown to portray sex between strangers as normative and often contain little to no information regarding sexual risk and responsibilities (Taylor, 2005). Because magazines portray engagement in sexual acts in non-committed relationships as normative while discounting the importance of sexual responsibility, readers may in turn downplay the importance of protecting themselves from sexual risks. As for the remaining sexual media vehicle types – TV, movies, internet, and social media— none were found to significantly predict sexual risking-taking behaviors.

Of the individual difference variables, it was found that the number of sex partners college freshmen reported within the previous month contributed the most to their sexual risk-taking behaviors, which was true even after time-1 sexual risking taking was entered into the model as a control variable. College students' previous sexual history has shown to impact their sexual health habits in the future (Bishop & Lipsitz, 1990). For instance, Campbell et al. (1992) discovered that men and women who had more sexual partners in their past were less likely to report condom use intentions with their future partners. The second largest contributor to sexual risk taking was the freshmen's amount of alcohol consumption within the previous 30 days, which is supported by evidence showing that heavy drinking can be related to decreased condom use (Wechsler et al., 2000). The remaining individual difference variables –

wishful identification, self-efficacy, concern for safe sex, and relationship status — did not significantly predict sexual risking-taking behaviors.

Perception of Peers' Sexual Activity on Sexual Risk-Taking Behaviors. Next, the perception of peers' sexual activity was examined on sexual risk-taking behaviors. A statistically significant positive relationship between time-1 perception of peers' sexual activity and time-2 sexual risk-taking behaviors was discovered for all participants and approached significance for males when measured separately; however, the correlation did not hold for females. Although a direct path was not found between time-1 peer influence and time-2 sexual risk taking in the cross-lagged path analysis, a statistically significant indirect path is shown in the full model between the two variables (see Figure 1). Thus, support exists for the finding that participants perceived their peers as sexually active which in turn impacted their own sexual behaviors as has been reported in previous studies (Brown et al., 2006; Cohen & Shotland, 1996; Page et al., 2000; Paul & Hayes, 2002).

A possible moderating influence on the main relationship between peer influence and sexual risk-taking behaviors was then explored. Specifically, the present study investigated whether the main relationship would be moderated by alcohol consumption. Because alcohol use has been demonstrated to impair an individual's judgment (Cooper, 2002), it would seem likely that when under the influence of heavy alcohol consumption, an individual would overestimate their peers' sexual practices, which may serve to persuade that individual to engage in risky sexual behavior of their own. However, in the present study's findings, multiple-group analysis determined that

the relationship between perception of peers' sexual activity and sexual risk-taking behaviors did not differ by level of alcohol consumption. This lack of moderation may be because the participants in the present study were not of legal drinking age, making them less likely to respond honestly to their previous alcohol use. Additionally, it could also be possible that being under the influence of alcohol had no bearing on their preconceived perceptions of their peers' sexual activity, which would therefore not influence their own individual sexual risk-taking choices.

EHC on Sexual Risk-Taking Behaviors. Findings showed that there was a statistically significant positive relationship between time-1 EHC and time-2 sexual risk-taking behaviors for all participants as well as for females and males separately. Overall, the findings suggested that college freshmen's EHC did predict their sexual risk-taking behaviors, and this relationship was reciprocal. Interestingly, not only did time-1 EHC predict time-2 sexual risk taking, but time-1 sexual risk taking predicted time-2 EHC. This implies that college freshmen who accept the expectations of the hookup culture will be more likely to engage in sexual risk taking, and if college freshmen engage in sexual risk taking, they will be more likely to accept the norms and rules of the hookup culture. This reciprocal relationship makes sense given that hooking up is linked to engagement in sexual risk-taking behaviors (Lambert et al., 2003; Paul & Hayes, 2002). Hooking up is associated with high-risk behaviors because alcohol is typically involved in the hookup experience (Feldman et al., 1999; Grello et al., 2006; Lambert et al., 2003; Maticka-Tyndale & Herold, 1999; Paul et al., 2000) and because an accepted part of the culture is to engage in non-committed, casual sexual encounters (Epstein et al., 2009; Glenn &

Marquardt, 2001; Owen et al., 2010). Because research has shown that college students' EHC is correlated with their hooking up behavior (Aubrey & Smith, 2011), it is likely that EHC is associated with sexual risk taking as well. Likewise, if individuals engage in sexual risk-taking activities, it would seem likely that they would accept the norms of a culture that promotes casual sex and alcohol consumption.

Further, two individual difference variables – alcohol consumption and self-efficacy toward safe sex – were examined as moderators of the relationship between EHC and sexual risk taking. For alcohol consumption, multiple-group analysis revealed that the relationship between EHC and sexual risk-taking behaviors did not differ according to the number of days freshmen consumed a high volume of alcoholic beverages. This finding is surprising given that alcohol use is often a component of the hookup culture because it makes hooking up more likely as a result of its disinhibiting effects (Owen et al., 2010), and when individuals are under the influence of alcohol, they are more likely to engage in high-risk sexual behaviors (Leigh & Stall, 1993). However, because the participants in the present study were not of legal drinking age, they may not have responded honestly to the item measuring their previous alcohol use. The moderating effect of self-efficacy on the relationship between EHC and sexual risk taking was also examined, which showed that this relationship also did not differ according to college freshmen's reported level of self-efficacy regarding safe sex, suggesting that acceptance of the hookup culture overrides individuals' confidence in their ability to successfully practice safe sex.

Predictors of Perception of Peers' Sexual Activity

This section examined the main effect of SMD on perception of peers' sexual activity as well as the moderating influence of gender on this relationship. No further mediators or moderators were explored.

SMD on Perception of Peers' Sexual Activity. The direct effect for SMD on perception of peers' sexual activity was examined. Positive relationships that were statistically significant between time-1 SMD and time-2 peer influence were found for all participants and approached significance for females examined separately; however, there was not a significant correlation for males. It should also be noted that there was a significant difference for men and women regarding their perception of their peers' sexual activity (wave 2 only) in which case women estimated higher levels of sexual activity among their peers than did their male counterparts. Because men and women use and process messages about sexuality that are salient to the demands and expectations of their gender (Ward, 1995) and because sexual media content portrays females as being the gatekeepers in regards to the timing of sexual activity in a relationship (Aubrey et al., 2003), women might be especially sensitive to these types of media messages. This would explain why there was a correlation between exposure to sexual content and peer influence for women but not for men. Further analysis showed that college freshmen's SMD at time-1 did predict their perception of their peers' sexual activity at time-2. Thus, with increased exposure to sexual media content, college freshmen were more likely to perceive their peers' to be more sexually active. This finding is supported by research that suggests that college students are able to gauge their peers' sexual habits via social networking sites like Facebook (Collins et al., 2011),

which conveys norms regarding their peers' sexuality based on the sexual posting and comments their peers make.

The moderating influence of gender on the relationship between SMD and peer influence was also examined. Men and women use and process messages about sexuality that are salient to the demands and expectations of their gender (Aubrey et al, 2003; Ward, 1995). Because men and women will likely vary in their vulnerability to the portrayal of sexy media based on what is expected of them in relationships, it was important to analyze how this impacted males and females perceptions' of their peers' sexual activities. According to the results, however, the relationship between SMD and perception of peers' sexual activity did not differ by gender. This may be because although males and females have differing demands placed upon them in regards to the sexual activities they are expected to perform in relationships, males do not differ from females in regards to their individual perceptions of their peers' sexual norms and behaviors. Furthermore, hooking up is so normative that men and women glean similar messages about it from the media, suggesting that this behavior is expected from their peers for both males and females.

Predictors of EHC

This section examined the direct effect of SMD on EHC as well as the moderating influence that gender, number of sex partners, relationship status, concern for safe sex, and wishful identification had on this main relationship.

SMD on EHC. The impact of time-1 SMD on time-2 EHC had a statistically significant positive correlation for all participants, including males examined separately,

while it approached significance for females only. Likewise, a direct effect between time-1 SMD and time-2 EHC was discovered, which implied that the more sexual media college freshmen were exposed to at time-1, the more they endorsed the hookup culture at time-2. This finding makes sense based on previous content analytic work demonstrating that when sexual content is portrayed in media, these portrayals typically show sex as risk-free and recreational (Kunkel et al., 2005; Pardun et al., 2005). In line with SCT, consuming sexual media that routinely depicts sexual scripts suggesting that sexual behaviors are fun and risk-free can reinforce an individual's acceptance of the rules and norms of the hookup culture (Aubrey & Smith, 2011). This is because frequent media users may begin to internalize the media's portrayal of a hookup and in turn adopt the media's social norms as their own (Bandura, 1994).

In addition, five moderators (gender, number of sex partners, relationship status, concern for safe sex, and wishful identification) were introduced to test whether the relationship between SMD and EHC was moderated by one or more of these variables. First, it was explored whether the relationship between SMD and EHC was stronger for men than women. Because the fit between the unconstrained and constrained models approached significance, there was tentative support indicating that the relationship between SMD and EHC did differ by gender. According to the full model using time-1 controls, it was found that SMD predicted an increase in EHC looking at men and women separately (see Figures 3-4); however, the relationship was stronger for men than it was for women. An empirical explanation for a gender difference on EHC argues that men would be susceptible to media addressing the hookup culture more so than

women because hooking up for men is more often attributed to positive benefits while negative emotional consequences are attached to the same behavior for women (Aubrey & Smith, 2011).

Next, it was explored whether the relationship between SMD and EHC was stronger for those with more sex partners. Results revealed that the relationship between SMD and EHC did differ by college freshmen's number of sex partners. Specifically, SMD did predict an increase in EHC for those with more sex partners than those with fewer sex partners. According to Bleakley and colleagues (2008), sexually active individuals are more likely to expose themselves to sexual media content, which includes reference to and depiction of hookups, and by doing so are more likely to progress in their sexual attitudes and behaviors. Therefore, it seems logical that people who have had more sex partners would be more sensitive to the portrayal of sexual content in the media, which would include depictions of hookup scripts, and therefore be more likely to accept the hookup culture offscreen.

The third moderator introduced to the main relationship was relationship status. Findings showed that the relationship between SMD and EHC did not differ by college freshmen's relationship status. The next moderator examined was concern for safe sex on the relationship between SMD and EHC. According to the results, the relationship between SMD and EHC did not differ according to college freshmen's concern for safe sex. The last moderator introduced was wishful identification to assess whether having high levels of wishful identification with media models present within the sexual content college freshmen regularly consume would moderate the main relationship between

SMD and EHC. However, the relationship between SMD and EHC did not differ according to participants' level of wishful identification with media models. This finding does not support SCT's assumption that individuals will be more inclined to adopt the behaviors of the media models in which they relate to most; however, as previously stated, a moderating effect may not have been found because the favorite media models chosen by participants were amongst the least sexualized of all possible choices (e.g., Taylor Swift, Adele).

Predictors of Hookup Experiences

This section examined three main effects. First, the direct effect that (a) SMD, (b) perception of peers' sexual activity, (c) EHC had on hookup experiences was explored. Second, indirect effects testing the mediating influence that perception of peers' sexual activity and EHC had between SMD and hookup experiences was examined. Third, the moderating effect gender had on SMD and hookup experiences, alcohol consumption had on EHC and hookup experiences, and, finally, alcohol consumption had on peer influence and hookup experiences was investigated.

SMD on Hookup Experiences. The model examining the effect of time-1 SMD on time-2 hookup experiences revealed a statistically significant positive relationship for all participants as well as for males examined separately and approached significance for females only. Although time-1 SMD was correlated to time-2 hookup experiences, college freshmen's SMD did not predict their hookup experiences over time. As previously described, exposure to sexual media content influenced an individual's acceptance of the rules and norms of the hookup culture, however, this effect did not

hold for an individual's participation in hookup experiences. Thus, narratives about sexuality were strong enough to impact college freshmen's perceptions regarding the hookup culture but not enough to predict their actual hookup behaviors. Although EHC is correlated with hooking up behavior (Aubrey & Smith, 2011), it is possible that a person can engage in hooking up without EHC or can engage in EHC without participating in hookups. Furthermore, it should be noted that EHC also differed considerably for men and women such that men reported having higher levels of EHC in comparison to women. According to Aubrey and Smith (2011), hooking up for men is more often associated with positive benefits such as an increase in social status, while negative emotional consequences such as feelings of shame or regret are traditionally linked to hooking up for women. This makes sense given that males reported a higher association (r = .20) between SMD and hookup experiences than females (r = .12). Therefore, because men had higher scores on EHC than females, it would follow that females would be less likely to engage in hooking up based on evidence that shows that hooking up is correlated with EHC (Aubrey & Smith, 2011).

Next, the mediating impact that peer influence and EHC had on the relationship between SMD and hookup experiences was explored. According to mediation analysis, perception of peers' sexual activity did not mediate the effect of SMD on hookup experiences. However, it was discovered that EHC did mediate the relationship between SMD and hookup experiences. Specifically, the indirect effect through EHC explained 55.3% of the SMD and hookup experiences relationship. A significant portion of the variance between SMD and hookup experiences is explained by EHC which makes sense

given that college students' scores on EHC Index are correlated with their hooking up behavior (Aubrey & Smith, 2011). More specifically, individuals who have previous hookup experience, more sexual experience, and have a greater openness to partaking in the hookup experience, are more accepting of the culture's norms and expectations. Therefore, SMD did not have a main effect on hookup experiences but it did have an indirect effect through EHC.

Gender was examined as a possible moderating variable between SMD and hookup experiences. Evidence suggests that women may be more vulnerable to the media's influence on the hookup culture rules given that hooking up behavior is often associated with emotional and psychological risks for females (Eshbaugh & Gute, 2008; Owen et al., 2010; Paul & Hayes, 2002) and that men might be more susceptible to media messages addressing the hookup culture because participation in the culture has shown to be more beneficial to them (Aubrey & Smith, 2011). However, analysis in the present study did not support the moderating influence of gender on this main relationship. This may be because gender differences regarding expectations of the hookup culture has often produced mixed results. More specifically, previous research has shown that no gender differences exist in college students' openness to the idea of hooking up (Paul et al., 2000). Instead, men and women enter into a hookup with similar intentions such that neither gender expects long-term relationships to result from a hookup beyond casual sex (Grello et al., 2006).

Perception of Peers' Sexual Activity on Hookup Experiences. In regards to peer influence on hookup experiences, a positive correlation that approached significance

was found for all participants; however, college freshmen's peer influence did not predict their hookup experiences over time. Because participants indicated that they perceived that their peers only engaged in casual sexual activities "sometimes" on a scale from 1 (*never*) to 4 (*all the time*), this low estimation may not be strong enough to predict their personal engagement in hookup experiences. This may also be due to the specific media vehicles chosen for the SMD index that participants were not able to relate to that may otherwise have contributed toward their overestimation of their peers' sexual activities.

The moderating influence of alcohol consumption on the relationship between peer influence and hookup experiences was also examined; however, this relationship did not differ according to level of alcohol consumed. Because research has shown the strong link that exists between alcohol consumption and engagement in hookups (Feldman et al., 1999; Grello et al., 2006; Lambert et al., 2003; Maticka-Tyndale, & Herold, 1999; Paul et. al, 2000), it is possible that this moderating effect did not emerge because of the underage participants' social desirability responses. Although the main effect between EHC and hookup experiences does not necessarily have to be moderated by alcohol use, consuming alcohol has shown to make hooking up more likely due it is disinhibiting effects (Owen et al., 2010) and is used to justify the act of hooking up in the first place (Vander Ven & Beck, 2009).

EHC on Hookup Experiences. Furthermore, there was a significant positive relationship between time-1 EHC and time-2 hookup experiences for all participants, including females and males separately. All in all, the findings suggested that college

freshmen's EHC did predict their hookup experiences, and that the relationship between the two variables was reciprocal. This suggested that those who accepted the norms of the hookup culture at time-1 were more likely to engage in hookups at time-2, and those who engaged in hookups at time-1 were more likely to accept the norms of the hookup culture at time-2.

In addition, it was explored whether alcohol consumption would moderate the relationship between EHC and hookup experiences. However, the relationship between EHC and hookup experiences did not differ by level of alcohol consumption. As mentioned previously, because the participants were not of legal drinking age, they may not have answered honestly in regards to the amount of alcohol they had actually consumed during the time of data collection for this measurement item, which took place during spring break. In fact, spring break has been associated with elevated levels of alcohol use and sexual behavior, which have been shown to be the two strongest motivators for college students going on spring break trips in the first place and for choosing particular destinations in order to exercise those behaviors (Sonmez, Apostolopoulos, Yu, Yang, Mattila, & Yu, 2006).

Theoretical and Social Implications

The findings of this panel study contribute to the extant literature on the four global arcs that encompassed the present study – media effects of sexual content, peer influence, EHC, and sexual risk taking. Specifically, the present study examined the portrayal of sex in media and its interactions with peer influence and EHC that impact hookups and sexual risk-taking behaviors among college freshmen.

This panel study contributes to future literature on the impact of exposure to sexual media in four main ways. First, the present's study design used a panel research approach to gain insight on the media's longitudinal influence on college freshmen's behaviors toward sexual risk taking. Second, the present study sampled the sexual media consumption habits of college freshmen to investigate whether the SMD of first-year college students shape their behaviors toward sexual risk taking. Previous research has also shown that although sexual risk behaviors typically increase with years in college, freshmen behaviors are significant enough to merit concern for this particular population's sexual health practices (Siegal et al., 1999). Likewise, focusing on this time of exploration and independence was unique, given that emerging adulthood can lead to increased exposure to risky situations with the added pressure that stems from a need to fit in to the pre-scripted ways of college life (Flannery & Ellingson, 2003). Third, the present study built on similar work examining the influence of exposure to sexual content on predicting sexual behavior conducted by Brown and colleagues (2006). More specifically, the present study replicated and expanded on the authors' sexual media diet measure by examining the impact of six media formats – TV, movies, music, magazines, Internet, and social media – on young adults' sexual practices. Because Brown and colleagues (2006) only focused on four different media types, which did not include Internet or social media sites, the present study encompasses a more accurate depiction of the various media formats college students are routinely exposed to, particularly given that new media and social networking sites are popular among this younger generation. This was a valuable theoretical contribution to the current

literature on media effects because most theories of media effects assume that different forms of content will have different kinds of influences, so it is important to expand to include multiple media outlets that young adults use regularly, particularly to include those such as the Internet and social networking sites that compete with traditional forms of media in the present day's changing media landscape. Fourth, the present study examined the influence of EHC on sexual risk taking practices which no studies to date have yet explored.

To examine the impact of sexual media exposure on college freshmen's sexual attitudes and behaviors, social cognitive theory (SCT) was used as the theoretical guide. This study aimed to be more inclusive by investigating six types of media that combined to create an individual's SMD index, which included the combined product of the frequency and the extremity of the content across both traditional and new media platforms; thus, SCT was a strong fit to use as the theoretical framework as it has been shown to be an evolving theory that is open to change (Pajares, Prestin, Chen, & Nabi, 2009) and because it has been cited as the most frequently used social learning theory for exploring behavior modification in a public health context (Stone & Brown, 1999). Even more so, SCT mapped onto the present study well based on three primary reasons previously established in chapter 2: (a) due to the lack of punishment that is attributed to risky sexual behaviors in the media (Kunkel et al., 2005; Pardun et al., 2005); (b) due to the plethora of rewards that are awarded to engagement in hookup behaviors (Paul & Hayes, 2002); and (c) due to portrayals of sex in the media that become salient to

college freshmen who are entering a time of emerging adulthood, reinforcing their need to fit in to the pre-scripted ways of college life (Flannery & Ellingson, 2003).

SCT was supported throughout the majority of the present study's findings. For instance, a mediating relationship was found through EHC for SMD and sexual risk taking behaviors and a moderating relationship was found for both concern for safe sex and self-efficacy between SMD and sexual risk-taking behaviors. Theoretically these findings make sense because of the fact that sex is frequently portrayed in media as risk free and recreational in which sexual behaviors are not typically punished (Kunkel et al., 2005; Pardun et al., 2005). According to SCT, behaviors need to be punished in order for them not to be adopted; thus, based on the assumptions of the theory, SMD can be used to explain predictors of sexual risk taking. Likewise, self-efficacy influenced the strength of this relationship between SMD and sexual risk taking, such that this association was stronger for those who had lower levels of self-efficacy. Theoretically this finding should occur given that individuals are more inclined to adopt a behavior that they feel confident in their ability to carry out (Bandura, 2004). Thus, if college freshmen do not feel confident to practice sex safe, they will be more likely to engage in sexual risk-taking behaviors with the more sexual content they are exposed to over time.

SMD also predicted EHC because, according to SCT, those with a high SMD are more likely to believe the world view portrayed in these media outlets and thereby adopt the media's portrayal regarding social norms as their own (Bandura, 1994). A component of the theory that impacts adoption of a modeled behavior is that adoption

decisions can be based on the modeled benefits an individual perceives. The present study showed that SMD impacted participants' EHC, which according to SCT, means that the hookup culture is shown in a positive manner in the sexual content college freshmen regularly attend to in their media diets. Because of this, they are more likely to accept its rules in order to acquire the culture's modeled benefits, which may include an increase in a person's social status or social recognition among one's peers. Therefore, because exposure to sexual media contributes to forming an individual's normative expectations (Bandura, 1994), theoretically it would follow that media consumers of this content would embrace the hookup culture's social norms.

There was also support for the impact of SMD on perception of peers' sexual activity as well as peer influence predicting sexual risk-taking behaviors. SCT supports these findings by making the case that sexual risk-taking behaviors would be adopted because engagement in sexual activity that is risk-free is a social norm that is perpetuated by a SMD, which would suggest to individuals that this is an expected norm among members of their peer group, influencing them to emulate the same behavior in their own lives (Bandura, 1977). For example, previous research has proposed that sexual online interactions can be associated with offline processes of peer influence, shaping an individual's social norms (Collins et al., 2011). Thus, by reading sexualized comments and seeing sexually explicit pictures on social media sites, individuals are able to form estimates of their peers' sexual activity based off these constructed online identities. SCT proposes that these online personas would socialize users to accept these depictions as normative sexual behavior, which would influence users to then adopt and

model the similar behavior in their own lives through vicarious reinforcement of these sexualized postings (Bandura, 1977).

This behavior is strengthened according to individuals' own beliefs and conceptions of self in relation to the world, which will influence the degree to which they attend to, retain, recall, or imitate the portrayals of peers on social networking sites (Bandura, 2002). According to SCT, individuals will engage in further cognitive processes when the mediated models (e.g., their peers) are deemed attractive, rewarding, or of functional value to the individual (Bandura, 2002). Individuals will be more likely to engage in attention and retention processes of vicariously modeled events when they connect personal meaning to them, which will in turn impact the behaviors in which they choose to engage. This suggests that because college freshmen are consuming modeled depictions of their peers who do provide functional value to them by defining what are normative expectations for their age group, freshmen who frequently access social networking sites will be more likely to create mental representations their peers' sexually depicted behaviors and enact them in their own lives.

Even though SMD did not predict hookup experiences over time, EHC did mediate this relationship. Thus, SMD did have an indirect effect through EHC on hookup experiences. This makes sense given the present study's finding that exposure to more sexual media content increases an individual's likelihood of endorsing the hookup culture. According to the assumptions of SCT, consuming sexual scripts that portray sexual behaviors as fun and risk-free can reinforce an individual's acceptance of the

rules and norms of the hookup culture (Aubrey & Smith, 2011). Additionally, because a reciprocal relationship was established between EHC and hookup experiences such that those who accepted the norms of the hookup culture were more likely to engage in hookups and vice versa, these media portrayals of hookup culture acceptance become adopted (Bandura, 1994) and then enacted in an individual's own sexual experiences.

Although SCT was mostly supported by the present study's findings, wishful identification did not demonstrate support for the theory's assumptions as wishful identification did not moderate the relationship between SMD and sexual risk taking or SMD and EHC. According to SCT, individuals should be more likely to adopt the behaviors of the media models in which they relate to most; therefore, those who wishfully identify with the sexual media models featured in the present study's TV, movie, and music vehicles should be more likely to engage in sexual risk-taking behaviors and EHC. However, one possible explanation for this lack of theoretical support is that the majority of the favorite media models selected by the participants were among the least sexualized characters of all the possible choices (e.g. Taylor Swift, Adele, Rachel Green from "Friends").

Overall, the applicability of SCT to the phenomenon under investigation in the present study was well demonstrated. SCT showed a significant amount of explanatory power by explicating why SMD would predict relationships with peer perceptions, EHC, sexual risk-taking behaviors, and hookup experiences. Because sexual content often portrays sex as risk free (Kunkel et al., 2005), SCT would argue that sexual attitudes and behaviors would likely be accepted because symbolic portrayals need to be punished in

order for them not to be adopted (Bandura, 1986). Part of having strong explanatory power also involves being able to explain new observations. By exploring new media influences in addition to the traditional formats, the present study supports previous research that has begun to explore the applicability of SCT to new media platforms (Behm-Morawitz & Mastro, 2009). Thus, the present study adds further support for the use of SCT in future studies that incorporate new and social media formats. This is especially important given that few studies currently exist that demonstrate a casual relationship between exposure to online, social networking sites and sexual behaviors (Collins et al., 2011). By applying SCT to studies that investigate the impact of new forms of media on sexual behaviors, the theory can contribute to future media effects literature that will add fresh insights into the role digital media can have on predicting sexual health outcomes. Likewise, although several studies have applied the theoretical lens of SCT to explain sex-related health behaviors such as HIV prevention and condom use intentions (O'Leary et al., 1992; Witte, 1994; Wulfert & Wan, 1993, 1995), the present study adds to the extant literature by demonstrating how SCT can be used to explore the impact of symbolic modeling on sexual risk-taking behavior.

SCT also showed a great deal of predictive power, supporting the use of the present study's panel design. Specifically, SMD at time-1 was shown to predict peer perceptions, EHC, and sexual risk-taking behaviors (at least for musical artists and magazines) at time-2. In other words, by consuming high amounts of sexual media content, college freshmen were more likely to overestimate their peers' sexual activity,

accept the norms of the hookup culture, and engage in sexual risk taking nearly six months later.

By demonstrating the profound impact that exposure to various forms of sexual media can have on college freshmen's sexual norms and behaviors, SCT can further validate the importance of media literacy education by using a mental processes perspective. According to SCT, media exposure leads to the cognitive acquisition of behaviors as well as their expected social, emotional, and cognitive consequences (Bandura, 2002). The nature of the mental representation that is created out of this acquisition is important from a SCT perspective because it is how that memory representation is then stored that determines an individual's valence about the behavior, which guides their future decision-making. This implies that when a mediated behavior is shown to lead to negative outcomes, this will likely deter individuals from enacting the punished behavior. This explanation validates the relevance of SCT processes in the present study. For instance, in the first process of SCT, attention, a person consumes information from the media, their interpersonal relationships, or their environment. It is within this process that a person observes a model and if that model happens to be interesting or novel, there is a stronger chance that the person will dedicate his or her full attention to learning. During the second process, retention, a person stores information about a behavior that he or she will use at a later date that will affect his or her future actions. The more salient the information is to a person, the more likely that information is to stick in a person's memory bank. Because these individuals are concerned about safe sex practices, media portrayals regarding sexual

activity would be more salient to them and thereby be better retained in their memory. This means that because sex is portrayed more often than not as risk-free (Kunkel et al., 2005), these individuals would use this information at a later date that would then affect their future decisions.

Overall, scholars who address the potential predictors of sexual risk taking need to recognize that media exposure can have a strong and consistent impact on decision-making choices in regards to sexual risk taking. On face value, it could be assumed that sexual people are sexual; however, this study presents evidence that these mental processes have been in effect over their entire lives, giving support to the idea that media consumption matters in predicting sexual attitudes and behaviors. With that said, the present study also demonstrated that non-media related variables should also be considered when attempting to understand a more complete picture of what impacts an individual's decision-making processes, leading him or her to engage in sexual risk-taking behaviors. This will likely impact the way in which SCT is applied in the future by media researchers, encouraging them to look beyond effects to consider interpersonal relationships such as peer influence.

In light of this, the present study's findings have social implications as well. SCT is a the theory that is concerned with important human social behaviors and has been applied to studies that consider how entertainment messages can be used to bring about behavioral and social change (Singhal & Rogers, 2002). In the present study, SCT was used to explain how college freshmen's consumption of sexual media contributed to their choices regarding sexual risk-taking behaviors. This panel study demonstrated

that it is not one media format that contributes toward sexual risk taking but instead multiple and that both message consumers and producers need to be aware that traditional and new forms of media need to be considered for their potential impact on shaping the norms, expectations, and behaviors regarding sexual activity among a young and vulnerable population.

The take-away lesson from the present study in regards to ways to reduce sexual risk taking among college freshmen would be that because exposure to sexual media did predict college freshmen's sexual risk-taking behaviors (in particular, musical artists and magazines), it is important for college freshmen to learn how to become critical thinkers and deconstruct these sexual messages they are constantly bombarded with everyday. According to the American Psychological Association (2007), media literacy education is needed to provide context for the important health implications that sexual media content often omit, particularly messages about sexual risk or responsibility (Kunkel et al., 2005), and balance media portrayals of risk-free sex with practical information about the potential consequences of sexual activity.

SCT has been used both to explain the effect of specific media portrayals on audiences and to plan media campaigns for behavioral change. Because the core messages portrayed in media have the potential to significantly affect young people's sexual behavior (Collin et al., 2004), sexual health advocates on college campuses need to reach this population with accurate information. Provided the innovative avenues new and social media now afford individuals to send messages to a large group quickly and easily, it would benefit heath educators to become media producers themselves

and deliver messages to their target population through these new media platforms. For instance, given their reach and the level of youth involvement, new media have the capacity to reduce sexual risk taking through digital media interventions (Collins, Martino, & Shaw, 2011). According to Lenhart and colleagues (2010), 17% of teenagers online use the Internet to access information about sexual health and/or the health consequences of substance use. By taking advantage of these new media formats, health advocates can reduce the stigma that may occur from having to physically enter an intervention location as well as provide individualized and interactive resources that can help reduce sexual risk taking, including addressing the problems that stem from accepting and/or participating in the hookup culture.

Providing tailored information would allow advocates the capability to deliver messages, for example, that are gender specific or that address individuals who have less self-efficacy toward condom use and would need information different from those who are confident in their ability to practice safe sex. As the present study demonstrates, sexual risk taking does differ according to individual differences so it would be valuable to tailor messages that are most relevant to each individual, which may ultimately be more effective in changing behavior (Collins et al., 2011). Additionally, based on the findings of the present study, campus health advocates should specifically target college freshmen who have less concern for safe sex, have lower levels of self-efficacy, have had more sex partners, and who consume higher volumes of alcohol, provided that all were found to contribute toward determining their sexual risk-taking behaviors.

Limitations and Future Directions

The present study had several limitations. To begin with, there was a low retention rate of 37.8% between the two waves as wave 1 include 920 college freshmen participants (males = 343, 37.3%; females = 577, 62.7%) while wave 2 concluded with 348 participants (males = 112, 32.2%; females = 236, 67.8%) in total. Likewise, because men only represented approximately 30% of the sample, this may have contributed to the fact that men and women were significantly different on a variety of the key variables included in the present study's analysis.

As previously mentioned in the methods chapter, there were two variables that showed a significant difference between those who stayed in the study and those who dropped out after wave 1. It was discovered that those who dropped out of the study reported having significantly higher sexual risk-taking behaviors and significantly more sex partners in the previous month than the participants who completed both waves. This suggests that people who were more sexual might have been less motivated to take part in the study at wave 2, introducing a sample bias into the study.

Another limitation of the present study was in regards to several of the study's measures. First, the predictor variable was measured based on the combined product of frequency-of-exposure and extremity-of-exposure to sexual media content that attempted to capture a dynamic process. In other words, SMD was a snapshot of the college freshmen participants' current sexual media consumption patterns although it is likely that such exposure has been influencing these participants well before their freshmen year of college given the salient nature of the phenomena under

investigation. However, despite this accumulation of sexual media exposure over previous years, an effect was still found for the SMD variable on several of the outcome variables of interest in the present study. Likewise, given that SCT is only interested in the memory representation of what the participants think they are consuming, in terms of sexual media content, it is permissible to measure SMD in the way it was for the purposes of the present study. Second, the wishful identification measure was only used for three of six media types – TV, movie, and music – and of the choices from which participants could select, there was a great deal of variability among the sexual nature of the characters. Third, another potentially problematic measurement was for the alcohol variable. Alcohol was only measured in the second wave of data collection because of time constraints that prevented the present study's investigator from receiving IRB approval to allow for an underage population to be asked a question regarding illegal alcohol consumption practices. In the same vein, because the participants knew they would be admitting to an illegal practice, this may have influenced them to respond in a socially desirable manner, despite the fact that they had the option to not answer the question and that their responses were confidential.

Lastly, in terms of generalizability, although the sample was randomly selected, the findings are not based on a nationally representative sample, so it may be possible that college freshmen attending different types of campuses (e.g., liberal arts, HBCU, technical colleges) in other parts of the country attend to a different pattern of media; thus, they may be affected differently by the media diet they consume. For example, 58.2% of the college freshmen in this study reported that had experienced sexual

intercourse (e.g., were not virgins) during wave 1. This suggests that this sample was slightly more sexually liberal than a nationally representative sample in which about half of all college freshmen enter campus having already experienced some form of sexual intercourse (CDC, 2004). Because of this difference in sexual experience, this particular sample may attend to a more sexual media diet than a nationally representative sample would based on research that links exposure to sexual media content with sexual activities (Brown et al., 1993; Brown, 2002; Greenberg et al., 1993; Gunter, 2002; Malamuth, 1993; Malamuth & Impett, 2001) and predicts an increased risk for early sexual intercourse (Brown et al., 2006).

As for suggestions for future directions, studies that investigate the impact of sexual media content on sexual risk taking should adopt the procedures set forth by Brown and colleagues (2006) as well as the ones expanded on in the present study. First, future studies should take a longitudinal measurement approach to assess change that occurs over time from the media variable to the sexual behavior outcome variable. It would be interesting to explore college students over the entire four years of their college experience to examine the changes that develop between freshmen and seniors as well as to see which year demonstrated the most variability in sexual risk behaviors. Second, future research should expand on the SMD measurement. As demonstrated in the present study's findings, media do matter and media researchers need to recognize the direct impact that media consumption of sexual content can have on predicting sexual attitudes and behaviors beyond what scholars in other areas of sexual risk-taking literature focus on such as peer influence. In particular, it would be interesting to

construct two sexual media diet indices, one that comprises traditional media (e.g., TV, movies, magazines) and another that comprises new media (e.g., Internet, social) to compare the two for differences that may occur on the criterion variables under investigation. Finally, more studies should incorporate the EHC and hookup experience variables to examine the impact sexual media has on the hookup culture and any resulting sexual behaviors. It would also be valuable for future research to extend beyond investigating the sexual behaviors of college students to include adolescents and compare the differences in sexual risk-taking actions between the two populations. By doing so, this research could extent the hookup culture index to apply to adolescents, thereby demonstrating how endorsement of casual sex may impact their sexual risk-taking activities as well. Overall, investigating the link between the EHC and sexual risk-taking behaviors will provide exciting breakthroughs in bridging media effects on sex, hookup culture research, and sexual risk-taking literature.

Conclusion

The present study examined the impact of college freshmen's SMD on their perception of their peers' sexual activity, EHC, sexual risk-taking behaviors, and hookup experiences. Overall, findings revealed that SMD did predict college freshmen's sexual risk taking (for music and magazines only), EHC, and perception of peers' sexual activity. Results also revealed that EHC predicted sexual risk-taking behaviors and hookup experiences and that peer influence predicted sexual risk taking as well. The relationship between (a) SMD and sexual risk taking as well as (b) SMD and hookup experiences was mediated through EHC. When moderating influences were introduced, SMD and sexual

risk taking differed by level of concern for safe sex and self-efficacy. Additionally, the number of sex partners and the amount of alcohol consumed also contributed toward determining an individual's sexual risk-taking behaviors. Lastly, findings showed that SMD and EHC differed by gender and number of sex partners.

Therefore, based on the present study's findings, college freshmen who consume a high level of sexual media content across various formats are more likely to accept the norms and expectations of the hookup culture, overestimate their peers' sexual activity, participate in hookup experiences, and engage in more sexual risk taking. Additionally, college freshmen who have less concern for safe sex, lower levels of self-efficacy, more sex partners, and who consume higher volumes of alcohol are more likely to partake in sexual risk-taking behaviors.

TABLES

Table 1. Differences between Participants who Took Part in Wave 1 and Wave 2 of the Study and Participants who Dropped Out after Wave 1

	Wave 1 Only			Wave 1 & Wave 2			
	M (SD)	Range	*N*	*M (SD)*	Range	*N*	*T*
Predictor variable							
Exposure to sexy media diet (sexual content rating * frequency of viewing)	8.54 (1.92)	4.43-14.95	570	5.72 (1.00)	3.80-10.73	348	0.88
Criterion variables							
Sexual risk-taking behaviors (0 = no risk to 5 = high risk)	.61 (.53)	0.00-2.96	571	.48 (.43)	0.00-2.04	347	3.90***
Hookup experiences	2.07 (.64)	1.00-3.33	572	2.00 (.64)	1.00-3.33	348	1.59
Mediating variables							
Endorsement of the hookup culture (1 = strongly disagree to 5 = strongly agree)	2.80 (.82)	1.00-5.00	570	2.72 (.82)	1.00-4.25	348	1.54

Perception of peers' sexual activity (1 = never to 4 = all the time)	2.46 (.44)	1.00-4.00	570	2.44 (.39)	1.00-3.67	348	0.61
Moderating variables							
Wishful identification (1 = disagree a lot to 5 = agree a lot)	2.68 (.91)	1.00-5.00	570	2.68 (.88)	1.00-5.00	346	0.01
Self-efficacy toward safe sex (1 = not at all confident to 5 = extremely confident)	3.67 (.76)	1.00-5.00	569	3.61 (.71)	1.00-5.00	347	1.17
Relationship status (1 = single to 2 = in relationship)	1.45 (.50)	1.00-2.00	571	1.42 (.49)	1.00-2.00	346	0.95
Number of sex partners (1 = none to 1/month; 2 = 2 or more/month)	1.23 (.74)	1.00-2.00	477	1.11 (.75)	1.00-2.00	280	2.15*
Concern for safe sex (1 = very important to 2 = not at all)	1.06 (.23)	1.00-2.00	567	1.04 (.19)	1.00-2.00	346	1.38

†p<.10; *p<.05; **p<.01; ***p<.001.

Table 2. Ranks, Means, Standard Deviations, and Sample Sizes of Sexual Content Ratings of the Media Vehicle Types Included in the Exposure to Sexy Media Diet Variable

Rank	TV Show	*M*	*SD*	*N*
1	*Jersey Shore*	6.60	0.66	52
2	*How I Met Your Mother*	4.68	1.14	38
3	*Friends*	4.44	1.07	52
4	*Glee*	3.89	1.37	45
5	*Modern Family*	3.14	1.16	29
Rank	Movie	*M*	*SD*	*N*
1	*Friends with Benefits*	6.47	0.73	51
2	*The Hangover*	5.48	1.16	54
3	*Bridesmaids*	5.02	1.28	47
4	*The Notebook*	4.39	1.32	49
5	*How to Lose a Guy in 10 Days*	4.36	1.33	39
Rank	Musical Artist	*M*	*SD*	*N*
1	*Lil Wayne*	6.46	0.81	50
2	*Nicki Minaj*	5.93	0.89	54
3	*Drake*	5.93	1.14	46
4	*Rihanna*	5.89	1.02	54
5	*Beyonce*	4.49	1.54	53
Rank	Magazine	*M*	*SD*	*N*
1	*Cosmopolitan*	6.65	0.95	46
2	*Seventeen*	4.36	1.28	45
3	*People*	3.80	1.44	46
Rank	Internet	*M*	*SD*	*N*
1	*College Humor*	5.77	0.96	39
2	*YouTube*	4.73	1.41	55
3	*Pandora*	2.50	1.29	52
Rank	Social Media	*M*	*SD*	*N*
1	*Facebook*	3.98	1.35	54
2	*Twitter*	3.59	1.53	46
3	*Pinterest*	2.78	1.38	37

Note: The sexual content ratings of the media vehicles listed were based on the 56 freshmen judges who were part of a second, independent sample that was separate from the 340 freshmen participants used in main sample.

Table 3. Descriptive Statistics of Variables, by Gender

	Females		Males		
	M (SD)	Range	*M (SD)*	Range	*T*
Predictor variables					
T1 exposure to sexy media diet	5.73_a (.99)	3.80-9.22	5.70_a (1.02)	4.18-10.73	-0.21
T2 exposure to sexy media diet	5.55_a (.91)	4.01-9.74	5.54_a (.93)	4.36-8.48	-0.09
T1 TV SMD	5.78_a (1.68)	3.14-13.20	5.43_b (1.63)	3.14-13.20	-1.70†
T2 TV SMD	5.61_a (1.69)	3.14-13.20	5.34_a (1.48)	3.14-10.49	-1.36
T1 movie SMD	6.04_a (1.51)	4.36-10.96	5.98_a (1.53)	4.59-10.96	-0.33
T2 movie SMD	5.93_a (1.31)	4.36-10.96	5.75_a (1.15)	4.59-10.96	-1.20
T1 music SMD	6.55_a (1.69)	4.49-12.92	6.49_a (1.26)	4.49-10.62	-0.27
T2 music SMD	6.60_a (1.73)	4.49-11.48	6.39_a (1.24)	4.49-11.48	-1.03
T1 magazines SMD	6.14_a (2.03)	3.80-13.30	4.94_b (1.26)	3.80-6.65	-2.77**
T2 magazines SMD	5.87_a (1.74)	3.80-13.30	4.95_b (1.28)	3.80-6.65	-2.55*
T1 internet SMD	5.70_a (1.76)	2.50-10.50	5.87_a (1.95)	3.62-10.50	0.80
T2 internet SMD	5.31_a (1.57)	2.50-10.50	5.51_a (1.80)	2.50-10.50	1.08

T1 social media SMD	4.46_a (1.30)	2.78-7.96	4.95_b (1.57)	3.38-7.96	3.03**
T2 social media SMD	4.34_a (1.25)	2.78-7.96	4.91_b (1.52)	3.45-7.96	3.63***
Criterion variables					
T1 sexual risk-taking behaviors	$.50_a$ (.42)	0-2.04	$.45_a$ (.46)	0-1.87	-1.00
T2 sexual risk-taking behaviors	$.51_a$ (.44)	0-1.83	$.51_a$ (.53)	0-2.13	-0.04
T1 hookup experiences	1.96_a (.63)	1.00-3.33	2.08_a (.67)	1.00-3.33	1.62
T2 hookup experiences	1.90_a (.63)	1-3.33	2.00_a (.67)	1.00-3.33	1.45
Mediating variables					
T1 endorsement of the hookup culture	2.59_a (.78)	1.00-4.25	2.99_b (.84)	1.00-4.25	4.35***
T2 endorsement of the hookup culture	2.65_a (.78)	1.00-4.45	2.97_b (.86)	1.00-4.70	3.52***
T1 perception of peers' sexual activity	2.46_a (.39)	1.00-3.67	2.38_a (.39)	1.00-3.50	-1.82
T2 perception of peers' sexual activity	2.48_a (.39)	1.00-3.67	2.37_b (.38)	1.33-4.00	-2.56**
Moderating variables					
T1 wishful identification	2.81_a (.85)	1.00-5.00	2.41_b (.88)	1.00-4.67	-4.00***

T2 wishful identification	2.79_a (.87)	1.00-4.67	2.61_b (.83)	1.00-4.44	-2.77**
T1 self-efficacy toward safe sex	3.65_a (.72)	1.00-5.00	3.54_a (.69)	1.00-5.00	-1.33
T2 self-efficacy toward safe sex	3.56_a (.69)	1.50-5.00	3.54_a (.69)	1.85-5.00	0.29
T1 relationship status	1.46_a (.50)	1.00-2.00	1.33_b (.47)	1.00-2.00	-2.25*
T2 relationship status	1.47_a (.50)	1.00-2.00	1.33_b (.47)	1.00-2.00	-2.56**
T1 number of sex partners	1.16_a (.71)	1.00-2.00	1.00_a (.82)	1.00-2.00	-1.69
T2 number of sex partners	1.19_a (.75)	1.00-2.00	1.19_a (.85)	1.00-2.00	-0.08
T1 concern for safe sex	1.04_a (.19)	1.00-2.00	1.04_a (.19)	1.00-2.00	-0.10
T2 concern for safe sex	1.02_a (.14)	1.00-2.00	1.02_a (.13)	1.00-2.00	-0.21
T2 alcohol consumption	1.31_a (.47)	1.00-2.00	1.45_a (.50)	1.00-2.00	1.60

†p<.10; *p<.05; **p<.01; ***p<.001.

Table 4. Overall SEM Model Path Coefficients After Controlling for Control Variables

Predictor variable	T1 SMD	
	Original	Control
Criterion variables		
T2 EHC	.24**	.13†
T2 Perception of peers' sexual activity	.13†	.13†
T2 Sexual risk-taking behaviors	.11	.09
T2 Hookup experiences	.01	-.03

†p<.10; *p< .05; **p< .01; ***p< .001.

Table 5. Zero-Order Correlations between Predictor and Criterion Variables

	1	2	3	4	5	6	7	8	9	10
Female Participants, n = 236										
1. Time 1 exposure to sexy media diet	1.00									
2. Time 2 exposure to sexy media diet	.65***	1.00								
3. Time 1 endorsement of hookup culture	.07	.02	1.00							
4. Time 2 endorsement of hookup culture	.13†	.04	.73***	1.00						
5. Time 1 perception of peers' sexual activity	.06	.08	.06	.01	1.00					
6. Time 2 perception of peers' sexual activity	.13†	.12†	.03	-.00	.45***	1.00				
7. Time 1 sexual risk-taking behaviors	.19**	.17**	.41***	.38***	.15*	.07	1.00			
8. Time 2 sexual risk-taking behaviors	.17**	.20**	.40***	.42***	.09	.09	.75***	1.00		
9. Time 1 hookup experiences	.17**	.10	.77***	.66***	.09	-.01	.45***	.45***	1.00	
10. Time 2 hookup experiences	.12†	.09	.68***	.73***	.09	.01	.42***	.49***	.71***	1.00

†p<.10; *p<.05; **p<.01; ***p<.001.

Table 5. Zero-Order Correlations between Predictor and Criterion Variables

	1	2	3	4	5	6	7	8	9	10
Male Participants, n = 112										
1. Time 1 exposure to sexy media diet	1.00									
2. Time 2 exposure to sexy media diet	.56***	1.00								
3. Time 1 endorsement of hookup culture	.17†	.21*	1.00							
4. Time 2 endorsement of hookup culture	.28**	.23*	.83***	1.00						
5. Time 1 perception of peers' sexual activity	-.13	.10	.15	.15	1.00					
6. Time 2 perception of peers' sexual activity	.07	.28**	-.02	.06	.36***	1.00				
7. Time 1 sexual risk-taking behaviors	.12	.27**	.45***	.44***	.18†	.08	1.00			
8. Time 2 sexual risk-taking behaviors	.13	.35***	.41***	.43***	.18†	.20*	.81***	1.00		
9. Time 1 hookup experiences	.21*	.25**	.74***	.71***	.19*	.04	.65***	.63***	1.00	
10. Time 2 hookup experiences	.20*	.26**	.71***	.77***	.14	.06	.51***	.55***	.83***	1.00

†p<.10; *p<.05; **p<.01; ***p<.001.

Table 5. Zero-Order Correlations between Predictor and Criterion Variables

	1	2	3	4	5	6	7	8	9	10
All Participants, n = 348										
1. Time 1 exposure to sexy media diet	1.00									
2. Time 2 exposure to sexy media diet	.62***	1.00								
3. Time 1 endorsement of hookup culture	.10†	.08	1.00							
4. Time 2 endorsement of hookup culture	.17***	.11*	.78***	1.00						
5. Time 1 perception of peers' sexual activity	.00	.09†	.07	.03	1.00					
6. Time 2 perception of peers' sexual activity	.11*	.17**	-.02	-.01	.43***	1.00				
7. Time 1 sexual risk-taking behaviors	.17**	.21***	.40***	.38***	.17**	.08	1.00			
8. Time 2 sexual risk-taking behaviors	.15**	.25***	.39***	.41***	.12*	.13*	.77***	1.00		
9. Time 1 hookup experiences	.19***	.15**	.76***	.68***	.12*	-.00	.51***	.52***	1.00	
10. Time 2 hookup experiences	.14**	.15**	.69***	.74***	.10†	.01	.45***	.51***	.75***	1.00

†p<.10; *p<.05; **p<.01; ***p<.001.

Table 6. Zero-Order Correlations between Predictor [Frequency Only] and Criterion Variables

	1	2	3	4	5	6	7	8	9
Female Participants, n = 236									
1. Time 1 frequency of exposure to sexy media	1.00								
2. Time 1 endorsement of hookup culture	.03	1.00							
3. Time 2 endorsement of hookup culture	.08	.73***	1.00						
4. Time 1 perception of peers' sexual activity	.07	.06	.01	1.00					
5. Time 2 perception of peers' sexual activity	.14*	.03	-.00	.45***	1.00				
6. Time 1 sexual risk-taking behaviors	.13†	.41***	.38***	.15*	.07	1.00			
7. Time 2 sexual risk-taking behaviors	.11†	.40***	.42***	.09	.09*	.75***	1.00		
8. Time 1 hookup experiences	.13*	.77***	.66***	.09	-.01	.45***	.45***	1.00	
9. Time 2 hookup experiences	.07	.68***	.73***	.09	.01	.42***	.49***	.71***	1.00

†p<.10; *p<.05; **p<.01; ***p<.001.

Table 6. Zero-Order Correlations between Predictor [Frequency Only] and Criterion Variables

	1	2	3	4	5	6	7	8	9
Male Participants, n = 112									
1. Time 1 frequency of exposure to sexy media	1.00								
2. Time 1 endorsement of hookup culture	.13	1.00							
3. Time 2 endorsement of hookup culture	.20*	.83***	1.00						
4. Time 1 perception of peers' sexual activity	-.13	.15	.15	1.00					
5. Time 2 perception of peers' sexual activity	.06	-.02	.06	.36***	1.00				
6. Time 1 sexual risk-taking behaviors	.02	.45***	.44***	.18†	.08	1.00			
7. Time 2 sexual risk-taking behaviors	.03	.41***	.43***	.18†	.20*	.81***	1.00		
8. Time 1 hookup experiences	.13	.74***	.71***	.19*	.04	.65***	.63***	1.00	
9. Time 2 hookup experiences	.12	.71***	.77***	.14	.06	.51***	.55***	.83***	1.00

†p<.10; *p<.05; **p<.01; ***p<.001.

Table 6. Zero-Order Correlations between Predictor [Frequency Only] and Criterion Variables

	1	2	3	4	5	6	7	8	9
All Participants, n = 348									
1. Time 1 frequency of exposure to sexy media	1.00								
2. Time 1 endorsement of hookup culture	.05	1.00							
3. Time 2 endorsement of hookup culture	.11*	.78***	1.00						
4. Time 1 perception of peers' sexual activity	.01	.07	.03	1.00					
5. Time 2 perception of peers' sexual activity	.12*	-.02	-.01	.43***	1.00				
6. Time 1 sexual risk-taking behaviors	.09†	.40***	.38***	.17**	.08	1.00			
7. Time 2 sexual risk-taking behaviors	.08	.39***	.41***	.12*	.13*	.77***	1.00		
8. Time 1 hookup experiences	.13*	.76***	.68***	.12*	-.00	.51***	.52***	1.00	
9. Time 2 hookup experiences	.09	.69***	.74***	.10†	.01	.45***	.51***	.75***	1.00

†p<.10; *p<.05; **p<.01; ***p<.001.

Table 7. Zero-Order Correlations between Predictor [Extremity Only] and Criterion Variables

	1	2	3	4	5	6	7	8	9
Female Participants, n = 236									
1. Time 1 frequency of exposure to sexy media	1.00								
2. Time 1 endorsement of hookup culture	.16*	1.00							
3. Time 2 endorsement of hookup culture	.16*	.73***	1.00						
4. Time 1 perception of peers' sexual activity	.05	.06	.01	1.00					
5. Time 2 perception of peers' sexual activity	.05	.03	-.00	.45***	1.00				
6. Time 1 sexual risk-taking behaviors	.25***	.41***	.38***	.15*	.07	1.00			
7. Time 2 sexual risk-taking behaviors	.23***	.40***	.42***	.09	.09*	.75***	1.00		
8. Time 1 hookup experiences	.19**	.77***	.66***	.09	-.01	.45***	.45***	1.00	
9. Time 2 hookup experiences	.19**	.68***	.73***	.09	.01	.42***	.49***	.71***	1.00

†p<.10; *p<.05; **p<.01; ***p<.001.

Table 7. Zero-Order Correlations between Predictor [Extremity Only] and Criterion Variables

	1	2	3	4	5	6	7	8	9
Male Participants, n = 112									
1. Time 1 frequency of exposure to sexy media	1.00								
2. Time 1 endorsement of hookup culture	.21*	1.00							
3. Time 2 endorsement of hookup culture	.33***	.83***	1.00						
4. Time 1 perception of peers' sexual activity	.05	.15	.15	1.00					
5. Time 2 perception of peers' sexual activity	.11	-.02	.06	.36***	1.00				
6. Time 1 sexual risk-taking behaviors	.27**	.45***	.44***	.18†	.08	1.00			
7. Time 2 sexual risk-taking behaviors	.34***	.41***	.43***	.18†	.20*	.81***	1.00		
8. Time 1 hookup experiences	.32***	.74***	.71***	.19*	.04	.65***	.63***	1.00	
9. Time 2 hookup experiences	.31***	.71***	.77***	.14	.06	.51***	.55***	.83***	1.00

†p<.10; *p<.05; **p<.01; ***p<.001.

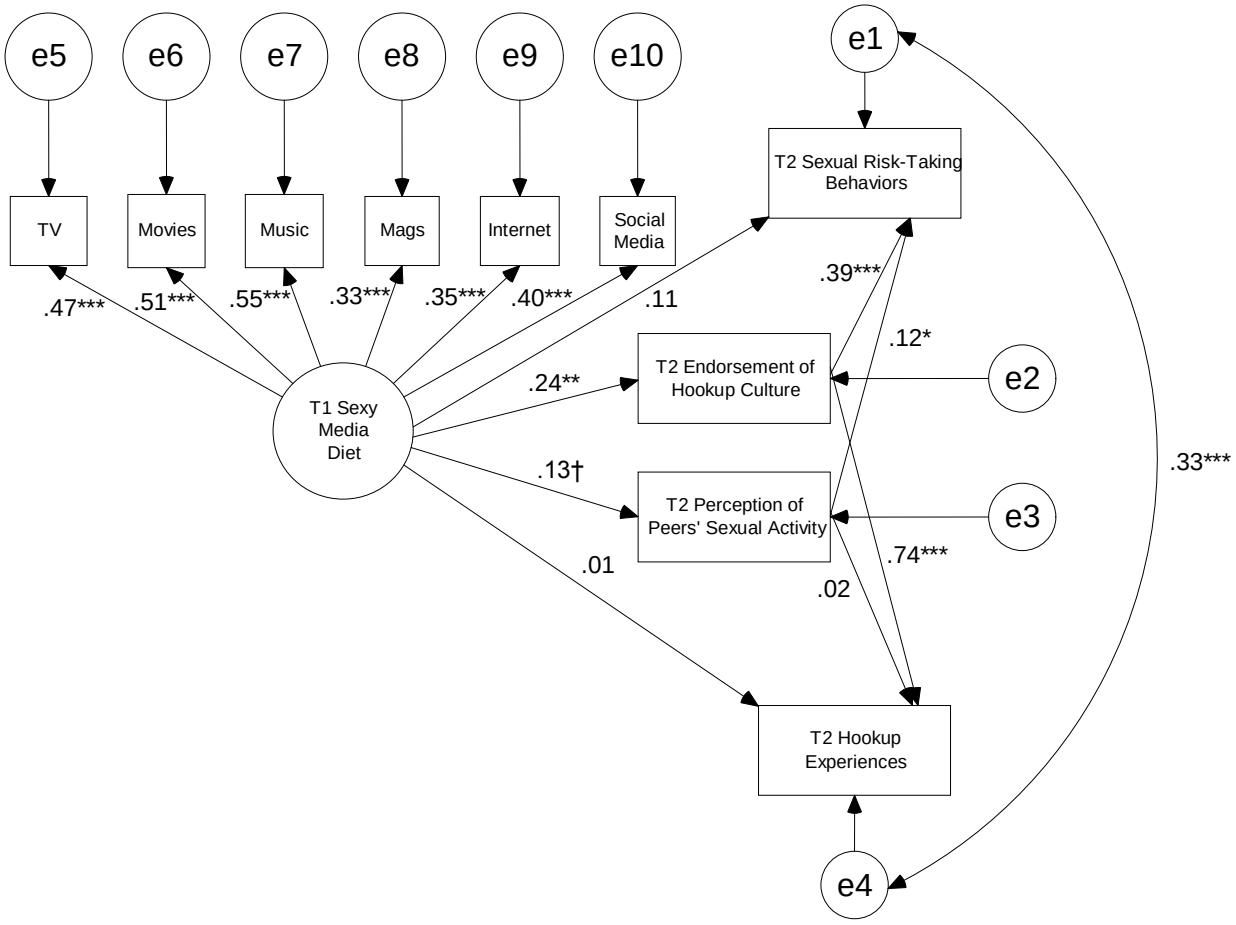
Table 7. Zero-Order Correlations between Predictor [Extremity Only] and Criterion Variables

	1	2	3	4	5	6	7	8	9
All Participants, n = 348									
1. Time 1 frequency of exposure to sexy media	1.00								
2. Time 1 endorsement of hookup culture	.21***	1.00							
3. Time 2 endorsement of hookup culture	.25***	.78***	1.00						
4. Time 1 perception of peers' sexual activity	.03	.07	.03	1.00					
5. Time 2 perception of peers' sexual activity	.05	-.02	-.01	.43***	1.00				
6. Time 1 sexual risk-taking behaviors	.24***	.40***	.38***	.17**	.08	1.00			
7. Time 2 sexual risk-taking behaviors	.27***	.39***	.41***	.12*	.13*	.77***	1.00		
8. Time 1 hookup experiences	.24***	.76***	.68***	.12*	-.00	.51***	.52***	1.00	
9. Time 2 hookup experiences	.24***	.69***	.74***	.10†	.01	.45***	.51***	.75***	1.00

†p<.10; *p<.05; **p<.01; ***p<.001.

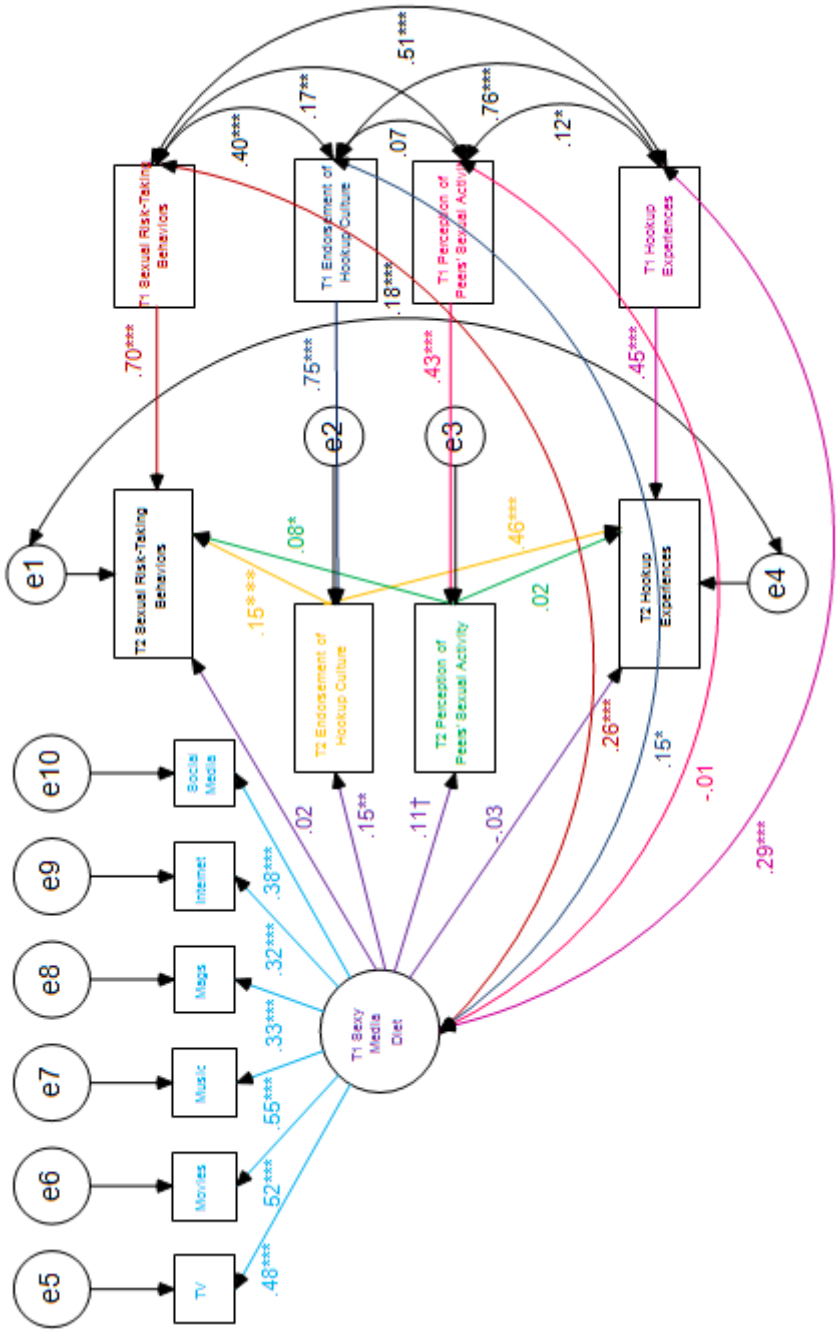
FIGURES

Figure 1. Overall SEM Model



X^2 = (30, *N* = 348) = 49.233, *p* = .015, CFI = .963, CMIN/DF = 1.641, RMSEA = .041, AIC = 119.233, NFI = .915
†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

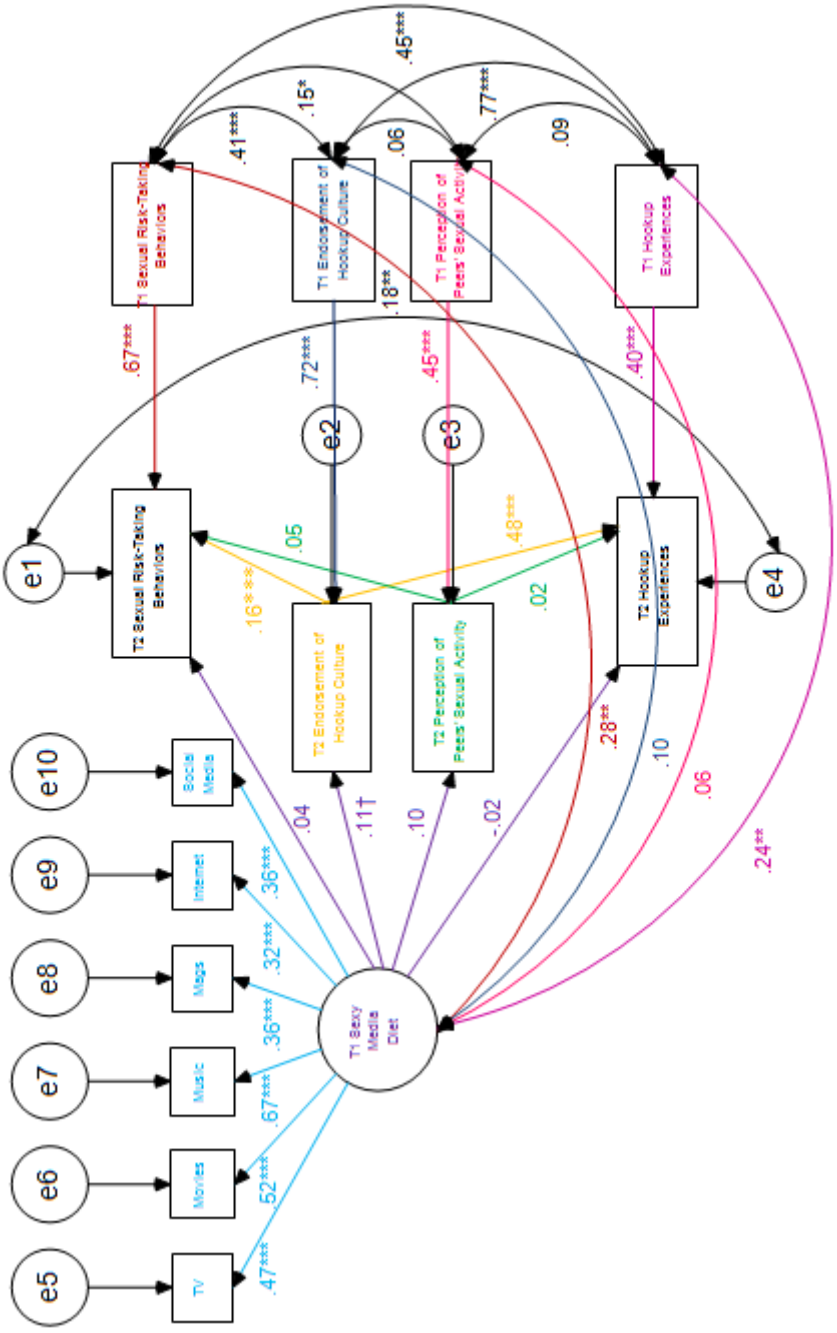
Figure 2. Full Model with Time-1 Controls



X^2 = (62, *N* = 348) = 105.031, *p* = .001, CFI = .974, CMIN/DF = 1.694, RMSEA = .042, AIC = 219.031, NFI = .941

†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

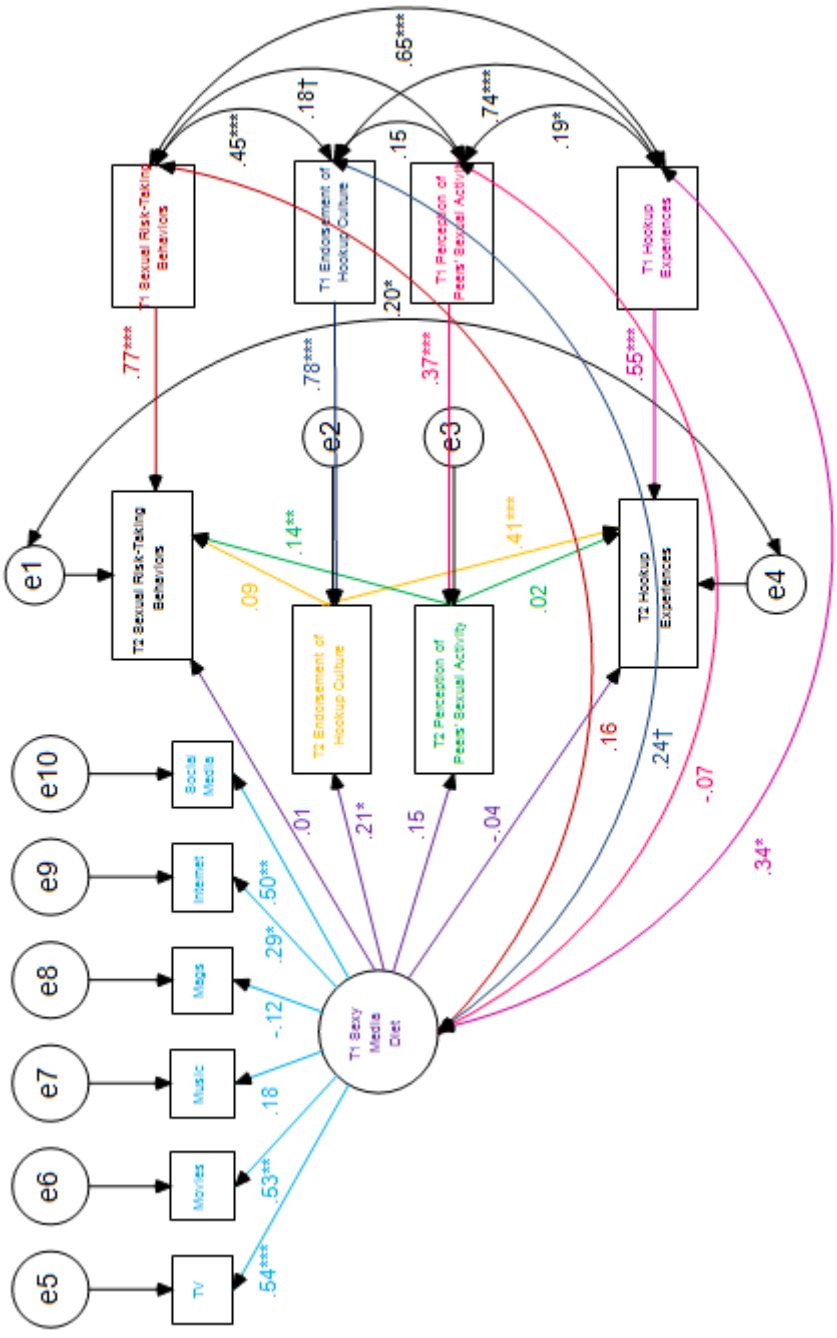
Figure 3. Full Model with Time-1 Controls for Females Only



X^2 = (124, *N* = 348) = 192.614, *p* = .001, CFI = .959, CMIN/DF = 1.553, RMSEA = .040, AIC = 420.614, NFI = .900

†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

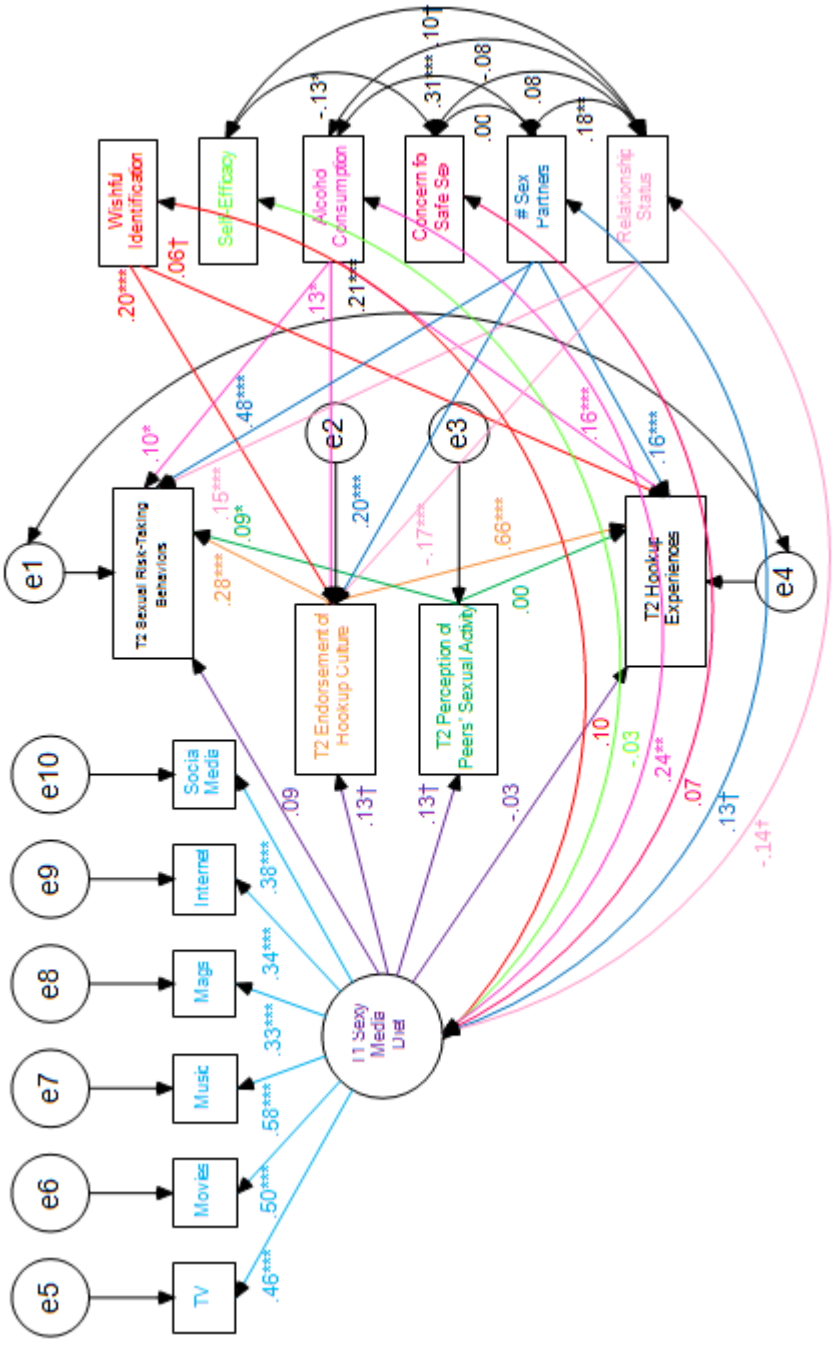
Figure 4. Full Model with Time-1 Controls for Males Only



X^2 = (124, *N* = 348) = 192.614, *p* = .001, CFI = .959, CMIN/DF = 1.553, RMSEA = .040, AIC = 420.614, NFI = .900

†*p*<.10; *p<.05; **p<.01; ***p<.001.

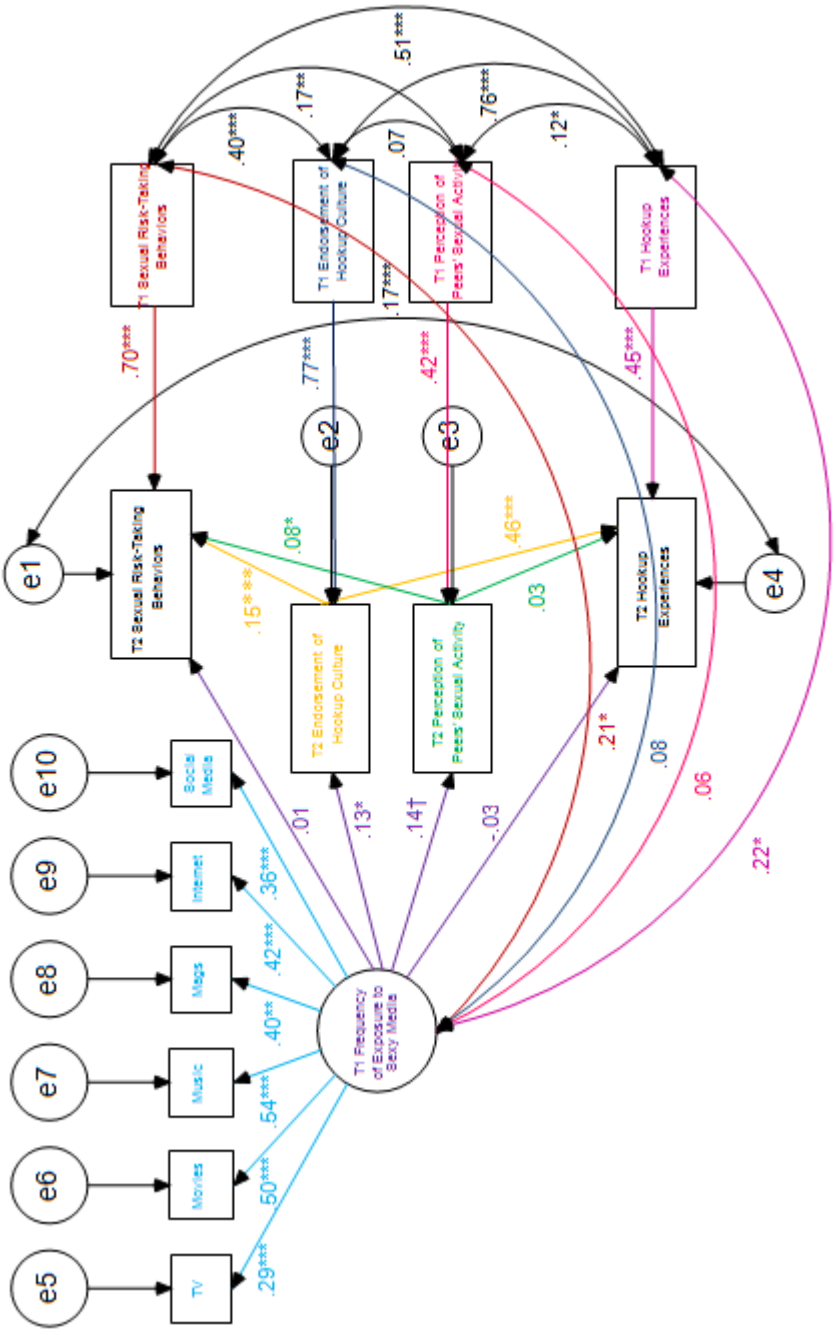
Figure 5. Control Model



X^2 = (82, *N* = 348) = 123.034, *p* = .002, CFI = .948, CMIN/DF = 1.500, RMSEA = .036, AIC = 263.034, NFI = .967

†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

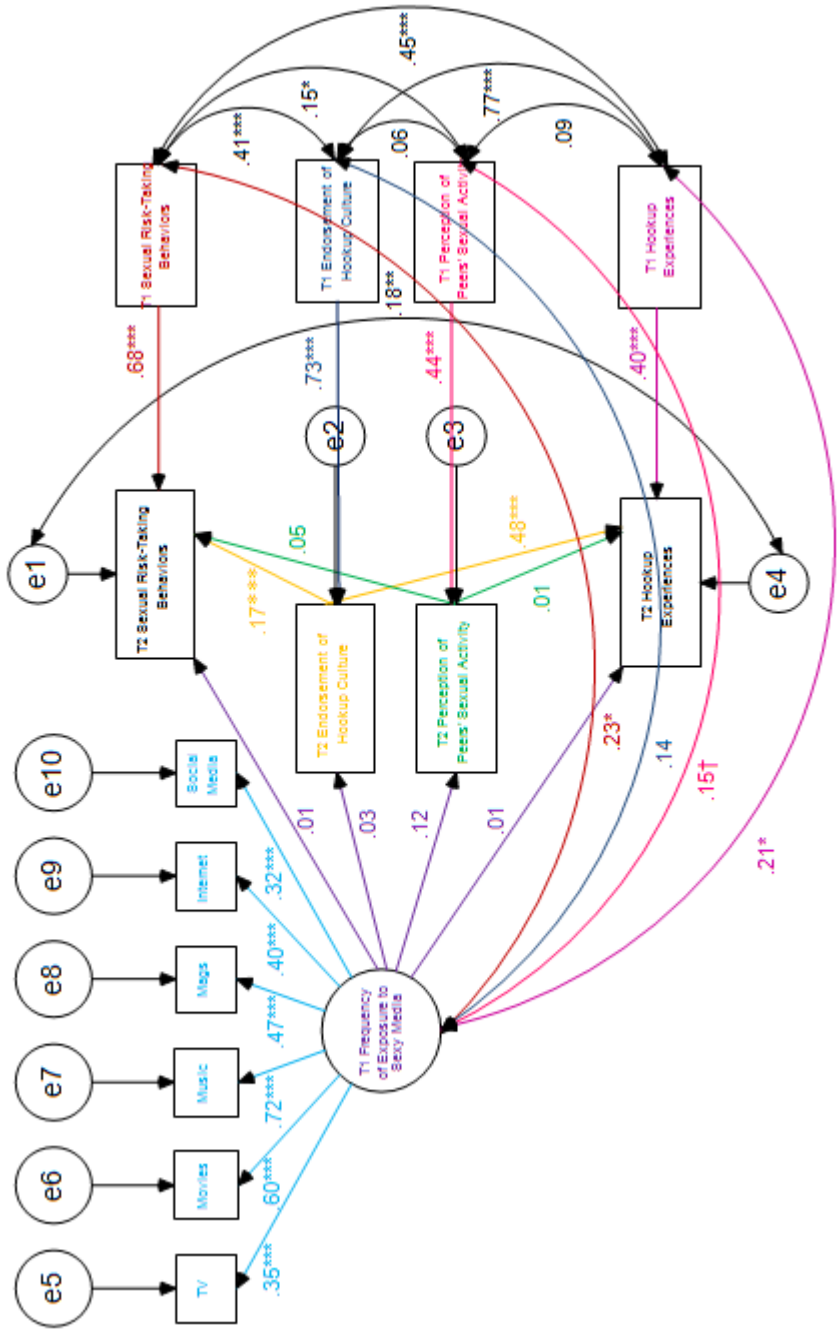
Figure 6. Frequency Only Model with Time-1 Controls



X^2 = (62, *N* = 348) = 110.568, *p* = .001, CFI = .971, CMIN/DF = 1.783, RMSEA = .045, AIC = 224.568, NFI = .937

†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

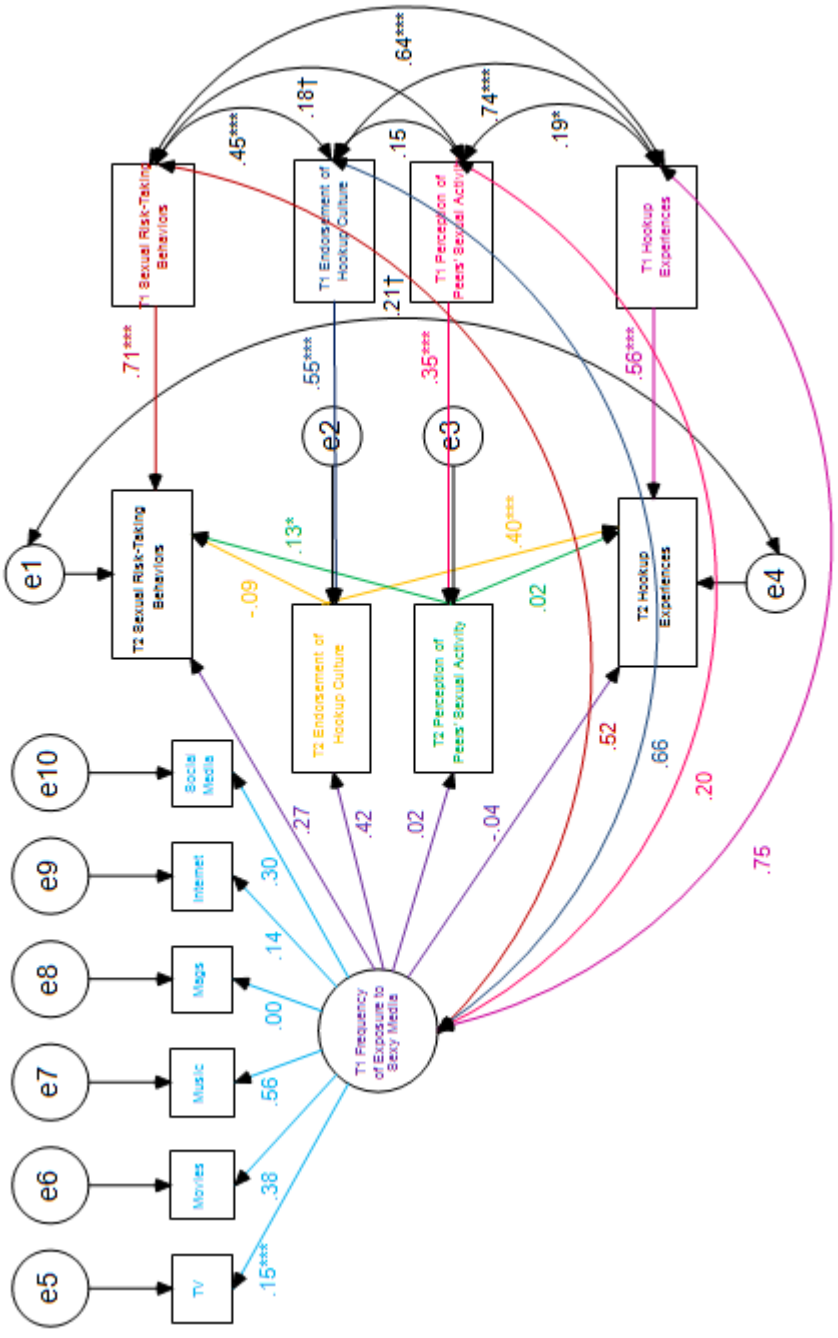
Figure 7. Frequency Only Model with Time-1 Controls for Females Only



X^2 = (124, *N* = 348) = 199.153, *p* = .001, CFI = .957, CMIN/DF = 1.606, RMSEA = .042, AIC = 427.153, NFI = .900

†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

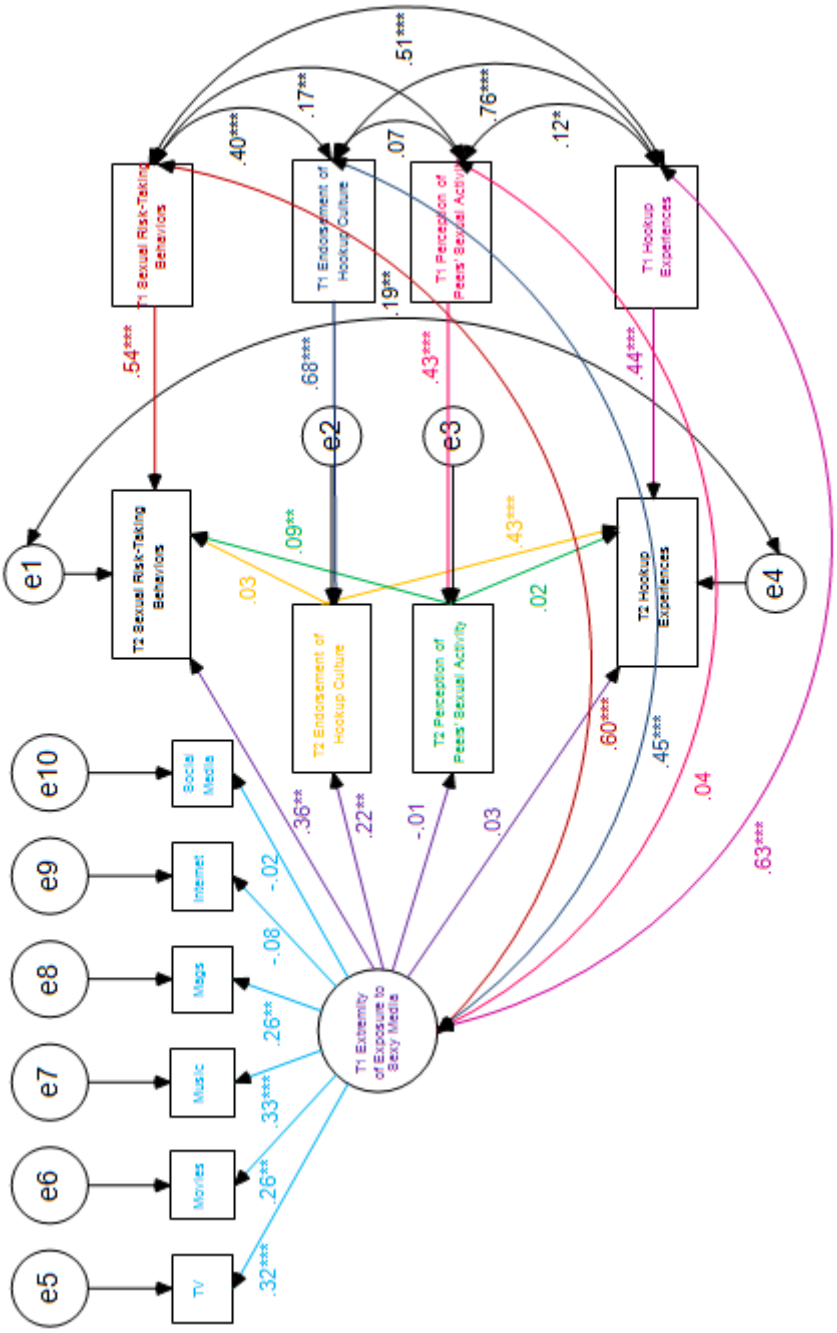
Figure 8. Frequency Only Model with Time-1 Controls for Males Only



X^2 = (124, *N* = 348) = 199.153, *p* = .001, CFI = .957, CMIN/DF = 1.606, RMSEA = .042, AIC = 427.153, NFI = .900

†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

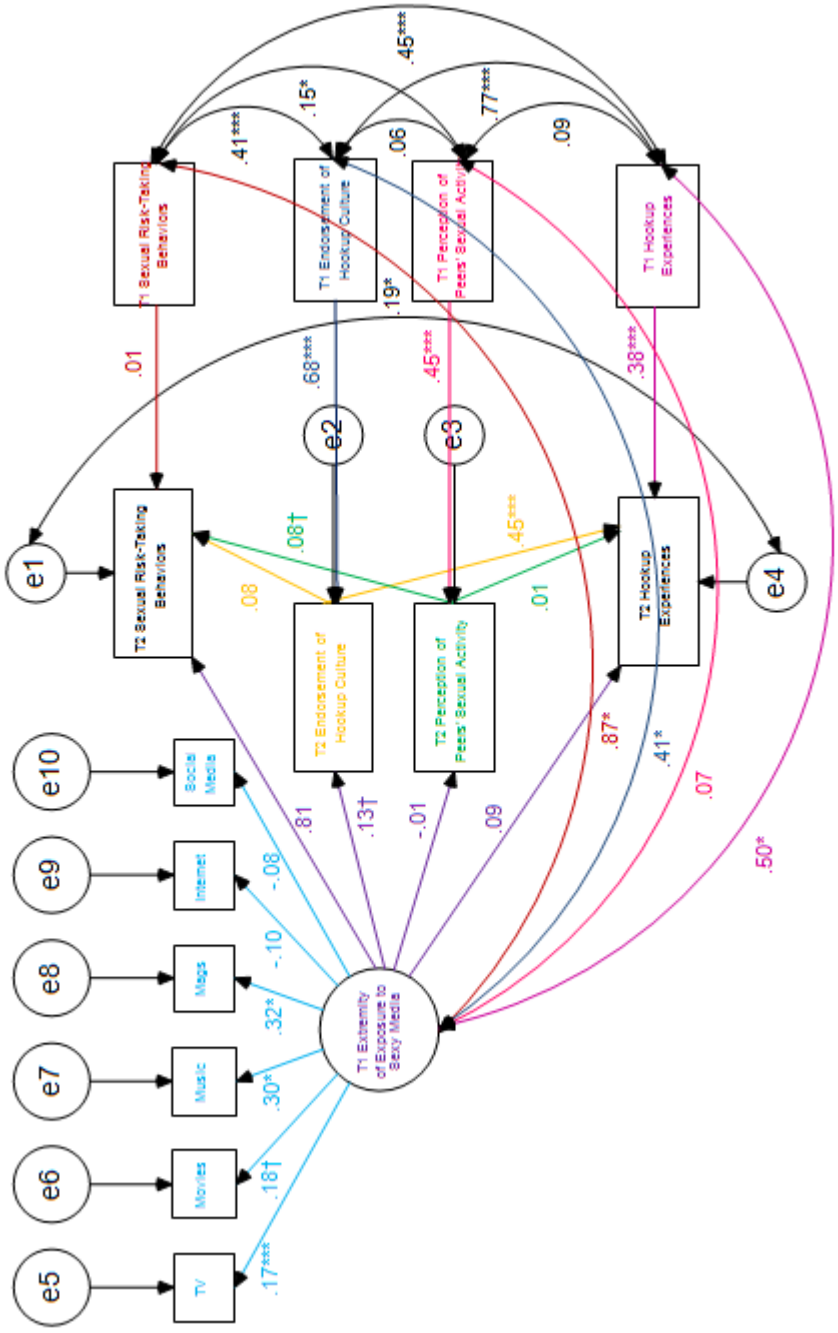
Figure 9. Extremity Only Model with Time-1 Controls



X^2 = (62, *N* = 348) = 103.437, *p* = .001, CFI = .974, CMIN/DF = 1.668, RMSEA = .042, AIC = 217.437, NFI = .940

†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

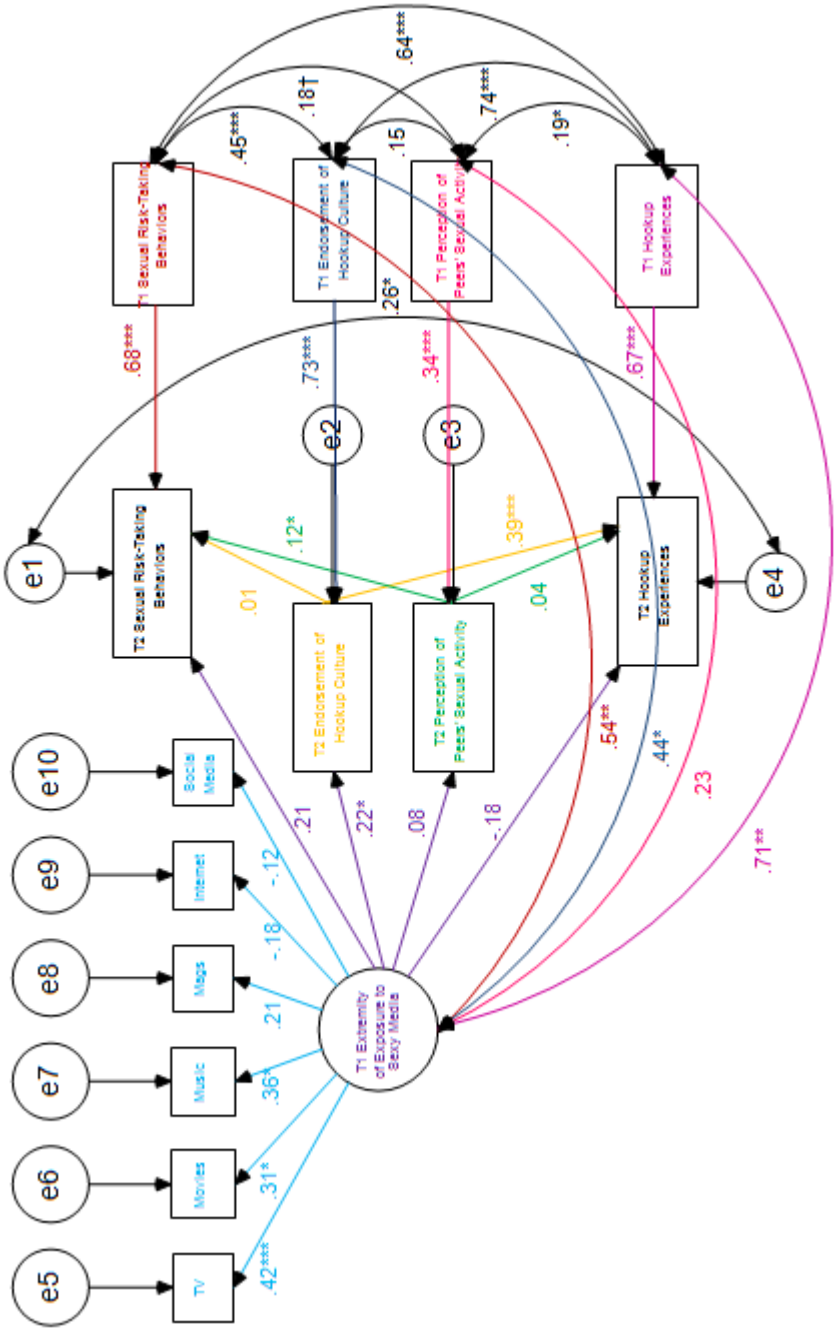
Figure 10. Extremity Only Model with Time-1 Controls for Females Only



X^2 = (124, *N* = 348) = 168.356, *p* = .005, CFI = .972, CMIN/DF = 1.358, RMSEA = .032, AIC = 396.356, NFI = .907

†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

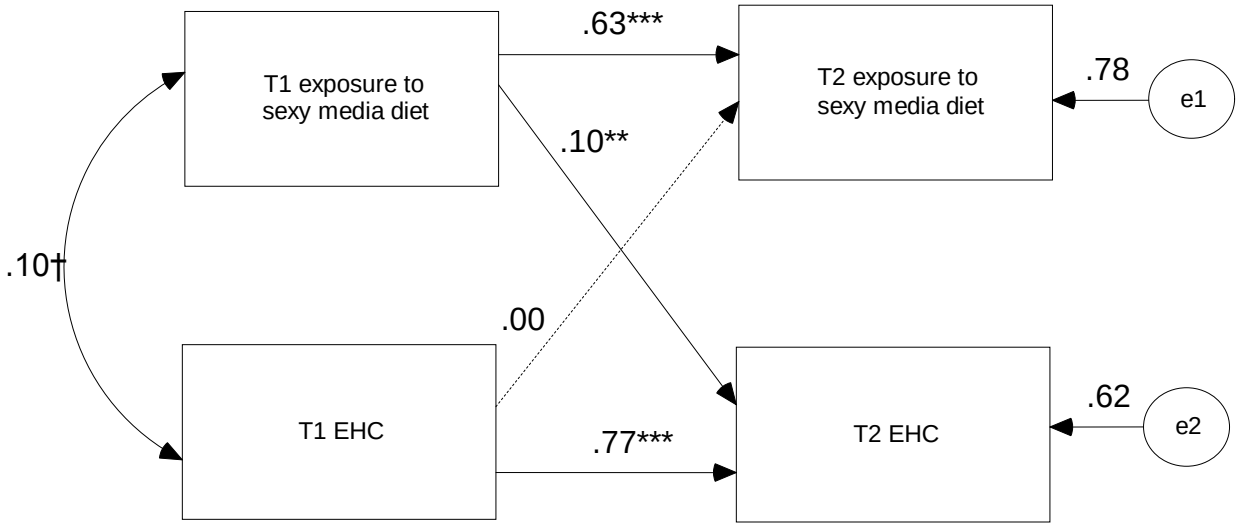
Figure 11. Extremity Only Model with Time-1 Controls for Males Only



X^2 = (124, *N* = 348) = 168.356, *p* = .005, CFI = .972, CMIN/DF = 1.358, RMSEA = .032, AIC = 396.356, NFI = .907

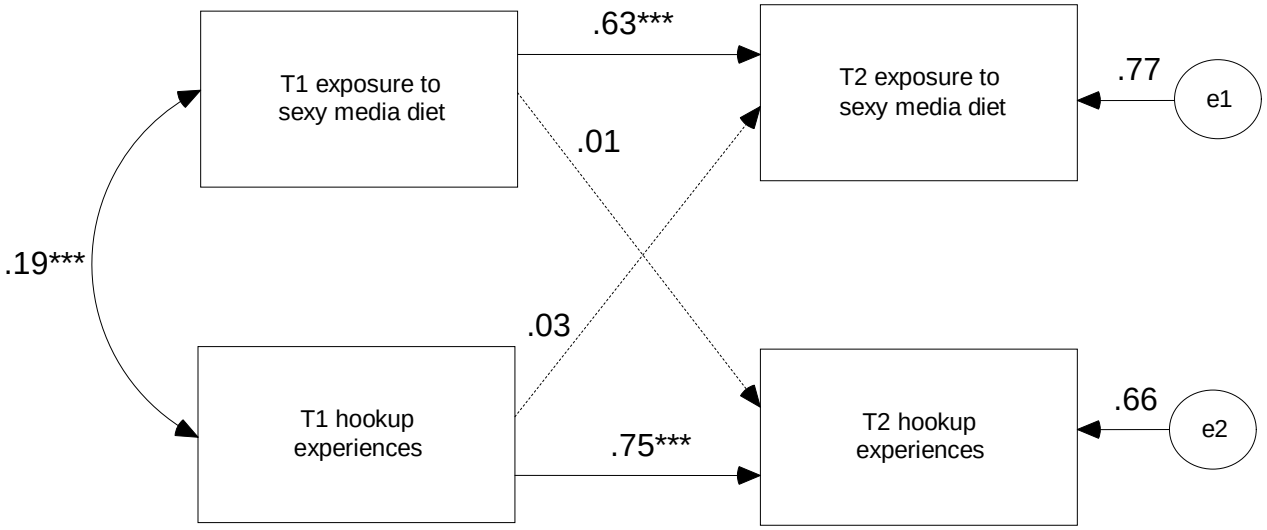
†*p*<.10; *p<.05; **p<.01; ***p<.001.

Figure 12. Path Models Predicting Direct Effects between Exposure to SMD and EHC



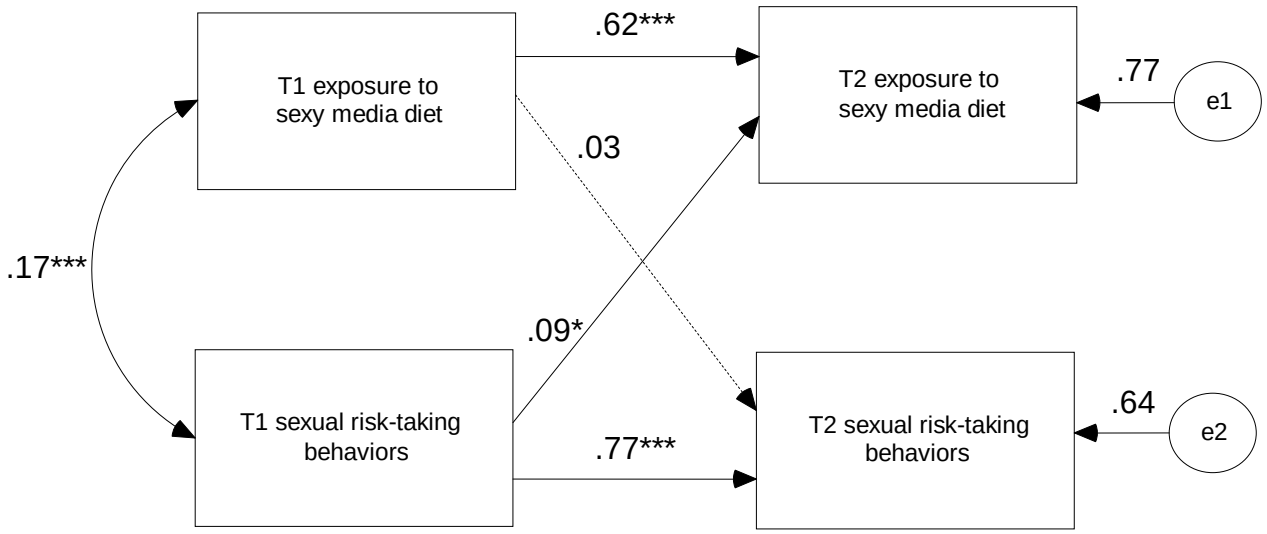
X^2 = (1, *N* = 348) = .401, *p* = .527, CFI = 1.000, CMIN/DF = .401, RMSEA = .000, AIC = 26.401, NFI = .999
†*p*<.10; *p<.05; **p<.01; ***p<.001.

Figure 13. Path Models Predicting Direct Effects between SMD and Hookup Experiences



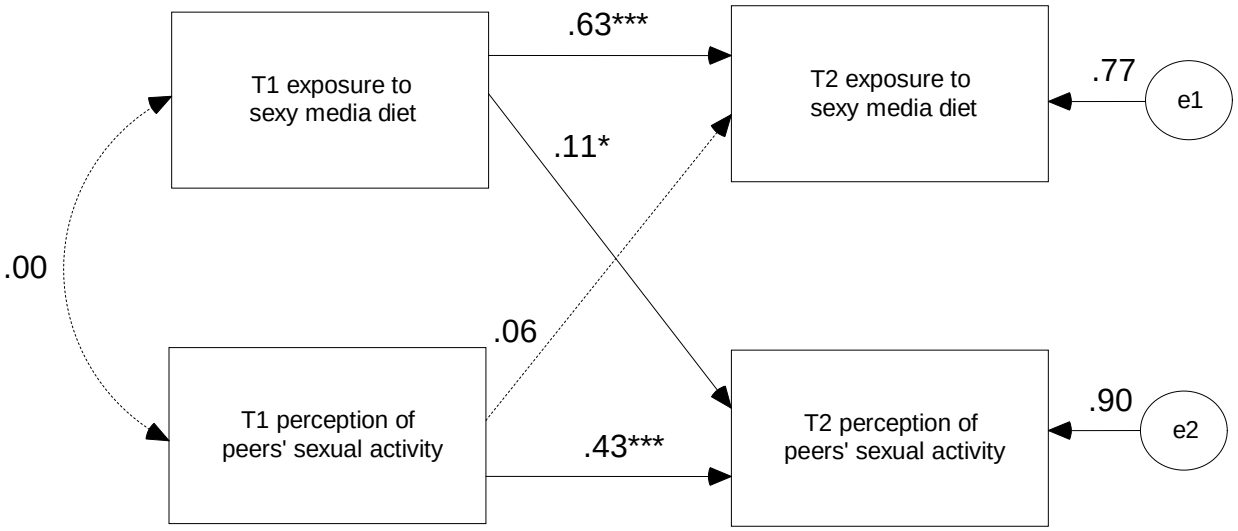
X^2 = (2, *N* = 348) = 2.092, *p* = .351, CFI = 1.000, CMIN/DF = 1.046, RMSEA = .011, AIC = 26.092, NFI = .996
†*p*<.10; *p<.05; **p<.01; ***p<.001.

Figure 14. Path Models Predicting Direct Effects between SMD and Sexual Risk-Taking Behaviors



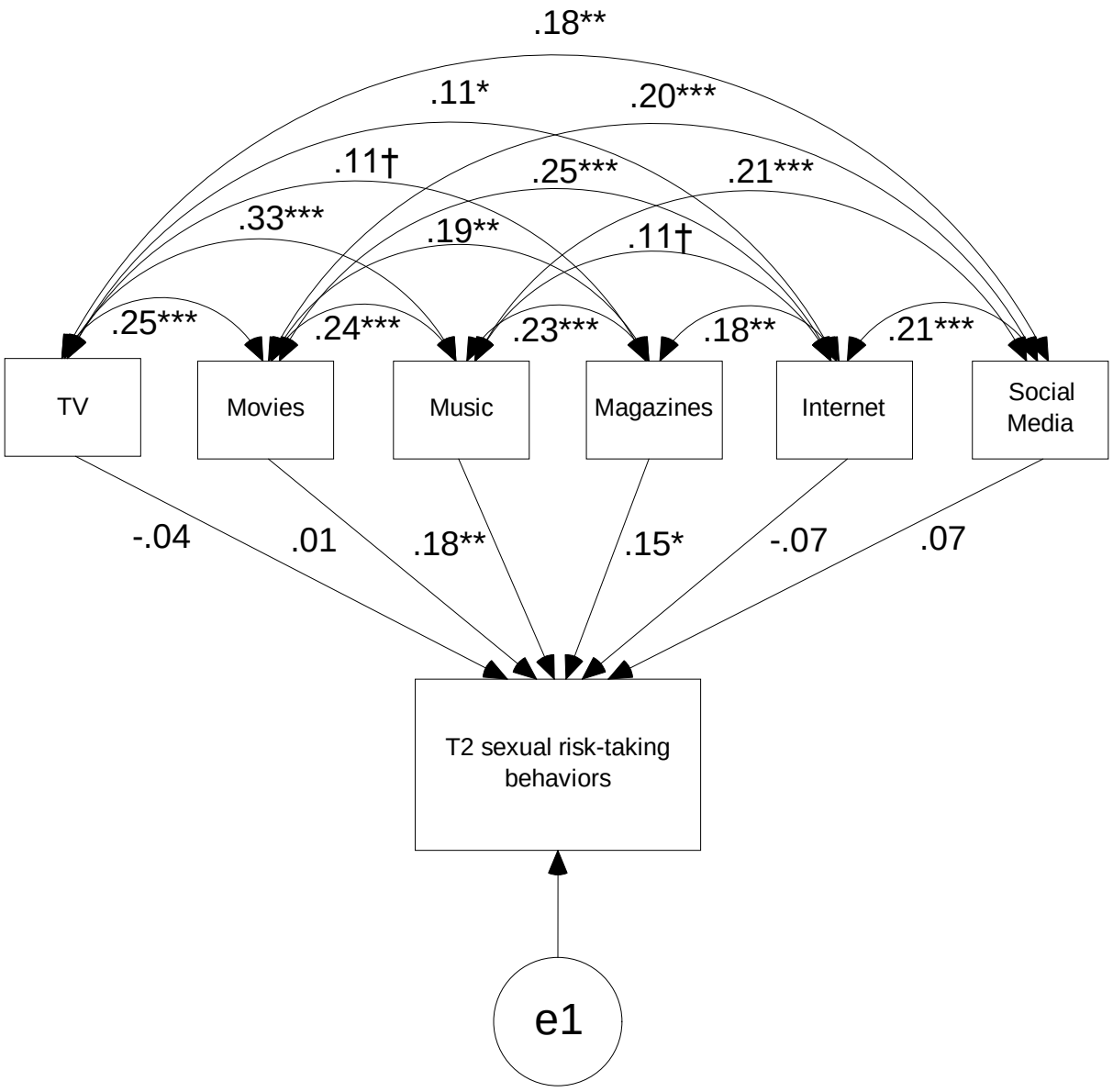
X^2 = (2, *N* = 348) = 7.254, *p* = .027, CFI = .989, CMIN/DF = 3.627, RMSEA = .072, AIC = 31.254, NFI = .985
†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

Figure 15. Path Models Predicting Direct Effects between SMD and Perception of Peers' Sexual Activity



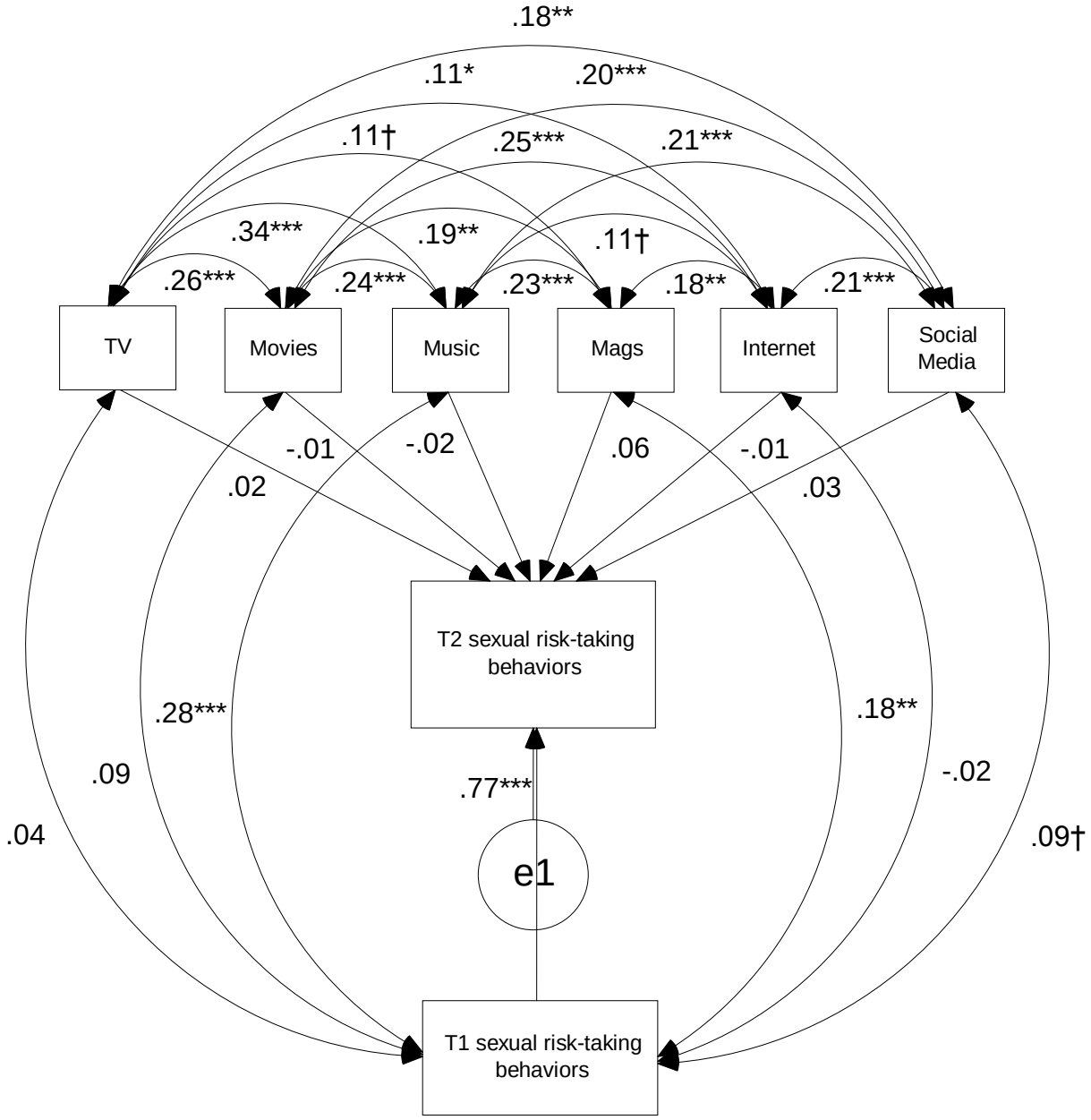
X^2 = (2, *N* = 348) = 2.710, *p* = .258, CFI = .997, CMIN/DF = 1.355, RMSEA = .03, AIC = 26.710, NFI = .989
†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

Figure 16. Sexual Media Vehicle Types Contributing to Sexual Risk-Taking Behaviors



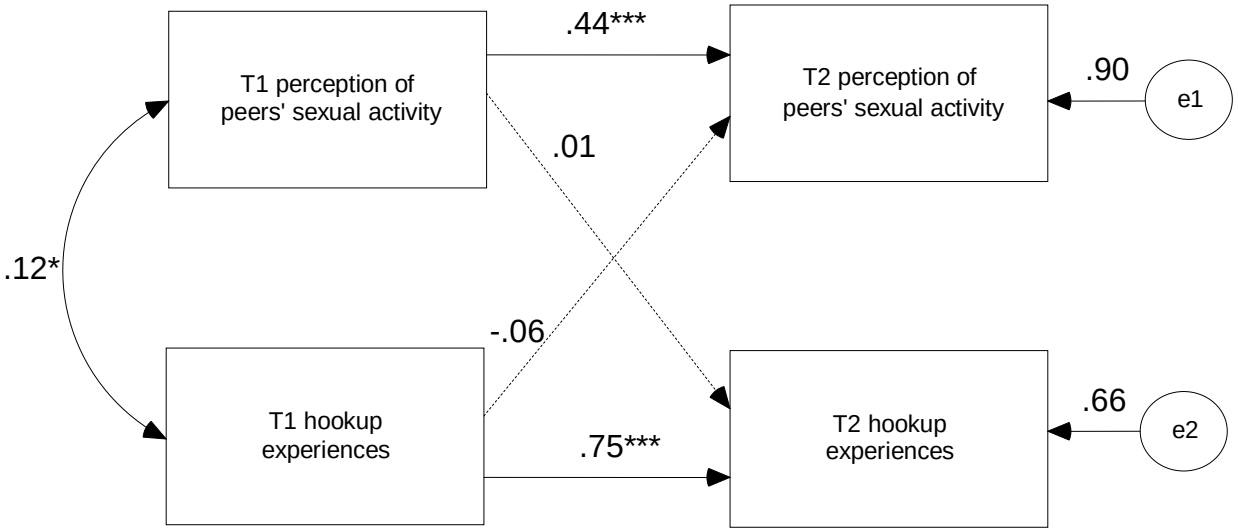
X^2 = (1, *N* = 348) = .229, *p* = .632, CFI = 1.000, CMIN/DF = .229, RMSEA = .000, AIC = 68.229, NFI = .999
†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

Figure 17. Sexual Media Vehicle Types Contributing to Sexual Risk-Taking Behaviors with Time-1 Control



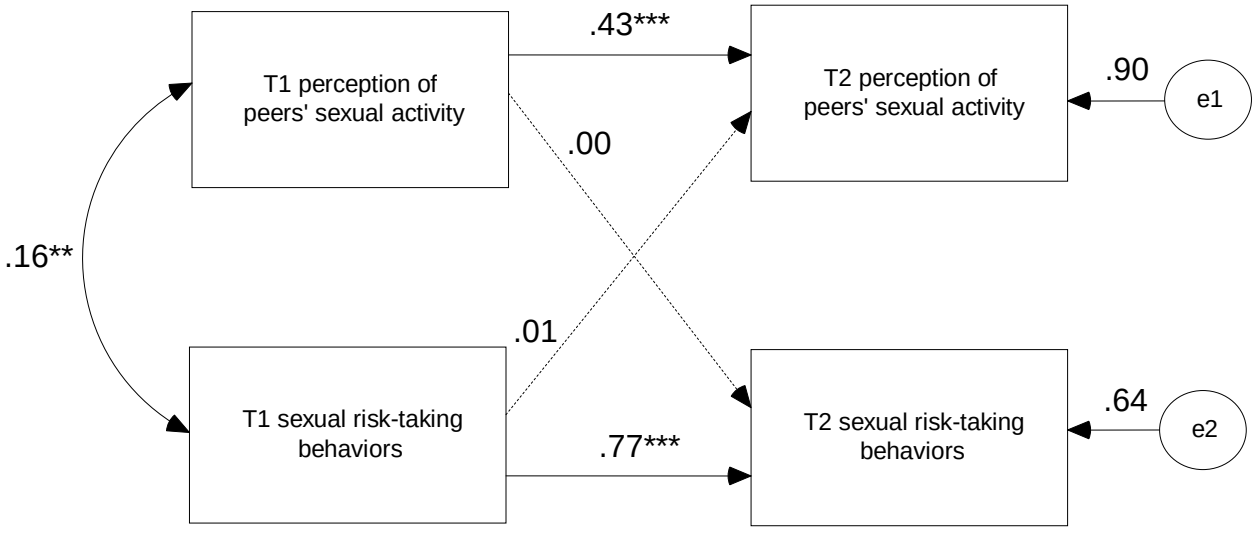
X^2 = (1, *N* = 348) = .248, *p* = .618, CFI = 1.000, CMIN/DF = .248, RMSEA = .000, AIC = 86.248, NFI = .999
†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

Figure 18. Path Models Predicting Direct Effects between Perception of Peers' Sexual Activity and Hookup Experiences



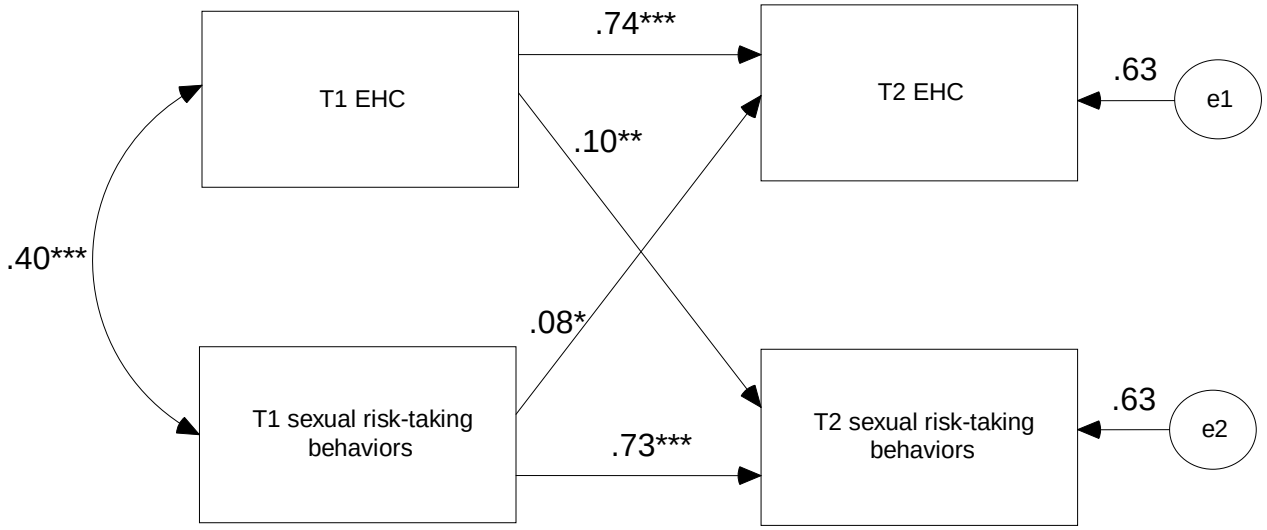
X^2 = (1, *N* = 348) = .149, *p* = .700, CFI = 1.000, CMIN/DF = .149, RMSEA = .000, AIC = 26.149, NFI = 1.000
†*p*<.10; *p<.05; **p<.01; ***p<.001.

Figure 19. Path Models Predicting Direct Effects between Perception of Peers' Sexual Activity and Sexual Risk-Taking Behaviors



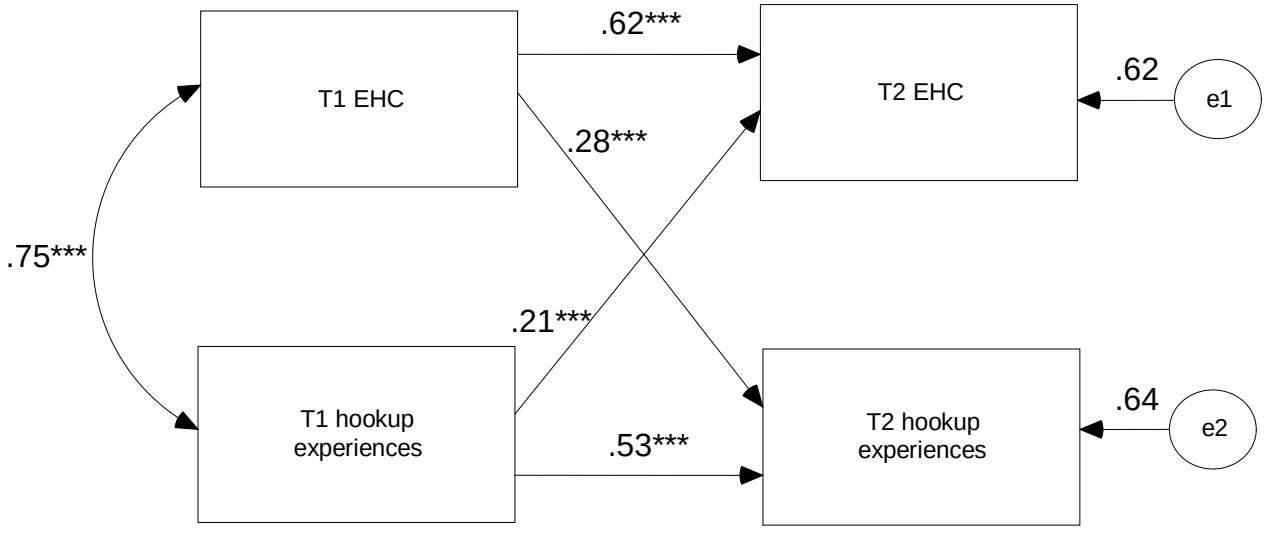
X^2 = (1, *N* = 348) = 5.654, *p* = .017, CFI = .988, CMIN/DF = 5.654 , RMSEA = .075, AIC = 31.654, NFI = .986
†*p*<.10; *p<.05; **p<.01; ***p<.001.

Figure 20. Path Models Predicting Direct Effects between EHC and Sexual Risk-Taking Behaviors



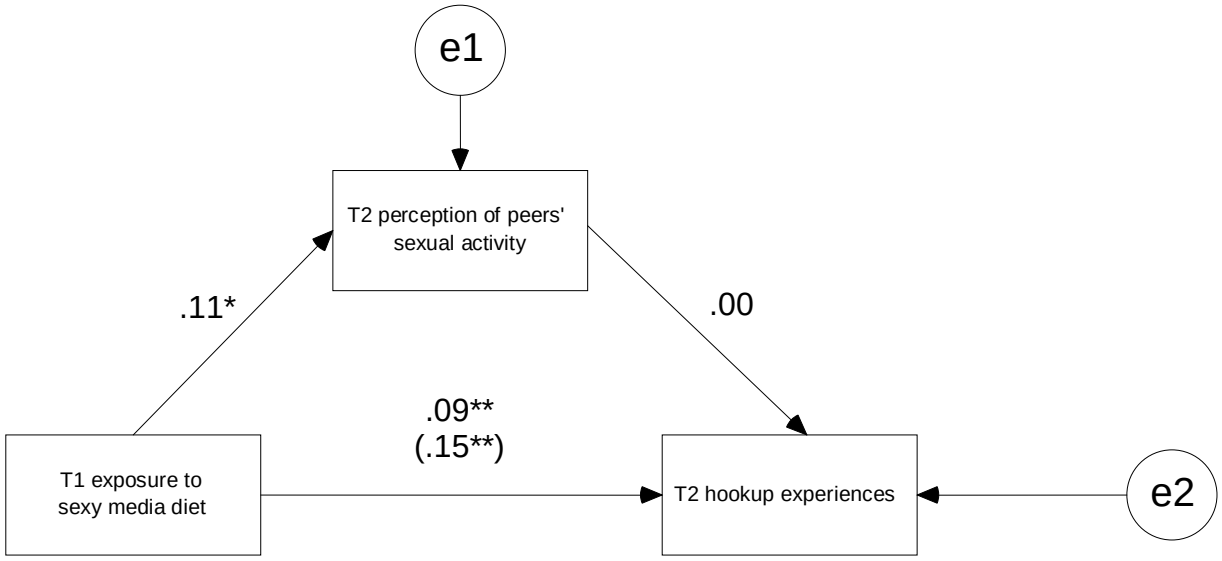
X^2 = (1, *N* = 348) = 8.077, *p* = .004, CFI = .990, CMIN/DF = 8.077, RMSEA = .064, AIC = 34.077, NFI = .989
†*p*<.10; *p<.05; **p<.01; ***p<.001.

Figure 21. Path Models Predicting Direct Effects between EHC and Hookup Experiences



X^2 = (2, *N* = 348) = 7.046, *p* = .043, CFI = .983, CMIN/DF = 3.523, RMSEA = .076, AIC = 31.046, NFI = .987
†*p*<.10; *p<.05; **p<.01; ***p<.001.

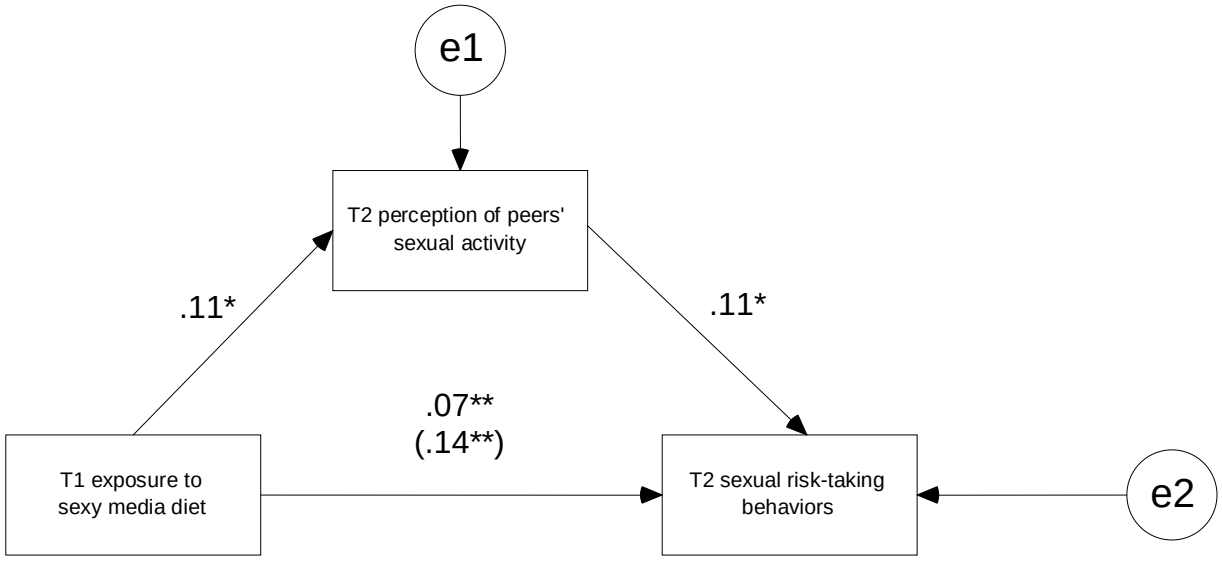
Figure 22. Path Models Examining Perception of Peers' Sexual Activity as a Mediator between SMD and Hookup Experiences



X^2 = (1, *N* = 348) = .017, *p* = .898, CFI = 1.000, CMIN/DF = .017, RMSEA = .000, AIC = 16.017, NFI = .999
†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

	T2 hookup experiences
T1 exposure to sexy media diet	
Direct effect	.09**
Indirect through perception of peers' sexual activity	.00
Observed predictor-criterion *r*	.15**
% of *r* explained by mediation	2.1%

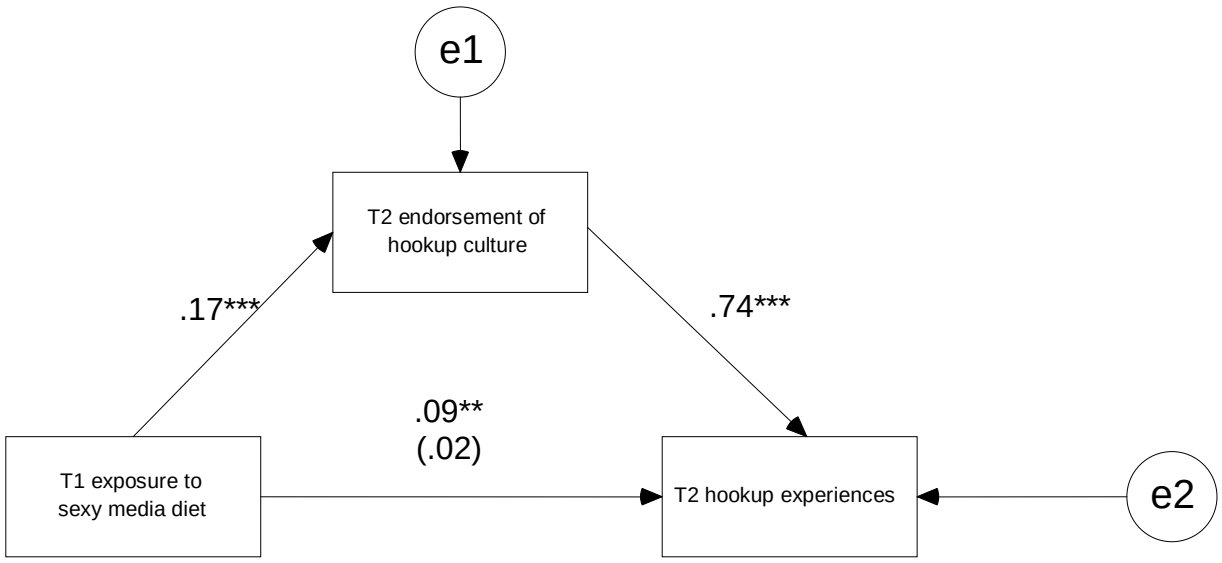
Figure 23. Path Models Examining Perception of Peers' Sexual Activity as a Mediator between SMD and Sexual Risk-Taking Behaviors



X^2 = (1, *N* = 348) = .017, *p* = .898, CFI = 1.000, CMIN/DF = .017, RMSEA = .000, AIC = 16.017, NFI = .999
†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

	T2 sexual risk-taking behaviors
T1 exposure to sexy media diet	
Direct effect	.07**
Indirect through perception of peers' sexual activity	.01
Observed predictor-criterion *r*	.14**
% of *r* explained by mediation	3.6%

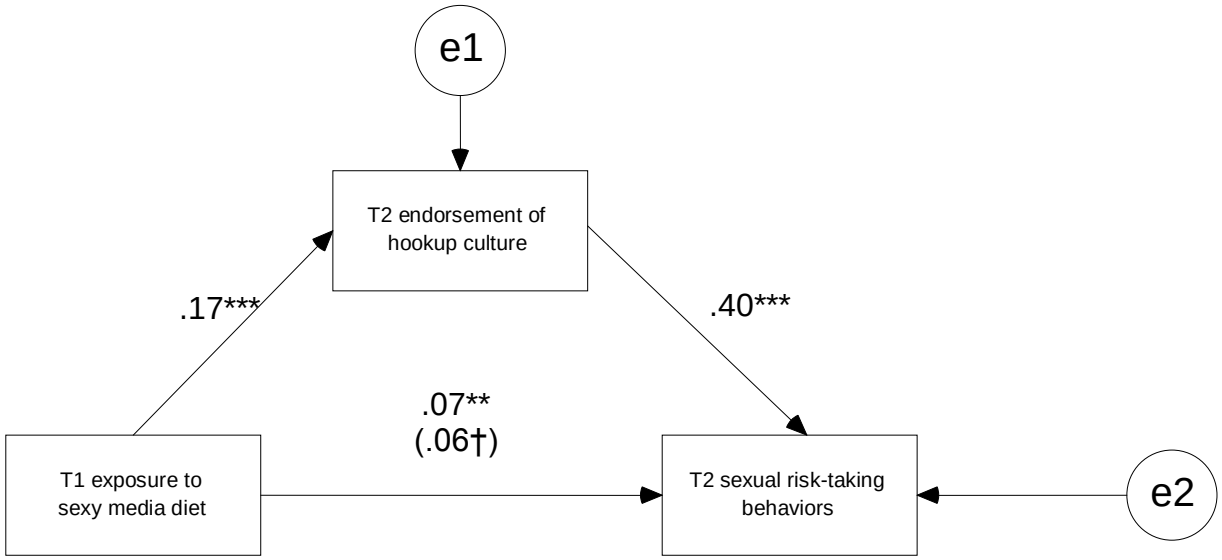
Figure 24. Path Models Examining EHC as a Mediator between SMD and Hookup Experiences



X^2 = (1, *N* = 348) = .017, *p* = .898, CFI = 1.000, CMIN/DF = .017, RMSEA = .000, AIC = 16.017, NFI = 1.000
†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

	T2 hookup experiences
T1 exposure to sexy media diet	
Direct effect	.09**
Indirect through endorsement of the hookup culture	.08**
Observed predictor-criterion *r*	.02
% of *r* explained by mediation	55.3%

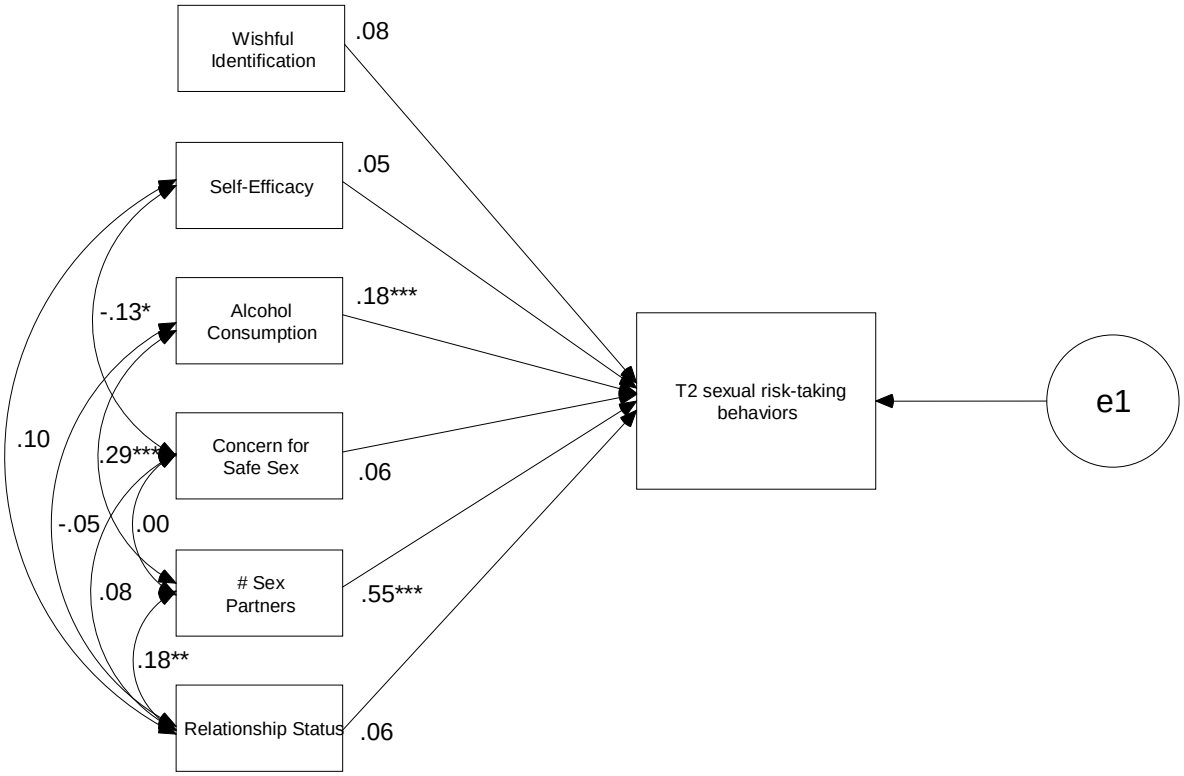
Figure 25. Path Models Examining EHC as a Mediator between SMD and Sexual Risk-Taking Behaviors



X^2 = (1, *N* = 348) = .017, *p* = .898, CFI = 1.000, CMIN/DF = .017, RMSEA = .000, AIC = 16.017, NFI = 1.000
†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

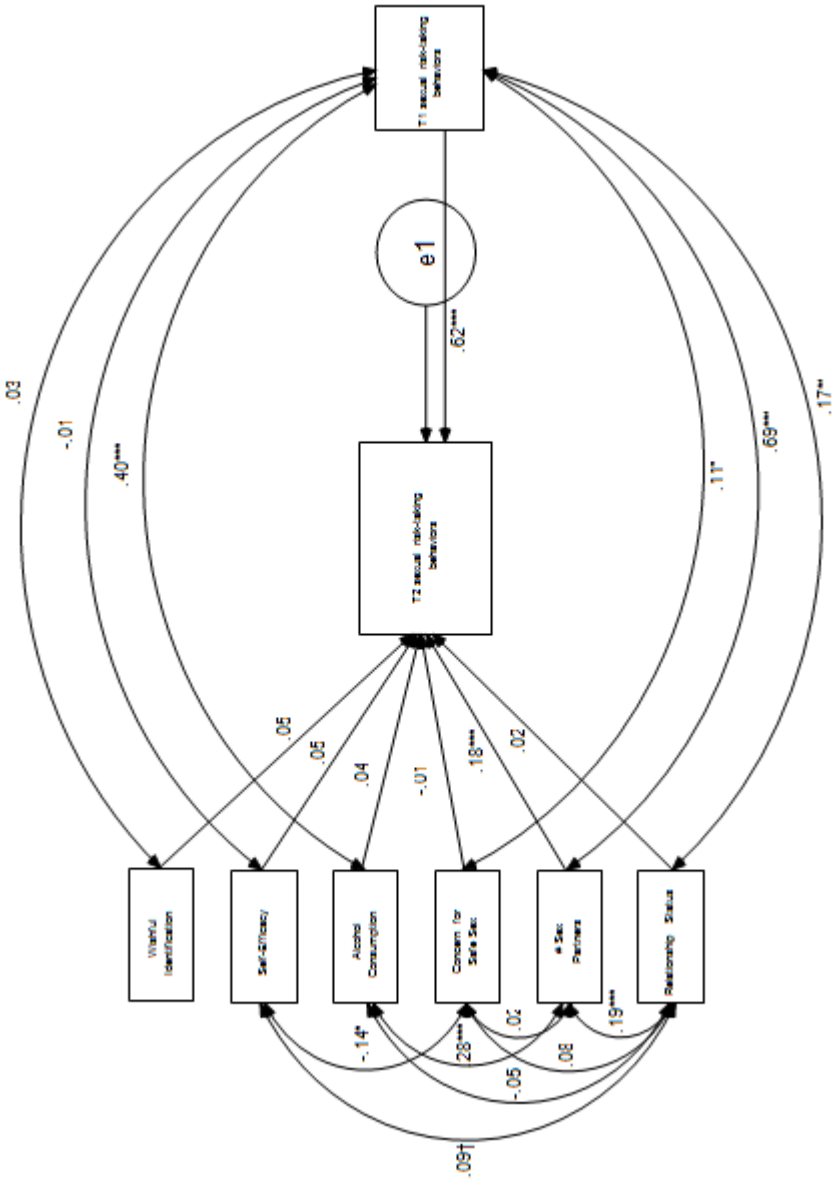
	T2 sexual risk-taking behaviors
T1 exposure to sexy media diet	
Direct effect	.07**
Indirect through endorsement of the hookup culture	.03**
Observed predictor-criterion *r*	.06†
% of *r* explained by mediation	17.9%

Figure 26. Individual Differences Contributing to Sexual Risk-Taking Behaviors



X^2 = (8, *N* = 348) = 21.917, *p* = .005, CFI = .935, CMIN/DF = 2.740, RMSEA = .071, AIC = 75.917, NFI = .909
†*p*<.10; **p*<.05; ***p*<.01; ****p*<.001.

Figure 27. Individual Differences Contributing to Sexual Risk-Taking Behaviors with Time-1 Control



X^2 = (8, *N* = 348) = 22.332, *p* = .004, CFI = .976, CMIN/DF = 2.792, RMSEA = .072, AIC = 94.332, NFI = .96; †*p*<.10; *p<.05; **p<.01; ***p<.001.

APPENDIX

Sexy Media Diet, Peer Influence, Endorsement of Hookup Culture, Risk-Taking Behaviors Survey Instrument

Demographic Questions.

1. How old are you?
    a. 18-19 years old
    b. 20-22 years old
    c. 23-25 years old
    d. 26+ years old

2. Which of the following do you consider yourself?
    a. Male
    b. Female
    c. Transgender
    d. Other:_____[please specify]

3. What is your current year in school?
    a. First year student
    b. Second year student
    c. Third year student
    d. Fourth year student
    e. Fifth year student or more

4. How do you usually describe yourself?
    a. White (non-Hispanic)
    b. African American
    c. Hispanic/Latino
    d. Asian/Pacific Islander
    e. Native American/Alaskan Native
    f. Other

5. What is your current relationship status?
    a. Single (not in a relationship)
    b. Committed relationship (only dating one person)
    c. Non-committed relationship (casual)
    d. Cohabitating (living together)
    e. Married or Partnered

6. Which of the following commonly used terms best describes you?
    a. Heterosexual
    b. Gay or Lesbian
    c. Bisexual
    d. Transgender
    e. Questioning
    f. Queer

7. Do you consider yourself a virgin?
    a. Yes
    b. No

Sexy Media Diet (For Main Sample).

Please rate how often you spend time with or view the following media vehicles using the scale below.

0 = *never*
3 = *sometimes*
5 = *always/most of the time*

Television

1. Modern Family
2. How I Met Your Mother
3. Friends
4. Glee
5. Jersey Shore
6. Gossip Girl

Movies

1. The Hangover
2. Bridesmaids
3. Friends with Benefits
4. The Notebook
5. How to Lose a Guy in 10 Days
6. He's Just Not That Into You

Music

1. Lil Wayne
2. Beyonce

3. Rihanna
4. Drake
5. Dave Matthews Band
6. Nicki Minaj

Magazines

1. Cosmopolitan
2. Seventeen
3. People
4. Vogue
5. Glamour
6. Elle

Internet

1. YouTube
2. Pandora
3. People.com
4. CosmoOnline
5. College Humor
6. Perez Hilton

Social Media

1. Facebook
2. Myspace
3. Twitter
4. Stumble Upon
5. Tumblr
6. Pinterest

Perception of peers' sexual activity.

Please estimate the following statements about your peers' sexual activity using the provided scale:

1 = *never*
2 = *sometimes*
3 = *regularly*
4 = *all the time*

1. The frequency of casual sexual intercourse for the typical male student within the past month.

2. The frequency of casual sexual intercourse for the typical female student within the past month.
3. The frequency of unprotected sexual activities for the typical male student within the past month.
4. The frequency of unprotected sexual activities for the typical female student within the past month.
5. The frequency that the typical male student consumes alcohol before and during sexual encounters.
6. The frequency that the typical female student consumes alcohol before and during sexual encounters.

Endorsement of the Hookup Culture. *Endorsement of the hookup culture (EHC) will be measured using a 20-item index examining the five components of the EHC: (1) a belief that hooking up is harmless and best without emotional commitment; (2) a belief that hooking up is fun; (3) a belief that hooking up will enhance one's status in one's peer group; (4) a belief that hooking up allows one to assert control over one's sexuality; and (5) a belief that hooking up is a reflection of one's sexual freedom. The 20 items will be combined to represent an overall comprehensive measure or index of the endorsement of the hookup culture. The items will be worded in a way that allows each participant to answer regardless if he or she has never hooked up or had the opportunity yet to do so.*

Please indicate how strongly you agree with each of the statements using the following scale:

1 = *strongly disagree*
2 = *disagree*
3 = *neutral*
4 = *agree*
5 = *strongly agree*

1. Hooking up is not a big deal.
2. A hookup is just a hookup.
3. Hooking up is harmless.
4. Hooking up is just for fun.
5. I overlook some of the questionable parts of hooking up because it is fun.
6. I hook up to have a good time.
7. I like hooking up because it provides immediate gratification.
8. Hooking up is pleasurable.
9. Hooking up would be a way for me to make a name for myself.
10. It would improve my reputation to hook up with someone who others find appealing.
11. Hooking up makes me more popular.
12. Hooking up would improve my status amongst my friends.
13. I feel that I can control what I want to have happen during a hookup.

14. I assert my needs during a hookup.
15. I feel powerful during a hookup.
16. Hooking up is fun when I am in control.
17. College is a good time to experiment with hooking up.
18. Sexual freedom is important to me.
19. Hooking up allows me to be sexually adventurous.
20. Hookup up is a fun and natural thing to do in college.

Hookup Experiences. *Participant will be provided Stepp's (2007) definition of hookups.*

(a) Have you ever hooked up?
   a. Yes
   b. No

(b) If yes, how often do you engage in hookups?
   a. 0 = never
   b. 1 = sometimes
   c. 2 = regularly
   d. 4 = all the time

(c) How open are you to hooking up in the future?
   a. 1 = absolutely not
   b. 2 = probably not
   c. 3 = maybe
   d. 4 = absolutely

Sexual Risk Taking Behaviors. *The Sexual Risk Survey (SRS) developed for college students with or without sexual experience and implemented by Turchik and Garske (2009). The 23-item survey was designed to assess an individual's frequency of sexual risk behaviors in the past six months. Each item is scored from zero to four, with higher scores indicating greater sexual risk taking.*

0 = *does not apply or never*
1 = *every so often*
2 = *sometimes*
3 = *usually*
4 = *all the time*

Instructions: Please read the following statements and record the frequency that is true for you over the past 5 months. If you do not know how many often a behavior took place, try to estimate the number as close as you can. If the question does not apply to you or you have never engaged in the behavior in the question put a ''0'' on the blank.

1. Have you engaged in sexual behavior with but not had sex with?

2. Have you left a social event with someone you just met?
3. Have you ‘‘hooked up’’ but not had sex with someone you didn’t know or didn’t know well?
4. 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. Have you gone out to bars/parties/social events with the intent of ‘‘hooking up’’ and having sex with someone?
6. Have you had an unexpected and unanticipated sexual experience?
7. Have you had a sexual encounter you engaged in willingly but later regretted?

For the next set of questions, follow the same direction as before. However, for questions 8–23, if you have never had sex (oral, anal or vaginal), please put a ‘‘0’’ on each blank.

8. How many partners have you had sex with?
9. 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.
10. How many times have you had vaginal intercourse without protection against pregnancy?
11. How many times have you given or received fellatio (oral sex on a man) without a condom?
12. How many times have you given or received cunnilingus (oral sex on a woman) without a dental dam or ‘‘adequate protection’’?
13. How many times have you had anal sex without a condom?
14. How many times have you or your partner engaged in anal penetration by a hand (‘‘fisting’’) or other object without a latex glove or condom followed by unprotected anal sex?
15. How many times have you given or received analingus (oral stimulation of the anal region, ‘‘rimming’’) without a dental dam or ‘‘adequate protection’’?
16. How many people have you had sex with that you know but are not involved in any sort of relationship with (i.e., ‘‘friends with benefits’’, ‘‘fuck buddies’’)?
17. How many times have you had sex with someone you don’t know well or just met?
18. How many times have you or your partner used alcohol or drugs before or during sex?
19. 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?
20. How many times (that you know of) have you had sex with someone who has had many sexual partners?
21. How many partners (that you know of) have you had sex with who had been sexually active before you were with them but had not been tested for STIs/HIV?
22. How many partners have you had sex with that you didn’t trust?
23. 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?

Sexual Status. *In order to measure an individual's sexual status, three components will be examined: number of sex partners in previous month, current relationship status, and concern for safe sex.*

1. How many previous sexual partners have you had in the previous month?
   _____ (number)

2. Are you currently in a committed, romantic relationship?
   a. Yes
   b. No

3. Do you think it is always necessary to practice safe sex?
   a. Very Important
   b. Not at all Important

Alcohol use. *Participants will be asked the following item regarding their alcohol use:*

"During the past 30 days, how many days have you consumed four or more drinks of an alcoholic beverage within a single day?"

Wishful identification. *Participants will be asked three items that address the extent to which they desire to be like their favorite media characters (Hoffner, 1996) in television, movies, and music. The wishful identification scale will be constructed by averaging the ratings for the three individual items, with higher scores indicating greater wishful identification toward the media models.*

Example: Television

(a) Who is your favorite television character? _____

Use the following scale to answer the following questions: 1 (*not at all*) to 5

(*extremely*)

(b) How sexual is your favorite character?
(c) How risky is your favorite characters' sexual behavior?
(d) How likely would your favorite character engage in hooking up?
(e) If your favorite character has not engaged in sexual activity, how likely is it that they would?

Use the following scale to answer the questions below: 1 (*disagree a lot*) to 5 (*agree a lot*)

(f) I'd like to do the kinds of things he/she does.

(g) He/She is the sort of person I want to be like myself.
(h) I wish I could be more like him/her.

Self-Efficacy toward Safe Sex.

Self-efficacy:

Please indicate how confident you are, at this point in time, in carrying out the following sexual health practices if you needed to. Think of confidence as having the knowledge, skills, and comfort necessary to effectively do these things. The term "partner" refers to whomever you might choose to engage in sexual activity with. Use the following scale for your answers:

1 = Not at all Confident
2 = Slightly Confident
3 = Moderately Confident
4 = Highly Confident
5 = Extremely Confident
How confident are you with:

1. Performing breast or testicular self-exams
2. Getting tested for a sexually transmitted infection (STI)
3. Getting an HIV test
4. Talking with a health care worker about a sexual health issue like an STI
5. Making thoughtful, good decisions about your sexual behavior
6. Practicing sexual abstinence
7. Establishing a fulfilling sexual relationship
8. Talking with a (prospective) sexual partner about your sexual history
9. Using a condom
10. Using another form of birth control other than a condom
11. Negotiating with a sexual partner to practice safer sex
12. Talking with a sexual partner about a sexual health issue, like an STI
13. Talking with a sexual partner about a relationship issue
14. Dealing with a sexual functioning difficulty (like difficulty achieving orgasm or ejaculating too quickly)
15. Preventing a sexual assault if it occurs to you
16. Dealing with a sexual assault if it occurs to you
17. Helping a friend who has been sexually assaulted
18. Eliminating sexual double standards (based on gender) in your life
19. Eliminating gender stereotyping from your life
20. Accepting diversity in sexual orientation (heterosexuality, homosexuality, bisexuality)

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