

Research Article

Relationship between Religiosity and "Hooking Up" Behavior

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ABSTRACT

Background: "Hooking up" behaviors, or sexual activities without commitment or emotional attachment, are occurring among college students. **Purpose:** This study examined the relationship between hooking up and two measures of religiosity. **Methods:** Data was obtained from students at a mid-southern university (n=459). **Results:** Most respondents indicated that they have hooked up. Males (64%) were more likely to report the behavior than females (47%). Religious attendance and religious belief played a significant role in distinguishing between those who have and have not participated in hooking up behaviors. **Discussion:** Results indicate religiosity may determine involvement in casual high-risk sexual encounters that expose college students to sexually transmitted infections and unintended pregnancy. **Translation to Health Education Practice:** Results should be of value to college-level sexuality educators and considered by those involved in sexual health programming on college campuses.

BACKGROUND

Many potential negative social and personal consequences are associated with changes in sexual behaviors among adolescents and young adults. 1 To develop campus programs that help reduce the occurrence of risky sexual behaviors, it is important to identify factors associated with such behavior. One factor that does seem to be related to participation in nonmarital sexual behavior among college students is degree of religiosity.2 A behavior pattern that potentially has substantial risks for sexually transmitted infections (STIs) and unintended pregnancy is "hooking up," or participation in sexual activities without commitment or emotional attachment. Little research has been conducted on hooking up behaviors, and apparently none on the relationship between religiosity and hooking up. Thus, the purpose of this study was to examine this relationship among a population of college students.

Hooking Up: Definitions

As sexual behavior outside a committed relationship has become the norm among college students, many participate in highrisk sexual behaviors.³ One potentially high risk behavioral pattern has come to be known as "hooking up." Hooking up generally refers to sexual encounters between strangers or brief acquaintances, in which there is no anticipation of a continued relationship. Several researchers have examined hooking up behavior but have used different operational definitions of the phrase—definitions that appear to be problematic both as to the actual behavior involved and the relationship between the participants.

For example, in the first academic article to empirically examine hooking up behavior among college students (published in 2000), participants were provided with the following definition of a hook-up: "A sexual encounter, usually only lasting one night, between two people who are strang-

ers or brief acquaintances. Some physical interaction is typical but may or may not include sexual intercourse." This definition is problematic because of the phrase "Some physical interaction is typical." Apparently two people who met and only talked, and did not engage in kissing or any form of sexual activity, still could meet this definition of hooking up.

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Glenn and Marquardt⁵ indicated that 75% of the respondents to their survey of college women agreed that a hook-up is "when a guy and girl get together for a physical encounter and do not necessarily expect anything further." This definition is also problematic because it applies only to heterosexuals and does not specify the types of activities subsumed under the term "physical encounter."

Finally, Lambert and colleagues⁶ defined hooking up as "A sexual encounter between two people who may or may not know each other well, but who usually are not seriously dating." Again, this definition is problematic. According to this definition the "sexual encounter" could be between people who do know each other well. In fact, they could even be "seriously dating." This is far different from sexual activity between strangers or brief acquaintances. In addition, this definition does not delineate the types of behaviors encompassed by the term "sexual encounter."

Thus, according to the various definitions offered by different researchers, hooking up is a sexual encounter of some sort (actual activities not specified), but may not actually involve physical contact at all. It is an interaction between two people who are strangers, or casual acquaintances, or who may actually be seriously dating. These previous definitions of hooking up fail to adequately describe both the relationship between the participants and the behaviors in which they engage. Because these definitions have not been satisfactory, an operational definition of hooking up specific to this study was developed: "A sexual encounter between people who are strangers or brief acquaintances. This encounter may involve sexual intercourse or may be limited to behaviors other than intercourse. There is no expectation of any relationship with the other person beyond this sexual encounter."

Hooking Up: Previous Research Findings

A central feature of hook-ups is that they typically occur when both parties are under the influence of alcohol and drugs.^{5,7} Both alcohol consumption and certain types of drugs, such as marijuana and ecstasy, lower inhibitions, making it easier for couples to hook up and giving them an excuse for that behavior. Typically, couples who hook up do not communicate the sexual behaviors in which they do or do not desire to engage. These sexual encounters may or may not include sexual intercourse. Hook-ups can occur on just one occasion, or they can occur more than once between the same two people over a period of weeks or months. It is often unclear which sexual behaviors have occurred when someone claims to have hooked up. Thus, the very ambiguity of the term is perhaps what makes it most attractive for college students.

A study by Paul and colleagues4 revealed that out of 555 undergraduate students surveyed, 48% had experienced at least one hook-up not involving sexual intercourse (what, if any, type of sexual activity was involved is unknown, just that it did not involve intercourse), 30% had experienced at least one hook-up that included sexual intercourse, and 22% had never experienced a hook-up. There were gender differences noted, with nearly one-half of the men (48%) and one-third of the women (33%) reporting having engaged in sexual intercourse during a hook-up. Survey respondents reported an average of 10.8 hookup partners during college. Paul et al.4 also indicated that individuals may take greater precaution to reduce the risk of pregnancy and STIs when engaging in sexual intercourse with unknown partners, but may be less careful with those with whom they wish to form a romantic relationship.

Glenn and Marquardt⁵ performed an in-depth 18-month investigation on the attitudes and values of today's college women relative to sexuality, dating, courtship, and marriage. The study involved interviews with a small group of women on 11 college campuses, and was supplemented by 20minute telephone interviews with a nationally representative sample of 1,000 college women. Results of this investigation revealed that hooking up is widespread on college campuses nationwide and profoundly influences campus culture. Forty percent of

women reported experiencing a hook-up, but the type of activity in which they were engaged was not reported. The women did report a range of positive and negative feelings toward their behavior. Moreover, an important finding was that women from divorced families were more likely to have hooked up than women who grew up in intact families. The study also found students typically participated in hooking up behavior following the consumption of alcohol. Only 12% of the participants indicated a hook-up had evolved into a romantic relationship. Only 50% of women said they had been asked on six or more dates since they came to college. One-third said they had been asked on two dates or fewer. Also measured in the study was protection against STIs, revealing that 81% of students reported using condoms.

Paul and Hayes⁸ conducted a subsequent qualitative study on hooking up among college students. The interviews indicated that often one partner viewed the sexual interaction as a step to building a meaningful relationship, whereas the other partner considered the interaction to be merely hooking up, having no expectation of commitment or developing a future relationship.

Lambert and colleagues⁶ sought to determine the extent to which pluralistic ignorance was related to college students' comfort levels with several sexual behaviors ranging from "petting" above the waist to sexual intercourse. Pluralistic ignorance occurs when, within a group of individuals, each person believes his or her private attitudes, beliefs, or judgments are discrepant from the norm displayed by the public behavior of others. Findings from the Lambert study indicated that 136 women (78%) and 128 men (84%) had hooked up. Participants demonstrated pluralistic ignorance by evaluating their own comfort level with hooking up significantly lower than their estimate of a same-sex peer's comfort level and the other gender's actual comfort levels. Compared with females, males significantly reported greater comfort with all four hooking up behaviors measured in the study. There are gender differences associated with all of the



research on hooking up behavior, with males more likely to participate.

Religiosity

Religiosity is a term used by researchers to refer to various aspects of religious activity, dedication, and belief. It has been measured in various ways, sometimes using a single item dealing with religious affiliation and at other times using lengthy, multidimensional scales. Glock9 indicated that religiosity involved five different dimensions: experiential (feeling), ritualistic (religious behavior, as worship attendance), ideological (beliefs), intellectual (knowledge), and consequential (effects in the secular world). Previous research on religiosity and sexual behavior found that almost all world religions attempt to influence the sexual behavior of their members in the context of their cultural systems. For example, one study found religiosity was positively correlated with self-described sexual restraint for both men and women across 52 cultures. 10 This is also the case with Christianity and its culture as it is found in the United States, especially among more conservative and fundamentalist denominations. 11,12

Religiosity has an influence on sexual decision making as evidenced in individual sexual behaviors and attitudes. Sexual and religious trends have generated a great deal of research interest over the past several decades. Moralistic and political arguments cite a degeneration of values as the major source of the trend toward earlier sexual activity. The literature suggests that attitudes regarding premarital sex have become more permissive over time,13 and this may be due to a decline in religious values. Religious conviction has been shown to have extensive influence on sexual decision making. Fehring and colleagues found an inverse relationship between religiosity indicators and frequency of coital activity among a sample of college students.14 Organized religious activity, including church attendance and the importance of prayer, produced the strongest correlation. Religiosity was strongly related to sexual guilt and inversely related to sexual permissiveness. Penhollow, Young, and Denny² demonstrated that for both female and male college students, those who reported less frequent worship attendance and weaker religious feelings were more likely to report participating in sexual behaviors. Empirical evidence has also demonstrated that strength of religious conviction and participation in religious activities are more important than religious denomination or affiliation in predicting whether or not an individual has nonmarital sex. ¹⁵ No studies were found, however, that examined the relationship between religiosity variables and hooking up behavior.

PURPOSE

The present study used two of the most common measures of religiosity—frequency of attendance at worship services and degree of self-reported religious feeling—to determine the degree to which religiosity is related to sexual behavior within the context of hooking up.

METHODS

Participants

Data were collected from a convenience sample of undergraduate students (n=459) enrolled in several different courses at a large southeastern public university. Introductory health and wellness classes were used for the study as these courses attract a crosssection of male and female students from diverse majors and year in college. Students voluntarily completed a questionnaire during normally scheduled class times. Answers were reported on electronically scored answer sheets provided by the researchers. Participants included in the data analyses were single and less than 25 years of age. Institutional Review Board (IRB) approval was granted prior to the implementation of the study.

Questionnaire Design

The questionnaire contained several items designed to elicit demographic information such as age, gender, ethnicity, and class rank. In addition, the questionnaire included five items dealing with sexual behavior and two items dealing with religiosity. Because previous definitions of hooking up have not been satisfactory,

an operational definition specific to this study was developed: "A sexual encounter between people who are strangers or brief acquaintances. This encounter may involve sexual intercourse, or may be limited to behaviors other than intercourse. There is no expectation of any relationship with the other person beyond this sexual encounter." Respondents were given this definition and asked five questions designed to address hooking up behaviors: (1) "Have any of your sexual experiences ever been within the context of hooking up, as we have defined it?" (response options: "Yes" or "No"); (2) "How often, within the last year, have you hooked up, as we have defined it?" (response options: "Have not done this in the last year," "Have done this once in the last year," "Two or three times," "Four to ten times," "More than ten times"); (3) "When you hook up, again as we have defined it, how often have you engaged in sexual intercourse with the other person?" (response options for this question, as well as 4 and 5: "Have not hooked up with another person," "Every time," "Most of the time," "Some of the time," "Never"); (4) "When you hook up, as we have defined it, how often do you give the other person oral sex (use your mouth and tongue on their sex organs)?"; (5) "When you hook up, as we have defined it, how often does the other person give you oral sex (use their mouth and tongue on your sex organs)?"

Participants included in the data analyses were those who reported at least some sexual experience. For this study we counted a participant as having sexual experience if they indicated they had ever participated in sexual intercourse, giving or receiving oral sex, anal intercourse, manual stimulation of a partner's genitals, or having a partner manually stimulate their genitals. Participants who indicated "No" to all of these behaviors were not included in any of the data analyses. Participants who indicated "Yes" to the question "Have any of your sexual experiences ever been within the context of hooking up, as we have defined it?" were included in all further analyses. Participants who indicated they had not had sexual experiences within the context of hooking up

were only included in comparisons of those who had hooked up with those who had not hooked up.

Religiosity was measured using two variables: frequency of attending religious services (response options ranged from "never" to "more than once per week") and degree of religious feeling (response options ranged from "not at all religious" to "deeply religious"). These measures addressed the experiential and ritualistic dimensions of religiosity.9

Data Analysis

Researchers used SAS programs to complete the data analysis. Data were analyzed using descriptive analyses, univariate analyses (chi-square and ANOVA), and logistic regression. Data were analyzed both without regard to gender and by gender.

RESULTS

Demographics of Respondents

The total sample consisted of 459 participants, with 35% male and 65% female. The majority of the participants were White (88%), which was representative of the overall college population.

Frequencies of Sexual Behaviors

Of the total sample, 71% indicated that they had ever participated in sexual intercourse, and 35% indicated that they had participated in sexual intercourse at least once in the context of hooking up. Ever having participated in giving oral sex was reported by 75% of the students, while ever receiving oral sex was reported by 79%. Having given oral sex in a hooking up situation was reported by 31%, while 38% indicated that they had received oral sex at least once in the context of hooking up. Fewer of the participants, 27%, reported participation in anal sex. The behavior in which the most participants indicated participation was having a partner manually stimulate their genitals (82%). Manually stimulating a partner's genitals was reported by 79%. Additional analyses were conducted using those who reported participation in at least one of these sexual behaviors (n=376, 82%). Frequencies of hooking up behaviors by

| | Females | | Males | | | |
|---|---------|-----|-------|-----|---|--|
| Sexual Behaviors | n | % | n | % | | |
| Ever hooked up ¹ | | | | | _ | |
| Yes | 136 | 47% | 97 | 64% | | |
| No | 142 | 53% | 54 | 36% | | |
| Hooked up within previous year ² | | | | | | |
| Have not done this in last year | 60 | 44% | 19 | 20% | | |
| Once in last year | 26 | 19% | 13 | 13% | | |
| Two to three times | 32 | 24% | 33 | 34% | | |
| Four to ten times | 14 | 10% | 19 | 20% | | |
| Greater than ten times | 4 | 3% | 13 | 13% | | |
| Engaged in sexual intercourse during a hook-up ² | | | | | | |
| Every time | 16 | 12% | 21 | 22% | | |
| Most of the time | 18 | 14% | 28 | 29% | | |

49

49

8

14

55

57

11

15

61

47

37%

37%

6%

10%

41%

43%

8%

11%

46%

35%

32

14

9

11

41

33

18

31

40

6

34%

15%

9 %

12%

44%

35%

19%

33%

42%

6%

Table 1. Frequencies of Hooking Up Behavior by Gender

¹Analysis involved students who indicated some degree of sexual experience.

gender are shown in Table 1.

Some of the time

Most of the time

Some of the time

Most of the time

Some of the time

Given oral sex during a hook-up²

Received oral sex during a hook-up²

Never

Every time

Every time

Never

Chi-Square

Chi-square analyses revealed that males (64%) were significantly more likely than females (47%) to have ever hooked up (p<.0001). Males also reported a significantly higher frequency of hooking up than females (*p*<.0001). Additionally, the frequency with which hooking up behavior included intercourse and receiving oral sex was greater for males than for females (p<.0001). There was no difference between males and females relative to the frequency with which hooking up behavior included giving oral sex (p=.5931). Hooking up was found to be related to both religious attendance (p<.0001) and religious feelings (p<.0001). Those who attended worship services less frequently

and those who were not as religious were more likely to report participating in sexual activities within the context of hooking up. When the data were analyzed separately by gender, it was found the relationship between religious attendance and having ever hooked up existed for both males (p=.0017) and females (p=.0027). The relationship between religious feeling and having hooked up, however, existed for males (p=.0002), but not for females (p=.1214).

Data were also analyzed to determine if there was a relationship between four other hooking up behaviors and religious attendance and religious feeling, specifically: frequency of hooking up in the previous year, frequency with which sexual intercourse occurred as part of a hook-up, frequency with

²Analysis included only students who responded "yes" to the question of whether or not they had hooked up.



| Table 2. Chi-Square Results for Coital Hook-Ups by Gender | | | | | | | | |
|---|-----------------------------------|-----|-------|-------|--------------------------------|-----|-------|-------|
| Variable | Religious Attendance ¹ | | | | Religious Feeling ² | | | |
| | DF | N | ChiSq | Prob | DF | N | ChiSq | Prob |
| FEMALES | | | | | | | | |
| Ever hooked up ³ | 4 | 286 | 16.22 | .0027 | 4 | 279 | 7.29 | .1214 |
| Frequency of hooking up | | | | | | | | |
| in previous year⁴ | 4 | 136 | 9.16 | .0573 | 4 | 134 | 6.53 | .1631 |
| Frequency of sexual intercourse | | | | | | | | |
| as part of a hook-up ⁴ | 4 | 134 | 15.05 | .0046 | 4 | 130 | 8.61 | .0717 |
| Frequency of giving oral sex | | | | | | | | |
| as part of a hook-up ⁴ | 4 | 134 | 1.04 | .9043 | 4 | 132 | 1.86 | .7619 |
| Frequency of receiving oral sex | | | | | | | | |
| as part of a hook-up⁴ | 4 | 134 | 2.48 | .6481 | 4 | 132 | 5.55 | .2355 |
| MALES | | | | | | | | |
| Ever hooked up ³ | 4 | 146 | 17.28 | .0017 | 4 | 144 | 21.62 | .0002 |
| Frequency of hooking up | | | | | | | | |
| in previous year⁴ | 4 | 94 | 12.10 | .0166 | 4 | 93 | 6.70 | .1527 |
| Frequency of sexual intercourse | | | | | | | | |
| as part of a hook-up ⁴ | 4 | 92 | 11.75 | .0193 | 4 | 91 | 13.98 | .0074 |
| Frequency of giving oral sex | | | | | | | | |
| as part of a hook-up ⁴ | 4 | 91 | 5.57 | .2337 | 4 | 90 | 7.17 | .1270 |
| Frequency of receiving oral sex | | | | | | | | |
| as part of a hook-up ⁴ | 4 | 92 | 3.51 | .4759 | 4 | 91 | 4.73 | .3156 |
| | | | | | | | | |

¹Due to a low number of observations in some cells, religious attendance was collapsed into three categories: (1) a few times per year or less, (2) at least once per month, but less than once per week, and (3) at least once per week.

which giving oral sex occurred as part of a hook-up, and frequency with which receiving oral sex occurred as part of a hook-up. For females, the only behavior of these four that was significantly (p<.05) related to either religious attendance or religious feeling was frequency with which sexual intercourse occurred as part of a hook-up and religious attendance (p=.0046). Those who attended religious services more often reported a lower frequency of inclusion of intercourse as part of their hooking up experience. For males, frequency of hooking up was significantly related to religious attendance (p=.0166), and frequency with which sexual intercourse occurred as part of a hook-up was related to both religious attendance (p=.0193) and religious feeling (p=.0074). Those who attended religious services less often reported a higher number of hooking up experiences. Those who attended less often and those who indicated less religious feeling reported a higher frequency of inclusion of intercourse as part of their hooking up experience. It should also be noted that there was no statistical difference (p < .05) between males and females relative to frequency of religious attendance or degree of religious feeling. This was the case both in considering those reporting some sexual experience and in considering those who reported hooking up. Results of the chisquare analyses for religious attendance, religious feeling, and engaging in hooking up behaviors are presented in Table 2.

Logistic Regression

To determine whether the two religiosity variables could distinguish between students who did and did not engage in different hooking up behaviors, logistic regression analyses were conducted for the following: ever hooked up, frequency of hooking up in the past year, frequency with which hookups included sexual intercourse, frequency with which hook-ups included giving oral sex, and frequency with which hookups included receiving oral sex. Separate analyses were conducted for both males

²Due to a low number of observations in some cells, religious feeling was collapsed into three categories: (1) not at all religious and not very religious, (2) somewhat religious, (3) religious and very religious.

³Students reporting some sexual experience; response options were "yes" and "no."

⁴Students who responded "yes" to the question "Have any of your sexual experiences been within the context of hooking up?" Due to a low number of observations in some cells, the frequency with which the behavior occurred within the context of hooking up was collapsed into three categories: (1) every time, (2) most of the time and sometimes, and (3) rarely and never.

and females.

Logistic regression indicated that for females, the two religiosity variables, as a set, did distinguish between the different levels of behavior for ever hooked up (p=.0031) and frequency with which hook-ups included sexual intercourse (p=.0007). Religious attendance made a unique contribution to distinguishing between those who had and had not hooked up and among those who reported different frequencies with which hook-ups included sexual intercourse. Religious feeling did not make a unique contribution in any of the five analyses. The amount of variation for which the religiosity variables accounted was relatively small $(R^2=.0541 \text{ for ever hooked up, } R^2=.1227 \text{ for}$ frequency with which hook-ups included sexual intercourse).

Logistic regression indicated that for males, the two religiosity variables, as a set, did distinguish between the different levels of behavior for ever hooked up (p=.0002) and frequency with which hook-ups included sexual intercourse (p=.0048). Religious feeling made a unique contribution to distinguishing between those who had and had not hooked up (p=.0168) and among those who reported different frequencies with which hook-ups included sexual intercourse (p=.0022). Religious attendance did not make a unique contribution in any of the five analyses. The amount of variation for which the religiosity variables accounted was a little higher for males (R2=.1558 for ever hooked up, R²=.1340 for frequency with which hook-ups included sexual intercourse). Results of the logistic regression analyses are presented in Table 3.

DISCUSSION

The intent of the present study was to examine the contemporary sexual phenomenon of hooking up and its relation to measures of religiosity. This study makes a contribution to the literature by offering an improved definition of hooking up, examining additional specific sexual behaviors that characterize noncoital hook-ups (giving oral sex and receiving oral sex), and examining the relationship between hooking-up

| Table 3. Logistic Regression Analyses for Hooking Up | | | | | | | | |
|--|--|---------|---------------|-------|--|--|--|--|
| | FEMA | FEMALES | | ES | | | | |
| | ChiSq | Prob | ChiSq | Prob | | | | |
| Ever Hooked Up | | | | | | | | |
| Religious attendance | 5.69 | .0170 | 2.07 | .1498 | | | | |
| Religious feeling | 0.13 | .7202 | 5.71 | .0168 | | | | |
| Overall ChiSq and Prob | 11.56 | .0031 | 17.32 | .0002 | | | | |
| R-Square | $R^2 = .0541$ | | $R^2 = .1558$ | | | | | |
| Percent concordant | 56.4% | | 66.8% | | | | | |
| Frequency of Hooking Up in Pr | Frequency of Hooking Up in Previous Year | | | | | | | |
| Religious attendance | 0.71 | .3990 | 0.92 | .3373 | | | | |
| Religious feeling | 1.26 | .2612 | 1.56 | .2118 | | | | |
| Overall ChiSq and Prob | 1.32 | .5157 | 4.37 | .1125 | | | | |
| R-Square | $R^2 = .0112$ | | $R^2 = .0555$ | | | | | |
| Percent concordant | 50.2% | | 58.1% | | | | | |
| Engaged in Sexual Intercourse | during a Hook- | Up | | | | | | |
| Religious attendance | 8.99 | .0027 | 0.80 | .3712 | | | | |
| Religious feeling | 0.05 | .8230 | 9.36 | .0022 | | | | |
| Overall ChiSq and Prob | 14.43 | .0007 | 10.68 | .0048 | | | | |
| R-Square | $R^2 = .1227$ | | $R^2 = .1340$ | | | | | |
| Percent concordant | 60.7% | | 64.7% | | | | | |
| Given Oral Sex during a Hook-t | aL | | | | | | | |
| Religious attendance | 0.01 | .9326 | 0.01 | .9144 | | | | |
| Religious feeling | 1.03 | .3095 | 0.30 | .5847 | | | | |
| Overall ChiSq and Prob | 1.50 | .4724 | 0.30 | .8584 | | | | |
| R-Square | $R^2 = .0137$ | | $R^2 = .0040$ | | | | | |
| Percent concordant | 49.1% | | 47.2% | | | | | |
| Received Oral Sex During a Ho | eceived Oral Sex During a Hook-up | | | | | | | |
| Religious attendance | 1.35 | .2449 | 0.01 | .9090 | | | | |
| Religious feeling | 0.03 | .8581 | 2.94 | .0863 | | | | |
| Overall ChiSq and Prob1 | .83 | .4011 | 3.30 | .1917 | | | | |
| R-Square | $R^2 = .0166$ | | $R^2 = .0470$ | | | | | |

50.5%

behavior and measures of religiosity.

Percent concordant

The findings in this study relative to gender differences and hooking up support previous research showing that males are more likely than females to report hooking up⁶ and participation in sexual intercourse as part of a hook-up.4 Findings not previously found in the literature were that males reported a greater frequency of hooking up and a greater frequency with which intercourse and receiving oral sex were a part of hook-ups, with no gender difference relative to the frequency with which giving oral sex was a part of hook-ups.

In the present study, 64% of the

males and 47% of the females with some sexual experience reported having sexual encounters within the context of hooking up. Percentages of students in the present study who reported hooking up behaviors were less than those reported in the studies by Lambert⁶ and Paul⁴ but more than that reported by the women in Glenn and Marquardt's study.5 The first two studies were conducted in the northeastern United States, where a more liberal attitude toward sexual behavior among college students may exist. The third study involved a national sample. Differing definitions of hooking up may also account for some of the differences. In

52.6%

the current study, hooking up was defined in a way that made clear it referred to a sexual encounter with a stranger or brief acquaintance. In other studies, the definition of hooking up was so vague and wide ranging that encounters not involving any type of sexual interaction as well as sexual activity between dating partners in serious relationships could be counted as hooking up behavior.

Relative to religiosity variables and hooking up, chi-square analysis found that for women, the only items that were statistically significant were "ever hooked up" and "frequency with which hook-ups included sexual intercourse," both of which were related to frequency of religious attendance. For men, three items—"ever hooked up," "frequency of hooking up in the previous year," and "frequency with which hook-ups included sexual intercourse"—were related to religious attendance. Religious feeling was significant for males for two of the five behaviors (ever hooked up and frequency with which hook-ups included sexual intercourse); however, religious feeling was not significant for any of the five behaviors for females.

Regarding the results of the logistic regression, it is interesting to note that for both men and women the same two behaviors ever hooked up and frequency with which hook-ups involved sexual intercourse—were related to religiosity variables. For males, religious attendance did not make a unique contribution to distinguishing between participants and nonparticipants for any of the five behaviors, but did for two behaviors among females. For males, religious feeling did make a unique contribution to distinguishing between participants and nonparticipants for two of the five behaviors, but did not do so for any of the behaviors for females. In other words, when religious feeling is held constant, religious attendance seems to make a difference for females, but not for males. When religious attendance is held constant, religious feeling makes a difference for males, but not for females.

Most previous research regarding religiosity and the sexual behavior of college students has limited the sexual behavior to penile/vaginal intercourse. The present study also asked about giving and receiving oral sex within the context of hooking up. Previous work by Penhollow, Young, and Denny² found that frequency of worship attendance seemed to be more of a factor for females (making a unique contribution to all six behaviors in which the vagina, mouth, or anus was penetrated by a penis) than for males. Religious attendance was a factor for four of the male behaviors. Religious feeling was a factor for only one behavior among females (ever received oral sex) and for three behaviors among males. Thus, as in the present study, worship attendance seemed to be more important to females, and religious feeling seemed to be more important to males. It is unclear why this is the case.

Many motives exist for college students to hook up rather than seeking conventional boyfriend or girlfriend relationships. Glenn and Marquardt⁵ describe current college culture as one in which future career preparation is a preeminent goal, sexual norms are permissive, and there is little encouragement for the contemplation of marriage in the foreseeable future. This may reflect a shift in values held by some women from a focus on committed relationships to a deeper interest in developing their career prior to getting married. One indication of this trend is the increase in the median age of first marriage, from about 21 years of age in 1970 to slightly more than 25 years in 2001.¹⁶

Traditional college students also experience a number of stressors. Social strains that come along with maintaining satisfying personal relationships, academics, financial concerns, and part-time jobs all compete for time.¹⁷ Many students are intensely focused on their degree programs and building a résumé for a job. Competitive societal pressures leave the majority of college students with a lack of time, and many find establishing long-term relationships to be a challenge.

Hooking up behavior allows college students to gain sexual experience and knowledge, but not healthy relationship skills. Traditional features of courtship are

becoming less and less common on college campuses. The result of this cultural change is the failure of college students to develop the ability of a step-by-step attachment process that leads to long-term, successful, committed relationships. One attachment model developed by Van Epp¹⁸ contends that in order to have a healthy, long-term relationship, individuals begin by knowing the other person and their family. This leads to trusting and relying on the other person, which forms the basis for commitment. He concludes that attachment to another develops through these four stages and concludes with sexual behavior, which is the most bonding of all behaviors with another person.

TRANSLATION TO HEALTH **EDUCATION PRACTICE**

Religion and popular culture play a large and important role in the lives and sexual decision making of most college students. Because hooking up is a risky sexual practice common on most college campuses, it is important that awareness messages and educational programs clearly demonstrate the risks involved in such behaviors, including vulnerability to STIs and unintended pregnancy. College-level instructors and campus health promotion staff can use these findings to help college students address real-life situations and see evidence of the social context in which hooking up occurs. This can in turn facilitate strategic behavior on the part of the individual to avoid diseases. Moreover, a health education role for campus religious organizations may be beneficial, as these groups may assist college students in taking responsibility for their own value-based decisions. There is strong evidence that the risks of STIs are not uniformly spread among the population. Consequently, it is imperative to target preventive educational efforts upon young, single, college-age adults, among whom these infections are the most prevalent.

Limitations

Interpretation of these results should consider the limitations of the study.



Participants consisted of a convenience sample of single undergraduate college students. Caution is warranted regarding the generalizability of the present research findings. In addition, the survey instrument consisted of a self-report questionnaire. There is a possibility that students may have produced false or socially desirable responses. Lastly, the study used a cross-sectional research design, indicating that correlates of behavior were assessed rather than antecedents of behavior.

CONCLUSION

Evidence suggests that the various activities classified as "hooking up" are becoming normative developmental behavior among young adults. Results of this study suggest that religiosity variables may influence involvement in casual, potentially high-risk sexual encounters. A fundamental direction for future research is to address relationship experience, parental relationships, home environment, as well as racial and ethnic variability in hooking up and their correlates. Longitudinal research beginning in early adulthood and even in high school may prove beneficial for a greater understanding of hooking up interactions. Researchers should continue to explore the complexities associated with sexual experimentation and sexual risk-taking, since these activities place young people at risk for STIs and unintended pregnancy, both of which continue to be national public health concerns.

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