

Sexual Regret in College Students

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A questionnaire study was conducted to assess the relationship between sexual regret and sexual behaviors and demographic factors among 348 college-aged students prior to attending an educational program about sexual health issues. Analyses conducted on the portion of the sample who were sexually active ($n = 270$) indicated that the majority (71.9%, $n = 194$) has regretted their decision to engage in sexual activity at least once. The most cited reasons for regret by students included their sexual decision making as inconsistent with their morals (37%), an acknowledgment that alcohol influenced their decision (31.7%), the realization they did not want the same thing as their partner (27.9%), the lack of condom use (25.5%), feeling pressure by their partner (23.0%), and their desire to wait until marriage to have sex (15.4%). The only significant sex difference was that women reported regret due to feeling pressured by a partner more often than men. Multiple and logistic regression analyses indicated that the only significant predictor of regret regarding one's sexual decisions was the number of sexual partners. These results demonstrate the need for sexual educators to incorporate sexual regret into their curricula as the phenomenon of regret is more common than pregnancy and sexually transmitted diseases, the usual focus of sexuality education.

KEY WORDS: sexual regret; sexual behaviors; sexual decision-making.

INTRODUCTION

Regrets about what one has done or what one has failed to do are common. The psychological literature defines regret as a negative cognitive emotion that can only be experienced when an individual remembers a past event and realizes or imagines that the present would be different had one acted differently (Zeelenberg, 1999).

Regrets evolve from many life situations. Some can be global assessments of life, such as not spending enough time with one's family or not applying oneself during college, and some can be situation specific, such as driving too fast or having sex with a certain person. Other specific sexual regrets could include having sex for the first time

(Dickson, Paul, Herbison, & Silva, 1998) or not using a condom during a sex act (Bakker, Buunk, & Manstead, 1997). Although regret as a general topic has been investigated, there is a paucity of research on regretted sexual experiences. The literature that does address sexual regret often focuses on *anticipated* regret (e.g., Caffray & Schneider, 2000) or on regrets specifically associated with one's first sexual experience (e.g., Dickson et al., 1998). Given that 71.6% of college students report having at least one sexual partner within the last year and 10.4% report having four or more sexual partners in the last year (American College Health Association, 2004), the opportunity for sexual regret is present. To better develop educational curricula that adequately address the concerns and experiences of college students, it is vital to learn whether or not these students are experiencing regret as a consequence of their decisions and actions. This study seeks to fill this gap in the literature regarding experienced sexual regrets among college students.

In general, regrets can be of commission or omission. Regrets of commission involve an individual doing something and wishing later that he or she had not done that action; regrets of omission occur when an

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individual fails to do something and later wishes that he or she had done that action. In laboratory settings, individuals often cite regrets of commission as having a higher intensity of emotion; yet, when asked about life experiences, most individuals regret more acts of omission (e.g., not spending more time with family) than of commission (Feldman, Miyamoto, & Loftus, 1999; Gilovich & Medvec, 1994).

Research regarding the experiences of regret of adolescents and college students is limited. Lata, Nakamoto, and DeGenova (1997) studied general regrets of 195 college students aged 18–23 and found that students had regrets concerning physical appearances and the balance between school and social life. This study did not examine regrets involving sexuality. Caffray and Schneider (2000) examined adolescents' motivations to participate in various risky behaviors, including drinking alcohol, using drugs, having sex, smoking cigarettes, and skipping school. They found a difference between adolescents who had less experience in these areas with those who had more experience. Specifically, adolescents with less experience were more likely to report *anticipated* regret, defined by Bell (1982) as the negative feelings and self-recriminations an individual may feel before any negative consequences actually occur from a behavior. Caffray and Schneider's (2000) results indicated that anticipated regret could deter inexperienced adolescents from engaging in a high-risk behavior, such as having unprotected sex.

As part of a 1970 national survey regarding sexual attitudes, Klassen, Williams, and Levitt (1989) asked individuals ranging in age from their early 20s to late 70s to reflect back on their experience or nonexperience (i.e., no sexual interactions with others) regarding premarital sexual activity. Approximately 40% expressed some regret about premarital sex whereas about 8% regretted that they did not have the experience. About twice as many women than men regretted that premarital sex occurred, whereas among the inexperienced, about twice as many men than women regretted *not* engaging in premarital sex.

Other studies examining regrets of first sexual intercourse experiences provide similar results. Dickson et al. (1998) found that 54% of the women and 16% of the men studied who had consensual sex reported that "they should have waited longer before having sex with anyone," whereas 11% of the men and only 1% of the women reported that "they shouldn't have waited as long" (p. 30). Wight et al. (2002), studying a sample of adolescents aged 13–15 years, reported regretted rates for first intercourse as 18% for men and 33.6% for women. The anticipated regret of not using a condom had been shown to have an impact on future condom use (Bakker et al., 1997;

Richard, De Vries, & van der Pligt, 1998; Richard, van der Pligt, & De Vries, 1996; van der Pligt & Richard, 1994).

A series of articles on premarital sexual decision-making have investigated emotional or affective responses, such as guilt (Sprecher, Barbee, & Schwartz, 1995; Sprecher & Regan, 1996), ambivalence (O'Sullivan & Gaines, 1998), and anxiety (Sprecher et al., 1995) related to sexual decisions. Other literature offers reasons given for engaging in or not engaging in sexual interaction, including inconsistencies with one's values and beliefs (Paradise, Cote, Minsky, Lourenco, & Howland, 2001), perceptions of peer and parental stances on premarital intercourse (Herold & Goodwin, 1981; Paradise et al., 2001; Sprecher & Regan, 1996), and religiosity (Christopher & Cate, 1984; Herold & Goodwin, 1981; Paradise et al., 2001; Sprecher & Regan, 1996). Although not always labeled as such, many of these affective responses and cognitive reasons for engaging in or waiting to engage in sexual activities are facets of anticipated or actual regret. For those individuals who believe that premarital intercourse is against their values, beliefs, or religion, for example, it is likely that, were they to engage in premarital intercourse, they may anticipate or experience regret following their actions.

Our study examined regret about *any* sexual experience of oral, anal or vaginal sex, whether it was one's first experience or subsequent sexual activity. In addition, this study examines differences between men and women with regard to sexual regret. A better understanding of the specific sexual regrets of college students will further current research by providing more information about regrets that are actually experienced as opposed to merely anticipated. Further, this better understanding will be helpful to sexual health educators in planning programs that can best address the needs of the students they serve.

METHOD

Participants

The participants were college students, 248 (71.1%) women and 98 (28.3%) men, ranging in age from 18 to 32 years ($M = 19.74$, $SD = 1.65$). All the participants attended a sexual health program at a large, southeastern university. These programs were facilitated by a Peer Sexual Educator from the health center and focused on topics such as sex and alcohol, safer sex, and sexual decision-making. All programs were held in either an academic class or in a residence hall. The residence hall programs were voluntary and held during the evening. Before the program, students attending the program were asked to

complete a survey about their sexual health behaviors. Participants voluntarily completed the anonymous survey. A specific refusal rate was not calculated, but very few individuals refused to complete the survey, though some may not have answered all questions. The participants' ethnicities were White (68.1%, $n = 233$), Black (26.9%, $n = 92$), and other (5%, $n = 17$). In terms of grade level, the distribution was 39% ($n = 134$) freshmen, 22.1% ($n = 76$) sophomores, 22.4% ($n = 77$) juniors, and 16.3% ($n = 56$) seniors; one graduate student also completed the survey. On average, the participants had been at the university for 1.7 years ($SD = 1.1$).

Measure

The instrument, the "Peer Sexuality Education Program Pretest," had a total of 29 items. All items, with the exception of those measuring risk, were developed for this study. Ten items were relevant to the examination of regret and are described below. The remaining 19 items were related to sexual decision-making irrespective of regret.

Sexual Behaviors

Five items on the survey queried sexual experience and related outcomes. Students were asked to indicate whether or not they had engaged in oral, vaginal, or anal sex. A second item asked about gender of sexual partners. A third item asked participants to indicate the total number of sexual partners they had in their lifetime (including oral, anal, and vaginal sex). An additional two items asked about sexually transmitted disease (STD) testing.

Regretted Sexual Activity

Participants were asked to respond to "Have you ever regretted your decision to engage in sexual activity?" They provided their answer based upon a 5-point Likert-type response, where 1 indicated *never* and 5 indicated *always*. In addition, participants could choose the *not applicable* option if they had not engaged in sexual activity. This Likert-type item was created because no standard sexual regret items were known to the authors. A second question asked participants to choose reasons for their regret from an available list. These reasons were obtained from prior focused discussions with students and were felt pressured by partner, resulted in pregnancy, contracted a disease, disagreed with morals and values, realized did not want the same thing as partner, felt alcohol influenced my decision, wanted to wait until marriage, and did not use a condom. Participants were asked to choose as many reasons for

Table I. Percentage of Sexually Active Participants and Mean Number of Partners by Sex^a

| | Men ($n = 88$) | Women ($n = 211$) |
|---|---------------------|------------------------|
| Oral sex (%) | 83.0 | 77.3 |
| Vaginal sex (%) | 83.0 | 73.5 |
| Anal sex (%) | 11.4 | 10.4 |
| Mean number of sexual partners ^b | 5.6 | 3.0 |

^aIndividuals who did not answer these questions or indicate their sex were excluded from the analysis.

^bTwenty participants did not answer this question; there was a significant difference between the sexes: $t(277) = 3.94, p < .001$.

regret as applied to them. There was also an option to write in a response.

Condom Use

Condom use was measured using two items. Participants answered the items using the same 5-point Likert-type scale as in the regret question. In addition, participants could choose *not applicable* as an option. The items read "When I engage in vaginal sex, I use condoms" and "When I engage in anal sex, I use condoms." The alpha coefficient for these two items was .77.⁵

RESULTS

Sexual Behavior

Participants reported the following sexual behaviors: 65.5% ($n = 228$) had engaged in vaginal sex, 68.4% ($n = 238$) oral sex, and 9.2% ($n = 32$) anal sex with 13.5% ($n = 47$) not answering these questions. Number of lifetime partners for oral, anal, and/or vaginal sex ranged from 0 to 50 partners, with 54.4% of the respondents having two or more partners ($M = 3.7, SD = 5.4$). Individuals were not asked to specify the number of partners for each behavior. Approximately one-third (34.2%) of the students had been tested for an STD (type not specified). Of this third, only six participants reported testing positive. Table I provides a breakdown of sexual experiences by sex of participant. Only those participants who indicated they had engaged in

⁵The survey included an item asking about condom use during oral sex; however, the item was not included in the final condom use scale. Reliability analysis showed it to be inconsistent with responses for condom use during vaginal and anal sex. Many individuals do not consider oral sex to be "sex" (Pitts & Rahman, 2001; Sanders & Reinisch, 1999) and often perceive it as no or low risk (Remez, 2000), so it is not surprising that condom or dental dam use during oral sex was not correlated with condom use during anal or vaginal sex.

Table II. Responses (in %) to the Item “Have You Ever Regretted Your Decision to Engage in Sexual Activity?”^a

| | Never | Rarely | Sometimes | Often | Always |
|----------------------------|-------|--------|-----------|-------|--------|
| Men (<i>n</i> = 78) | 17.9 | 28.2 | 38.5 | 10.3 | 5.1 |
| Women (<i>n</i> = 181) | 29.3 | 27.1 | 35.9 | 6.1 | 1.7 |
| Combined (<i>n</i> = 259) | 25.9 | 27.4 | 36.7 | 7.3 | 2.7 |

^aNine participants did not answer this item.

oral, vaginal, or anal sex (77.6%, *n* = 270) were included in further analysis.

Regret

Table II shows that regret about sexual decisions was a common experience among this sexually active college sample. Of those who answered this question, three-fourths of the sexually active students reported experiencing some level of regret about a sexual experience. Table II provides reports of regrets based on sex of participant. Of the 261 sexually active students who answered this question, 27.6% reported that they rarely regretted their decision. The most frequent response, comprising 36.8% of the sample, was “sometimes” regretting their decision. Further, 7.3% responded often and 2.7% responded that they always regret their decision to engage in sexual activity. Chi-square tests revealed no significant difference between men and women in the overall regretted sexual experience and no differences between the sexes regarding regret when using a dichotomous response (“never” vs. and any other response [i.e., rarely, sometimes, often, and always]).

The most frequent reason for regret, reported by 36.8% of the respondents, was that their decision disagreed with their morals and values. The next most frequently cited response was the influence of alcohol on the decision (31.6%). Other commonly cited options by students were realizing they did not want the same thing as partner (28.2%), did not use a condom (25.4%), felt pressured by partner (22.9%), and wanted to wait until marriage (15.3%). Pregnancy (4.3%) and disease contraction (2.9%) were not commonly reported reasons for regret. Chi-square tests were used to compare reasons for regret between the sexes; women were more likely to regret sex because they felt pressured by their partner ($\chi^2[1] = 6.82, p = .01$). The other seven reasons for regret were not statistically significant by sex.

Predictors of Regret

Three separate regressions were conducted to examine demographic and behavioral factors predicting

regret. Independent variables included age, sex, level in school (upper classmen vs. lower classmen), ethnicity, location of program (residence hall or classroom), if one had engaged in oral sex, if one had engaged in vaginal sex, if one had engaged in anal sex, condom use, and number of sex partners. Regressions were conducted for three dependent variables: (1) participants’ response to the question “Have you ever regretted your decision to engage in sexual activity?”; (2) the number of reasons for regret (which could range from 0 to 9); (3) participants’ response to “Have you ever regretted your decision to engage in sexual activity?” on a dichotomous scale of “never” and any other response (i.e., rarely, sometimes, often, and always). For nondichotomous dependent variables (Likert response and the number of reasons for regret), multiple regression using the stepwise method and pairwise elimination was conducted. Stepwise regression procedures were employed because there were not specific predictions about the relative influence of the potential predictors on regret. Following the guidelines of Montgomery and Peck (1992), backward regressions with the same predictors and dependent variables were also performed as were regression analyses using the enter method (with the variables entered in the order listed in Table III). The number of sexual partners was the only significant predictor for the dependent variables with minimal differences. Given the exploratory nature of this study and the minimal differences between the results using the various procedures, the stepwise regression procedure is reported.

For the dichotomous response dependent variable, logistic regression was used as this is the preferred method for logistic regression. Final models are shown in Table III. For all three dependent variables, only the number of sex partners was a significant predictor of regret.

DISCUSSION

Almost three-fourths of the sexually active participants in this study had, at some time in their life, regretted a decision to engage in sexual activity. Given that little research has been done on the issue of sexual

Table III. Regression Analyses Regarding Sexual Regret

| Predictor variables | Likert response | | Number of reasons for regret | | Dichotomous response | | |
|---------------------|-----------------|---------------------|------------------------------|---------------------|----------------------|-------|----------------|
| | β | Partial correlation | β | Partial correlation | β | Wald | Exp(β) |
| Age | -0.12 | -.12 | -0.12 | -.12 | -0.15 | 0.78 | 0.86 |
| Sex | -0.09 | -.09 | 0.03 | .03 | -0.81 | 2.84 | 0.45 |
| Level in school | 0.01 | .01 | -0.09 | -.09 | -0.29 | 0.29 | 0.75 |
| Ethnicity | 0.04 | .04 | -0.01 | -.01 | 0.01 | 0.07 | 1.01 |
| Program location | 0.00 | .00 | 0.10 | .10 | -0.85 | 3.45 | 0.43 |
| Oral sex | 0.05 | .05 | -0.06 | -.06 | 0.16 | 0.08 | 1.17 |
| Vaginal sex | 0.09 | .09 | 0.09 | .10 | -21.18 | 0.00 | 1.00 |
| Anal sex | -0.02 | -.02 | -0.04 | -.04 | 0.50 | 0.49 | 1.64 |
| Condom use | 0.07 | .08 | 0.09 | .09 | 0.25 | 7.81 | 1.28 |
| Number of partners | 0.28* | .28 | 0.25* | .25 | 0.25 | 7.81* | 1.28 |

** $p < .01$.

regret, determining if this proportion of regret is typical of college samples or other populations is not possible. The substantial percentage of these reasons, for both men and women, included decisions contrary to their morals, decisions made while under the influence of alcohol, and the recognition that they did not want the same thing as their partner. The findings are consistent with previous research that gender differences are minimal yet inconsistent with the previous studies identifying gender differences (Dickson et al., 1998; Klassen et al., 1989; Wight et al., 2002). One reason for this difference may be because this study was examining sexual experiences in general and did not specify "first sexual experience."

In this study, the most frequently cited reason for a regretted sexual experience was disagreement with values and morals. This result is consistent with previous research showing that sexual guilt, defined as "guilt about moral conduct in sexual situations" (Young & Hubbard, 1992), has an impact on sexual behavior (Long, Cate, Fehsenfeld, & Williams, 1996). Other research has indicated that sexual regret can be related to issues of timing, including premarital sex (Dickson et al., 1998; Klassen et al., 1989; Wight et al., 2002). Such regrets about premarital sex may be related to values and morals.

Our results showed that experiencing pressure by a partner was a more common reason for regret for women than men. That women experience sexual pressure from partners is not a new finding; however, recent studies demonstrate that the experiences of men and women relating to pressure and coercion are not as disparate as once believed (Christopher & Cate, 1984; Hannon, Kuntz, Van Laar, Williams, & Hall, 1996; Larimer & Lydum, 1999; Waldner-Haugrud & Magruder, 1995).

The connection between alcohol and sexual activity was another prominent reason for regret, and similar to Erickson and Rapkin (1991), there were no significant dif-

ferences between the sexes. This study's findings coincide with the high rates of alcohol use before sexual activity on the first dates of adolescents and college students (Cooper & Orcutt, 1997). Programs intended to educate college students about sexual decisions should ensure that the impact of alcohol use is included. Providing skills and information for individuals that address the alcohol and sex connection is critical to decreasing regretted experiences.

The multiple and logistic regression analyses showed that the majority of demographic and behavioral variables were not predictors of a regretted sexual decision. For all versions of regret as a dependent variable (Likert response, number of reasons for regret, and dichotomous response), the only significant predictor was the number of sexual partners. The strong relationship between a higher number of sexual partners and regret indicate this factor is a critical education intervention point. Decreasing one's total number of sexual partners is likely to affect the regret that an individual experiences about their sexual decisions.

Educators can use this information on common sexual regrets to help students reflect on their own experiences and to encourage more in-depth sexual decision-making process. For example, most sexuality education programs focus on sexually transmitted diseases and pregnancy prevention. However, by having open dialogs with students about the possibility of regret and the main causes—disagreement with morals and values, influence of alcohol, and differences in partner expectations—the students can better accommodate their behaviors to decrease regretful situations.

There were several limitations to this study. Some weaknesses were a result of the participant composition. The sample was not random and all participants were attending a sexual health program. Although some of participants were students in a classroom setting, another

portion was a self-selected group who responded to advertising in a residence hall. It is possible that students who participated through attendance at a sexual health program at a residence hall event were not representative of all college students. However, location of the program was not a significant predictor of sexual regret, suggesting that there were not vast differences between the students in this sample who voluntarily attended a sexual health program and those who attended as part of an academic class.

Similarly, this study was conducted at a major southeastern university, which limits the generalizability of the findings to other populations. Rates of STDs are higher in southeastern United States than in other regions of the United States (attributed to poor access to healthcare and lower educational levels; Centers for Disease Control and Prevention, 2000). In addition, cultural theorists note definitive gender roles in the South (King, 1975) and a strong influence of religion (Boles, 1999; Jacobson, 2001). The impact of religion or level of religiosity was not measured in this study. Further studies should incorporate measures of religiosity to ascertain its effect.

Other limitations include instrument weaknesses. The survey used self-reported past behavior, which is only as valid as participants' memories; a randomized prospective study that would examine how regret relates to future behaviors is needed. Also, the regret questions did not specify if the regret occurred with a current or past partner. In addition, the general regret question "Have you ever regretted your decision to engage in sexual activity?" was vague. Specifying regret about decisions to engage in certain sexual behaviors would provide more detailed information about the regretted decision. For example, learning whether the regretted sexual interactions relate to experiences with oral, anal, or vaginal sex would elucidate the issue more clearly, as would learning whether or not any of the regretted sexual experiences were related to interactions where the participant felt coerced or forced.

In addition, the response using a Likert-type response also limited information learned. An individual who has only one sexual experience and regrets it would have responded "always" on the current item. However, a person who has extensive sexual experiences and has only one regretted experience would mark "rarely." Asking what proportion of decisions participants regretted would provide a more accurate frequency of regretted sexual decisions. Likewise, to assess the total picture regarding sexual regret, items querying reasons for regretting *not* having sex would be beneficial. Identifying the factor structure for reasons for possible regret would also strengthen the study. With the current method, the reasons for regret may not be mutually exclusive (e.g., wanting to wait until marriage and disagreed with values and

morals) and the response "having sex too early" could be interpreted as too early in life (i.e., at a young age or before marriage), or too early in the specific relationship. These facts may have slightly confounded the responses for reasons of regret. Finally, it would be of interest to learn how sexual regret is related to other post hoc emotions, such as guilt, anxiety, and personal characteristics such as neuroticism and erotophilism. Future studies should consider the inclusion of items developed to measure these variables.

Many educational programs focus on the risk of STD or pregnancy and how to prevent those occurrences. These results provide reasons to examine educational avenues that focus on emotional health aspects as well as physical health concerns. The reality is that many students will not experience an unintended pregnancy or an STD, but the majority are experiencing sexual regret. Preventing such emotional turmoil is an equally important aspect of sexuality education as preventing a pregnancy or an STD. Assisting students in examining their sexual values and providing them with the skills to make sober sexual decisions that are consistent with those values and their desires is critical for sexuality education.

REFERENCES

- American College Health Association. (2004). *Reference group executive summary of National College Health Assessment*, Fall 2003. Baltimore, MD: Author.
- Bakker, A. B., Buunk, B. P., & Manstead, A. S. R. (1997). The moderating role of self-efficacy beliefs in the relationship between anticipated feelings of regret and condom use. *Journal of Applied Social Psychology*, 27, 2001–2014.
- Bell, D. E. (1982). Regret in decision making under uncertainty. *Operations Research*, 30, 961–981.
- Boles, J. B. (1999). The Southern way of religion. *The Virginia Quarterly Review*, 75, 226–247.
- Caffray, C. M., & Schneider, S. L. (2000). Why do they do it? Affective motivators in adolescents' decisions to participate in risk behaviors. *Cognition and Emotion*, 14, 543–576.
- Centers for Disease Control and Prevention (2000). *Tracking the hidden epidemics: Trends in STDs in the United States, 2000*. Atlanta, GA: Centers for Disease Control, Division of STD Prevention.
- Christopher, F. S., & Cate, R. M. (1984). Factors involved in premarital sexual decision-making. *Journal of Sex Research*, 20, 363–376.
- Cooper, M. L., & Orcutt, H. K. (1997). Drinking and sexual experience on first dates among adolescents. *Journal of Abnormal Psychology*, 106, 191–202.
- Dickson, N., Paul, C., Herbison, P., & Silva, P. (1998). First sexual intercourse: Age, coercion and later regrets reported by a birth cohort. *BMJ*, 316, 29–33.
- Erickson, P. I., & Rapkin, A. J. (1991). Unwanted sexual experiences among middle and high school youth. *Journal of Adolescent Health*, 12, 319–325.
- Feldman, J., Miyamoto, J., & Loftus, E. F. (1999). Are actions regretted more than inactions? *Organizational Behavior and Human Decision Processes*, 78, 232–255.
- Gilovich, T., & Medvec, V. H. (1994). The temporal pattern to the experience of regret. *Journal of Personality and Social Psychology*, 67, 357–365.

- Hannon, R., Kuntz, T., Van Laar, S., Williams, J., & Hall, D. S. (1996). College students' judgments regarding sexual aggression during a date. *Sex Roles, 35*, 765–780.
- Herold, E. S., & Goodwin, M. S. (1981). Adamant virgins, potential nonvirgins and nonvirgins. *Journal of Sex Research, 20*, 97–113.
- Jacobson, L. (2001, April 28). The Bible belt loosens up a notch. *National Journal*, pp. 1253–1254.
- King, F. (1975). *Southern ladies and gentlemen*. New York: Stein and Day.
- Klassen, A. D., Williams, C. J., & Levitt, E. E. (1989). *Sex and morality in the U.S.* Middletown, CT: Wesleyan University Press.
- Larimer, M. E., & Lydum, A. R. (1999). Male and female recipients of unwanted sexual contact in a college student sample: Prevalence rates, alcohol use, and depression symptoms. *Sex Roles, 40*, 295–309.
- Lata, J. L., Nakamoto, M. J., & DeGenova, M. K. (1997). Regrets of college students: Implications for outlook on life. *College Student Journal, 31*, 480–487.
- Long, E. C. J., Cate, R. M., Fehsenfeld, D. A., & Williams, K. M. (1996). A longitudinal assessment of a measure of premarital sexual conflict. *Family Relations, 45*, 302–308.
- Montgomery, D. C., & Peck, E. A. (1992). *Introduction to linear regression analysis* (2nd ed.). New York: Wiley.
- O'Sullivan, L. F., & Gaines, M. E. (1998). Decision-making in college students' heterosexual dating relationships: Ambivalence about engaging in sexual activity. *Journal of Personal and Social Relationships, 15*, 347–363.
- Paradise, J. E., Cote, J., Minsky, S., Lourenco, A., & Howland, J. (2001). Personal values and sexual decision-making among virginal and sexual experienced urban adolescent girls. *Journal of Adolescent Health, 28*, 404–409.
- Pitts, M., & Rahman, Q. (2001). Which behaviors constitute "having sex" among university students in the UK? *Archives of Sexual Behavior, 30*, 169–176.
- Remez, L. (2000). Oral sex among adolescents: Is it sex or is it abstinence? *Family Planning Perspectives, 32*, 298–304.
- Richard, R., De Vries, N., & van der Pligt, J. (1998). Anticipated regret and precautionary sexual behavior. *Journal of Applied Social Psychology, 25*, 1411–1428.
- Richard, R., van der Pligt, J., & De Vries, N. (1996). Anticipated regret and time perspective: Changing sexual risk-taking behavior. *Journal of Behavioral Decision Making, 9*, 185–199.
- Sanders, S. A., & Reinisch, J. M. (1999). Would you say you "had sex" if . . . ? *JAMA, 281*, 108–116.
- Sprecher, S., Barbee, A., & Schwartz, P. (1995). "Was it good for you too?" Gender differences in first sexual experiences. *Journal of Sex Research, 32*, 3–15.
- Sprecher, S., & Regan, P. (1996). College virgins: How men and women perceive their sexual status. *Journal of Sex Research, 33*, 3–15.
- van der Pligt, J., & Richard, R. (1994). Changing adolescents' sexual behavior: Perceived risk, self-efficacy and anticipated regret. *Patient Education and Counseling, 23*, 187–196.
- Waldner-Haugrud, L. K., & Magruder, B. (1995). Male and female victimization in dating relationships: Gender differences in coercion techniques and outcomes. *Violence and Victims, 10*, 203–215.
- Wight, D., Raab, G. M., Henderson, M., Abraham, C., Buston, K., Hart, G., et al. (2002). Limits of teacher delivered sex education: Interim behavioral outcomes from randomised trial. *BMJ, 324*, 1430–1436.
- Young, M., & Hubbard, B. (1992). The relationship of religious literalism and other religiosity variables to sex guilt and sexual behavior. *Wellness Perspectives, 8*, 36–49.
- Zeelenberg, M. (1999). The use of crying over spilled milk: A note on the rationality and functionality of regret. *Philosophical Psychology, 12*, 325–340.