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A Longitudinal Examination of Male College Students' Perpetration of Sexual Assault

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Abstract

Self-administered surveys were completed by 197 men in college at 2 time points, 1 year apart. Men who committed sexual assault at multiple time points (repeat assaulters) had the most extreme scores on measures of hostility toward women, past sexual experiences, drinking in sexual situations, and adolescent delinquency. Nonassaulters had the least extreme scores and men who committed sexual assault at only 1 time point had scores that tended to fall in between. Repeat assaulters also expressed significantly less remorse when they described their sexual assault at Time 1 than did past assaulters who committed sexual assault only at the initial time point. These findings demonstrate the importance of initiating prevention and treatment programs in early adolescence, before longstanding attitudes and behaviors tolerant of sexual assault are established.

During the past 30 years, there has been an explosion of research on sexual assault victimization and perpetration. Women's experiences as sexual assault victims in adolescence and adulthood have been examined in numerous studies, many of which used large representative samples (Brener, McMahon, Warren, & Douglas, 1999; Koss, Gidycz, & Wisniewski, 1987; National Victim Center, 1992; Stermac, Du Mont, & Dunn, 1998; Tjaden & Thoennes, 1998). Fewer studies have attempted to estimate the prevalence of sexual assault perpetration on the basis of men's self-reports, and most have used college student samples (Abbey, McAuslan, & Ross, 1998; Abbey, McAuslan, Zawacki, Clinton, & Buck, 2001; Koss et al., 1987; Kosson, Kelly, & White, 1997; Rapaport & Burkhart, 1984).

Reported victimization and perpetration prevalence rates vary depending on the sample and question phrasing. *Rape* is typically defined as attempted or completed vaginal, anal, or oral sexual intercourse obtained through force, through the threat of force, or when the victim is incapacitated and unable to give consent. *Sexual assault* is a more inclusive term that covers a range of sex acts, including physically forced sexual contact (e.g., kissing or touching), verbally coerced intercourse, and any acts that constitute rape (Koss et al., 1987; Koss, Heise, & Russo, 1994). In college and community samples, rates of self-reported rape perpetration range from 6% to 15%, and rates of sexual assault perpetration range from 22%

to 57% (Abbey et al., 1998; Calhoun, Bernat, Clum, & Frame, 1997; Koss et al., 1987; Muehlenhard & Linton, 1987; Rapaport & Burkhart, 1984; Senn, Desmarais, Verberg, & Wood, 2000).

Very few longitudinal studies of sexual assault perpetration have been conducted. Ageton (1983) reported results from a representative sample of adolescents, ages 11–17 years, over a 3-year time period. The pattern of results varied by age and cohort, with the highest annual incidence rate of sexual assault being 8% among 17-year-olds in 1978. Malamuth, Linz, Heavey, Barnes, and Acker (1995) conducted a 10-year follow-up study of male college students. Although they did not report incidence rates, there was a significant positive correlation between Time 1 and Time 2 reports of committing sexual assault. White and Smith (in press) surveyed three cohorts of men across 4 years of college. By the end of the study, 14% had reported committing attempted or completed rape and 34% had reported at least one act of sexual assault perpetration.

The study described in this article provides information about the 1-year incidence rate of sexual assault perpetration in a sample of male college students. Furthermore, this study expands on past research by determining which concepts measured in the initial survey predicted assault group status at the follow-up. A brief review of past research is provided next, and then the study's hypotheses and findings are described.

Theoretical and Empirical Research Identifying Predictors of Sexual Assault Perpetration

Past theory and empirical research have identified many predictors of sexual assault perpetration in nonincarcerated and incarcerated samples (Barbaree & Marshall, 1991; Malamuth, Sockloskie, Koss, & Tanaka, 1991; Prentky & Knight, 1991). Prentky and Knight (1991) argued that rapists are a heterogeneous group with a wide range of past experiences, personality characteristics, and offense styles. Malamuth and colleagues (Malamuth, in press; Malamuth et al., 1991, 1995) emphasized the importance of simultaneously considering multiple motives for committing sexual assault. Malamuth and colleagues focused on two primary paths that can lead to sexual assault perpetration: hostile attitudes toward women and sexual promiscuity–impersonal sex. Each path independently predicts sexual assault perpetration, and they work together synergistically, such that men high on both dimensions also tend to commit the highest levels of sexual assault. Malamuth et al. (1995) argued that men who are high in hostile masculinity feel insecure and defensive in relationships with women and that sexual aggression helps them maintain feelings of control and superiority. In support of this argument, numerous studies have found that as compared with nonperpetrators, sexual assault perpetrators have greater hostility toward women, have more traditional attitudes toward gender roles and sexual relationships, and are more accepting of using manipulative strategies in their relationships with women (Abbey et al., 1998; Byers & Eno, 1991; Koss & Dinero, 1988; Malamuth et al., 1991, 1995).

Men who are high on Malamuth's (Malamuth, in press; Malamuth et al., 1995) second path of promiscuous–impersonal sex tend to prefer having many casual sexual relationships rather than being in a committed relationship. Greater dating and sexual activity may reflect

differences in sexual motivation as well as provide more opportunities to commit sexual assault (Kanin, 1985). In support of this hypothesis, many researchers have reported that sexual assault perpetrators have consensual sex at an earlier age and have more dating and consensual sex partners than do nonperpetrators (Abbey et al., 1998; Koss & Dinero, 1988; Malamuth et al., 1991, 1995; Senn et al., 2000).

Although attitudes, personality, and life experiences predict sexual assault perpetration, men who have committed sexual assault do not do so on every possible occasion; instead, situational factors also play a role (Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004). Alcohol is a frequently studied situational variable. Approximately half of all sexual assaults are associated with alcohol consumption (Abbey et al., 1998; Ageton, 1983; Muehlenhard & Linton, 1987; Tyler, Hoyt, & Whitbeck, 1998; Ullman, Karabatsos, & Koss, 1999). Men in college who report that they drink heavily are more likely than other male college students to commit sexual assault (Ullman et al., 1999). When the male perpetrator is intoxicated, the cognitive impairments induced by alcohol make it easier for him to focus on the short-term benefits of forced sex rather than on long-term negative consequences (Abbey, Zawacki, Buck, Clinton, & McAuslan, 2001). When the female victim is intoxicated, she may be unable to resist effectively because of the cognitive and motor impairments induced by alcohol (Abbey, Zawacki, et al., 2001; Norris, Nurius, & Dimeff, 1996). Sexual assaults may also be more likely to occur when the woman has agreed to some level of consensual sexual activity and then refused. Some men may misperceive her refusal as token resistance and persist in their attempts (Abbey, McAuslan, et al., 2001; Muehlenhard & Linton, 1987). Men who hold traditional attitudes toward rape and sexual behavior may also believe that after a man is sexually aroused by a woman, he has the right to sex and that a “no” response does not need to be taken seriously (Polaschek & Ward, 2002). Past research has demonstrated that the more frequently men in college had misperceived a woman’s sexual interest, the more frequently they had committed sexual assault (Abbey et al., 1998).

Developmental Models of Aggression, Delinquency, and Sexual Assault Perpetration

An important controversy regarding childhood and adolescent aggression and antisocial behavior has to do with the extent to which it continues into adulthood. One line of theory and research emphasizes that early signs of conduct disorder and aggression are strong predictors of later aggression and delinquency (Moffitt, 1993; Patterson, 1996). Another line of theory and research emphasizes that adolescence is a time of experimentation and rebellion during which many youth explore different possible identities. Some adolescents engage in illegal or socially disapproved of behaviors without developing long-term behavioral problems or criminal lifestyles (Baumrind, 1987; Harter, 1999; Wekerle & Wolfe, 1999). To address this controversy, several authors have described multiple trajectories for aggression and delinquency (see Lansford, Rabiner, Miller-Johnson, Golonka, & Hendren, 2003, for a review). For example, Moffitt and colleagues (Moffitt, 1993; Moffitt, Caspi, Harrington, & Milne, 2002) distinguished between adolescent-limited and life-course persistent antisocial behavior. Life-course persistent offenders begin in early childhood, continue in adolescence, and are hypothesized to remain engaged in antisocial

behavior and aggression throughout adulthood. In contrast, Moffitt (1993) suggested that antisocial behavior and aggression that begins and ends in adolescence is so common among young American men that it can be considered normative. Adolescence provides a maturity gap in contemporary Western societies in which young people lack adequate responsibilities and engage in antisocial behaviors as a way of proving their maturity and independence. We would argue that this maturity gap continues into late adolescence for many young men in the realm of sexual experiences. Sexual assault is more extreme than many of the antisocial behaviors described by Moffitt (1993) and should never be condoned. However, the life-course ramifications for a fairly young, sexually naive man who knowingly or unwittingly coerces sexual activity once or twice may be quite different from those of a young man who continues such behavior into adulthood.

Other authors have described similar typologies using labels such as “early” and “late” starters (Patterson, Reid, & Dishion, 1992) or “chronic” and “late onset” offenders (Chung, Hill, Hawkins, Gilchrist, & Nagin, 2002). The idea of different developmental pathways has not been discussed frequently in the sexual assault literature, although Seto and Barbaree (1997) posited that “there are at least two different kinds of developmental course for sexually aggressive men” (p. 529). One course is characterized by an early onset of sexual activity and delinquency that continues into adulthood, and the second course is characterized by a more short-term opportunistic approach that desists after adolescence. In the domain of sexual assault perpetration, onset rarely begins before early adolescence; thus, the use of the term *early* in the context of sexual assault perpetration means early adolescence, as compared with the general aggression literature, in which the term *early* corresponds to early childhood.

Chung et al. (2002) emphasized two important issues that have been neglected by some theorists. The first is that more than two trajectories are feasible, even if the patterns may be empirically rare. For example, it is possible to start early and stop (desisters) or start late and develop long-term, serious problems (escalators). Another important point is that predictors of problem behavior may vary on the basis of trajectory. For example, Chung et al. argued that peers may play a particularly important role in adolescent-onset deviancy because of the general importance of peers during adolescence. Sexual assault perpetrators report greater peer approval of forced sex than do nonperpetrators (Boeringer, Shehan, & Akers, 1991; Koss & Dinero, 1988). Being part of a social group that condones treating women as sexual objects can provide encouragement and justification for committing sexual assault (Ageton, 1983).

Hypotheses

Taking into account sexual assault perpetration status at two time points allows for four mutually exclusive groups of participants: those who did not report committing an assault at either time point (nonassaulters), those who reported committing one or more assaults at both time points (repeat assaulters), those who reported committing one or more assaults at the first time point only (past assaulters), and those who reported committing one or more assaults at the second time point only (new assaulters). On the basis of past theory and research, we hypothesized that as compared with nonassaulters, repeat assaulters would have

more extreme scores on Time 1 indicators of each hypothesized pathway: hostile attitudes about women, impersonal sex (e.g., age of first date and first consensual sex, number of dating and consensual sex partners), and situational factors (e.g., alcohol consumption and misperception of women's sexual intentions).

Furthermore, we hypothesized that several variables would distinguish past (only) and repeat assaulters. We anticipated that past assaulters were likely to be engaging in various types of adolescent experimentation and thus would be similar to the repeat assaulters in their dating and sexual experiences and acts of minor delinquency. However, unlike repeat assaulters, past assaulters were not expected to have extremely hostile gender-role beliefs that reinforce rape myths and treating women as sexual objects. In addition, past assaulters were expected to be more influenced by situational factors including alcohol consumption, peer approval of forced sex, and misperception of women's sexual cues. Finally, we hypothesized that past assaulters would express greater remorse than would repeat assaulters in their Time 1 explanations of their sexual assault experiences. On the basis of research that has examined empathy among sexual assault perpetrators (Covell & Scalora, 2002; Geer, Estupinan, & Manguno-Mire, 2000), we expected men who exhibited remorse and indicated that they learned from their mistakes to be less likely to commit sexual assault again than men who did not exhibit remorse and instead seemed to feel that they acted appropriately and that the woman deserved what happened.

On the basis of research that has suggested that most sexual assault perpetrators commit their first assault in adolescence (White & Smith, in press), we did not anticipate that many of the male college students in this sample would commit sexual assault for the first time after the Time 1 interview. A few authors have found evidence for late onset delinquency (Broidy et al., 2003; Chung et al., 2002), however, suggesting that this trajectory is possible. We hypothesized that new assaulters at Time 2 would primarily have scores at Time 1 similar to those of nonassaulters. These men may have been more sexually immature than others at Time 1, suggesting delayed onset of consensual and nonconsensual sexual behavior.

Method

Participants

Time 1 findings are reported in another article (Abbey, McAuslan, et al., 2001); thus, only a summary of the procedures is provided here. Among the 343 men at a large urban commuter university who completed the Time 1 survey, 197 returned a Time 2 survey (57.4%). Attrition analyses were conducted to compare men who did and who did not complete both surveys. No significant differences were found between Time 2 participants and nonparticipants in analyses of all the Time 1 measures of demographics, attitudes, past experiences, past likelihood of committing sexual assault, and assault characteristics described in this article. In addition, a sample size of 197 provided a power of .84 to detect moderate effects with analysis of variance with unequal sample sizes (Cohen, 1988).

Time 2 participants were, on average, 22.90 years of age ($SD = 6.21$). Of the participants, 66% ($n = 130$) were European American, 18% ($n = 36$) were African American, 6% ($n = 12$)

were Asian American, 5% ($n = 9$) were Arabic or Middle Eastern American, 2% ($n = 4$) were Hispanic American, 1.5% ($n = 3$) were Native American, and the remaining 1.5% ($n = 3$) were either another ethnicity or did not answer the question. Of the participants' mothers, 30% had completed college; 40% of their fathers had also completed college. Although all participants were single at Time 1, some participants were engaged (5%, $n = 10$), cohabitating (3%, $n = 6$), or married (1%, $n = 2$) at Time 2. The final sample was representative of the university's male undergraduate enrollment in terms of major, age, and ethnicity. Overall, there were more minority students and somewhat older students at this urban commuter university than at 4-year public institutions across the country (Chronicle of Higher Education, 2000).

Procedures

Time 1 participants were recruited for a study of dating experiences and completed a self-administered survey on campus. At this time, participants were required to have dated a woman in the past year, to not be married or engaged, and to have lived in the United States for at least 10 years. Eligible participants were run in small groups of 3–5 men in a large classroom so that they could spread out and be certain that no one could see their answers. The experimenter reviewed the consent form, which indicated that participants would receive \$10 or extra class credit for their initial participation and that they would be mailed a follow-up survey in a year that they would be paid \$20 for completing. A Certificate of Confidentiality was obtained from the federal government to ensure that the participants' responses to questions about potential criminal behavior could not be subpoenaed; its function was explained in the consent form. Completed surveys were placed in sealed envelopes by participants. On a separate form, participants were asked to provide information that would allow them to be recontacted at Time 2, as well as contact information for another person that would be able to locate them if they moved.

Time 2 surveys were mailed to participants 11 months after the completion of the initial survey. The packet contained the survey, an information sheet describing their rights as human-study participants, a postage-paid envelope to return the survey, and a second postage-paid envelope for their payment voucher. Participants' names were not on the questionnaire; thus, no one who looked at it could tell who had completed it. The questionnaire included an identification number that allowed the second author to link the two surveys for data analysis; no one else had access to this information.

No student actively refused to complete the Time 2 questionnaire. Approximately 30% of Time 1 participants left the university. Approximately 12% moved and could not be located. Fewer than 1% of participants were located, agreed to return the survey, but never did so despite several reminders. Although the follow-up response rate was less than anticipated, a number of standard strategies were used. If a questionnaire was not returned, a reminder postcard was sent after 2 weeks and then after 1 month. If the reminder postcards were ineffective, a research assistant tried to call the participants at the telephone numbers they provided. Repeated efforts were made to find the address and telephone numbers of individuals who had moved through standard sources (e.g., post office, telephone books, registrar's office), as well as by telephoning and/or writing the contact person. Perhaps

because this was a commuter university, many students did not update their records with the registrar's office, so few students were relocated this way. Despite the fact that we had asked for a contact person who was unlikely to move during the next year, many participants either did not provide information about a contact person or provided information about a friend who also could not be found at follow-up. Many students had provided cell phone numbers for themselves and/or their friends that were no longer active.

Measures

Sexual assault perpetration—A slightly modified, 12-item version of the Sexual Experiences Survey (SES) was used to assess sexual assault perpetration (Koss et al., 1987). At Time 1, participants were asked about incidents that had occurred since the age of 14 years. At Time 2, participants were reminded of when the last survey had been completed and were asked about incidents that had occurred since that date. The SES is scored by forming four groups and assigning participants to the highest group into which they fit: no sexual assault, forced sexual contact (e.g., touching, fondling, but no penetration), verbally coerced sexual intercourse, and attempted or completed rape. Cronbach's coefficient alpha at Time 1 was .83.

Social desirability—A 13-item short form of the Marlowe–Crowne Social Desirability Scale was used to assess and potentially control for social desirability response bias (Ballard, 1992). A sample item is “I am always courteous, even to people who are disagreeable.” This measure uses a true–false response scale, and Cronbach's coefficient alpha at Time 1 was .72.

Hostile gender-role beliefs—Three of Burt's (1980) measures of rape supportive attitudes were included: rape myth acceptance, adversarial sexual beliefs, and acceptance of interpersonal violence. In addition, Lonsway and Fitzgerald's (1995) measure of hostility toward women was used. Sample items include “Many women who report a rape are lying because they are angry and want to get back at the man they accuse” and “Sometimes women bother me by just being around.” Responses were made on 7-point scales with options that ranged from *strongly disagree* to *strongly agree*. These four measures were highly intercorrelated; thus, they were combined into a single measure with a Cronbach's coefficient alpha at Time 1 of .90.

Callous attitudes toward women—There were several places in the questionnaire where participants were provided with the opportunity to include qualitative information about their dating and sexual experiences (e.g., “How would you describe a good date?” and “How would you describe a bad date?”). Two trained coders who were unaware of the participants' perpetration status read the participants' responses and coded the number of comments that reflected callous attitudes toward women. Comments that described women in disparaging terms, as sexual commodities, or solely in terms of their physical appearance were included. Responses were coded on a 5-point scale ranging from 0 to 4 or more callous comments made. Interrater reliability was .87, and all differences were resolved through discussion.

Acceptance of verbal pressure—On the basis of research (Cook, 1995; Goodchilds & Zellman, 1984), a 13-item measure was developed to assess the extent to which participants believed it was acceptable for a man to verbally pressure a woman with whom he has spent the evening to obtain sex. Examples of items include “They have dated a long time” and “She agrees to be alone with him.” Responses were made on a 7-point scale, with options that ranged from *not at all acceptable* to *very acceptable*. Cronbach’s coefficient alpha at Time 1 was .97.

Past dating and consensual sexual experiences—Parallel questions were asked about dating and consensual sexual experiences. At Time 1, participants were asked at what age they had their first date and at what age they first had consensual sexual intercourse. They were also asked how many dating and how many consensual sexual partners they had in their lifetime. At Time 2, participants were reminded of when the last survey was completed and were asked how many dating and how many consensual sexual partners they had since previously completing the survey.

Alcohol consumption—Participants were asked how much alcohol they typically drank on dates and with consensual sexual partners. Responses to each of these questions were made on an 8-point scale, with options that ranged from 0 drinks to 13 or more drinks. Participants were also asked how many days in the past 30 they had consumed five or more alcoholic beverages. This is a commonly used indicator of heavy or binge drinking in college populations (Wechsler et al., 2002). Responses were skewed; thus, they were winsorized to form an 11-point scale with answers that ranged from 0 to 10 or more days a month.

Peer approval of forced sex—Participants answered six questions that we developed on the basis of past research (Boeringer et al., 1991; Kanin, 1985) regarding the extent to which their friends would approve of using various strategies to obtain sex with a woman, including lying to her, forcing her, and getting her drunk. Responses were made on a 5-point scale, with options ranging from *not at all* to *very much*. Cronbach’s coefficient alpha at Time 1 was .80.

Past misperception of women’s sexual intentions—Participants were asked how many times a woman had “been friendly to you only for you to discover that you had misperceived her friendliness as a sexual come-on – she was just trying to be nice but you assumed she was sexually attracted to you?” (Abbey et al., 1998). Responses ranged from 0 to 10 or more times.

Delinquency—Participants completed a 13-item delinquency scale that was based on past research (Jessor, Graves, & Hanson, 1968; Tremblay, Pagani-Kurtz, Masse, Vitaro, & Pihl, 1995). Sample items included “stealing from a store, trespassing, and damaging others’ property just for fun.” Responses were made in terms of “things you may have done before age 18” with a 6-point response scale that had options ranging from *never* to *five or more times*. Because of time constraints in the Time 1 session, this measure was included at Time 2 although it assessed behavior from an earlier point in time. Cronbach’s coefficient alpha was .87.

Characteristics of the sexual assault or worst date—After completing the sexual assault measure, participants were given step-by-step directions about how to select an event to describe in detail. First, they were asked to look back at their answers to the SES and check one box if they answered all the questions as no and another box if they answered one or more questions as yes. Nonperpetrators (men who answered no to all the questions) were then directed to a page that began a series of questions asking them to describe their worst date. Perpetrators were directed to a page that asked them to indicate which question that they answered yes to had the highest number. Following convention, the SES items were ordered such that forced sexual contact questions came first, then verbally coerced intercourse questions, then attempted rape questions, and then rape questions. Thus, participants who had committed more than one type of sexual assault were instructed to describe the most severe type of experience that they had perpetrated.

Participants were asked how old they were at the time the interaction occurred. They were asked to describe their relationship to the woman using the following options: no relationship, acquaintance, friend, coworker, casual date, steady dating partner, or other. Sexual assault perpetrators were asked how responsible they were and how responsible the woman was for what happened on a 5-point scale, with options ranging from *not at all* to *very much*. They were also asked several open-ended questions about how they felt about what happened both at the time and now (e.g., “After this happened, how did you feel about it?” “When you think about what happened, how do you label the experience?” and “In what ways have your perceptions of the experience changed since it happened?”). Two trained raters who were unaware of the participants’ perpetration status coded the number of expressions of remorse for what happened (i.e., mentioning feeling bad, upset, or sorry; that they had made a mistake or other expressions of regret for what happened) and the number of mentions of learning from the experience (i.e., participants explicitly called this a learning experience or reported modifying their behavior to avoid future incidents). Interrater reliability was .89 and .86, respectively. Disagreements were discussed and resolved.

Overall, the amount of missing data was modest. The amount of missing data per measure ranged from 0% to 5.4% ($M = 1.3\%$). Mean substitution was used; it provides a conservative procedure that tends to reduce mean differences between analysis subgroups while retaining more cases for analysis (Tabachnick & Fidell, 2001).

Results

Prevalence of Sexual Assault Perpetration at Time 1

Among the 197 participants who completed both the initial and follow-up surveys, 69 participants reported that they had committed at least one sexual assault since the age of 14 years on the Time 1 survey (35%). The highest level of sexual assault reported by 33 of the men was forced sexual contact (16.8%), 19 men reported verbally coerced sexual intercourse (9.6%), and 17 men committed attempted or completed rape (8.6%). All of the perpetrators assaulted women they knew. Of these men, 57% sexually assaulted a casual date and 33% sexually assaulted a steady dating partner.

Incidence of Sexual Assault During 1-Year Follow-Up Time Period

During the 1-year time interval ($M = 1.07$ years, $SD = 0.26$) between the two survey administrations, 28 participants reported that they committed a sexual assault (14.2%). The highest level of sexual assault committed by 11 of these men was forced sexual contact (5.6%), 8 men committed verbal sexual coercion (4.1%), and 9 men committed attempted or completed rape (4.5%). All of the perpetrators knew the woman that they sexually assaulted; 43% involved a steady dating partner, and 43% involved a casual date.

Descriptive Information About Four Multitime Interval Sexual Assault Groups

Using information about sexual assault perpetration from both time points, we divided participants into the four mutually exclusive groups described in the introduction: Nonassaulters ($n = 117$, 59%) did not perpetrate any form of sexual assault at either time point; past assaulters ($n = 52$, 26%) reported one or more sexual assaults at Time 1 but none at Time 2; new assaulters ($n = 11$, 6%) reported no sexual assaults at Time 1 but one or more sexual assaults at Time 2; and repeat assaulters ($n = 17$, 9%) reported that they had committed one or more sexual assaults at both time points.

As we expected, significantly more years had passed since past assaulters ($M = 4.90$, $SD = 4.71$) had committed a sexual assault as compared with new ($M = 0.50$, $SD = 0.26$) and repeat ($M = 0.44$, $SD = 0.28$) assaulters, $F(2, 76) = 11.72$, $p < .01$. Men in all the sexual assault perpetration groups had on average committed multiple sexual assaults; however, repeat assaulters ($M = 10.35$, $SD = 7.38$) committed significantly more sexual assaults than had past ($M = 5.13$, $SD = 6.14$) and new ($M = 4.27$, $SD = 5.53$) assaulters, $F(2, 77) = 4.87$, $p < .01$. It is important to note that the SES is phrased such that each question asks about a specific sexually assaultive behavior. Participants were not asked if one or more of these behaviors occurred as part of the same sexual assault incident (e.g., a man who reported using both verbal pressure and physical threats to obtain sex may have done so on separate occasions or on the same occasion). Thus, these numbers represent the number of sexually assaultive behaviors these men committed, not necessarily separate incidents. In addition, repeat assaulters committed more severe forms of sexual assault than did other assaulters. Of repeat assaulters, 47% committed attempted or completed rape as compared with 27% of past assaulters and 9% of new assaulters, $\chi^2(4, N = 80) = 11.45$, $p < .05$.

Time 1 Predictors of Four Multitime Interval Sexual Assault Groups

Table 1 provides the means and standard deviations for all the Time 1 predictors of sexual assault group status as well as the correlations between them. As can be seen in Table 1, the three measures that assessed hostile attitudes about women were significantly correlated with each other. Similarly, most of the measures of dating and sexual experiences were significantly correlated with each other, and the three drinking measures were significantly correlated with each other. Peer approval and delinquency were most highly correlated with acceptance of verbal pressure, age at first consensual sex, and each other. Misperception was most highly correlated with acceptance of verbal pressure, number of dating partners, and number of consensual sexual partners.

A multivariate analysis of covariance and follow-up analyses of covariance were conducted in which social desirability was the covariate, the four group measure of assault group status was the independent variable, and the dependent measures were from Time 1. Social desirability was significant in the multivariate analysis of covariance, $F(15, 178) = .13, 3, p < .01$; thus, Table 2 presents the findings of the analyses of covariance and follow-up post hoc analyses with the means adjusted for social desirability. As can be seen in Table 2, there was strong support for our initial hypothesis. Men who had committed sexual assault during both time periods had significantly more extreme scores on most of these variables as compared with men who had never committed sexual assault. On nine measures, there were significant differences between nonassaulters and repeat assaulters, with repeat assaulters having more hostile gender-role beliefs, more callous attitudes toward women, greater acceptance of verbal pressure as a sexual strategy, more dating partners in their lifetime, earlier age at first consensual sex, more consensual sex partners between the two surveys, larger quantities of alcohol consumed when dating and prior to having consensual sex, and more acts of delinquency committed in adolescence.

We hypothesized that past assaulters would be similar to repeat assaulters in terms of having more extreme scores than other men on measures of dating and sexual experience and delinquency. However, past assaulters were expected to differ from repeat assaulters by having less hostile attitudes toward women and by having more extreme scores on situational factors. As can be seen in Table 2, these hypotheses were largely supported. Past assaulters were similar to repeat assaulters and significantly different from nonassaulters in terms of number of lifetime dating partners, age at first consensual sex, and number of consensual sexual partners. Also, past assaulters had significantly less hostile attitudes toward women than did repeat assaulters. Past assaulters also reported significantly more misperception of women's sexual intentions than either repeat assaulters or nonassaulters. As we expected, past assaulters reported engaging in significantly more delinquent behavior than did nonassaulters; however, they also reported engaging in significantly less delinquent behavior than did repeat assaulters. Contrary to our hypothesis, both past assaulters and nonassaulters were less likely than repeat assaulters to drink alcohol prior to consensual sex. Furthermore, there were no significant differences between any of the groups in peer approval of forced sex.

New assaulters were expected to have scores similar to nonassaulters and different from repeat assaulters on most variables. As can be seen in Table 2, this hypothesis was largely supported. We also hypothesized that new assaulters might have been less involved than other participants in dating and sexual relationships at Time 1; thus, their sexual assault perpetration was delayed until they became more sexually active. This hypothesis was partially supported. New assaulters had marginally fewer lifetime dating and sexual partners than did repeat assaulters, and they had significantly more consensual sexual partners since the last interview than did nonassaulters, suggesting that they were at a point of change in their sexual relationships with women.

Comparison of Past and Repeat Assaulters' Perceptions of the Assault

To examine the hypothesis that perpetrators who expressed remorse at Time 1 would be less likely than other perpetrators to commit any additional sexual assaults by Time 2, we conducted further analyses among Time 1 perpetrators. Once again, social desirability was included as a covariate, and Table 3 presents adjusted means. As can be seen in Table 3, the hypothesis was supported. In their descriptions of what happened at Time 1, past assaulters expressed more remorse about the assault and felt that they had learned more from the experience than did repeat assaulters. Past assaulters also held the woman less responsible for what happened than did repeat assaulters. There were no differences in perceptions of their own responsibility for the incident.

Discussion

In this sample of male college students, 14% reported that they had committed a sexual assault within a 1-year time interval. This is quite close to the rate presented in the only other study to our knowledge that examines sexual assault perpetration among adults longitudinally, which found a perpetration rate of 12.5% between the 1st and 2nd year of college (White & Smith, in press). These results further demonstrate the critical need for effective prevention programs for men in college.

Nonperpetrators indicated that they had less hostile attitudes about women, less dating and consensual sexual experience, less alcohol consumption in dating and sexual interactions, and fewer acts of adolescent delinquency than did repeat offenders. These findings support past sexual assault research, which demonstrates that strong predictors of sexual assault perpetration include hostile attitudes about women, a positive orientation toward impersonal sex, and situational factors such as alcohol consumption (Abbey, McAuslan, et al., 2001; Malamuth et al., 1995). These findings suggest that sexual assault programs should target the negative attitudes regarding women that are held by some men; instead promoting empathy and positive regard for women, as well as dispelling rape myths. For example, one repeat assaulter believed that the first woman he assaulted "was just being hard to get" and called his second assault "just another night." Another repeat assaulter believed that "most women say 'no' at first most times. A man has to persist to determine if she really means it." Although usual heavy drinking did not distinguish between groups, drinking on dates and during sexual interactions did, with repeat offenders having the highest scores. For example, one repeat assaulter wrote that drinking with an unappealing woman made him "think about finding this ugly bitch." This finding demonstrates the importance of addressing the interconnections between attitudes regarding women, sexuality, and alcohol in sexual assault programs for men.

There were a number of intriguing differences between men who had only committed a sexual assault at the initial interview and those who had at both time points. Repeat offenders had more extreme scores than men who committed sexual assault only prior to the initial interview on hostile gender-role beliefs, callous attitudes toward women, acceptance of verbal pressure to obtain sex, usual drinking prior to consensual sex, and adolescent delinquency. This suggests that sexual assault offenders with more extreme attitudes and behavioral histories may be on a different trajectory than those with less extreme histories.

Although the delinquency literature has focused in recent years on identifying pathways that differ in etiology and severity (Chung et al., 2002; Moffitt et al., 2002), there have not been the same types of long-term longitudinal studies of sexual assault perpetration that follow men from early childhood into adulthood. Most sexual assaults are never reported to the police; thus, relying on criminal records only provides a very distorted view of perpetration (Brener et al., 1999; Koss et al., 1987; Seto & Barbaree, 1997).

Knowing that past assaulters felt more remorse, learned more, and held the woman less responsible for what happened than did repeat offenders suggests a prototypic past sexual assaulter. These men were often on a date with a woman at a fairly young age, engaged in some consensual sexual activities, thought the woman wanted to have sex, and pushed her to do so even when she made her lack of interest clear. For example, one past assaulter who used physical force when perpetrating an attempted rape on a casual date when he was 16-years-old says that he now “waits for their [the woman’s] advance and a more clear invitation.” This same man also said that this experience “taught me a lesson very early on and I’ve learned to be less aggressive.” Another past assaulter who forced his steady dating partner to have sexual intercourse when they were both 16-years-old labeled the experience “a sad but meaningful one.” He stated that he now requests sex “plainly several times. . . it was my only time when I used force for having intercourse and since then it never happened. But still, this event made me think and elaborate a set of rules regarding dating and my actions with the dates.” As an example of the strong feelings of remorse some participants experienced, one man wrote, “even though she forgave me, I still felt dirty...even now I feel like hell when I remember it.” A number of men felt that their lack of experience with alcohol also contributed to their actions. One past assaulter wrote that because he was intoxicated, “I did things I wouldn’t do normally. Was very loose. Sexual desire was very strong.” It is impossible to judge from self-reports whether alcohol truly contributed to what happened or was being used as a convenient post hoc justification. However, many inexperienced drinkers do become more intoxicated than they intended and may be less able than experienced drinkers to avoid risks in these situations (Schulenberg & Maggs, 2002).

The repeat offenders, in contrast, sounded more certain of what they were doing and unconcerned about the woman’s feelings. One repeat assaulter who described a rape at both time points wrote, “I felt as if I had gotten something that I was entitled to, and I felt I was repaying her for sexually arousing me.” This man used similar language to describe both of his experiences, labeling them as “powerful,” “titillating,” and “very exciting.” Another repeat assaulter justified his behavior by saying, “I knew she had a condom in her purse. Also, someone told me she liked to f . . . high.” A different repeat assaulter who forced anal sex on a blind date reported that he was “trying to get something out of a dead-end date.”

The new assaulters were not clearly defined by the variables included in this study. On most variables, they did not stand out at Time 1 with responses that indicated they were likely to sexually assault a woman in the future. They reported more consensual sexual partners between interviews than did nonassaulters, suggesting that they may be at a point of transition in their sexual behaviors. Some of the open-ended comments of new assaulters were reminiscent of those of the past assaulters who showed remorse. For example, one man wrote, “I should have been more responsible with my actions and not put her in such a

position.” Another new assaulter labeled the verbally coerced contact as a “misconception” and said he has “learned to be more cautious.” Other new assaulters sounded more like repeat assaulters. One new assaulter, who did not drink alcohol at Time 1, reported binge drinking 20 days a month at Time 2. This man reported using alcohol as a tactic in his first sexual assault, an alcohol-involved rape, justifying his behavior by writing, “it worked...she was a drinker anyway.” It is not surprising that among the new offenders, there are some men who appear to have learned from the experience and may be unlikely to become a repeat offender and others who have become more accepting of using violence over the years and are likely to become repeat offenders. Additional follow-up interviews would be needed to determine whether these men continued on this path or desisted. In a longitudinal study of victims of sexual assault in college, prevalence rates decreased through the college years; however, the severity of the assaults increased. These women were typically assaulted by male college students that they were dating, suggesting that men who continue sexually assaulting throughout the college years are the most violent offenders (Smith, White, & Holland, 2003).

Limitations and Suggestions for Future Research

Very few studies have examined nonincarcerated perpetrators over time and considered what types of factors influence the likelihood that they will be repeat offenders (Ageton, 1983; White & Smith, in press). Sexual assault perpetration is never acceptable; however, learning more about the characteristics of perpetrators who are likely to become repeat offenders would allow treatment programs to focus on these men. Thus, this study provides important preliminary findings that should be replicated in future research. Although the sample size provided adequate power to assess moderate-sized effects, there were patterns for several variables that looked different across the groups but the differences were not large enough to be significant. Future research requires larger samples and additional time points so that different subgroups of perpetrators can be examined separately in more complex multivariate analyses, such as discriminant function analysis or growth curve analysis. Only a few researchers have conducted longitudinal studies of sexual assault perpetration, and these studies have primarily focused on the young adult years (Malamuth et al., 1995; White & Smith, in press). To be truly prospective, studies are needed that begin in late childhood, before any sexual behavior is initiated, and continue into adulthood.

Another limitation of this study was the fairly high attrition rate. Although this is an important concern, it is reassuring that there were no significant differences between Time 2 participants and nonparticipants on any Time 1 measures of demographics, attitudes, past dating and sexual experiences, sexual assault perpetration, and assault characteristics. Furthermore, response rates are often low when college students are mailed surveys (Wechsler et al., 2002; White & Smith, in press). Internet-based surveys have the potential for increasing response rates because students find them easier to complete and often view them as more confidential (Miller et al., 2002).

Although a large number of attitudinal and experiential measures were included, there are other measures that should also be investigated in future studies. These include measures of personality characteristics (such as impulsivity and empathy), religiosity, childhood physical

and sexual abuse, and perpetration of other types of violence (such as dating violence or getting into fights with other men). For example, Lisak and Miller (2002) found that most of the men they surveyed who acknowledged committing rape had also perpetrated other forms of interpersonal violence. In this study, perceived peer approval of forced sex as an appropriate strategy to use with women was not a significant predictor of sexual assault perpetration, although it has been in past research (Boeringer et al., 1991; Kanin, 1985). In a fascinating study, Capaldi, Dishion, Stoolmiller, and Yoerger (2001) found that 17- and 18-year-old men who used derogatory language about women in a videotaped interaction with a peer were more likely to engage in dating violence in early adulthood. The measure of peer influence used in this study may not have assessed all the relevant aspects of this concept, or this domain may have been less relevant to the commuter students in this study as compared with the residential students in past studies. There is consensus among sexual assault researchers that there is a great deal of heterogeneity among sexual assault perpetrators and that different patterns of motivation exist (Barbaree & Marshall, 1991; Malamuth et al., 1991). A larger sample and more diverse measures may provide more insight into the characteristics of men who begin committing sexual assault in adulthood.

Implications for Prevention and Treatment

The finding that some men who committed a sexual assault early in life felt remorse and learned an important lesson that affected how they treated women in the future has exciting implications for prevention and treatment programs. Koss, Bachar, and Hopkins (2003) have developed a restorative justice program for date and acquaintance sexual assault perpetrators in collaboration with the Pima County prosecutor's office. Rather than focusing on criminal prosecution through the courts, restorative justice focuses on offender accountability and rehabilitation. A community conference occurs that includes the victim, the offender, and their supporters in a mediator-facilitated meeting. The perpetrator is asked to apologize and to make appropriate reparations (e.g., pay for medical or counseling expenses). If the perpetrator follows through, there is no criminal record of the offense. This study's findings suggest that many sexual assault perpetrators feel remorse and that making an apology to the victim could be beneficial for both parties. The victim receives the desired apology and reparations, and the perpetrator is held accountable but avoids more serious legal consequences.

Programs that encourage general empathic feelings in childhood and early adolescence may be effective at reducing sexual assault in late adolescence and adulthood (Covell & Scalora, 2002; Geer et al., 2000; Schewe & O'Donohue, 1996). Many of the men in this study described various forms of sexual assault in benign terms such as "just another night," "something that got a little out of control due to feelings of immense pleasure," and "not a big deal." High school and college sexual assault programs need to counteract this tendency to respond to sexual encounters in self-serving ways. Programs are needed that teach men listening skills through guided interactions with women that demonstrate the importance of considering their partner's wants and needs during dating and sexual interactions.

Programs that target peer groups and peer group norms may be particularly beneficial. Peers can reinforce hostile and callous attitudes about women, or they can challenge them.

Mahlstedt and Corcoran (1999) described an innovative leadership program for fraternity men that encouraged them to take responsibility for sexual assault prevention programming on campus. They provided anecdotal evidence that participants began to monitor their own and their friends' behavior and intervened when women were treated inappropriately (e.g., a drunken woman surrounded by men in a fraternity pool room). Although programs directed at groups of men may be difficult to initiate and maintain, long-term changes in attitudes toward women are more likely to occur when programs are directed at entire peer groups rather than at individuals.

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Table 1
Means, Standard Deviations, and Intercorrelations Between Dependent Measures (N = 197)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Hostile gender-role beliefs	—														
2. Callous attitudes toward women	.20**	—													
3. Acceptance of verbal pressure	.55**	.29**	—												
4. Age at first date	.12	-.05	.03	—											
5. No. of dating partners at T1	-.11	.24**	.00	-.24**	—										
6. No. of dating partners since T1	-.05	.27**	.08	-.14*	.24**	—									
7. Age at first consensual sex	-.02	-.13	-.13	.46**	-.33**	-.18**	—								
8. No. of consensual sexual partners at T1	-.06	.32**	.02	.09	.71**	.16*	-.40**	—							
9. No. of consensual sexual partners since T1	-.04	.18**	.10	-.20**	.35**	.65**	-.30**	.36**	—						
10. Typical drinking when dating	.09	.13	.22**	-.24**	.14*	.14*	-.16*	.10	.14*	—					
11. Typical drinking prior to consensual sex	.08	.19**	.14*	-.19**	.20**	.21**	-.28**	.17*	.20**	.58**	—				
12. Frequency of heavy drinking	.13	.07	.09	-.23**	.08	.21**	-.16*	.03	.13	.47**	.49**	—			
13. Peer approval of forced sex	.12	.18**	.32**	-.13	.13	.12	-.21**	.13	.13	.19**	.14*	.06	—		
14. No. of women misperceived	.03	.06	.18**	.03	.22**	.06	-.05	.18**	-.05	.04	-.06	.05	.17*	—	
15. Delinquency	.14*	.19**	.31**	-.13	.18**	.17*	-.34**	.18**	.22**	.20**	.35**	.20**	.35**	.10	—
<i>M</i>	2.91	0.59	2.91	14.99	18.49	3.37	17.19	6.54	1.73	2.06	1.97	1.40	1.49	1.49	1.61
<i>SD</i>	0.74	0.92	1.73	1.88	20.25	3.15	2.30	8.75	2.06	1.12	1.37	2.57	0.64	2.58	1.13

Note. T1 = Time 1.

*

$p < .05$.

**

$p < .01$.

Table 2

Mean Differences Between Participants Based on Sexual Assault Perpetration Status at Both Time Points With Social Desirability as a Covariate (N = 197)

Characteristic	Nonassaulter (n = 117)		Past assaulter (n = 52)		New assaulter (n = 11)		Repeat assaulter (n = 17)		F(3, 192)	Partial η^2
	M	SD	M	SD	M	SD	M	SD		
Hostile attitudes about women										
Hostile gender-role beliefs	2.86 _a	0.74	2.82 _a	0.77	2.94	0.32	3.43 _b	0.75	3.41*	.05
Callous attitudes toward women	0.47 _a	0.84	0.68 _a	1.09	0.25 _a	0.47	1.36 _b	2.95	5.80**	.08
Acceptance of verbal pressure	2.39 _a	1.54	3.32 _b	1.65	3.09 _{a,b}	1.49	5.13 _c	1.22	17.31**	.21
Past dating and sexual experiences										
Age at first date (years)	15.23	1.87	14.59	1.94	14.72	1.95	14.77	1.64	1.52	.02
No. of dating partners at T1	14.16 _a	17.28	26.86 _b	24.40	15.23	14.18	24.88 _b	21.79	5.64**	.08
No. of dating partners since T1	2.94	2.79	3.78	3.11	3.85	4.27	4.78	4.41	2.28	.03
Age at first consensual sex (years)	17.60 _a	2.52	16.47 _b	1.70	17.53	1.69	16.29 _b	1.87	4.05**	.06
No. of consensual sexual partners at T1	5.14 _a	7.81	9.28 _b	10.45	5.33	7.05	8.58	8.52	3.08*	.05
No. of consensual sexual partners since T1	1.33 _a	1.78	2.11	2.01	2.81 _b	3.26	2.56 _b	2.65	4.09**	.06
Situational and other factors										
Typical drinking when dating	2.01 _a	1.07	1.99	0.98	1.52 _a	0.93	2.95 _b	1.56	4.84**	.07
Typical drinking prior to consensual sex	1.91 _a	1.33	1.82 _a	1.05	1.29 _a	0.51	3.32 _b	2.08	7.50**	.11
Frequency of heavy drinking	1.49	2.62	1.19	2.27	0.96	2.98	1.75	2.93	0.78	.00
Peer approval of forced sex	1.42	0.60	1.55	0.68	1.42	0.55	1.82	0.90	2.32	.04
No. of women misperceived	1.31 _a	2.12	2.29 _b	2.99	0.73	1.10	0.82 _a	1.74	2.56*	.04
Delinquency	1.41 _a	1.14	1.76 _b	0.86	1.68	1.32	2.50 _c	1.13	5.80**	.08

Note. Multivariate analysis of covariance $F(45, 530) = 2.76, p < .01$; partial $\eta^2 = .19$. Means adjusted for covariate. Means with different subscripts differ significantly ($p < .05$) on the basis of follow-up Tukey's honestly significant difference tests. T1 = Time 1.

* $p < .05$.

** $p < .01$.

Comparison of Past and Repeat Assaulters' Perceptions of Time 1 Assaults With Social Desirability as a Covariate (N = 69)

Table 3

Characteristic	Past assaulter (n = 52)		Repeat assaulter (n = 17)		F(1, 66)	Partial η^2
	M	SD	M	SD		
Felt remorse about assault	0.78	1.04	0.31	0.47	3.70*	.05
Learned from experience	0.50	0.75	0.13	0.39	3.90*	.05
Rating of woman's responsibility	2.29	1.22	3.07	1.43	4.63*	.07
Rating of own responsibility	3.05	1.13	3.14	1.43	0.05	.00

Note. Means adjusted for covariate.

* $p < .05$.