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Unique Aspects of Adolescent Sexual Victimization Experiences

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Abstract

This study explored females' adolescent experiences with sexual aggression, using event-level data. A community sample of women, ages 18–30 years (N = 319), were interviewed regarding their most recent unwanted sexual experience. Incidents were categorized as occurring during adolescence (ages 14–17) or adulthood (after age 18). Preliminary statistical comparison of adolescent and adult incidents revealed differences in perpetrators, type of aggression, preceding activities, and location of assault. Qualitative analytic techniques were then used to identify the contexts in which adolescent victimization occurred, as well as the factors contributing to adolescent vulnerability. Four contexts in which adolescents were sexually victimized emerged: Within Intimate Relationships, At Parties/ Social Gatherings, Abuse by Authority Figures, and While Alone with a Friend. Thematic analysis revealed that inexperience with sex and dating, lack of guardianship, substance use, social and relationship concerns, and powerlessness contributed to adolescent vulnerability within these contexts.

Unique Aspects of Adolescent Sexual Victimization Experiences

Adolescent females are at elevated risk of experiencing sexual aggression. Findings from national surveys indicate that almost half (46%) of the women who reported experiencing rape were first raped prior to age 18, with over 33% of victims experiencing rape between the ages of 12 and 17 years (Bureau of Justice Statistics, 2000). Despite the prevalence of sexual assault perpetrated against adolescent females, the factors that make adolescence a time of unique sexual risk are not well understood. Much of the research on sexual victimization has focused on college or community samples of young adult women. Such research has provided valuable insights into the factors that contribute to the sexual victimization of young adult women (e.g., Abbey, 2002, Gidycz, Hanson & Layman, 1995; Testa & Livingston, 1999). However, given the social and developmental differences between young adult women and adolescent girls, it is unclear whether these findings generalize to adolescents. The current study sought to identify factors that contribute to adolescent vulnerability to sexual aggression through the use of qualitative data analytic techniques. Sexual aggression was defined as unwanted sexual contact, verbal sexual coercion, and attempted or completed rape.

Adolescent vulnerability may be understood within the framework of Lifestyle/Routine Activities theories. Such theories hold that risk of victimization of any sort (i.e., robbery, physical assault, sexual assault) is associated with lifestyles (including demographics) and routine activities that increase an individual's exposure to a potential offender (e.g., Lauritsen, Laub, & Sampson, 1992; Mustaine & Tewksbury, 2002). Lifestyle and routine activities have

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also been conceptualized as environmental factors that expose or protect potential victims from victimization, such as family structure and guardianship (Finkelhor & Asdigian, 1996). Such theories hold that adolescents who engage in delinquent or illicit activities, such as drinking or drug use, are at increased risk of victimization (Lauritsen et al., 1992) through lack of societal protections and increased exposure to potential perpetrators. Because risk behaviors are illegal or unsanctioned, they typically take place in contexts that are unsupervised, isolated, and include substance using peers (Small & Kerns, 1993; Warshaw, 1988). For adolescent girls, drinking in the presence of deviant peers increases the likelihood of encountering an aggressive male or being perceived as sexually unconventional (Metzler, et al., 1994).

In addition to environmental or behavioral factors associated with adolescent victimization (both sexual and non-sexual), Finkelhor and Asdigian (1996) emphasized the importance of "target congruence," or personal characteristics of the victim that have some congruence with the needs or motives of the offender. Target congruence consists of three dimensions, which influence the selection of a suitable target by a perpetrator. Target vulnerability suggests that perpetrators perceive the potential target has limited capacity to resist or deter victimization. Target gratifiability specifies that victims are in possession of qualities or attributes desired by the offenders. Lastly, target antagonism refers to the victim's qualities, possessions, or attributes that arouse anger or jealousy in the offenders. Of these three dimensions, Finkelhor and Asdigian (1996) found that target vulnerability and gratifiability made unique contributions to predicting adolescent sexual assault risk.

An unexplored application of Finkelhor and Asdigian's theory would suggest that adolescent females, as a group, may exhibit characteristics of target vulnerability and gratifiability that increase their risk for sexual victimization. Although target congruence is not exclusive to adolescence, adolescents as a group may be at high risk of experiencing sexual aggression because of the interaction between high target congruence and environmental factors, such as increased socializing and reduced supervision. For example, because youth is associated with beauty and burgeoning sexuality in our culture, perpetrators are likely to view adolescent girls as desirable targets (i.e., target gratifiability). Adolescent girls may also be perceived by potential perpetrators as more vulnerable due to their smaller size, sexual naïveté, lack of resistance strategies, inexperience with substance use, or reluctance to seek help for fear of social or disciplinary repercussions.

Adolescent development, environmental factors, and target congruency may interact in other ways to elevate adolescent vulnerability to sexual aggression. Because adolescent girls are just beginning to explore heterosexual relationships and experiment with sexual activity (Brooks-Gunn & Paikoff, 1997; Graber, Brooks-Gunn & Galen, 1998), they commonly have relationships of shorter duration than adult women. Their desire for romance and sexual naiveté may result in increased time spent with males with whom they are not well acquainted. Adolescent sexual experimentation often occurs in unsupervised contexts that are explicitly or implicitly sexual in nature (e.g., dates or parties). Increased social interaction in these potentially sexual contexts is likely to increase their exposure to sexually aggressive males who may be friends, acquaintances, and strangers. Due to their inexperience with dating and sex, adolescent girls may misinterpret a male's flirtatious behavior or fail to recognize cues that he will become sexually aggressive. Imbalances in physical size, strength, or social status also may make it difficult for girls to refuse unwanted advances from aggressive males (Brooks-Gunn & Paikoff, 1997).

Adolescent target vulnerability also may be increased through participation in risky behaviors, such as underage drinking or illicit drug use (Baker & Rosenthal, 1998; Champion et al., 2004; Mezzich, et al., 1997). Jackson, Cram, and Seymour (2000), found that half of the adolescent females in their sample who reported having an unwanted sexual experience were

victimized at parties, with 27% of these girls attributing the incident to their alcohol or drug use. Alcohol consumption can interfere with risk perception, particularly in high-conflict situations where there also is a potential for positive outcomes, such as establishing a romantic relationship (Murphy, Monahan & Miller, 1998; Testa, Livingston, & Collins, 2000). In addition, adolescents' inexperience with alcohol use may contribute to over-consumption with a substantial proportion of rapes occurring when the victim is passed out or incapacitated (Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004; Testa, Livingston, VanZile-Tamsen & Frone, 2003). Even if a girl does not drink to the point of intoxication, she may indirectly increase her risk of unwanted sexual advances if males perceive her as more sexually available by virtue of having any alcohol or being in a drinking context (George, Gournic & McAffee, 1988).

Although Lifestyle/Routine Activities theorists agree that the contexts or situations in which the offender and potential target are situated are important in predicting assault risk (e.g., Lauristsen et al., 1992), to date, they have not been systematically examined. The risk factors operating within these contexts also are not well understood. Testa and Livingston (1999) conducted a qualitative examination of contexts in which young adult women experienced sexual aggression. However, given the potential differences in lifestyles/routine activities and target congruence between adolescent girls and adult women, it is logical to assume that the contexts in which adolescents experience sexual victimization may not be the same as those of adults and warrant further investigation. For example, adult women are more likely than adolescent girls to be in stable, long-term relationships, making it less likely that they are out socializing with unfamiliar males in potentially sexual contexts. Consistent with this, research shows that adult women are most likely to experience sexual victimization from an intimate partner, whereas adolescents are most likely to be victimized by acquaintances (Tjaden & Thoennes, 2000).

The purpose of the current study was to qualitatively explore some of the factors that may increase vulnerability to sexual aggression during adolescence. The goals of this study were to: (a) identify the contexts in which adolescents experience sexual aggression; and (b) identify the factors within these contexts that contribute to adolescent vulnerability to sexual aggression. We focused on the vulnerability aspect of target congruence exclusively because it would be impossible to determine what qualified as target gratifiability without offender reports. Women's descriptions of unwanted sexual experiences that occurred during adolescence were examined using qualitative data analytic techniques. We sought an understanding of the situations in which adolescents are sexually victimized, including the circumstances surrounding victimization events and the factors that contribute to adolescent vulnerability. Use of qualitative data analytic techniques allow for in-depth examination of events surrounding the incident from the women's perspectives. Although we made no specific hypotheses, we anticipated that inexperience with sex, dating, and substance use as well as reduced supervision would emerge as possible contributors to adolescent vulnerability.

Although the primary focus of the paper was qualitative, we also tested some hypotheses derived from previous literature to confirm our assertion that there are differences between adult and adolescent sexual victimization experiences. First, given that adolescent girls tend to be less sexually experienced and have relationships of shorter duration, we expected that adolescent girls would be less likely than adult women to know their perpetrator well or to have had previous consensual sexual relations with him (Livingston et al., 2004; Tjaden & Thoennes, 2000). Next, we hypothesized that adolescent girls would be more likely than adult women to be victimized after spending time in social settings such as parties, while adult women would be more likely than adolescents to be victimized in their homes (Jackson et al., 2000). Alcohol use has been implicated in both adolescent and adult sexual victimization,

therefore we examined victim and perpetrator substance use. However, we made no specific hypotheses regarding these relationships.

Method

Sample

Random digit dialing of households in Buffalo, NY and its immediate suburbs in Erie County, between May 2000 and April 2002, was used to identify women 18–30 years of age for a study of alcohol use, sexual behavior, and sexual victimization among young women. Women who completed the telephone screening were recruited to participate in a prospective study on women's social experiences. In-person interviews were completed with 1,014 women, or 61% of eligible women identified. This completion rate is comparable to surveys conducted solely by telephone (e.g., Simon et al., 2001).

As part of the in-house interview, women who indicated experiencing any sexual victimization since age 14 as measured by the Sexual Experiences Survey (SES), were also asked to complete a brief event-based interview focused on the unwanted sexual experience. From the sample of 1,014 women, 383 (37.8%) responded positively to one or more items on the SES indicating some sexual victimization since age 14. Of these, 14 women were not interviewed for various reasons (e.g., they declined participation, technical difficulties).

Subsequent analyses involved 369 women who completed interviews regarding their most recent incident of sexual assault. On average, these women were 24.05 (*SD* = 3.57) years of age at the time of the interview and most were unmarried (74.1% never married, 3.3% separated or divorced). Approximately 76% were Caucasian and 15.5% were African-American. There were very small percentages of Hispanic (3.0%), Asian (1.6%), Native American (.5%), and women of mixed or other background (3.0%). Consistent with local demographics, median income was $40,000 and 91% were high school graduates (compared to 89% of 18–34 year old women in Erie County). Most were employed either full-time (46.9%) or part-time (31.1%).

Procedure

Age eligible women were asked to participate in a longitudinal study of women's social experiences, consisting of three waves of data collection at 12 month intervals. Only data collection procedures relevant to the current study will be described here. Initial participation involved a two-hour session conducted at the Research Institute on Addictions (RIA), located in downtown Buffalo, which included completing computer-administered questionnaires and a face-to-face confidential interview involving personality, alcohol and drug use, and sexual experiences. Women were paid $50 for their participation. Upon arrival at RIA, women were provided with an explanation of study procedures and informed consent was obtained. Wave 1 data reported in the current study were collected using a computer-assisted self interview (CASI). Interviewers remained in the room to provide technical assistance if needed, but they sat across the room to allow privacy. All interviews were conducted by trained female interviewers between the ages of 25 and 35.

Upon completion of the CASI questionnaires, women who responded positively to any item on the computer-administered Sexual Experiences Survey, a measure of unwanted sexual experiences, also completed a confidential face-to-face interview with a female interviewer. Using a semi-structured interview format, interviewers focused on the respondents' most recent incident of sexual aggression. Interviews were tape recorded and transcribed.

Measures

Sexual aggression experiences—Sexual victimization was assessed using an 11-item modified version of the Sexual Experiences Survey, with demonstrated external validity (Testa, VanZile-Tamsen, Livingston, & Koss, 2004). The original SES (Koss, Gidycz, & Wisniewski, 1987) consists of 10 behaviorally specific items that assess unwanted sexual contact, verbally coerced intercourse, attempted rape, and rape experiences. In the revised version, the wording of several items was modified to improve clarity. Items describing completed or attempted sexual intercourse "because a man gave you alcohol or drugs" were modified to specify that substances were given "without your knowledge or consent" to make them conform more closely with legal statutes (Gylys & McNamara, 1996). We also added an 11th item assessing whether unwanted sexual intercourse had occurred when the woman was passed out or incapacitated by alcohol or drugs (see Testa, Livingston, VanZile-Tamsen, & Frone, 2003). Women were asked about sexual victimization experiences occurring since age 14. Type of victimization was categorized according to the most severe type of aggression experienced: no victimization (0), contact (1), sexual coercion (2), attempted rape (3), or rape (4). Women who responded positively to an item were then asked how old they were when they experienced the target event on the most recent occasion if there was more than one.

Event-Based Interview—Women who endorsed at least one item on the SES were asked in audio recorded semi-structured, face-to-face interviews to report on the most recent incident of sexual aggression, which may have involved rape, attempted rape, coercion, or unwanted sexual contact. Women were asked to describe the target experience in their own words. They also answered a series of questions to clarify the details of the experience, including the date of the incident, their relationship to the perpetrator and how well they knew him, whether they had ever had consensual sexual intercourse with the perpetrator prior to the incident, what they were doing prior to the incident, where it occurred, and their own and the perpetrator's substance use during or immediately preceding the incident (see Livingston, Buddie, Testa, & VanZile-Tamsen, 2004).

Results

Characteristics of Incidents of Adolescent vs. Adult Sexual Victimization–Preliminary Analyses

To confirm that adolescent incidents of sexual aggression do in fact differ from those of adults, as a preliminary step, we examined quantitative data obtained as part of the event-based interview (n = 319). Sexually aggressive incidents reported in the SES were categorized as occurring during adolescence if the respondent was between 14 and 17 years of age at the time of the most recent experience (n = 112) and as adult victimization if the incident occurred at age 19 years or later (n = 207)[1]. On average, the most recent incident took place 4.6 (*SD* = 3.79) years prior to the interview. Given that all of the women were at least 18 years old at the time of the interview, as expected, the length of time between the incident and the interview was longer for those occurring during adolescence (*M* = 7.24, *SD* = 3.89) than for those occurring in adulthood (*M* = 3.13, *SD* = 2.84, t (317) = 10.78, $p < .01$). Chi square analyses were used to compare characteristics of adult and adolescent incidents. Standardized residuals were calculated to determine which cells significantly differed in these analyses. A standardized residual with an absolute value greater than 2 (M = 0; *SD* = 1) indicates that the

[1]Incidents occurring at age 18 were excluded from the analyses (n = 50), because 18 years of age marks a transition from adolescence to adulthood in our society. Reported incidents occurring at age 18 were equally split between those incidents that appeared qualitatively similar to adolescent incidents (i.e., occurring during high school years) and incidents reported in adulthood (i.e., occurring in work contexts, at college). Inclusion of 18-year olds in the adult category did not significantly change the results reported here.

observed count differs significantly from the expected count and is a major contributor to the chi square result (Zemper, 1997). Results are shown in Tables 1 and 2.

The type of aggression experienced by adolescents did not differ from those of adults, with one exception. Women victimized as adolescents were significantly less likely than those victimized as adults to report experiencing verbal sexual coercion (19.6% vs. 39.6%). Rates of other types of victimization were similar, with a trend toward adolescent incidents involving more unwanted sexual contact than adult incidents (24.1% vs.15.0%). There were no ethnic differences (Caucasian vs. non-Caucasian) in rates of adolescent versus adult incidents or type of victimization experienced.

As expected, adolescent girls were more likely than adult women to be victimized by a perpetrator with whom they were less acquainted, such as a stranger, acquaintance, or a friend (53.6% vs. 40.7%). Adult women were more likely than adolescents to be victimized by a current or former male intimate partner (55.6% vs. 36.6%). Consistent with this, adult incidents also were more likely than those of adolescents to involve a perpetrator with whom the woman had a prior history of consensual sexual intercourse (55.8% vs. 16.0%). As hypothesized, adolescents were more likely than adults to have been at parties or social gatherings prior to the aggressive incident (26.8% vs. 13%), whereas adults were more likely than adolescents to experience sexual aggression after being in a bar (17.4% vs. 3.6%). Although the majority of sexual aggression took place in a home setting (75.8% adults, 57.1% adolescents), as anticipated, adolescents were more likely than adults to experience aggression outside of the home, particularly at parties (17.9% vs. 5.3%). Substance use by perpetrator and victim did not differ by group.

Qualitative Analysis of Adolescent Sexual Victimization Events

The preceding statistical comparisons confirmed that there are significant differences between adolescent and adult sexual victimization experiences. Previous research has examined the contexts in which adult women experience sexual aggression (see Testa & Livingston, 1999). The current study sought to extend these findings by examining the contexts of adolescent sexual victimization using qualitative data analytic techniques to identify the contexts in which adolescents were victimized. Because we were interested specifically in understanding adolescent sexual victimization, only transcripts describing unwanted sexual experiences that occurred during adolescence were included in the qualitative analysis. Of the 112 women who reported experiences that took place between the ages of 14 and 17 years, three refused to be tape recorded and three transcripts could not be used either because the tape was inaudible or because the respondent failed to provide sufficient detail to allow for reliable coding. This resulted in a final sample of 106 women reporting at least one experience of sexual aggression in adolescence.

Procedures outlined by Miles and Huberman (1994) and Spradley (1980) were used to analyze the data in a multi-stage process. Initial coding of the transcripts consisted of identifying and labeling salient information (e.g., presence of peers, perceived intoxication, involvement in illicit activities). Coding schemes were refined through discussion, and when appropriate, initial codes were combined, re-labeled, or eliminated. Schemes selected for elimination were found in only one or two of the transcripts and appeared to be unrelated to other schemes found throughout the interview data. Relationships between coded information were further explored to develop taxonomies and themes. In each stage of the analytic process, data were coded independently by the authors, discussions were conducted about the coding schema, disagreements were resolved by consensus, and new interviews were analyzed to double-check the established coding schema.

Contexts in Which Adolescents Experienced Sexual Aggression–Qualitative Analysis

Our first analytic goal was to identify the contexts or settings in which adolescent females experienced sexual aggression. To accomplish this goal, the first and fourth authors independently read and coded a random sample of 25 transcripts. Context categories were determined by the dominant characteristics of the situation and were mutually exclusive. Only one context was assigned per transcript. After establishing the context categories and further refining the coding scheme, the same two authors independently read and coded a second random sample of 25 transcripts. Kappa agreement for context category assignment was .83. Kappa values of .80 or above are considered to indicate good agreement beyond chance (Neuendorf, 2002). Disagreements were resolved through discussion. The first author then coded the remaining transcripts using the agreed-upon context categories. Four context categories in which adolescent females experienced sexual aggression emerged. These context categories, in order of frequency, included: (a) Within Intimate Relationships (39.6%); (b) At Parties/Social Gatherings (35.8%); (c) Abuse by Authority Figure (17%); and (d) While Alone with a Friend (7.5%).

Within Intimate Relationships—Most frequently, adolescents experienced sexual aggression in the context of spending time with boyfriends or romantic dates. This context was expressed in nearly 40% (n = 42) of the transcripts. As revealed by the preliminary quantitative analysis, incidents occurring with boyfriends/dates during adolescence involved perpetrators with whom the women were not well acquainted. For example, in the adolescent incidents, women did not always classify their perpetrators as “boyfriends,” but often described them as casual or first dates. Within this context, the boyfriends/dates typically aggressed in one of four situations, thus, we created a taxonomy consisting of four sub-categories to characterize different aspects of boyfriend/date aggression. These included incidents that occurred while the couple was spending time alone being intimate (n = 20), during or after a party (n = 9), in an abusive relationship (n = 9) and following a break-up (n = 4).

Incidents categorized as being intimate with a boyfriend/date were consistent with traditional views of dating aggression. In these situations, the young couple was spending time alone together in an intimate situation, typically on a “date” (e.g., at the movies), or at one of their homes. The aggression was usually preceded by consensual sexual activity, such as kissing, which progressed to a point beyond the girl’s comfort zone. The male used verbal or physical pressure to convince her to go further. In the second sub-category, nine incidents involved boyfriends/dates who aggressed either during or following time spent with the girl at a party or a bar. This category was similar to the previous one in that it involved consensual sexual activity prior to the aggression. However, these incidents differed from the intimate situations in that the couples were in settings that were less private and intimate prior to the incidents and substance use was mentioned by each of the girls as contributing to the incident. All of the perpetrators and nearly all (n = 7) of the girls were drinking in these situations.

There also were nine women who described having unwanted sex within the context of an established, abusive relationship. Incidents were categorized as abusive if the woman indicated that her boyfriend/dating partner physically assaulted her, was controlling, manipulative or verbally abusive. Nearly all incidents involved completed intercourse (4 coercion, 4 rape, 1 attempted rape). The rapes/attempted rape involved extreme physical force, such as hitting or choking the victim to force her into submission. There was no consistent pattern of substance use for either the perpetrators or the victims in this category, and unlike the preceding sub-categories, these assaults were not typically preceded by intimacy or consensual sexual activities. Related to this, four incidents involved perpetrators who were same-aged ex-boyfriends. All four of these incidents involved completed sexual intercourse occurring in the process of or following a break-up. Three of the four involved extremely violent rapes. These

women believed that the perpetrators' violent outbursts were vengeful responses to their termination of their relationships with the men. For example:

> I think that he was pissed off that I finally broke it off. I think it was a way to control me… I had finally gotten out of it, I had beaten him in the mental thing and it really upset him. I think this was his way …of showing me 'I'll get you somehow'.

As represented in this woman's story, these cases often involved some level of abuse, at least psychologically, that had prompted them to terminate the relationships.

At Parties/Social Gatherings—The second most common situation in which adolescent girls experienced sexual aggression was in the context of parties or social gatherings with peers. This context was coded in nearly 36% (n = 38) of the transcripts. The potential for sexual interest was often implicit in these contexts. Members of the opposite sex come together in these contexts to mingle, flirt, drink, and get acquainted. The majority of these incidents involved substance use by the perpetrator (n = 31, 81.6%), the victim (n = 29, 76.3%), or both. Unlike the Within Intimate Relationships context, perpetrators and victims in this category were not romantically involved. Perpetrators were generally not well known, tending to be acquaintances or someone the girls just met. Two sub-categories were identified within this context: sexual aggression arising from opportunistic or predatory males (n = 28, 73.7%) or evolving out of consensual sexual activity (n = 10, 26.3%).

In opportunistic situations, males took advantage of an opportunity to make sexual advances or to force sex upon a female in a social setting. This included grabbing or groping a girl at a party or bar, using verbal pressure to convince an intoxicated girl to have sex, or having sex or attempting to have sex with a girl who was too intoxicated to resist. In situations coded as predatory, the women believed that the males orchestrated the situation to create an opportunity to aggress. This included encouraging the female to drink to the point of intoxication, deliberately isolating her (e.g., offering her a ride home), or more rarely, slipping alcohol or drugs into her beverage to incapacitate her without her knowledge. Opportunistic and predatory incidents were similar in that the males appeared to see the girls as sexually available by virtue of being in the social context, regardless of the girls' alcohol consumption. These incidents were not preceded by consensual sexual activity. Although all types of aggression were represented in this context, the majority of the opportunistic incidents were rapes (n = 16, 59.3%).

The second sub-category included 10 incidents that occurred within the context of engaging in consensual sexual activity at a party or informal social gathering. All perpetrators were same-aged peers who were not well known by the girls. For example, there were three incidents in which the girl and her female friend(s) each paired off with a different male to engage in some consensual sexual activity (e.g., kissing, fondling). Such encounters are often referred to as "hook ups," which are casual sexual encounters (that may or may not involve sexual intercourse) between two people who are acquaintances or strangers, often occurring only once (Paul & Hayes, 2002). In these cases, sexual activity escalated to a point where the male wanted to go further than the female. Alcohol was a factor in half of these incidents, usually at parties more so than at informal social gatherings.

Abuse by Authority Figures—This context category includes 18 incidents in which a girl was assaulted by a male relative or other authority figure, typically someone five or more years older than she. In these situations, older males took advantage of the adolescent's youth and inexperience, as well as the inherent power differential accorded by their status or age. For example, one girl was repeatedly raped by her mother's male friend who told her mother that he was hiring her daughter to do odd jobs at his home. Once in his home, the girl was isolated and vulnerable to his repeated attacks. Perpetrators included male relatives or household

members (n = 5), friends/boyfriends of the girls' parents (n = 4), adult males in homes where the girls were babysitting (n = 3), an assistant coach (n = 1), and strangers (n = 3). There were two perpetrators who were approximately the same age as their victims, including a male cousin who was babysitting her younger siblings, and a "godbrother" (i.e., an unofficial foster brother residing in the household). None of the females used substances prior to the incident; however, 11 of the 18 believed that the perpetrators had consumed alcohol.

While Alone with a Friend—Eight cases occurred when a female was alone in a seemingly non-sexual situation with a male peer, usually a friend. Typically they were watching TV, playing a video game, or just hanging out talking when the male made an unexpected sexual advance. The female did not perceive it to be a sexual situation, and there was no history of prior sexual involvement or sexual interest. These situations caught the girls off guard because they liked, trusted and did not regard the perpetrators as potential sex partners. One woman recounts:

> We were just hanging out at his house one day and it just kind of happened. He wanted sex and I didn't. [We were] playing Nintendo… He just kept leaning over and flirting a little bit more than usual. Touching my leg and kissing me on the cheek.

Vulnerability Factors

In the second stage of the analysis we focused our coding efforts on identifying vulnerability themes that emerged in the women's accounts of adolescent victimization. This allowed us to gain insight into the factors or mechanisms that contribute to adolescent vulnerability within the contexts identified in the first stage of the analyses. Thematic analysis was conducted by the first and second authors, using procedures similar to those described above. After establishing and refining the thematic coding scheme, inter rater agreement was calculated for a randomly selected sub-sample of 25 transcripts. Six vulnerability factors emerged from the analyses. Kappa ranged from .75 to 1.0 for the six vulnerability factors. Disagreements were resolved through discussion. The first author coded the remaining transcripts using the agreed-upon coding schema. Five vulnerability factors were identified in the thematic analyses: (a) lack of guardianship; (b) inexperience with sex and dating; (c) substance use; (d) social and relationship concerns; and (e) powerlessness. These factors were not mutually exclusive in that more than one vulnerability factor may have been present in any given transcript. Table 3 presents the frequency of each vulnerability factor within the four contexts described above.

Lack of guardianship—Seventy-three percent of the transcripts (n = 77) revealed that adolescent girls experienced sexual aggression in situations in which there was no parental or authority supervision or protection. Although most of the women's descriptions implied that incidents of sexual aggression occurred in unsupervised contexts, we coded situations as lack of guardianship only in cases where lack of adult protection or controls emerged as a factor directly contributing to vulnerability. Some situations were seemingly innocent at the outset. For example, six of the women described situations in which they were assaulted when they were in an isolated situation with no protection, such as waiting for a bus or walking home alone. These incidents are consistent with traditional views of stranger rape. All of these incidents involved violent rapes and occurred under conditions that could not have been anticipated by the girls. The only identifiable risk factor was that the girl was isolated and the perpetrator(s) took advantage of the situation to assault her. Perpetrators in these situations were strangers or males not well known by the girls, with the exception of one girl who was abducted and raped by an ex-boyfriend. For example, three girls (in separate incidents) were abducted and assaulted by strangers as they were outside walking by themselves. Their inability to drive, combined with their increasing participation in activities independent of their parents, makes them vulnerable to situational isolation as they move between home, school, and other activities on foot or bicycle.

More often, lack of guardianship played a role in assault when the adolescent spent time in situations that were illegal, unsanctioned for adolescents, or done without parental knowledge or consent. Being in an illicit or unsanctioned situation contributed to vulnerability by increasing the adolescents' involvement in risk behavior, associating with deviant or high risk males, and through lack of parental or societal protection. Examples of illicit situations included being alone in a bedroom with a male, underage drinking, drug use, sexual activity, associating with individuals engaging in illegal activity, having or attending a party/social gathering when parents were away, going to an older male's apartment, isolating self from group to be alone with a male, lying to parents about whereabouts or activities, or sneaking out of the house. Several women reported that as adolescents they were reluctant to seek help or get out of the situation leading up to their assault because they feared the consequences, such as getting caught by their parents or being unable to get home. The following examples illustrate situations in which the adolescent girls deceived their parents to spend time in high risk settings. The first girl was raped by a male co-worker while attending a hotel "party":

> [H]e picked me up and brought me there and I didn't drive and my mom didn't know about it, so I couldn't just say, 'hey, pick us up.' I was lying about it in the first place. I kind of got myself in a situation where I couldn't get out of it. I made the wrong choice.

Another described how she went to the apartment of an older male against her parent's wishes:

> We were alone and he was six years older than me. He worked for my dad and my dad told me not to go anywhere near him. He [father] didn't know I was hanging out with him, so it was against my parents' wishes and I had to be sneaky.

Incidents that involved lack of guardianship were mostly found within the At Parties/Social Gatherings (n = 37, 48.1%) and Within Intimate Relationships (n = 30, 39.0%) contexts (see Table 3).

Inexperience with sex and dating—Lack of experience with dating and sex emerged as the second most common contributing factor to sexual aggression, expressed in 55.7% (n = 59) of the transcripts. Inexperience was most often coded as a contributing factor in the Within Intimate Relationships context (n = 31, 52.5%) and also was common in the At Parties/Social Gatherings context (n = 20, 33.9%; see Table 3). In cases involving inexperience, the women indicated that, as adolescents, they had been unsure of what was expected of them sexually, when to set sexual limits, or how to respond when the sexual activity exceeded their comfort levels. They specifically indicated that their lack of experience contributed to their vulnerability. Confusion and ambivalence about sex were commonly expressed in these transcripts as well. For example, one woman who was fondled by a date at age 15 reported:

> I just remember feeling very anxious about it. As a young kid, I don't know exactly what I was feeling. It was a new experience that I wasn't comfortable with.... I think I was just a little naive. When I finally had the courage to say, 'no, I don't want this,' then he did stop.... I didn't make it clear when he started. … I don't think maybe I knew what his intentions were and what I wanted.

The women described how, as inexperienced adolescent girls, they often failed to see situations as sexual, misinterpreted males' intentions or sent signals that were not intended to be sexual. The women's statements illustrated adolescents' naive misperceptions of situations that most adults would likely see as having obvious sexual overtones. For example one woman described how she was surprised when a male friend verbally pressured her into having sex when she stayed in his dorm room to avoid going home drunk: "I had planned on staying overnight, but I hadn't planned on that." Another woman describes an early dating experience at age 15:

> I didn't realize his parents weren't home. He was really the first boyfriend I ever had and so he wanted to go up to his bedroom to show me something he got for Christmas and he started kissing me and I was very uncomfortable with it and I tried to push him away, but he just kept coming back so I finally made up an excuse and left.

In recalling the incident, many women expressed a belief that the teenage boys were uncontrollably driven by hormones to pursue sexual experience. "He was a lustful creep. He was a teenager at the time. Probably in the beginning of sexual experiences and he perceived me as being the one that would go along with it." However, it is unclear as to whether or not they believed this at the time of the incidents and if so, how, if at all, it impacted their behavior.

Inexperience also appeared to be a factor in situations involving dating or socializing with older males. Twelve women reported experiences with males who were five or more years older than they at the time of the incident. The women's narratives suggested their inexperience in assessing potentially dangerous situations as they failed to recognize the men's sexual intentions when they were invited into their homes or bedrooms. Older males often facilitated sexual interactions by providing females with drinks or drugs. The woman who had been seeing her father's employee against her parents' wishes describes her experience:

> We were at his house watching a movie. He bought me alcohol. We started fooling around. He initiated it and I had never had sex before and it came to that point and I didn't want to and he was really pissed off at me. We got into a fight and he pushed me down and I freaked out and stuff and he got pissed and drove me home.

Lack of experience also played a role in keeping adolescent girls in abusive dating relationships. Women who had been in abusive relationships indicated that they thought the abusive behavior was a normal part of an intimate relationship with a man. As one woman put it, "I don't think I knew any better.... At the time, I thought that's how boyfriends and girlfriends should be together." Another woman who was raped by an abusive boyfriend explained:

> [I] had sex with him two or three times after that (the initial rape) only because he pressured me into it. It certainly wasn't enjoyable for me and finally, I smartened up and realized that this wasn't a normal relationship and broke it off with him.

Substance Use—Substance use by the perpetrator, the girl, or both was the third most frequently mentioned vulnerability factor, expressed in 53.8% (n = 57) of the transcripts. Incidents were coded for substance use only in cases where the woman indicated that the substance use played a role in the incident through its effects on his or her own behavior. Based on this criteria, nearly two-thirds (n = 67, 63.2%) of the perpetrators and almost half (n = 45, 42.5%) of the females in this sample were using alcohol and/or drugs at the time of the incident. Alcohol was the substance used by nearly all in this category, with only 3 women and 6 men using drugs exclusively (usually marijuana). The male's substance use was identified as a contributing factor in just under half of the transcripts (n = 51, 48.1%) and was coded most often within the At Parties/Social Gatherings context (see Table 3). The women who described substance use as a factor in their assault believed that the perpetrator's substance use increased his sex drive and made him more aggressive or bold. For example, one woman said, "Mostly I believe it was the alcohol. It kind of got out of control. He was fine when we first met." Another stated: "I think he was less inhibited. He wanted something and he was going to get it. Or maybe he felt more sexy or more alluring when he was drunk. I don't know."

Thirty-six (34%) women indicated that their own substance use contributed to the incident. They believed that the perpetrators misinterpreted their substance use as a signal of their availability, or that their intoxication affected their ability to resist. The majority of these incidents occurred in the At Parties/Social Gatherings contexts (see Table 3). Women who felt their intentions had been misinterpreted by their assailants mentioned that their substance use

made them friendlier or more outgoing: “I was probably more flirty than I should have been in the beginning.” Another stated: “Because I’m more outgoing when I drink… [He] probably figured I was easy.”

Women also indicated that substance use impaired their ability to fully understand what was happening or effectively resist the male’s advances: “I just felt so drunk and I didn’t know what I was doing…” Another woman stated: “…I had no control over my body… I couldn’t even find the words to verbalize anything.” Several believed that the males recognized their vulnerability and capitalized on it to obtain sex: “He knew I was tripping and stoned, so I think he played on that a little bit - took advantage.” There were 12 cases in which adolescent females were assaulted while sleeping or passed out at a party. Most of the perpetrators in the 12 incidents were male acquaintances; however, in three of the cases the perpetrators were boyfriends. In a few of these cases where the adolescent females had not been drinking to incapacitation, they were able to fight off their attackers. However, most often, the females had passed out from overuse of alcohol and/or drugs and were unable to resist upon awakening. There were also two cases of rape in which the victims were incapacitated after drinking what they believed were non-alcoholic sodas. These women suspected that their perpetrators had put alcohol or drugs into their drinks without their knowledge.

There was often overlap between being in an unsupervised/illicit situation and substance use. For example, when the victim had used substances, the perpetrator had usually used substances as well, and the substance use typically occurred in an illicit/unsupervised situation, such as a party. The following is an example of a girl who had lied to her parents about sleeping at a friend’s so that she could go out drinking with a male friend and his acquaintance. She could not return home because she had lied to her parents, so she decided to spend the night with her friend’s acquaintance, whom she had just met.

> I was sleeping in his bed because I snuck out of my house and I couldn’t stay with my one friend so I ended up over there… I think he used the alcohol to get me drunk because he was a virgin and he wanted to have sex with somebody and he found the perfect opportunity. Me, at his house sleeping over, drunk, passed out on the bed…

Social and relationship status concerns—Concerns about the relationship, the perpetrator’s feelings, or social status were expressed as a factor in nearly 21% (n = 22) of the transcripts. When the perpetrator was a male friend, the female expressed concerns about his feelings: “I kind of felt like I would hurt his feelings if I said ‘no’ and at the time I didn’t want to. I liked him. I thought he was cool.”

The transcripts also revealed that being in a romantic relationship carried social status for adolescent females. Maintenance of this status was very important and appeared to contribute to vulnerability, particularly in cases of verbal sexual coercion: “I just kind of figured if I didn’t, we’d start arguing or fighting or he’d leave. I didn’t want that. I wanted to have a boyfriend.” Dating a male of high social status was particularly desirable. One woman described her failed struggle to preserve her virginity while also maintaining a relationship with her popular boyfriend:

> I had never had sex before and he was very insistent that if I was going to be his girlfriend we had to have sex. I was a sophomore, he was a senior. He was on the wrestling team and very popular and quite a catch. So after dating for a couple of months, which in high school is a long time, I was afraid he would break up with me. So I told him, ok fine, we would have sex. Well, we got to the point where he drove his car up to this lookout point. When we got there I told him that I had changed my mind. He told me it was too bad, that we were going to have sex whether I wanted to or not. It wasn’t my choice at that point.

Powerlessness—Although adolescence is a time of moving towards adult roles, liberties, and activities, adolescents are still minors and as such, they lack social and legal power. They are also usually physically smaller and weaker than adult men. These physical and social limitations render them vulnerable to abuse by adult men or other authority figures. There were 13 cases (12.3%) in which adolescent girls were assaulted by family/household members or other authority figures. All of these incidents were classified as Abuse by Authority Figure contexts (see Table 3). In these cases, adolescents were placed in situations, sometimes unwittingly by a parent, where they had little or no power. The girls were in situations where they should have been safe, such as at home, school or babysitting. Perpetrators were typically known adult males who were in positions of authority by virtue of being older family members, parents' friends/boyfriends, or employers (including men whose children they babysit). One woman describes how at the age of 15, she was misled and assaulted by a man who claimed he wanted her to babysit his son: "[H]e wanted me to babysit for him, so he took me to his house and his son was never there. That's how he got me over there." From the women's perspectives, these situations were unavoidable.

Discussion

This study was unique in its focus on understanding experiences of adolescent sexual victimization from the perspective of the women who had experienced sexual aggression as adolescents. There has been little prior research to study why adolescent girls are at heightened risk of experiencing sexual victimization and to understand the circumstances surrounding their victimization. The current study sought to address these gaps in the literature using qualitative analysis to identify the situations and factors that place adolescent girls at increased risk.

Consistent with Lifestyles/Routine Activities theory, results of the qualitative analysis revealed that adolescent girls are at risk of sexual victimization when they spend time in unsupervised contexts and engage in risky behavior, such as drinking at a party where there are no supervising adults present. However, our results also indicate that adolescent vulnerability is not limited to participation in delinquent behavior. Several adolescent girls were victimized in contexts that appeared to be outwardly safe, such as babysitting or playing a video game with a friend. These findings provide support for Finkelhor and Asdigian's (1996) argument that lifestyle and environmental factors alone do not explain all forms of victimization. Target congruence, particularly, the dimension of target vulnerability, plays a role in determining risk.

Our findings suggest that there are developmental influences on target vulnerability. In this study, inexperience with sex and dating, social and relationship status concerns, and powerlessness emerged as vulnerability factors. These factors are also a function of the adolescent's cognitive, emotional, social, and experiential developmental status. For example, inexperience with sex and dating may affect an adolescent's ability to resist or deter unwanted advances in several ways. Although risk inherent in a situation may be apparent to an adult, an inexperienced adolescent girl may not recognize situations in which a male will make a sexual advance or may not know how to handle that advance when it happens. Adult women would be likely to recognize that being in a bedroom alone with a male could be interpreted as sexual interest, and should be avoided if that interest is not there. In contrast, an adolescent girl may believe that a male wants to get to know her better and go willingly into a bedroom with him, without awareness of the sexual innuendo. In addition, our findings indicated that concerns about social norms, the male's feelings, threats to social acceptance, or fears of loss of affiliation with a popular male could put adolescent girls at risk for unwanted sexual advances.

Developmental factors and target vulnerability interact with lifestyle or environmental factors to increase risk of victimization. Teens seek and receive increasing independence from their

parents during adolescence, thereby expanding their social lives beyond the home and family. Subsequently, they spend more time without parental supervision. They also do not drive, and may be exposed to potential perpetrators as they move between home, school, and other activities on foot or bicycle, or when they accept rides from males who may use the opportunity to aggress. Adolescent activities, be they related to school, work, or socializing increase adolescent girls' exposure to a variety of males, some of whom have the potential to be aggressive. Reduced supervision also provides opportunities to engage in illicit activities, such as drinking, drug use, and sexual behavior that increase adolescent girls' vulnerability. Fears about getting caught may also deter her from resisting or removing herself from the situation. In sum, adolescent females make attractive targets for sexual aggression because they are relatively naive, trusting, and subject to social pressure. They are also relatively physically, legally, and socially powerless. These factors conspire to make adolescence a uniquely risky time for girls.

Prior to launching the qualitative analysis, we conducted a series of simple statistical comparisons to determine whether adolescent victimization experiences differed from those of adults on basic characteristics, such as perpetrators. We hypothesized that adolescent incidents would involve perpetrators who were less well known and with whom the victim had no previous sexual history. We also hypothesized that adolescents would be more likely than adult women to experience sexual aggression outside of the home, following time spent at a party or social gathering. These hypotheses were supported, confirming our assertion that adolescent unwanted sexual experiences differ from those of adult women in some meaningful ways. Although the qualitative analyses did not involve a direct comparison with incidents of adult sexual victimization, it is possible to draw upon previous research done with young adult women to highlight what is unique about the adolescent incidents.

Testa and Livingston (1999) conducted a similar qualitative analysis of adult sexual victimization incidents, using a sample of young adult women (ages 18–35 years). In comparison to Testa and Livingston's findings, the current study reveals both similarities and differences in the situations and circumstances surrounding adolescent sexual victimization. For example, experiencing abuse or aggression from an authority figure was rare in Testa and Livingston's sample, suggesting that this context is more unique to adolescence. This makes sense because adult women are no longer under the authority of their parents and there is typically less of a social power differential between an adult woman and older males or authority figures.

Similar to the adults in Testa and Livingston's study, adolescent females in the current study most often experienced sexual victimization in the contexts of romantic relationships, dates, or after socializing with males at parties or informal social gatherings. However, although these contexts may appear to be similar on the surface, the factors operating within each of these contexts can differ considerably for adolescents and adults. For example, although both adolescent and adult females are most often victimized within the context of a romantic relationship, the nature of the relationship between the perpetrator and victim is very different for adolescents than for adults. Unlike adults, adolescents are not typically in long-term intimate relationships, are more likely to be virgins, are not economically dependent on their partner, and are less well acquainted with their date or partner than adults. Research has shown that perpetrator tactics vary based on the degree of intimacy between the victim and perpetrator, with perpetrators who are less intimate more likely to use force or substances as tactics, while those who are more intimate rely on verbal persuasion (Cleveland, Koss & Lyons, 1999; Livingston et al., 2004). This difference may explain the finding in the current study that the women victimized as adults were more likely than those victimized as adolescents to experience verbal sexual coercion from an intimate partner.

Some of the vulnerability factors identified in this study, such as substance use and social concerns, are not exclusive to adolescence and have been implicated in adult sexual victimization as well (e.g., Abbey, Zawacki, Buck, Clinton, & McAuslan, 2001; Testa & Livingston, 1999). However, they may function in unique ways in adolescent incidents. For example, adolescents are likely to feel conflicted between their desire to be in a relationship or to experiment with sex, and the social sanctions against engaging in premarital sex. Alcohol may be used to reduce this conflict by inhibiting the ability to recognize risk or negative consequences while enhancing the perceived benefits of socializing, flirting, or engaging in consensual sexual activity (Cooper & Orcutt, 1997). Adolescents who believe that alcohol promotes sexual behavior may drink or encourage potential partners to drink to increase the likelihood of intercourse (Cooper, 2002). Lack of experience with drinking also renders adolescent girls vulnerable to sexual aggression as they may drink to excess, are isolated, or unwilling to seek help because they are engaging in illicit activity and do not want to be caught.

In sum, although the risk factors for sexual victimization are not necessarily unique to adolescence, our findings suggest that adolescent risk factors function in distinctive ways that ultimately result in greater target vulnerability among an adolescent population. This, in conjunction with adolescent lifestyle factors, and the cultural perception of youth as being sexually attractive or desirable (i.e., target gratifiability) conspire to make adolescence a uniquely vulnerable time for experiencing sexual victimization.

The results of this study have several implications for prevention. The women in this study indicated that they were naive about sexual expectations or ill-equipped to handle unwanted advances as adolescents. In addition, the prevalence of sexual aggression perpetrated by male peers (e.g., boyfriends, dates, friends), suggests that boys also are poorly socialized about acceptable and appropriate behavior in sexual situations. Together these findings suggest that prevention efforts should focus on helping adolescent girls and boys discuss and negotiate sexual expectations and limits. Improving parent-teen communication about sex and dating may better prepare adolescent females (and males) to navigate through dating and sexual experiences (Jaccard, Dodge, & Dittus, 2002) and also may encourage girls to seek help from their parents when they find themselves in a dangerous situation with a male, even when they have been engaged in activities that are not condoned by their parents. On a social level, we must work to change sexual scripts so that both male and female adolescents understand what constitutes acceptable sexual behavior and recognize that forced sex is unacceptable in any circumstances.

Methodological strengths of the study include the use of a representative community sample and event-based interviews to capture temporal ordering and details of incidents of sexual aggression. We acknowledge, however, that our sample was limited to a single community of women who lived in a household with a phone and were willing to participate in a face-to-face interview at a downtown location. Another limitation is that young adult women were asked to recall an incident that may have occurred years prior to the interview. Retrospective reports are dependent on accurate recall; therefore, it is possible that the interview context may have colored the woman's recollection or interpretation of her experiences in the current study. However, we made every effort to minimize these effects by encouraging the respondent to recall the time period of interest and then eliciting specific cues related to the incident, such as her relationship to the perpetrator. Research on autobiographical memory indicates that central features of salient autobiographical events can be recalled reliably, particularly when memory cues are provided (Maughan & Rutter, 1997).

Future research should focus on adolescent girls' perceptions of risks associated with dating, drinking, and sexual behavior, as well as their proficiency at handling unwanted sexual advances. The women in this study indicated that their recall of the incidents as adults allowed

them to recognize risks that they did not see when they were adolescents. It may be that adolescents are aware of the risks, but underestimate the impact of the consequences. They also may be ill-equipped with risk-avoidant strategies or may feel that the potential benefits associated with the risky behaviors outweigh the potentially negative consequences. An understanding of these factors is critical for the planning and implementation of successful prevention programs to reduce sexual victimization among adolescent girls.

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References

Abbey A. Alcohol-related sexual assault: A common problem among college students. Journal of Studies on Alcohol 2002;14:118–128.

Abbey A, Zawacki T, Buck PO, Clinton AM, McAuslan P. Alcohol and Sexual Assault. Alcohol Research & Health 2001;25:43–51. [PubMed: 11496965]

Baker JG, Rosenthal SL. Psychological aspects of sexually transmitted infection acquisition in adolescent girls: A developmental perspective. Developmental and Behavioral Pediatrics 1998;19:202–208.

Breitenbecher KH, Gidycz CA. An empirical evaluation of a program designed to reduce the risk of multiple sexual victimization. Journal of Interpersonal Violence 1998;13:472–488.

Brooks-Gunn, J.; Paikoff, R. Sexuality and developmental transitions during adolescence. In: Schulenberg, J.; Maggs, JL.; Hurrelmann, K., editors. Health risks and developmental transitions during adolescence. Cambridge, UK: Cambridge University Press; 1997. p. 190-219.

Bureau of Justice Statistics. Sexual assault of young children as reported to law enforcement: Victim, incident, and offender characteristics (Rep. No. NCJ-182990). Rockville, MD: U.S. Department of Justice; 2000.

Byers, ES. How well does the Traditional Sexual Script explain sexual coercion? A review of a program of research. In: Byers, ES.; O'Sullivan, LF., editors. Sexual coercion in dating relationships. New York: The Haworth Press, Inc; 1996. p. 7-25.

Champion HLO, Foley KL, Durant RH, Hensberry R, Altman D, Wolfson M. Adolescent sexual victimization, use of alcohol and other substances, and other health risk behaviors. Journal of Adolescent Health 2004;35:321–328. [PubMed: 15450546]

Cleveland HH, Koss MP, Lyons J. Rape tactics from the survivors' perspective. Journal of Interpersonal Violence 1999;14:532–547.

Cooper ML. Alcohol use and risky sexual behavior among college students and youth: Evaluating the evidence. Journal of Studies on Alcohol 2002;14:101–117.

Cooper ML, Orcutt HK. Drinking and sexual experience on first dates among adolescents. Journal of Abnormal Psychology 1997;106:191–202. [PubMed: 9131839]

Finkelhor D, Asdigian NL. Risk factors for youth victimization: Beyond a Lifestyles/Routine Activities Theory approach. Violence and Victims 1996;11:3–19. [PubMed: 8870212]

George WH, Gournic SJ, McAfee MP. Perceptions of postdrinking female sexuality: Effects of gender, beverage choice, and drink payment. Journal of Applied Social Psychology 1988;18:1295–1317.

Gidycz CA, Hanson K, Layman MJ. A prospective analysis of the relationships among sexual assault experiences: An extension of previous findings. Psychology of Women Quarterly 1995;19:5–29.

Goodchilds, JD.; Zellman, GL. Sexual signaling and sexual aggression in adolescent relationships. In: Malamuth, NM.; Donnerstein, E., editors. Pornography and sexual aggression. Orlando, FL: Academic Press; 1984. p. 233-243.

Graber, JA.; Brooks-Gunn, J.; Galen, BR. Betwixt and between: Sexuality in the context of adolescent transitions. In: Jessor, R., editor. New perspectives on adolescent risk behavior. Cambridge, UK: Cambridge University Press; 1998. p. 270-316.

Greene DM, Navarro RL. Situation-specific assertiveness in the epidemiology of sexual victimization among university women. Psychology of Women Quarterly 1998;22:589–604.

Greenfield TK, Graves KL, Kaskutas LA. Long-term effects of alcohol warning labels: Findings from a comparison of the United States and Ontario, Canada. Psychology & Marketing 1999;16:261–282.

Gylys JA, McNamara JR. A further examination of validity for the Sexual Experiences Survey. Behavioral Sciences and the Law 1996;14:245–260. [PubMed: 10160235]

Hall EK. Adolescent's perceptions of sexual assault. Journal of Sexual Education and Therapy 1987;13:37–42.

Humphrey JA, White JW. Women's vulnerability to sexual assault from adolescence to young adulthood. Journal of Adolescent Health 2000;27:419–424. [PubMed: 11090744]

Jaccard, J.; Dodge, T.; Dittus, P. Parent-adolescent communication about sex and birth control: A conceptual framework. In: Feldman, SS.; Rosenthal, DA., editors. Talking sexuality: Parent-teen communication. San Francisco: Jossey-Bass; 2002. p. 9-41.

Jackson SM, Cram F, Seymour FW. Violence and sexual coercion in high school dating relationships. 2000;15:23–36.

Koss M, Gidycz CA, Wisniewski N. The scope of rape: Incidence and prevalenceof sexual aggression and victimization in a national sample of higher education students. Journal of Consulting and Clinical Psychology 1987;55:162–170. [PubMed: 3494755]

Lauritsen JL, Laub JH, Sampson RJ. Conventional and delinquent activities: Implications for the prevention of violent victimization among adolescents. Violence and Victims 1992;7:91–108. [PubMed: 1419927]

Livingston JA, Buddie A, Testa M, VanZile-Tamsen C. The role of sexual precedence in verbal sexual coercion. Psychology of Women Quarterly 2004;28:287–297.

Maughan B, Rutter M. Retrospective reporting of childhood adversity: Issues in assessing long-term recall. Journal of Personality Disorders 1997;11:19–33. [PubMed: 9113820]

Metzler CW, Noell J, Biglan A, Ary D, Smolkowski K. The social context for risky sexual behavior among adolescents. Journal of Behavioral Medicine 1994;17:419–438. [PubMed: 7966262]

Mezzich AC, Tarter RE, Giancola PR, Lu S, Kirisci L, Parks S. Substance use and risky sexual behavior in female adolescents. Drug and Alcohol Dependence 1997;44:157–166. [PubMed: 9088788]

Miles, MB.; Huberman, AM. Qualitative data analysis. 2. Thousand Oaks: Sage Publications; 1994.

Mohler-Kuo M, Dowdall GW, Koss MP, Wechsler H. Correlates of rape while intoxicated in a national sample of college women. Journal of Studies on Alcohol 2004;65:37, 45. [PubMed: 15000502]

Mustaine EE, Tewksbury R. Sexual assault of college women: A feminist interpretation of a routine activities analysis. Criminal Justice Review 2002;27:89–123.

Murphy ST, Monahan JL, Miller LC. Inference under the influence: The impact of alcohol and inhibition conflict on women's sexual decision making. Personality and Social Psychology Bulletin 1998;24:517–528.

Neuendorf KA. *The content analysis guidebook*. Thousand Oaks: Sage Publications. Paul, E. L., & Hayes, K. A. (2002). The casualties of 'casual' sex: A qualitative exploration of the phenomenology of college students' hookups. Journal of Social and Personal Relationships 2002;19:639–661.

Rodzinka, KJ.; Petretic-Jackson, PA.; Broach, JL. Sexual assault acknowledgment and substance use. Paper presented at the annual meeting of the Association for the Advancement of Behavior Therapy; Toronto, Ontario, Canada. 1999 Nov.

Simon TR, Anderson M, Thompson MP, Crosby AE, Shelley G, Sacks JJ. Attitudinal acceptance of intimate partner violence among U.S. adults. Violence and Victims 2001;16:115–126. [PubMed: 11345473]

Small SA, Kerns D. Unwanted sexual activity among peers during early and middle adolescence: Incidence and risk factors. Journal of Marriage and the Family 1993;55:941–952.

Spradley, JP. Participant observation. Fort Worth: Harcourt Brace Jovanovich; 1980.

Testa M, Livingston JA. Qualitative analysis of women's experiences of sexual aggression: Focus on the role of alcohol. Psychology of Women Quarterly 1999;23:573–589.

Testa M, Livingston JA, Collins RL. The role of women's alcohol consumption in evaluation of vulnerability to sexual aggression. Experimental and Clinical Psychopharmacology 2000;8:185–191. [PubMed: 10843301]

Testa M, Livingston JA, VanZile-Tamsen C. The impact of questionnaire administration mode on response rate and reporting of consensual and nonconsensual sexual behavior. Psychology of Women Quarterly 2005;29:345–352.

Testa M, Livingston JA, VanZile-Tamsen C, Frone MR. The role of women's substance use in vulnerability to forcible and incapacitated rape. Journal of Studies on Alcohol 2003;64:756–764. [PubMed: 14743937]

Testa M, VanZile-Tamsen C, Livingston JA, Koss MP. Assessing women's experiences of sexual aggression using the Sexual Experiences Survey: Evidence for validity and implications for research. Psychology of Women Quarterly 2004;28:256–265.

Tjaden, P.; Thoennes, N. Full report of the prevalence, incidence, and consequences of violence against women: Findings from the National Violence Against Women Survey (Rep. No. NCJ-183781). National Institute of Justice and Centers for Disease Control and Prevention; 2000.

Warshaw, R. I never called it rape. New York: Harper Perennial; 1988.

Welte J, Barnes G, Wieczorek W, Tidwell MCO, Parker J. Alcohol and gambling pathology among U.S. Adults: Prevalence, demographic patterns and comorbidity. Journal of Studies on Alcohol 2001;62:706–712. [PubMed: 11702810]

Zemper, ED. A four-year study of preventative knew braces and MCL injuries in a national sample of college football players. nd. Retrieved January 4, 2007 from http://www.exra.org/KNBR95.htm

Zweig JM, Crockett LJ, Sayer A, Vicary JR. A longitudinal examination of the consequences of sexual victimization. Journal of Sex Research 1999;36:396–409.

Table 1

Types of Aggression in Adolescent vs. Adult Incidents.

	Adolescent (n = 112)			Adult (n = 207)		
	Observed (Expected)	**Standardized Residual**	**%**	**Observed (Expected)**	**Standardized Residual**	**%**
Type of aggression						
Contact	27 (20.4)	1.5	24.1%	31 (37.6)	−1.1	15.0%
Coercion	22 (36.5)	−2.4+	19.6%	82 (67.5)	1.8	39.6%
Att. Rape	14 (11.6)	0.7	12.5%	19 (21.4)	−0.5	09.2%
Rape	49 (43.5)	0.8	43.8%	75 (80.5)	−0.6	36.2%

Note: + indicates observed cell count differs significantly from expected count.

$X^2 = 14.06$, df = 3, $p < .01$

Table 2

Characteristics of Incidents of Sexual Aggression Occurring in Adolescence vs. Adulthood.

	Adolescent n = 112			Adult n = 207				
	Observed (Expected)	**Standardized Residual**	**%**	**Observed (Expected)**	**Standardized Residual**	**%**	**df**	**X^2**
Perpetrator							3	11.55*
Stranger/ someone just met	15 (10.9)	1.2	13.4%	16 (20.1)	−0.9	7.7%		
Friend/ acquaintance	45 (38.6)	1.0	40.2%	65 (71.4)	−0.8	31.4%		
Partner/ex-partner	41 (54.8)	−1.9+	36.6%	115 (101.2)	1.4	55.6%		
Other (e.g. relative, authority figure)	11 (7.7)	1.2	09.8%	11 (14.3)	−0.9	05.3%		
Prior consensual sex. with perp.							1	44.84**
	17 (44.4)	−4.1+	16.0%	110 (82.6)	3.0+	55.8%		
Activities prior to assault							4	22.61**
Bar	4 (14.0)	−2.7+	03.6%	36 (26.0)	2.2+	17.4%		
Date	3 (3.5)	−0.3	02.7%	7 (6.5)	0.2	03.4%		
Party/ Social Gathering	30 (20.0)	2.2+	26.8%	27 (37.0)	−1.6	13.0%		
Home	56 (60.7)	−0.6	50.0%	117 (112.3)	0.4	56.5%		
Location of assault							4	18.57**
Bar	2 (1.1)	0.9	01.8%	1 (1.9)	−0.7	00.5%		
Party/ Social Gathering	20 (10.9)	2.8+	17.9%	11 (20.1)	−2.0+	05.3%		
Home	64 (77.6)	−1.5	57.1%	157 (143.4)	1.1	75.8%		
Victim used alcohol/ drugs prior to assault							1	0.82
	46 (47.1)	−0.2	41.4%	88 (86.9)	0.1	42.9%		
Perpetrator used alcohol/drugs prior to assault							1	1.05
	69 (64.9)	−0.6	65.1%	117 (121.1)	−0.4	59.0%		

Note: + observed cell count differs significantly from expected count.

* $p < .05$,

** $p < .01$

Table 3

Prevalence of Vulnerability Factors by Context of Aggression.

	Intimate Rel.	Party/Social	Abuse/Authority	Alone w/Friend
Vulnerability (% within each Vulnerability)				
Lack of guardianship (n = 77)	30 (39.0%)	37 (48.1%)	4 (05.2%)	6 (07.8%)
Inexperienced (n = 59)	31 (52.5%)	20 (33.9%)	2 (03.4%)	6 (10.2%)
Perpetrator substance (n = 51)	15 (29.4%)	25 (49.0%)	7 (13.7%)	4 (07.8%)
Victim substance (n = 36)	10 (27.8%)	25 (69.4%)	0 (00.0%)	1 (02.8%)
Social concerns (n = 22)	14 (63.6%)	4 (18.2%)	2 (09.1%)	2 (09.1%)
Powerlessness (n = 13)	0 (00.0%)	0 (00.0%)	13 (100%)	0 (00.0%)