

Review of Prevalence and Risk factors related to Sexual Assault:

Prepared for the Harvard Sexual Assault Task Force

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Overview

In this report, we have aimed to review the literature on the prevalence and risk factors related to sexual assault, limited for the most part to college campuses. We examine issues related both to victims of assault and to perpetrators, and identify “proximate” as well as “distal” risk factors. Building on frameworks related to characteristics not only of individuals but also of the environment or social context, we review the evidence linking these conditions to a range of outcomes associated with sexual assault. This report does not review the evidence on programmatic efforts to reduce sexual assault on college campuses.

Our review suggests that there are several major limitations in most of the literature to date. Perhaps most important are the low response rates to surveys (with a few exceptions), which limit our ability to generalize results to a broader population base of students on college campuses. The response rates make it difficult to identify sources of bias, which would allow us to have more confidence that the associations we have found would be the same in a more representative sample of college students. We alert the reader to actual response rates for each of the studies mentioned in this report.

Prevalence of Sexual Assault

The true prevalence of sexual assault is still difficult to state with confidence because of frequently low response rates to surveys, framing of questions using variable definitions, potential self-report bias (which can result in both under- and over-reporting), and varying timeframes used in assessments. Here we describe the prevalence for some of the most commonly studied outcomes that generally fall under the umbrella of sexual assault, and we evaluate the quality of the evidence.

In our review, we identify types of assault, prevalence and estimates by type of assault, and problematic issues with methods and study design. In the next section, using a parallel approach we discuss the same issues related to perpetrators.

I. Types of Sexual Assault

Sexual assault can range from unwanted sexual touching only (usually labeled “battery,” as in the *Campus Sexual Assault* study) to rape. These outcomes can be classified by: relationship between perpetrator and victim (stranger vs acquaintance); whether the act was completed or just attempted; and how the act was achieved (e.g., forcibly, by drugging, verbal coercion...). Rape can be broken down further into the following types (this breakdown and these definitions are taken from the Medical University of South Carolina (MUSC) study, 2007 (Kilpatrick et al.’s *Drug-facilitated, Incapacitated, and Forcible Rape: A National Study*):

Drug and alcohol facilitated rape (DFR): The perpetrator deliberately gives the victim drugs without her permission or tries to get her drunk, and then commits an unwanted sexual act against her involving oral, anal, or vaginal penetration. The victim is passed out or awake but too drunk or high to know what she is doing or to control her behavior.

Incapacitated rape (IR): Unwanted sexual act involving oral, anal or vaginal penetration that occurs after the victim voluntarily uses drugs or alcohol. The victim is passed out or awake but too drunk or high to know what she is doing or to control her behavior.

Forcible rape (FR): Unwanted sexual act involving oral, anal or vaginal penetration. The victim also experiences force, threat of force, or sustains an injury during the assault. In cases where FR includes elements of DFR, we categorized the incident as DFR.

(DFR and IR are, by definition, mutually exclusive.)

II. Prevalence Estimates by Type

Sexual Assault (Overall)

Recent studies' estimates for completed and attempted SA (combined) generally range from 20% to 25%. Most often cited (and the source for the White House's "1 in 5" stat), the 2007 *Campus Sexual Assault (CSA)* study (Krebs et al.) revealed that 19.7% of its 5,446 female survey respondents reported completed or attempted sexual assault since the start of their freshman year. When restricted to seniors only (much smaller sample size), the figure was slightly higher: 19.8%. Nearly 14% of respondents reported a completed sexual assault since starting college; 12.6% reported attempted assault (and 7.2% reported both). The majority of these SA cases met legal definition of rape in most states. Problems with CSA numbers include: generalizability (based on samples from 2 large public universities, 1 in South, 1 in Midwest); and relatively low response rate (42%). The initial focus of the CSA study was not to attain a national estimate, but rather to assess the prevalence of drug-facilitated SA. However, an older study with nearly twice the response rate—the U.S. Department of Justice's Sexual Victimization of College Women study (Fisher et al., published in 2000)—had similar findings: One in 36 (1.7%) women reported a completed rape since the start of the school year (survey administered between March and May of 1996), so that "over the course of a college career—which now lasts an average of 5 years — the percentage of completed or attempted rape victimization among women in higher educational institutions might climb to between one-fifth and one-quarter." In another study by Fisher et al. (1998) of a nationally representative sample of undergraduate and graduate students enrolled full- or part-time (n=3,472), the investigators found a reporting rate of 16.4 per 1,000 for completed SA, and 5.2 per 1,000 for attempted SA. Among a national random sample (n=1,835) of Canadian college and university students (DeKeseredy and Kelly, 1993), prevalence of reported sexual abuse in the last year was 27.4%, while sexual abuse since leaving high school was even higher: 44.5%. In a study focusing on sexual assault at historically black colleges, Krebs et al. (2011) found that 9.7% of undergrad women surveyed in a web-based questionnaire reported experiencing completed sexual assault since entering college, "...considerably lower than the comparable rate obtained from undergraduate women at non- HBCUs (13.7%). This difference," the authors note, "seems to be associated with differences in alcohol-use frequency."

Sexual Battery

While rape has been the main focus of most research, the CSA did also investigate unwanted touching: 1.4% of women reported physically forced sexual battery, 2.6% incapacitated sexual battery. In the

slightly older (Fisher et al., 2000) Sexual Victimization of College Women study (with a very high response rate of 85%) of 4,446 college women surveyed, nearly 9% reported having experienced unwanted sexual contact within the past year.

Rape (non-specific)

Probably the strongest recent overall national (not limited to university settings) data on rape come from the Centers for Disease Control's National Intimate Partner and Sexual Violence Survey ("NISVS," Black et al., 2011), which reported that almost 1 in 5 women (18%) are raped during their lifetime (and 44.6% are subjected to sexual violence other than rape). The same survey found evidence that 1 in 7 men experience attempted or completed rape during their lifetime. As stated above, close to 14% of female participants in the CSA reported completed SA since starting college (the majority of these were rapes). In Kilpatrick 2007 Dept. of Justice/MUSC report, 5.14% of undergraduate female respondents reported past year rape. The U.S. Department of Justice's NCWSV, published in 2000, found that 2.8 percent of college females had experienced either a completed (1.7 percent) or an attempted (1.1 percent) rape within a 7-month timeframe, the equivalent of a rate of about 27.7 rapes per 1,000 female students. Extrapolating from these numbers over this time period, the authors point out in the study, the figure would grow to 5% over a 1-year period. And multiplying this number over a 4 or 5-year period brings the estimate up to 20-25%. Again, this last study's very high response rate (of roughly 85%) lends it a certain power. Nine in 10 victims (of both completed and attempted rape) reported knowing their offenders. Nearly 13% of completed rapes, 35% of attempted rapes, and 22.9% of threatened rapes took place on a date, according to respondents' answers. A comparison component of NCWSV using different methodology mirroring that of the federally funded National Crime Victimization Survey (NCVS) (sample size of 4,432 college women conducted during 1996-97 academic year; very high response rate of 91.6%), with less emphasis on behaviorally specific, graphic questions, more on labeling, resulted in far lower percentages of reported rape within its sample for that same year. Proportions were roughly 11 times smaller for completed rape: 0.16%, and six times smaller for attempted rape (0.18%). In a cross-sectional study of women at a large urban commuter university, Abbey et al. (1996) found that 8% of 1,160 women surveyed said that they had experienced an attempted rape; 23% reported having been raped. Copenhaver and Grauerholz (1991) limited their examination of sexual assault to 140 randomly selected sorority members at a large public Midwestern university, and found that 24% reported attempted rape, and 17% completed rape.

Drug and alcohol facilitated rape (DFR)

This particular breakdown has received less attention in the past, but CSA data suggest that DFR has a much lower prevalence (just 0.6% reported certain DFR, and 1.7% suspected) than does incapacitated rape via voluntary alcohol or drug use. In the MUSC/Kilpatrick 2007, 3.58% reported for previous year; DFR/IR was nine times more prevalent among college women than among general population women. In their survey of the US general population, Black et al. (NISVS, 2011) found that 8% of women reported experiencing completed alcohol or drug-facilitated penetration over their lifetimes; 0.6% of men reported the same.

Incapacitated rape (IR)

In the CSA, 11% of women reported being sexually assaulted when they were incapacitated after voluntarily consuming drugs and/or alcohol (i.e., they were victims of alcohol and/or other drug- [AOD] enabled sexual assault); 8.5% reported incapacitated rape specifically. It is important to note that these numbers—for incapacitated rape, meaning that voluntary intoxication had occurred—are quite a bit higher than those for both forcible rape and drug and alcohol-facilitated rape (in which intoxication is not voluntary). An even more recent study by Carey et al. (2015) followed 483 female first-years, administering surveys to them at four time points: (1) arrival on campus; (2) at the end of the fall semester; (3) at the end of the spring semester; (4) at the end of the summer following their freshman year. Reported rates of both attempted and completed incapacitated rape were higher in the fall. For attempted IR: for academic year: 10.1%; precollege: 16.2%; fall semester: 7.7%; spring semester: 4.8%; summer: 4.4%. For completed IR: for academic year: 7.1%; precollege: 9.0%; fall semester: 4.5%; spring semester: 4.0%; summer: 4.7%.

Forcible rape (FR)

The CSA found that 3.4% of its sample reported experiencing physically forced rape. In MUSC/Kilpatrick et al.'s (2007) sample population, 6.4% reported experiencing forcible rape within the previous year (compared with a much higher 14.6% found in their general population sample). Carey et al. (2015) found that, among 483 women surveyed, attempted FR was experienced by 6% during the academic year; precollege: 13.3%; fall semester: 4.3%; spring semester: 3.3%; summer: 2.8%. Prevalence of completed FR among this sample: for academic year: 5.2%; precollege: 6%; fall semester: 3.4%; spring semester: 3.6%; summer: 3.3%.

III. Problematic Issues in Prevalence Estimates

Self-Report vs Admin Records

A major limitation and potential problem with all of the above statistics that we should acknowledge and keep in mind: All of these numbers are based on survey and self-report; they are not based on crime statistics. As mentioned above, under-reporting is rampant; even when actions meet legal definitions of SA, victims themselves do not always perceive or label the encounter as SA (Orchowski, Untied, & Gidycz, 2013). Evidence suggests that even when women do believe they have been sexually assaulted, they often do not report the experience to law enforcement (Kilpatrick, Edmonds, & Seymour, 1992). The FBI's statistics on crime would indicate a much lower prevalence than the numbers cited above, but their numbers only capture SA that is actually reported to law enforcement officials (Koss, 1993).

Nonresponse Rate

Another, possibly more serious, issue with the numbers that we currently have is that they are based not just on self-report, but on self-report among a small proportion of the people targeted by survey

researchers. Just as a recent example in the news, the response rate for the Oct. 2014 survey by MIT was only 35%, making generalizability of results very risky. Response rates of the major studies mentioned here are somewhat better, but even the much-cited *Campus Sexual Assault* study had a response rate of just 42%. When less than 50% of the population of interest actually provides answers to the questions asked, we can not say for sure whether the data we get from this responsive sample reflect the experience of the whole population. Those choosing to respond to a survey could be less affected by sexual assault than those choosing not to respond (and might consequently, for example, find replying to such a survey less painful), resulting in underestimates of prevalence. Or the opposite scenario could be true: Those responding might include more victims of sexual assault, in which case prevalence numbers would be overestimated. The researchers involved in the CSA study did an analysis of nonresponse bias, but they were only comparing the responding vs overall population with respect to demographic variables (age, race, socioeconomic, etc.), not with respect to sexual assault victimization (though it is worth noting that their nonresponse bias analysis showed no real evidence of a differential response with respect to those variables used).

IV. Recommendations for Surveys Getting at Prevalence

On how we ask the questions: Strong evidence suggests that the most effective way to get at accurate prevalence estimates is to ask questions that are behaviorally specific, as opposed to questions using labels such as “sexual assault” or “rape.” Across studies, there is a consistent disconnect between the percentage of students reporting acts that qualify as assault (including, and perhaps especially, rape) as defined by researchers and the percentage of students considering themselves technically assaulted (or raped). Behaviorally specific questions using graphic descriptions of acts may help to prompt victims to report what they might otherwise not reveal. Secondly, computer-assisted surveys are not only easier to administer, but produce generally more reliable results. Many studies have shown that self-report bias (e.g., desirability bias) is far less likely when questions about personal or possibly illegal acts are administered via computer rather than in person or by written questionnaire, when (Newman et al., 2002).

How to increase response rate: College campus sexual assault surveys seem to have particular problems with low response rates. Possible financial or other incentives (tailored to the particular population of interest) have been shown to increase response rates. While emailed, computer-based surveys are easily administered, it is necessary to find ways to ensure that emails are not lost in students’ inboxes. We might look to other efforts to increase survey participation. For example, one way that Harvard School of Public Health and Harvard College achieve high student completion of course evaluations is by linking their submission to receipt of grades.

Focus on getting answers from not only victims, but also perpetrators: Experts have more recently stressed the importance of assessing prevalence of sexual assault from not just the victims’ answers, but also from the perpetrators.

Expand beyond undergrad: The University Health Services Health and Wellness survey (administered every 2 years) has only collected SA data from undergrads. This should be extended to the graduate and professional schools.

V. Summary

In summary, while the 1 in 5 number is often used, the specific source for this number (i.e., the CSA) may be slightly unreliable and not representative of the full U.S. college population. Surveys vary by questions asked and population targeted, making it often hard to compare results of multiple studies. Even establishing a nationwide prevalence is difficult; getting at the numbers for college population is just as difficult, if not more so. But there is consistency across studies using survey data to measure SA on campus, even when response rates range from 40-85%.

Victims: Proximate Risk Factors

Multiple well-designed studies provide insight into factors associated with increased risk of campus sexual assault. These factors include specific demographic characteristics, such as age, gender, sexual orientation, and race/ethnicity, as well as a reported history of previous sexual assault.

Age: With respect to age, a 1987 study by Koss et al. found that 15.4% of a nationally representative sample of female college students reported forcible rape or rape after alcohol or drug use since age 14 (Koss, Gidycz, & Wisniewski, 1987).

Separate studies done by Kilpatrick and by Tjaden & Thoennes suggest that over half of all rape victims experience their first rape before age 18 (Kilpatrick et al., 1992; Tjaden & Thoennes, 2000).

Year in School/Timing: Among the college population in particular, recent attention has been paid to a so-called “red zone,” or time during which students are at perceived higher risk of experiencing sexual assault. While the notion of this increased risk was first based heavily on anecdote, more recent work has provided stronger empirical evidence showing that the start of college is a riskier time for female students (Flack et al., 2008). Studies using relatively small convenience samples offer somewhat conflicting evidence of whether this more dangerous timeframe is limited to just freshman year, or whether it extends to sophomore year as well. Cranney (2014) used a large sample (~16,000) taken from 22 schools (part of the Online College Social Life Survey) to investigate whether risk was higher during these two years for various types of attempted and completed sexual assault, and found that the elevated risk did not continue into sophomore year (with the exception of attempted rape while at a party, for which sophomore status was significant in models).

The CSA reveals that, with respect to seasonal variation, the majority of campus sexual assaults are perpetrated in the fall (September, October, and November), and most occur at night (from midnight to 6am). Sexual assaults involving an incapacitated victim are especially likely to take place during these hours (89% of incapacitated SAs).

Gender: Research consistently shows much higher risk for sexual assault for girls and women compared to boys and men (e.g., Elwood et al. 2011; Finkelhor et al, 2005). Research focused solely on males remains sparse. Unlike much earlier work, the CSA study did include a sample of 1,375 men, 6.1% (84 men) of whom reported attempted or completed sexual assault since the start of college and 3.7% a completed sexual assault.

Sexual Orientation: In their analysis of data on women in the Campus Sexual Assault study, Martin et al. (2011) found that prevalence of SA experienced while at university varied by sexual orientation, with that among bisexuals and lesbians consistently being higher than that among heterosexuals (any SA experienced during time at university: 24.0% of bisexuals; 17.9% of lesbians; 13.3% of heterosexuals; physically forced SA: 13.5% of bisexuals, 7.1% of lesbians, and 4.4% of heterosexuals; incapacitated SA: 16.6% of bisexuals, 17.9% of lesbians, and 10.9% of heterosexuals).

Race/Ethnicity: The Campus Sexual Assault study provides one breakdown of sexual assault risk by race and by type of assault: African American women were found to be at higher risk of physically forced sexual assault. Also at higher risk of not only physically forced but also incapacitated SA during college years were Asians, Nation Hawaiians/Other Pacific Islanders, American Indians/Alaska Natives, and students of multiple races. These statistics reflect estimates gathered in the broader (non-college) population: Women of mixed races are seen to have highest rates of reported lifetime sexual assault, as evidenced by the 2010 National Intimate Partner and Sexual Violence Survey, which highlighted that over a third of women of multiple races reported attempted or completed rape in their lifetime.

While minority status is associated with greater risk for certain types of assault, surveys suggest white students are more often the victims of incapacitated sexual assault (80% of alcohol and other drug-enabled SA victims in the CSA).

While the authors of the CSA acknowledge the differences by race of overall rates of SA (with higher rates among whites), they stress that this can often be driven by the already noted higher rates of incapacitated sexual assault among white women. And this, in turn, may stem from the (reported) higher levels of alcohol consumption among whites compared to non-whites. From this, Krebs and colleagues (authors of the CSA study) draw the conclusion that alcohol is the driving force, and most important factor, in different rates of SA.

Findings from the National Violence Against Women Survey suggest that American Indian/Alaskan Natives had higher risk of SA, and that Asian/Pacific Islanders less frequently reported suffering a rape (Tjaden & Thoennes, 1998).

Regional variation: A December 2014 Department of Justice report (Sinozich & Langton, 2014) suggests that, from 1995-2013, “female students in the Midwest (8.3 per 1,000) had a higher rate of rape and sexual assault, compared to students in the Northeast (5.2 per 1,000) and South (4.7 per 1,000). Similarly, among nonstudents, females in the Midwest had a higher rate of victimization than in any other region of the country. In rural areas, the rate of rape and sexual assault was 1.9 times higher for college-age nonstudents (8.8 per 1,000) than students (4.6 per 1,000). Nonstudents in urban areas (8.7 per 1,000) also had a slightly higher rate of victimization (1.3 times), compared to students in urban areas (6.6 per 1,000). In suburban areas, there was no significant difference in the rate of rape and sexual assault between female students (6.0 per 1,000) and nonstudents (6.3 per 1,000). Among female students, there was no significant variation in rape and sexual assault rates across urban, suburban, and rural areas. Among nonstudents, females living in suburban areas had the lowest victimization rates.”

Victims: Proximate Behavior

Alcohol: Studies have shown that about half of all college rapes involve alcohol use either knowingly or unknowingly consumed by perpetrator or victim (Abbey, et al, 2001; Koss, et al., 1987), with the percentage ranging from roughly 30% to 75% (Abbey, 2008; Seto & Barbaree, 1995; Testa 2002).

More recent research continues to emphasize the central role of alcohol consumption in sexual assault, with even higher estimates: Surveys of recent female rape victims on college campuses show that as many as 3 in 4 women were too intoxicated to consent at the time of their assaults (Mohler-Kuo, et al., 2004). Alcohol is consistently reported as the most common substance involved in incapacitation (Testa et al., 2003, Mohler-Kuo et al., 2004). Findings in the CSA mirror these data, with most reported SAs involving incapacitation by substance use, with alcohol dominating.

Alcohol has been labelled “the third rail of discourse” when it comes to sexual violence, in the words of researcher Christopher Krebs. “It’s something no one wants to go near.” (The Chronicle of Higher Education, In Context, fall 2014. Found here:

http://images.results.chronicle.com/Web/TheChronicleofHigherEducation/%7B0150e7dc-5047-44aa-b5ed-57ed83fba976%7D_AD-CHE-SexAssault.pdf) While evidence of alcohol’s presence and role is undeniable, there is a fine line between advocating personal individual responsibility and potentially blaming the victim.

Location/party attendance: The authors of the CSA found that most of both physically forced and incapacitated sexual assaults do not occur on-campus. More than half (58%) of incapacitated assault victims reported being at a party at the time of their assault, as were nearly 30% of physically forced assault victims.

Victims: Distal Risk Factors

Previous Sexual Assault: Studies in the US have revealed that one particularly strong predictor of sexual assault in college years is previous (pre-college) reported sexual assault. The CSA provides more detailed evidence that this predictive power is specific to type of assault. For example, “women who had experienced forced sexual assault before entering college had almost 7 times the odds of experiencing forced sexual assault since entering college compared to other women.” Likewise, women reporting one or more incident of incapacitated sexual assault before entering college had over three times the odds of suffering incapacitated sexual assault during their college years. In contrast, previous experiences of incapacitated SA failed to predict forced SA in college, and previous experiences of forced SA failed to predict incapacitated SA in college.

In their analysis of two waves of the nationally representative National Survey of Adolescents (n=872), Elwood and colleagues (2011) found that prior sexual assault, PTSD, family substance abuse issues, and race were the strongest significant predictors of new rape between the two waves of the survey.

Methodological Issues Overall (in Victim-related Stats)

As with estimates for prevalence, the overwhelming (usually necessary) reliance on self-report for data on victim-related risk factors remains a significant limitation. The potential for non-response bias also remains a concern.

Perpetrators: Prevalence and Risk Factors

It is interesting (though perhaps not surprising) to note that women's self-reported rates of sustained SA do not match men's self-reported rates of perpetration of SA—the former are consistently higher than the latter (Kolivas & Gross, 2007). In their longitudinal study of male college students' perpetration of sexual assault, Abbey and McAuslan (2004) found that, at baseline, 17% of participants reported ever having engaged in forced sexual contact; 9.6% reported using verbal coercion for sexual intercourse; and 8.6% reported having attempted or completed rape. While the response was respectable (57.4%), the sample size was quite small (197 men), and was composed only of men at a large urban commuter university, a population unlikely to represent all male college students. While not limited to a college population, a study of sexual aggression among "heterosexual young male adults from a rural Georgia county who previously had participated in a countywide longitudinal study of psychological adjustment in schoolchildren" in their 5th grade (mean age: 19.9) had the following results: 22% said they had engaged in any form of sexual coercion; 6.4% reported engaging in acts meeting the legal definition of rape (Calhoun 1997). Of a convenience sample of undergraduate men at a medium-sized Midwestern university, 17.7% reported engaging in any form of sexual aggression since age 14 (Gidycz, 2007).

Familiarity: The most recent report (Dec. 2014) by the DOJ's Bureau of Justice Statistics' (BJS) National Crime Victimization Survey (NCVS) reveals that, from 1995-2013, 80% of perpetrators were known by their victims.

Serial Rapists or Social Context? Research on sexual assault perpetrators continues to ask the question, "Are we dealing with just a few serial rapists, or is more a matter of context, alcohol, and miscommunication?" Psychologist's David Lisak's 2002 survey of UMass Boston men (n=1882) has reached and left a lasting impression on a broad audience. His study found that approximately 6% of respondents admitted conduct that would qualify as rape. What was most striking, however, was that of those 120 men reporting such activity, 76 (or 63% of them) said they had raped more than once. On average, in fact, each of those men had committed six acts of rape. While this study has been widely cited, it should be noted that Lisak's sample was on average older than the normal college student. In addition, the unusual commuting nature of the campus means that the men in his study were unlikely to be representative of most college campuses. Additional studies of repeat offenders have been very limited, and have focused on small sample sizes of men who are convicted sex offenders (Zinzow 2014).

Zinzow and Thompson's longitudinal study (2014) of nearly 800 college men attempted to identify factors predicting repeated sexual assault in a more general college population. Of the 238 men in their sample who reported committing acts of sexual coercion or assault during the study period, nearly 70% were repeat offenders. A significant limitation was lack of generalizability: the sample was racially and ethnically homogenous, and not representative of the national college student population. However, it

is still informative to learn that several predictors of both one-time and repeat sexual violence were identified: “rape supportive beliefs, peer norms, and risky behavior (e.g., multiple sexual partners)... risky alcohol and drug use, was predictive of both single and repeat offending. These relationships were particularly strong for the repeat offender group.”

Social Context and Social Norms

As noted above, (Abbey, 2008), research on convicted rapists has revealed that half of perpetrators were consuming alcohol at the time of their attack. Alcohol consumption among fraternity members and athletes has been shown to be riskier (Capone et al., 2007; Knight et al., 2002). Membership in Greek organizations as well as in athletics has also been found to be correlated with more aggressive sexual attitudes and behavior (Armstrong, Hamilton, & Sweeney, 2006; Boswell & Spade, 1996; Humphrey & Kahn, 2000)

Environmental Context: Social & Cultural Norms

While the collection and analysis of data on individual-level characteristics—both of sexual assault perpetrators and of victims—is critical for our understanding and, ultimately, our attempts at prevention, equally urgent is an examination of the environment at the higher social and societal level. For it is within a cultural and social context that these episodes of sexual violence occur, and evidence suggests that a group dynamic is at play in many cases, a dynamic whose presence might be missed if one focuses too narrowly on the details of the individual. In order to see these social determinants of the perpetration of sexual violence, one must take a broader view of population-level characteristics.

Social norms research has revealed a pervasive misperception among college men regarding the beliefs and behavior of their peers that often plays a role in inhibiting their own individual inclination, for example, to act to prevent sexual assault: “... college men tend to overestimate their peers’ adherence to myths that justify rape, underestimate their peers concern about risky sexual situations faced by women, and underestimate their peer’s willingness to intervene (Berkowitz, 2003A, 2004A). These misperceptions discourage men who are concerned about sexual assault from acting on their concerns. This consequence of pluralistic ignorance – changing one’s behavior to approximate the misperceived norm - has been documented for drinking, smoking, illegal drug use, gambling, eating issues, attitudes towards violence, and a variety of other health behaviors and attitudes, including expressions of prejudice (Berkowitz, 2004A, 2005; Perkins, 2002, 2003A). With respect to alcohol, these misperceptions are associated with increased use and predict initiation and/or increases in use over time.” (Berkowitz, 2003) An evidence-based approach from a social norms theory perspective suggests that by addressing these misperceptions, norms can successfully be shifted, and bystander interventions can prove particularly effective. (White et al., 2003)

While the work of Dara Kay Cohen has focused on sexual violence during wartime, her observation and study of what she terms “combatant socialization” can be extended to peacetime rape. As Cohen writes, “Scholars have also noted that gang rape can create bonds between people in social groups and may

provide psychological benefits to the perpetrators by improving group morale through inducing feelings of power and victory.” (Cohen 2013 cites Benard 1994; Card 1996; Sanday 2007)

It is this bonding that Peggy Reeves Sanday highlights in her text, *Fraternity Gang Rape: Sex, Brotherhood, and Privilege on Campus*. She exposes and analyzes the often appalling prevailing attitudes and practices of university fraternities, through interviews with both fraternity brothers and sexual assault victims. At the heart of her examination is the university at which she herself teaches (U. Penn), and the much-publicized rape (as the local DA concluded it was) of an incapacitated woman by 5 or 6 men at an unnamed fraternity on campus. But the “fraternity” appearing in her book’s title, she stresses, is not limited merely to the frat houses lining the streets of campuses like her own U. Penn. She persuasively argues that other all-male organizations (e.g., athletic teams) also often employ hazing and initiation rituals that establish and perpetuate misogynistic attitudes and environments—indeed, a pervasive (and institutionalized) culture—in which males behave in ways they would not on their own in order to maintain male dominance. As veteran sexual assault research Mary Koss notes, the updated second edition “shed[s] light on how this pernicious problem continues today, insightfully illuminating the complicity of society in the failure of accountability for acquaintance rape.” This complicity stems from a lack of collective responsibility and a continued acceptance of the notion that “boys will be boys.” This notion that male sexuality is biologically determined and “explosive”—something that can not be tamed and therefore must be excused—might be unquestioningly accepted and defended by many in the United States, but Sanday juxtaposes anthropological evidence suggesting that not all societies share either the behaviors or beliefs related to such aggression.

In her interviews with those living in and frequenting fraternities, Sanday reveals a pervasive notion among students that a “no” does not necessarily mean “no,” that frat brothers openly use alcohol in “working a ‘yes’ out,” and that a woman who becomes inebriated can only blame herself for any undesirable consequences. Such cognitive distortions may be adopted to reframe and ultimately justify aggressive behavior. Coercion (through alcohol or through various forms of peer pressure) is interpreted as seduction, and a constant blurring of consensual versus nonconsensual sex. In addition, an ignorance of the actual legal definition of rape runs rampant.

The evidence Sanday presents of explicitly sexist, racist, and homophobic attitudes and rituals suggests that these tendencies might currently be institutionalized by universities and by society in general. Such a larger-scale systematic explanation for a so-called “rape culture” indicates that tools commonly used in public health could be particularly useful in combatting this issue. For example, the words of both female and male students interviewees express a “casualization” (as one student labels it) of language as well as of sex. Sanday suggests in her conclusion, that affirmative consent policies would improve this though there is little empirical evidence that this is so. Language may be distorted in both causal and more formal assent approaches.

From a population health perspective, along with an examination of individual-level factors, an assessment of underlying cultural and social norms and attitudes is necessary for targeted social change. It could also be argued—from a public health perspective—that implementing a very clear, unambiguous, explicit “yes means yes” affirmative consent policy could be one intervention tool that

would minimize acquaintance and gang rape, both within high-risk groups but also across the broader population.

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