

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Sociology Department, Faculty Publications

Sociology, Department of

2022

The Relationship Between College Student Characteristics and Reporting Sexual Assault Experiences on Two Different Scales

Kimberly Tyler

Colleen M. Ray

Follow this and additional works at: <https://digitalcommons.unl.edu/sociologyfacpub>



Part of the [Family, Life Course, and Society Commons](#), and the [Social Psychology and Interaction Commons](#)

This Article is brought to you for free and open access by the Sociology, Department of at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Sociology Department, Faculty Publications by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

The Relationship Between College Student Characteristics and Reporting Sexual Assault Experiences on Two Different Scales

Kimberly A. Tyler, PhD, and Colleen M. Ray, PhD

Department of Sociology, University of Nebraska-Lincoln

Abstract

Though high rates of sexual assault are found on college campuses, prevalence rates between studies can vary considerably by gender, sexual orientation, and other student characteristics. Thus, it is unknown whether these are “true” differences for such characteristics or if there are methodological differences to consider. As such the current study examined whether student characteristics including gender, race, sexual orientation, sexual attraction, Greek affiliation, and relationship status are uniquely associated with reporting on two different sexual assault scales. Data were gathered from 783 college students in 2019–2020 at a large Midwestern university. Results revealed that the two different scales consistently provided different prevalence rates of sexual assault. Moreover, for each type of sexual assault (e.g., coercion, incapacitation, and physical force), there were also significant differences with students consistently reporting higher prevalence rates on one scale over the other. Finally, significant differences were found in prevalence rates across gender, sexual attraction, and Greek affiliated status.

Keywords: revised sexual experiences scale, sexual coercion scale, sexual assault, college students, Greek affiliation, gender

Published in *Violence and Victims* 37:4 (2022), pp. 532–546

doi:10.1891/VV-2021-0013

Copyright © 2022 Springer Publishing Company. Used by permission.

Sexual victimization (used interchangeably with sexual assault) is widespread on college campuses (Griner et al., 2020). Sexual assault, as broadly defined in the literature, may include attempted or completed rape, physically forced unwanted contact, sexual coercion, and/or incapacitated rape via alcohol or drugs (Fedina et al., 2018). College sexual assault represents a serious public health issue that can result in poor mental health and numerous other negative outcomes (Carey et al., 2018; Chang et al., 2015; Dworkin, 2018). Though some studies find that 25%–32% of college women (Brahms et al., 2011; Fedina et al., 2018) and 12%–14% of college men (Aosved et al., 2011; Conley et al., 2017; Mellins et al., 2017) have experienced some form of sexual assault, a recent literature review highlights the variation in prevalence rates of sexual assault found in different studies (Fedina et al., 2018). Moreover, many studies use different scales, modified scales, or a single item to assess sexual assault, which may have repercussions. For example, some research finds that sexual assault varies by student characteristics including gender (Coulter et al., 2017; Fedina et al., 2018), sexual orientation and sexual attraction (Edwards et al., 2015; Ray et al., 2021), relationship status (Banyard et al., 2007; Klipfel et al., 2014), race (Coulter et al., 2017; Porter & Williams, 2011), and Greek affiliation (Kingree & Thompson, 2020; Minow & Einolf, 2009; Tyler et al., 2017), which may be linked to the types of measures researchers use. To develop effective sexual assault prevention programs, we need to better understand not only which groups face disproportionate risk (Coulter et al., 2017) but we also need to know if college student characteristics influence their reporting of sexual assault based on instrument type. The Revised Sexual Experiences Scale (R-SES; Testa et al., 2004) and the Sexual Coercion Scale (SCS; Christopher, 1988; Tyler et al., 1998) are two instruments used in the literature to assess sexual assault among college students (Duval et al., 2020). These two scales were chosen for comparison in the current study because of their frequency of use and because both instruments include behaviorally specific measures. By comparing these two scales, our goal is to understand how definitions and measure choices matter, and to what extent demographic characteristics are associated with these measure choices, which may be especially important for specific populations of interest. As such, the purpose of the current

study is to (1) examine whether college women and men report experiences of different sexual assault *types* (i.e., sexual coercion, incapacitation by alcohol or drugs, physical force) using three sexual assault *tactics* (fondle, oral, intercourse) at similar rates on both the R-SES (Testa et al., 2004) and the SCS (Christopher, 1988; Tyler et al., 1998) and (2) whether respondent characteristics are differentially associated with reporting sexual assault experiences by scale.

Literature review

Sexual Assault Types

Among college students, sexual assault is often divided into three types: Coercion (i.e., using pressure, threats or guilt; Fedina et al., 2018), followed by incapacitation by alcohol and/or drugs (Sutton et al., 2019), and the use of physical force (Fedina et al., 2018). In a recent review of the literature, Fedina et al. (2018) found that all 34 studies they examined used behavioral measures of sexual assault (i.e., behaviors that an individual may use to obtain sex), while just under half of these 34 studies used some version of the Sexual Experiences Scale. Overall, their results showed that even when using the same or similar scale, prevalence rates of sexual assault varied considerably between studies (Fedina et al., 2018). The following section reviews respondent characteristics for sexual assault based on different scales.

Correlates of Sexual Assault

Though respondent characteristics such as gender, sexual orientation, race/ethnicity, Greek member affiliation, and relationship status are important for understanding who is most at risk for sexual assault, many studies do not include such characteristics, or the findings tend to be mixed in terms of the association with sexual assault. One possible explanation for these discrepancies may be attributed to the different types of sexual assault scales that are used. The following section reviews the literature regarding respondent characteristics and their association with sexual assault.

Gender

Respondent gender is one of the characteristics that has been examined most frequently in the literature and studies overwhelmingly find that females experience higher rates of sexual assault compared to men regardless of scale/items used. Using a two-item scale which included sexual contact and sexual intercourse, one study found that female college students were over two times more likely to have reported sexual victimization in the past 6 months compared to male college students (Edwards et al., 2015). Another study measuring unwanted sexual contact (e.g., kissing, fondling, or touching and unwanted sexual intercourse) found that women were at higher risk for this form of sexual assault compared to men (Banyard et al., 2007). Similarly, a study measuring sexual assault through attempted and/or completed sexual penetration among college students found that cisgender women had higher odds of experiencing sexual assault compared to cisgender men (Coulter et al., 2017). Finally, a study using six items which focused on how often someone forced, threatened, or engaged in sexual contact (including attempted or completed kissing, fondling, or touching) and sexual intercourse (including any form of penetration such as vaginal, oral, or anal) found that women were more likely to be sexually assaulted compared to men which was due to women's greater risk for forced sexual contact (Hines et al., 2012).

Studies using the Sexual Coercion Scale (SCS) also reveal a high prevalence rate of sexual assault. In their study of over 700 college students, Sutton and Simons found that 50% of women experienced at least one form of sexual victimization (Sutton & Simons, 2015). For incapacitated sexual assault and use of physical force, another study using the SCS found that 24% of college women reported engaging in sexual intercourse, despite their wish not to participate, when a date got them drunk or stoned. Moreover, 11% of women reported being physically held down by a date when intercourse occurred, despite their wish not to participate (Tyler et al., 1998). Finally, Eisenberg et al. (2021) found that female college students reported higher rates of both forced sexual touching and forced intercourse compared to their male counterparts using similar items to the SCS (Eisenberg et al., 2021). Overall, findings on gender reveal that women experience higher rates of sexual assault compared to men regardless of scale/items used.

Sexual Orientation

More recent research has also examined sexual orientation and its link with sexual victimization. A study of approximately 1,400 college students using the R-SES found that female students who identified as sexual minority had the highest rates of coercive sexual assault, while heterosexual identified males had the lowest means for both physically forced and incapacitated sexual assault (Ray et al., 2021). Another study used two items to assess sexual assault and found that sexual minority college students were over two times more likely to have reported sexual victimization in the past 6 months compared to heterosexual college students (Edwards et al., 2015). A large-scale study using the College Student Health Survey assessed sexual assault using two items which focused on attempted and completed sexual touching (i.e., sexual touching of breasts, buttocks, or genitals) and/or sexual intercourse (i.e., oral, vaginal, or anal penetration) in the past 12 months. Though these different tactics were combined into a single item, these are the same items included in the SCS (e.g., oral sex, breast touching, genital touching). Results of this study found that sexual minority students reported higher rates for both forced sexual touching and forced intercourse compared to their heterosexual counterparts. Moreover, these same authors found that sexual minority men experienced higher rates of sexual assault compared with heterosexual men (Eisenberg et al., 2021). Finally, Hines et al. (2012) found that among men, being gay or bisexual was a risk factor for sexual assault whereas among women, being lesbian or bisexual was not. Overall studies find that college students who identify as sexual minority experience greater sexual assault compared to heterosexual identifying students.

Race/Ethnicity

Studies that have examined race/ethnic differences in sexual assault have found mixed results. One study using the SES with male college students found that race was not associated with having experienced sexual assault (Aosved et al., 2011). Similarly, Hines et al. (2012) did not find any differences in sexual assault via race. In contrast, another study using the SES, which included both males and females, found

that racial and ethnic minority college students were more likely to have reported experiencing rape compared to white college students (Porter & Williams, 2011). Similarly, another study using a short form of the SES found that 64% of students identifying as a racial/ethnic minority reported experiencing sexual victimization compared to 47% of white students (Howard et al., 2019). Among a community sample of men, Tewksbury and Mustaine (2001) found that white adult men were less likely to have experienced sexual victimization compared to ethnic minority men using some sexual assault items akin to the SCS. Moreover, a study using three behavioral measures of sexual assault including unwanted sexual touching, attempted and/or completed penetration found that Black college students had higher odds of sexual assault compared to white students (Coulter et al., 2017). Finally, a study of undergraduate college women, which used the SES found that Black women had the highest rates of sexual coercion compared to other racial/ethnic groups though Black women reported lower scores on the attempted rape measure compared to white women. The prevalence of rape during college was found to be similar among all racial/ethnic groups (Kalof, 2000). Overall, the findings are mixed regarding race; some studies find higher rates of sexual assault among Black and/or racial/ethnic minorities whereas other studies have found no differences in sexual assault regarding race.

Greek Member Affiliation

Affiliation with the Greek system and its relation to sexual assault has been studied infrequently compared to gender, sexual orientation, and race. One study that examined sorority participation and sexual assault found that almost one-third of sorority women reported being sexually assaulted while in college. This rate was four times the rate for women who were not involved with a sorority (Minow & Einolf, 2009). Additionally, a study of 718 college women using the SES found that sorority women experienced higher levels of severe sexual assault in college (i.e., coerced intercourse, attempted rape, and rape) compared to non-sorority women (Kingree & Thompson, 2020). Using a modified version of the SES in a study of 282 college women revealed that more frequent attendance at weekly co-ed Greek-sponsored events for sorority women was associated with sexual coercion,

intoxicated sexual assault, and physical force or threats (Franklin & Menaker, 2018). That is, almost 44% of sorority women reported sexual coercion and 14% reported completed rape as a result of threats or force compared to about 30% and 6% of nonsorority women, respectively. The authors found no significant differences for intoxicated sexual assault between the two groups of women (Franklin & Menaker, 2018). Using a modified version of the SES, Franklin (2010) looked at risk factors for different sexual assault types among college women and found that Greek affiliation was associated with an increased odds of experiencing completed rape; however, similar to the findings above of Franklin and Menaker (2018), there was no difference by Greek affiliate status and alcohol induced sexual assault. Franklin (2010), however, also found no difference between sorority and non-sorority women for coercive sexual assault, which is inconsistent with the findings from Franklin and Menaker (2018) who used the same scale. Finally, Ragsdale et al. (2012) found that sorority binge drinkers were more likely to have reported sexual victimization compared to non-sorority binge drinkers using what appears to be a single item measure of sexual assault.

Relationship Status

Relationship status and sexual assault has been studied least frequently among college students. One study found that for both college women and men in a relationship, they were less likely to have experienced unwanted sexual contact sexual assault compared to those not in a relationship suggesting that relationship status may be a protective factor regardless of gender (Banyard et al., 2007). In contrast, Klipfel et al. (2014) found that the proportion of college students who experienced sexual aggression victimization, defined as being pressured into sexual acts, was higher compared to experiences of physical aggression in both committed and casual dating relationships. Overall, more research is needed to understand the link between relationship status and sexual assault.

In sum, studies examining sexual assault typically use behavioral items such as the R-SES and the SCS and tend to find high rates of sexual assault. Fewer studies, however, have specifically examined whether reporting of sexual assault is associated with different stu-

dent characteristics. The studies that do exist tend to find differences in reporting rates of sexual assault by gender and sexual orientation but results for other student characteristics (e.g., race, relationship status) are inconsistent or studied less frequently. Moreover, it is unclear if both scales would produce similar reporting rates of sexual assault and whether student characteristics would be differentially associated with reporting sexual assault experiences by scale. As such, the purpose of this study is to examine whether college women and men report experiences of different sexual assault *types* (i.e., sexual coercion, incapacitation by alcohol or drugs, physical force) using three sexual assault *tactics* (fondle, oral, intercourse) at similar rates on both the R-SES (Testa et al., 2004) and the SCS (Christopher, 1988; Tyler et al., 1998) and (2) whether respondent characteristics are differentially associated with reporting sexual assault experiences by scale.

Data and Method

Data were gathered in the 2019–2020 academic year at a large public university in the Midwestern United States. Undergraduate enrollment is approximately 25,000 students and the racial composition at this university is approximately 80% white. The sample consisted of 783 undergraduate college women and men.

Procedure. Undergraduate students enrolled in social science courses completed a paper and pencil survey of family histories, risk behaviors, sexual assault, mental health, and support services. All students were given a survey packet, which included a handout listing various campus resources (e.g., counseling) available to students. Every student was eligible to participate. Students were informed that their participation was voluntary, and their responses were anonymous. Students were given the option of extra credit for filling out the survey. If a student did not wish to complete the survey, they were given another option for extra credit. Students were told that if they chose not to fill out the survey or do the alternative extra credit assignment, it would not affect their course grade. The overall response rate across all classes was approximately 96% (783/812). The Institutional Review Board at the University of Nebraska-Lincoln approved this study.

Measures

Independent Variables

Gender was coded as 0 = male and 1 = female. *Race* was coded as 0 = Non-White and 1 = White. *Sexual orientation* was coded as 0 = identified as sexual minority and 1 = identified as heterosexual. *Sexual attraction* was coded 0 = always attracted to males, 1 = attracted to both males and females, and 2 = always attracted to females. *Greek affiliation* was coded 0 = Non-Greek affiliated and 1 = Greek affiliated, and *relationship status* was coded 0 = in a relationship and 1 = single.

Dependent Variables

Revised Sexual Experiences Scale (Testa et al., 2004). The R-SES has three subscales with 12 items total: *Coercive sexual assault* (four items), *physical sexual assault* (four items), and *incapacitated sexual assault* (four items). The following introduction to the 12 questions included, “People use different methods to get another person to engage in sexual behavior. The following questions concern experiences that you may have had at some point in the past 12 months.” For each item, please indicate: How often has anyone: 1) “overwhelmed you with arguments about sex or continual pressure for sex in order to...,” 2) “threatened to physically harm you or used physical force (such as holding you down) in order to...,” and 3) “When you were incapacitated (e.g., by drugs or alcohol) and unable to object or consent how often has anyone ever...” within the past 12 months? Within each of these three subscales, the following four questions were asked: a) fondle, kiss, or touch you sexually; b) try to have sexual intercourse with you (but it did not happen); c) succeed in making you have sexual intercourse; and d) make you have oral or anal sex or penetrate you with a finger or objects “when you indicated you didn’t want to?” Response categories ranged from 1 = never to 4 = more than four times. Because many of the individual items were skewed, items were first dichotomized (i.e., 0 = never happened and 1 = happened at least once). For each type of sexual assault (coercive, incapacitated, and physical) we created a dichotomous measure, where 0 = did not experience any tactics of sexual assault of this type and 1 = experienced at least one

tactic of sexual assault of this type. We created similar measures by tactic, where we combined any type of sexual assault within that tactic and where 0 = did not experience any types of sexual assault using this tactic and 1 = experienced at least one type of sexual assault using this tactic (see Table 1 for grouping of tactic and type).

Sexual Coercion Scale (adapted from Christopher, 1988; Tyler et al., 1998) included six items to assess sexual victimization: *Coercive sexual assault* (three items), *physical sexual assault* (two items), and *incapacitated sexual assault* (one item). The following introduction to the six questions included, “People use different methods to get someone to engage in sexual behavior. For each question, please indicate all the intimate sexual outcomes that occurred with a partner/ someone you know despite your wish not to participate in the past 12 months.” (1) the other person got me drunk or stoned; (2) the other person threatened to terminate the relationship; (3) the other person said things to make me feel guilty (i.e., if you really cared about me); (4) the other person tried to turn me on by touching me even though I wasn’t interested; (5) the other person made false promises about the future of the relationship; and (6) the other person physically held me down. Respondents were instructed to “circle all that apply” for each of the six questions above with the following response categories: (1) breast touching; (2) genital touching; (3) oral sex; and (4) sexual intercourse (99 = N/A). Like the creation of the R-SES scale described above, each question was dichotomized to account for skewness.

These two scales were chosen for comparison in the current study because of their frequency of use in the literature and because both instruments include behaviorally specific measures. It is unique to have two different measures of sexual assault within a single survey, and especially to have two separate behavior-based measures. Generally, the two sexual assault scales were very similar, which aided in the comparisons. They each contained questions about types of sexual assault (e.g., coercive, incapacitated, and forced) and tactics used for sexual assault (e.g., threats, guilt, and promises). To make direct comparisons across specific items in the sexual assault scales, we excluded one variable from each of the two scales. For the R-SES we excluded the measure of attempted sexual assault (tried to have sexual

intercourse but it did not happen). For the SCS we excluded the measure that captured whether someone tried to turn the respondent on against their will. These two variables were excluded because they were unique to only one scale. While the purpose of this study is not to ascertain whether these two measures are capturing the same thing, we felt that limiting the two scales to comparable measures was important. When looking at prevalence rates overall, however, these two excluded items were maintained to best demonstrate what the overall scale captures.

Statistical Analysis

First, descriptive statistics for each of the variables that comprised the scales were displayed. Next, we combined some variables in each scale to create a total of three sexual assault *types* and three sexual assault *tactics* for both scales. We then performed *t*-tests to determine if the prevalence rates differed between the two scales for each type and tactic. Lastly, we performed chi-square tests for survey prevalence and each of the independent variables for each scale. All analyses were performed using Stata version 15.1.

Results

Sample Characteristics. The total sample consisted of 783 respondents. Of these, 512 respondents or 65% were female, and 617 or 79% were white. Eighty-three individuals (10.6%) identified as sexual minority. For romantic or sexual feelings, however, 423 respondents (54%) reported they only had such feelings for males, 235 respondents (30%) only had such feelings for females, and 123 respondents (16%) had these feelings for both males and females. Just over one quarter of respondents ($n = 221$, 28%) had a Greek affiliation, and just over one half of the sample reported they were single ($n = 405$, 52%).

Table 1 shows descriptive statistics for both sexual assault scales by type and tactic. For the SCS three different variables made up coercive sexual assault: Threat, guilt, and promise. Results showed that 3% of respondents had been sexually assaulted via threats, 8% via guilt, and

Table 1. Descriptive Statistics of Sexual Coercion Scale (SCS) and Revised Sexual Experiences Scale (R-SES)

SA Type	SCS			R-SES		
	Variable	%	SD	Variable	%	SD
Coercive SA	Threat	3%	.16	Coercive	30%	.46
	Guilt	8%	.27			
	Promise	4%	.19			
Incapacitated SA	Incapacitated	8%	.27	Incapacitated	22%	.41
Physical SA	Force	4%	.19	Force	9%	.28
SA Tactic	Variable	%	SD	Variable	%	SD
Fondle .48	Breast	11%	.31	Fondle	35%	
	Genital	12%	.33			
Oral	Oral	7%	.26	Oral	11%	.31
Intercourse	Intercourse	10%	.30	Intercourse	15%	.35

SA = sexual assault; SD = standard deviation.

4% via promises. 8% of respondents were sexually assaulted when they were incapacitated by drugs or alcohol. The rate for physical sexual assault using force was 4%. The bottom half of Table 1 shows descriptive statistics based on sexual assault tactic. Fondling is made up of two measures in the SCS: Breast and genital fondling: 11% and 12% of respondents experienced these tactics, respectively. The last two tactics come from a single variable in the SCS, and 7% of respondents experienced oral sexual assault, while 10% experienced intercourse sexual assault.

For the R-SES (right side of Table 1) most of the measures are based on a single variable. 30% of respondents reported coercive sexual assault, 22% reported incapacitated sexual assault, and 9% reported forced sexual assault. The prevalence rates by tactics as measured by the R-SES revealed that 35% of respondents experienced fondling sexual assault, 11% oral sexual assault, and 15% of respondents indicated they had experienced intercourse sexual assault.

Bivariate Results. Table 2 shows prevalence rates for all three types and tactics of sexual assault, and a measure for any sexual assault. The final column in Table 2 shows the results of a *t*-test comparing preva-

Table 2. Comparison of Sexual Coercion Scale (SCS) and Revised Sexual Experiences Scale (R-SES)

SA Type	SCS		R-SES		t-test
	%	SD	%	SD	t
Coercive SA	9%	.29	30%	.46	13.92***
Incapacitated SA	8%	.27	22%	.41	10.06***
Physical SA	4%	.19	9%	.28	6.03***
SA Type	%	SD	%	SD	t
Fondle	14%	.35	35%	.48	13.62***
Oral	7%	.26	11%	.31	3.47***
Intercourse	10%	.30	15%	.35	4.71***
Any SA	17%	.38	40%	.49	14.23***

SA = sexual assault; SD = standard deviation; t = t-statistic. ***p ≤ .001.

lence rates by type and tactic between the two scales. Each t-test was significant, which indicates that for every sexual assault type and tactic the two scales are garnering significantly different reporting rates.

Figure 1 displays prevalence rates between the two scales by type, tactic, and any sexual assault. Overall, all seven forms of sexual assault were significantly different across the two scales ($p < .001$). Moreover, all prevalence rates were significantly higher among the R-SES compared with the SCS.

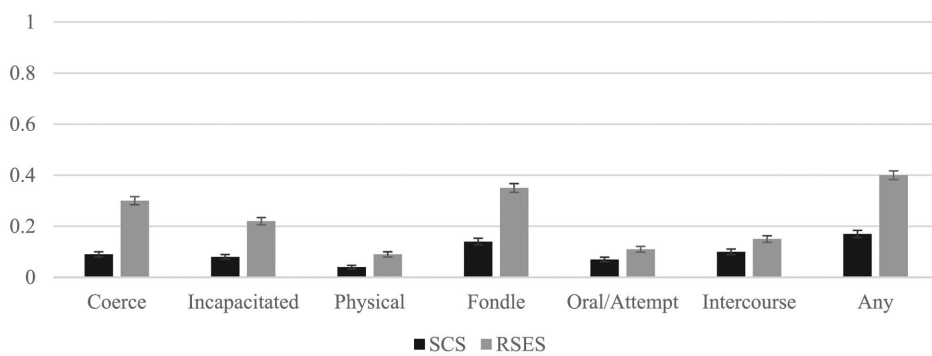


Figure 1. Comparison between Sexual Coercion Scale (SCS) and Revised Sexual Experiences Scale (R-SES) by Tactic and Behaviors. All comparisons are significant at a $p < .001$ level.

Table 3. Chi-squared Tests of Sexual Assault Prevalence Across Scale Type By Student Characteristics

	SA SCS <i>n</i> = 367		Chi square	SA R-SES <i>n</i> = 154		Chi square
	<i>n</i>	%		<i>n</i>	%	
Gender						
Males	25	9%	18.64***	76	28%	21.63***
Females	111	22%		233	46%	
Race						
Non-white	30	18%	0.09	71	43%	1.08
White	106	17%		238	39%	
Sexual orientation						
Sexual minority	27	33%	14.87***	40	48%	2.87
Heterosexual	109	16%		270	39%	
Sexual attraction						
Always male	83	20%	28.95***	191	45%	23.99***
Both male and female	35	28%		55	45%	
Always female	17	7%		62	26%	
Greek affiliation						
Non-Greek affiliated	86	15%	5.77*	199	36%	11.68***
Greek affiliated	50	23%		108	49%	
Relationship status						
In a relationship	77	21%	5.04*	150	40%	0.34
Single	59	15%		155	38%	

SA = sexual assault. * $p \leq .05$, *** $p \leq .001$.

Table 3 shows the differences in reporting rates by student characteristics for each scale. For both the SCS and the R-SES females are much more likely to have reported sexual assault compared to males. Specifically, for the SCS 22% of females reported sexual assault compared to 9% of males ($\chi^2 = 18.64$, $p < .001$), and for the R-SES 46% of females reported sexual assault compared with 28% of males ($\chi^2 = 21.63$, $p < .001$). Reporting rates for white and non-white students did not differ for either scale. Students who identified as sexual minority had a reporting rate twice as high of that of heterosexual identified students (33% versus 16%), but this pattern only existed for the SCS ($\chi^2 = 14.87$, $p < .001$).

For sexual attraction those who were only attracted to females had lower reporting rates compared to their counterparts. Specifically, on the SCS 20% of students who were always attracted to males reported sexual assault compared to 28% of students attracted to both males

and females had 7% of students that were always attracted to females ($\chi^2 = 28.95, p < .001$). A similar pattern existed on the R-SES, where 45% of students who were always attracted to males or attracted to both males and females reported sexual assault compared to 26% of students who were only attracted to females ($\chi^2 = 23.99, p < .001$).

There were differences by Greek affiliation for both scales. For the SCS 15% of non-Greek affiliated students reported sexual assault compared to 23% of Greek affiliated students ($\chi^2 = 5.77, p < .05$). Similarly, for the R-SES 36% of non-Greek affiliated students reported sexual assault compared with 49% of Greek affiliated students ($\chi^2 = 11.68, p < .001$). Finally, for the SCS 21% of students who were in a relationship reported sexual assault compared with 15% of students who reported being single ($\chi^2 = 5.04, p < .05$).

Discussion

This study examined whether college women and men report experiences of three sexual assault *types* (sexual coercion, incapacitation, force) using three sexual assault *tactics* (fondle, oral/attempted, intercourse) at similar rates on both the R-SES (Testa et al., 2004) and the SCS (Christopher, 1988; Tyler et al., 1998) and whether respondent characteristics are differentially associated with reporting sexual assault experiences by scale. Overall, we find that the two scales consistently provide different prevalence rates for sexual assault types and tactics. Moreover, student characteristics including gender, sexual orientation, sexual attraction, Greek affiliation, and relationship status are associated with whether students report sexual assault experiences in one scale versus the other.

Consistent with prior research (Fedina et al., 2018), we find that the way sexual assault is measured influences prevalence rates. Though both the R-SES and the SCS measure coercive and incapacitated sexual assault, the percentage of sexual assault experiences captured varied widely between scales. Moreover, all prevalence rates were higher among the R-SES compared with the SCS (see Figure 1), suggesting that the R-SES scale captures more sexual assault experiences. One possible explanation for this finding may be because the R-SES asks about sexual assault by “anyone” whereas the SCS asks about sexual

assault by a “partner or someone you know.” Thus, because the R-SES is broader in its definition, it is likely to capture more experiences of sexual assault. Additionally, the language of the two scales also varies regarding non-consent. That is, the language for the R-SES states that, “when you indicated you didn’t want to” whereas the SCS language states, “despite your wish not to participate.” Moreover, with the R-SES, this language was inserted under every question (a constant reminder to the respondent) whereas in the SCS, this language was only part of the introduction to the set of questions and thus respondents were not constantly reminded that they “didn’t wish to participate” after every question, which may also account for the difference in prevalence rates.

In terms of student characteristics, current results show that female college students report more experiences of sexual assault compared to college males, regardless of scale type, which is consistent with prior research (Banyard et al., 2007; Edwards et al., 2015; Hines et al., 2012; Ray et al., 2021). In terms of race, current study results show no significant differences between white and non-white students regarding reporting on either scale, which is consistent with some of the research (Aosved et al., 2011; Hines et al., 2012). Given the inconsistencies in the literature regarding race and sexual assault (Coulter et al., 2017), this finding is not surprising. Other studies, however, have found that racial and ethnic minority college students are at greater risk for experiencing rape (Porter & Williams, 2011). One possible explanation for this discrepancy may be because approximately 80% of the sample in the current study is white and thus, we were unable to look at different racial and ethnic groups due to smaller sample sizes.

In terms of sexual attraction, students attracted to both men and women are more likely to report sexual assault on either scale compared to those only attracted to women. We also see more reporting among those attracted to men on the R-SES scale compared with the SCS. Additionally, students who identify as sexual minority are more likely to report sexual assault on both scales compared to those students who identify as heterosexual, which is consistent with prior research (Edwards et al., 2015; Eisenberg et al., 2021; Ray et al., 2021).

Students who have a Greek affiliation report more sexual assault on both scales compared to those without a Greek affiliation. This find-

ing is consistent with prior research which finds that college sorority women report more sexual assault compared to nonsorority college women (Franklin & Menaker, 2018; Kingree & Thompson, 2020; Minnow & Einolf, 2009). Finally, those in a relationship report more sexual assault compared to those who are single but only on the SCS. This is consistent with Klipfel et al. (2014) who found higher rates of sexual aggression in both committed and casual dating relationships. One possible explanation for this finding may be partially due to the question stem on the SCS, which asks about sexual assault experiences as they relate to a partner or someone the respondent knows. Thus, we see a higher reporting rate among those in a relationship. In contrast, the question stem on the R-SES asks about sexual assault experiences as they relate to anyone. As such, this may also partially explain why there are no reporting differences for the R-SES between those who are single and those who are in a relationship. Overall, these findings suggest that the scale researchers use to gather sexual assault data can impact reporting rates overall and more specifically, can influence reporting rates for certain subgroups of college students. Thus, depending on the group of college students one is surveying, the type of scale one chooses is likely to impact reporting rates.

Limitations, Strengths, and Future Directions

Our study is not without limitations. First, all data are self-reported, and some measures are retrospective (i.e., past 12 months), which may have resulted in some over- or underreporting. Second, our findings cannot be generalized to the whole college population given that our sample was not randomly selected. Third, the introduction to the questions for the SCS and the R-SES differed. That is, the R-SES scale asked about sexual assault experiences with “anyone” whereas the SCS asked about such experiences with a partner or someone they know, which may have influenced reporting rates. Finally, there were some differences between the R-SES and the SCS for the question-by-question comparisons, which also may have influenced results.

Despite these limitations, our study has many strengths. First, we compared two very similar behavioral scales of sexual assault used with college students, a population at high risk for sexual assault, to examine whether college women and men report experiences of three

sexual assault *types* (sexual coercion, incapacitation, physical force) using three sexual assault *tactics* (fondle, oral, intercourse) at similar rates on both the Revised Sexual Experiences Scale (Testa et al., 2004) and the Sexual Coercion Scale (Christopher, 1988; Tyler et al., 1998). Additionally, we examined whether respondent characteristics are differentially associated with reporting sexual assault experiences on two different scales, which allowed us to pinpoint which specific characteristics are associated with reporting sexual assault. Finally, though patterns of reporting sexual assault by student characteristics looks somewhat similar across the two scales, we find that the R-SES, which is broader, is capturing much higher rates of sexual assault than the SCS.

Future studies conducting sexual assault research with college populations may wish to carefully choose their scales depending on the subpopulation they are examining as our results show that different scales influence reporting rates. Future research on college populations to assess the reporting of sexual assault using different scales is warranted to see if current results can be replicated. Finally, although we examined some student characteristics, other variables may also influence the likelihood of reporting sexual assault such as frequency, time frame, relationship to the perpetrator, and specific requirements about expressed non-consent versus the lack of consent.

* * * * *

Disclosure The authors have no relevant financial interest or affiliations with any commercial interests related to the subjects discussed within this article.

Funding The author(s) received no specific grant or financial support for the research, authorship, and/or publication of this article. Correspondence regarding this article should be directed to Kimberly A. Tyler, PhD, University of Nebraska-Lincoln, Department of Sociology, 717 Oldfather Hall, Lincoln, NE 68588-0324. E-mail: kim@ktresearch.net

References

- Aosved, A. C., Long, P. J., & Voller, E. K. (2011). Sexual revictimization and adjustment in college men. *Psychology of Men & Masculinity*, 12, 285–296.
- Banyard, V. L., Ward, S., Cohn, E. S., Plante, E. G., Moorhead, C., & Walsh, W. (2007). Unwanted sexual contact on campus: A comparison of women's and men's experiences. *Violence and Victims*, 22, 52–70. <https://doi.org/10.1891/vv-v22i1a004>
- Brahms, E., Ahl, M., Reed, E., & Amaro, H. (2011). Effects of an alcohol intervention on drinking among female college students with and without a recent history of sexual violence. *Addictive Behaviors*, 36, 1325–1328.
- Carey, K. B., Norris, A. L., Durney, S. E., Shepardson, R. L., & Carey, M. P. (2018). Mental health consequences of sexual assault among first-year college women. *Journal of American College Health*, 66, 480–486.
- Chang, E. C., Lin, J., Fowler, E. E., Yu, E. A., Yu, T., et al. (2015). Sexual assault and depressive symptoms in college students: Do psychological needs account for the relationship? *Social Work*, 60, 211–218.
- Christopher, F. S. (1988). An initial investigation into a continuum of premarital sexual pressure. *The Journal of Sex Research*, 25, 255–266.
- Conley, A. H., Overstreet, C. M., Hawn, S. E., Kendler, K. S., Dick, D. M., & Amstadter, A. B. (2017). Prevalence and predictors of sexual assault among a college sample. *Journal of American College Health*, 65, 41–49. <https://doi.org/10.1080/07448481.2016.1235578>
- Coulter, R. W. S., Mair, C., Miller, E., Blossnich, J. R., Matthews, D. D., & McCauley, H. L. (2017). Prevalence of past-year sexual assault victimization among undergraduate students: Exploring differences by and intersections of gender identity, sexual identity, and race/ethnicity. *Prevention Science*, 18, 726–736.
- Duval, A., Lanning, B. A., & Patterson, M. S. (2020). A systematic review of dating violence risk factors among undergraduate college students. *Trauma, Violence & Abuse*, 21, 567–585. <https://doi.org/10.1177/1524838018782207>
- Dworkin, E. R. (2018). Risk for mental disorders associated with sexual assault: A meta-analysis. *Trauma, Violence, & Abuse*. <https://doi.org/10.1177/1524838018813198>
- Edwards, K. M., Sylaska, K. M., Barry, J. E., Moynihan, M. M., Banyard, V. L., et al. (2015). Physical dating violence, sexual violence, and unwanted pursuit victimization: A comparison of incidence rates among sexual-minority and heterosexual college students. *Journal of Interpersonal Violence*, 30, 580–600.
- Eisenberg, M. E., Lust, K., Mathiason, M. A., & Porta, C. M. (2021). Sexual assault, sexual orientation, and reporting among college students. *Journal of Interpersonal Violence*, 36, 62–82. <https://doi.org/10.1177/0886260517726414>
- Fedina, L., Holmes, J. L., & Backes, B. L. (2018). Campus sexual assault: A systematic review of prevalence research from 2000 to 2015. *Trauma, Violence & Abuse*, 19, 76–93. <https://doi.org/10.1177/1524838016631129>
- Franklin, C. A. (2010). Physically forced, alcohol-induced, and verbally coerced sexual victimization: Assessing risk factors among university women. *Journal of Criminal Justice*, 38, 149–159.

- Franklin, C. A., & Menaker, T. A. (2018). Feminist routine activity theory and sexual assault victimization: Estimating risk by perpetrator tactic among sorority women. *Victims & Offenders*, 13, 158–178. <https://doi.org/10.1080/15564886.2016.1250692>
- Griner, S. B., Vamos, C. A., Thompson, E. L., Logan, R., Vazquez-Otero, C., & Daley, E. M. (2020). The intersection of gender identity and violence: Victimization experienced by transgender college students. *Journal of Interpersonal Violence*, 35, 5704–5725.
- Hines, D. A., Armstrong, J. L., Reed, K. P., & Cameron, A. Y. (2012). Gender differences in sexual assault victimization among college students. *Violence and Victims*, 27, 922–940. <https://doi.org/10.1891/0886-6708.27.6.922>
- Howard, R. M., Potter, S. J., Guedj, C. E., & Moynihan, M. M. (2019). Sexual violence victimization among community college students. *Journal of American College Health*, 67, 674–687. <https://doi.org/10.1080/07448481.2018.1500474>
- Kalof, L. (2000). Ethnic differences in female sexual victimization. *Sexuality and Culture*, 4, 75–98. <https://doi.org/10.1007/s12119-000-1005-9>
- Kingree, J. B., & Thompson, M. (2020). Sorority membership and sexual victimization: An examination of potential mediators of the association. *Journal of Interpersonal Violence*, 35, 5834–5852. <https://doi.org/10.1177/0886260517723745>
- Klipfel, K. M., Claxton, S. E., & van Dulmen, M. H. M. (2014). Interpersonal aggression victimization within casual sexual relationships and experiences. *Journal of Interpersonal Violence*, 29, 557–569. <https://doi.org/10.1177/0886260513505207>
- Mellins, C. A., Walsh, K., Sarvet, A. L., Wall, M., Gilbert, L., Santelli, J. S., et al. (2017). Sexual assault incidents among college undergraduates: Prevalence and factors associated with risk. *PLoS ONE*, 12, e0186471. <https://doi.org/10.1371/journal.pone.0186471>
- Minow, J. C., & Einolf, C. J. (2009). Sorority participation and sexual assault risk. *Violence Against Women*, 15, 835–851.
- Porter, J., & Williams, L. M. (2011). Intimate violence among underrepresented groups on a college campus. *Journal of Interpersonal Violence*, 26, 3210–3224.
- Ragsdale, K., Porter, J. R., Matthews, R., White, A., Gore-Felton, C., & McGarvey, E. L. (2012). Liquor before beer, you're in the clear": Binge drinking and other risk behaviors among fraternity/sorority members and their non-Greek peers. *Journal of Substance Use*, 17, 323–339.
- Ray, C. M., Tyler, K. A., & Simons, L. G. (2021). Risk factors for forced, incapacitated, and coercive sexual victimization among sexual minority and heterosexual male and female college students. *Journal of Interpersonal Violence*, 36, 2241–2261. Online first March 5, 2018. <https://doi.org/10.1177/0886260518758332>
- Sutton, T. E., & Simons, L. G. (2015). Sexual assault among college students: Family of origin hostility, attachment, and the hook-up culture as risk factors. *Journal of Child and Family Studies*, 24, 2827–2840.
- Sutton, T. E., Simons, L. G., & Tyler, K. A. (2019). Hooking-up and sexual victimization on campus: Examining moderators of risk. *Journal of Interpersonal Violence*. Published online April 11, 2019. <https://doi.org/10.1177/0886260519842178>

Testa, M., VanZile-Tamsen, C., Livingston, J. A., & Koss, M. P. (2004). Assessing women's experiences of sexual aggression using the sexual experiences survey: Evidence for validity and implications for research. *Psychology of Women Quarterly*, 28, 256–265.

Tewksbury, R., & Mustaine, E. E. (2001). Lifestyle factors associated with the sexual assault of men: A routine activity theory analysis. *The Journal of Men's Studies*, 9, 153–182.

Tyler, K. A., Hoyt, D. R., & Whitbeck, L. B. (1998). Coercive sexual strategies. *Violence and Victims*, 13, 47–61.

Tyler, K. A., Schmitz, R. M., & Adams, S. A. (2017). Alcohol expectancy, drinking behavior, and sexual victimization among female and male college students. *Journal of Interpersonal Violence*, 32, 2298–2322. <https://doi.org/10.1177/0886260515591280>

Appendix

Chi-squared Tests of Sexual Assault Prevalence Across Scale Type By Student Characteristics

	SA SCS						SA R-SES					
	Overall prevalence – n = 136, 17%						Overall prevalence – n = 310, 40%					
	Males (n = 25, 9%)			Females (n = 111, 22%)			Males (n = 76, 28%)			Females (n = 233, 46%)		
	n	%	Chi square	n	%	Chi square	n	%	Chi square	n	%	Chi square
Race												
Non-white	9	13%	1.17	21	23%	0.08	24	33%	1.20	46	50%	0.95
White	16	8%		90	21%		52	27%		186	44%	
Sexual orientation												
Sexual minority	5	22%	4.58*	22	39%	10.81***	11	48%	4.69*	28	49%	0.33
Heterosexual	20	8%		89	20%		65	27%		205	45%	
Sexual attraction												
Always male	2	29%	9.47**	81	19%	6.15*	4	57%	4.42	187	45%	
Both male and female	6	22%		29	31%		10	37%		45	48%	1.10
Always female	17	7%		0	0%		61	26%		0	0%	
Greek affiliation												
Non-Greek affiliated	21	10%	0.17	65	19%	4.20*	61	28%	0.01	137	40%	10.29***
Greek affiliated	4	8%		46	27%		14	27%		94	55%	
Relationship status												
In a relationship	14	13%	2.08	63	24%	2.02	30	27%	0.07	120	46%	0.23
Single	11	7%		48	19%		43	28%		111	44%	

SA = sexual assault.

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$