

Measuring campus sexual misconduct and its context: The administrator-researcher campus climate consortium (ARC3) survey

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Abstract:

Objective: In response to The White House Task Force to Protect Students from Sexual Assault's recommendations, the Administrator-Researcher Campus Climate Collaborative (ARC3) has curated an empirically sound, no-cost campus climate survey for U.S. institutions of higher education. The ARC3 survey contains 19 modules that assess a range of Title IX violations, including sexual harassment, dating violence, and sexual misconduct victimization and perpetration; sexual misconduct prevention efforts, resources, and responses; and key predictors and possible outcomes of sexual misconduct. This article describes the ARC3 survey development and pilot test psychometric data. **Method:** A total of 909 students attending one of three U.S. universities responded to the survey; 85% of students who began the survey completed it. Students completed the ARC3 survey in slightly less than 30 min, on average. **Results:** The majority of measures produced evidence for at least acceptable internal consistency levels ($\alpha > .70$), with only two short item sets having marginal reliability ($\alpha = .65-.70$). Correlations among scales matched expectations set by the research literature. Students generally did not find the survey distressing; in fact, students viewed the climate assessment as important and personally meaningful. **Conclusion:** The survey performed sufficiently well in pilot testing to recommend its use with U.S. college populations.

Keywords: Campus climate | sexual misconduct | sexual assault

Article:

Clinical Impact Statement: This article presents an evidenced-based climate assessment tool specific to campus sexual misconduct. Surveys such as this will allow institutions to track their sexual misconduct prevalence rates, campus climate, and associated factors across time, as one means of assessing the effectiveness of ongoing prevention and intervention efforts and to guide appropriation of future resources.

Campus sexual violence prevention became a national priority after the U.S. Department of Education's Office of Civil Rights under the former administration issued a widely circulated *Dear Colleague Letter* in 2011 to clarify how and why sexual assault violates Title IX, and former President Obama and Vice President Biden created the White House Task Force to Protect Students from Sexual Assault (2014). U.S. institutions of higher education rushed to respond to a changing regulatory landscape, public outcry, and student safety concerns. Some states responded by mandating that institutions assess campus climate regarding sexual misconduct (Kohl-Welles, 2015; LaValle, 2015). This article describes the development and basic psychometric properties of the Administrator Researcher Campus Climate Collaborative (ARC3) survey: a no-cost, evidence-based campus climate measure.¹

Sexual violence is a public-health epidemic with negative mental and physical health outcomes for survivors (Black et al., 2011) and potential perpetrators (Brennan, Swartout, Cook, & Parrott, 2017). It is endemic among college students, who appear to be at greatest risk early in their college careers (Cranney, 2015; Flack et al., 2008; Kimble, Neacsiu, Flack, & Horner, 2008). No group of students is invulnerable, but risk appears to vary along dimensions of diversity, including race, ethnicity, sexual orientation, socioeconomic status, and ability (Hipp & Cook, in press). The Bureau of Justice Statistics Campus Climate Survey Validation Study found that 21% of college women reported experiencing sexual assault since entering college and 34% across their lifetimes (Krebs et al., 2016). The Obama-Biden White House Task Force encouraged institutions to conduct campus climate assessments to better understand how sexual violence affects their students and assess local prevention efforts. A different presidential administration is now in place, but campus sexual violence prevention remains a central focus in higher education due to ongoing Title IX investigations, Title IX lawsuits filed by alleged victims and perpetrators against institutions of higher education, and nationwide student advocacy.

Campus climate surveys related to sexual misconduct² are important for several reasons and serve multiple purposes. The decision to implement a campus climate survey is a policy decision that conveys the institution's awareness of sexual misconduct to students, their parents, and the surrounding community. Designed well, and with adequate resources for creative marketing and incentives, they serve as an intervention to help educate students about the full range of sexual misconduct, institutional policies, and available resources. Such surveys provide institutions with an understanding of sexual misconduct by establishing a baseline estimate of experiences. Against this baseline, institutions can monitor changes in sexual misconduct incidence rates and explore the impact of campus prevention efforts or policy changes. Climate surveys can provide institutions with student perceptions of institutional effectiveness related to safety and security, advocacy and victim services, and institutional integrity. They are important in understanding behavioral norms of student bodies, which may vary considerably within and between institutions. Climate surveys may reveal traditionally unquestioned student or institutional traditions that promote sexual misconduct (e.g., athletic tailgate parties, Greek events), that can be targeted for change. Ultimately, a sound climate survey can provide actionable information

¹ Available upon request at <http://campusclimate.gsu.edu>.

² We use the phrase "sexual misconduct" throughout this article and the ARC3 survey materials to encompass all physical or nonphysical conduct of a sexual nature in the absence of clear, knowing and voluntary consent. Examples of sexual misconduct include sexual or gender-based harassment, stalking, dating violence, and sexual violence.

across a campus' social ecology (e.g., individual, group, institution) regarding sexual misconduct (Campbell, Dworkin, & Cabral, 2009).

Although many institutions have recently implemented, or are planning to implement, climate surveys on sexual misconduct for the first time, such efforts are not new. The American College Health Association (2016) developed a climate survey to assess sexual misconduct during the 1998–1999 academic year, which was first implemented in 2000. A number of other groups have developed and implemented conceptually similar climate surveys over the last three years—also in response to the White House Task Force Report to Protect Students from Sexual Assault (2014). Wood, Sully, Kammer-Kerwick, Follingstad, and Busch-Armendariz (2017) conducted an extensive review of campus climate surveys concerning sexual misconduct, with side-by-side comparisons of 10 different surveys, including the ARC3 Survey. The ARC3 survey compared favorably with the others, in part due to the wide scope of assessment and the integration of existing, validated measures of sexual misconduct (Wood et al., 2017).

The ARC3 Survey

The ARC3 survey is unique among campus climate surveys, in part because it was developed by researchers with expertise in gender-based violence in close collaboration with student affairs personnel—including those with expertise in Title IX, student conduct policies, and student services such as counseling, victim services, and emergency housing. The ARC3 group established eight principles to guide survey development: (1) inclusiveness, mutual respect, and collaboration; (2) an iterative and transparent survey development process; (3) research independence and integrity; (4) use of the best scientific evidence in survey development; (5) equal focus on victimization and perpetration; (6) a civil rights approach grounded in Title IX; (7) adherence to principles of The Belmont Report; and (8) sensitivity to the unique issues faced by diverse populations and higher education institutional types.

As we detail in the following section, the ARC3 survey was created by adapting portions of existing surveys already known to be reliable and valid measures of each respective construct. This process involved group discussions about extant climate surveys (e.g., Massachusetts Institute of Technology, 2014; McMahan, Stepleton, & Cusano, 2014) and how each might be improved based on the empirical literature. Measures, subscales, and items were chosen based on consensus among researchers and administrators regarding the types of sexual misconduct to be addressed, as well as the factors most clearly related to the causes and consequences of sexual misconduct on college and university campuses. Focus extended beyond campus sexual assault to include other gender-based violations based upon recent changes to Title IX, namely sexual harassment, stalking, and dating violence. Additionally, the survey goes beyond a focus on victimization by including questions about perpetration, based on the assumption that prevention efforts should be directed at perpetrators. The overarching goal was to curate a document that reflects best practices, is adaptable for specific institutional needs, and is ultimately aimed to support student safety and well-being.

We expected interrelations between ARC3 survey subscales to mirror effects found in previous research on these topics. Specifically, we expected the respective measures of violence perpetration to positively correlate (White, McMullin, Swartout, Sechrist, & Gollehon, 2008).

We also expected positive relationships between peer norms supporting gender-based violence and perpetration of sexual violence, dating violence, and stalking (DeKeseredy, 1988; Fox, Nobles, & Akers, 2011; Schwartz, DeKeseredy, Tait, & Alvi, 2001). We expected academic disengagement to negatively relate with academic satisfaction, general life satisfaction, and mental health, and to positively relate with binge drinking (Karen, Wei, & Scott, 2017; Hanisch & Hulin, 1990; Ng, Huebner, & Hills, 2015). Additionally, we expected mental health to positively relate with both general life satisfaction and academic satisfaction (Karen et al., 2017; Lounsbury, Saudargas, Gibson, & Leong, 2005); and we expected general life satisfaction to positively relate with academic satisfaction and negatively relate with binge drinking (Karen et al., 2017; Lounsbury et al., 2005). Previous research has found differing relations between binge drinking and academic satisfaction, life satisfaction, and mental health, with multiple studies suggesting a significant relation for women but not men (Bartoli et al., 2014; Murphy, Hoyme, Colby, & Borsari, 2006; Murphy, McDevitt-Murphy, & Barnett, 2005).

We also assessed relations among student awareness and perceptions of campus climate, institutional responses, and campus safety, although these constructs are not commonly assessed in the empirical literature. We hypothesized positive correlations between student awareness of campus resources, knowledge of how to report sexual misconduct, sense of safety on campus, and perception that sexual misconduct is not a part of their campus life. Additionally, we hypothesized that student perceptions that their peers would respond negatively to reports of gender-based violence will negatively correlate with each of the aforementioned factors.

Method

Survey Development Process

The ARC3 group examined the strengths and limitations of the White House Task Force to Protect Students from Sexual Assault (2014) recommendations, discussed sexual misconduct and other forms of interpersonal misconduct, and reviewed extant climate surveys (e.g., Massachusetts Institute of Technology, 2014; McMahon et al., 2014). The ARC3 survey content was determined by consensus among researchers and administrators regarding the scope of campus sexual misconduct and factors most clearly related to the causes and consequences of sexual misconduct. Ultimately, the group of experts determined sexual misconduct was broader than sexual assault, also including sexual harassment, stalking, and dating violence. Survey items were adapted largely from existing measures with established, strong psychometric properties. Many authors of the adapted surveys either were members of the ARC3 group or closely consulted regarding adaptation of their measures. The module-based format allows users to assess the constructs most relevant to their campus environments.

Pilot Psychometric Study

The purpose of this pilot study was to demonstrate the length, internal consistency, and preliminary convergent validity of the ARC3 survey. Specifically, we calculated the average time students took to complete the survey, internal reliabilities for the measures or partial measures within each module, correlations among measures expected based on the research literature, and impact of survey participation on students. At the outset, we determined that

reporting rates or other descriptive statistics regarding sexual misconduct would be outside the scope of this pilot psychometric investigation; in part, because there is a strong research-literature base to be consulted for this information (cf. Bonomi et al., 2012; Clodfelter, Turner, Hartman, & Kuhns, 2010; Devries et al., 2014; Fisher, Cullen, & Turner, 2000; Stoner & Cramer, 2017; Tharp et al., 2013). Entering the pilot testing phase, we expected (1) survey completion would take less than 30 min, (2) internal reliabilities would be adequate for each construct assessed based on past research using the adapted scales, (3) correlations among measures would be low to moderate in magnitude and in expected directions, and (4) most respondents would report low levels of distress in response to the survey, that their participation was personally meaningful, and the topic was important.

Participants

A total of 909 students across three university campuses (two public, one private) in the Eastern U.S. responded to the survey.³ The three institutions were selected for the pilot study because they are home to ARC3 members and are diverse in regard to institution type (i.e., public and private) and geographic location within the United States. Participating students were 23.8 ($SD = 7.8$) years of age on average. Most (62.0%) identified as women, with 19.4% identifying as men, 0.6% as genderqueer/gender nonconforming, 0.3% a gender not listed, and 17.7% no response. A majority identified their race/ethnicity as White/Caucasian (61.6%), with 11.0% identifying as Black/African American, 7.2% as Asian or Asian American, 3.6% as Hispanic or Latina/o, 1.1% as Native American or Alaskan Native, 0.4% as Hawaiian or Pacific Islander, 2.1% as Other, and 17.8% no response. Most identified their sexual orientation as heterosexual/straight (72.2%), with 4.3% identifying as bisexual, 1.4% as lesbian, 1.3% asexual, 1.1% as queer, 0.8% as gay, 1.1% a sexual orientation not listed, and 17.8% no response. Year in school was more evenly distributed, with 14.6% first-year undergraduates, 15.7% second-year, 16.4% third-year, 15.1% fourth-year, 3.7% fifth or more year, 16.1% graduate student, and 0.7% professional student. A plurality of students lived in off-campus housing (29.0%) followed by on-campus residence hall/dormitory (27.8%), with the remainder in other on-campus housing (apartment or house; 8%), at home with parent(s) or guardian(s; 6.7%), other off-campus housing (5.1%), and 2.9% each in a fraternity or sorority house, and 17.6% did not respond.

Measures

Measures and partial measures were chosen by the ARC3 group to assess sexual harassment, stalking, dating violence, sexual misconduct, and related factors. The survey contains a series of 19 modules each based on the type of sexual misconduct or climate-related factor assessed (see Table 1). This module-based format allows institutions to easily adapt the general content of the survey for their individual campus needs. Measures chosen for ARC3 survey modules had previously demonstrated strong psychometric properties (internal consistencies from both past research applications and within the ARC3 pilot testing are included in Table 2). Both complete and partial measures are described here as they appear within survey modules, and the order of modules is given here as it appears in the survey. Modules 6, 13, 15, and 17 each included one attention-check item adapted from the University of Oregon Sexual Violence Survey (Gomez,

³ The survey was also piloted at a fourth institution, albeit with significant differences from the version used in the present study, and those results are reported in Rosenthal, Smidt, and Freyd (2016).

Rosenthal, Smith, & Freyd, 2015). Full descriptions of each module are available as online supplements to this article.

Table 1. Modules of the ARC3 Campus Climate Survey

| Module | Source(s) |
|--|--|
| 1. Possible outcomes | Diener, Emmons, Larsen, & Griffin (1985); Hanish and Hulin (1990); Lent, Singley, Sheu, Schmidt, & Schmidt (2007); Ramos (2000); Rebelez & Furlong (2013); Ware & Sherbourne (1992); |
| 2. Alcohol use | National Institute on Alcohol Abuse and Alcoholism (2003) |
| 3. Peer norms | DeKeseredy and Kelly (1995) |
| 4. Perceptions of campus climate regarding sexual misconduct | McMahon, Stepleton, & Cusano (2014) |
| 5. Sexual harassment by faculty/staff | Fitzgerald, Magley, Drasgow, & Waldo (1999) |
| 6. Sexual harassment by students | Fitzgerald, Gelfand, & Drasgow (1995); Nukulki (2011) |
| 7. Stalking victimization | Centers for Disease Control and Prevention (2011) |
| 8. Stalking perpetration | Cupach & Spitzberg (2004) |
| 9. Dating violence victimization | Hamby (2016); Smith, Earp, & DeVellis (1995) |
| 10. Dating violence perpetration | Hamby (2016) |
| 11. Sexual violence victimization | Koss et al. (2007) |
| 12. Sexual violence perpetration | Koss et al. (2007) |
| 13. Institutional responses | Defense Equal Opportunity Management Institute (2014); Massachusetts Institute of Technology, 2014 |
| 14. Peer responses | Ullman, Relyea, Sigurvinsdottir, & Bennett (2018); Smith & Freyd (2017) |
| 15. Consent | Humphreys & Brousseau (2010) |
| 16. Bystander intervention | Banyard, Moynihan, Cares, & Warner (2014) |
| 17. Campus safety | Cortina, Swan, Fitzgerald, & Waldo (1998); McMahon et al. (2014) |
| 18. Demographics | McMahon et al. (2014) |
| 19. Reactions to the survey | DePrince & Freyd (2006) |

Note. Please see online appendix for full module descriptions.

Procedures

Similar procedures were used across the three pilot sites. Following approval from the respective institutional review boards, an e-mail containing a brief description of the pilot study and a link to the survey was sent to students currently enrolled at each campus. The e-mail was sent to the entire student population at one campus, to a randomly selected half of the student population at the second campus, and to the psychology department research subject pool at the third campus. The scope of this pilot study, therefore, was not that of a typical full-scale campus climate survey. The Campus Climate Validation Study (Krebs et al., 2016) is a strong source for expected response rates for a full climate survey implementation. Data collection took place between the last month of the spring semester and the end of the summer session of 2015. The first part of the survey contained a detailed description of the pilot study, information about costs and benefits of participation, rights of research participants, and a request for informed consent. Respondents indicated that they were at least 18 years of age by clicking on the link to the survey questions. One of the pilot institutions offered respondents the chance to win one of ten \$50 prizes chosen randomly from among survey completers; another incentivized respondents with course credit; and the third offered no incentive for survey participation.

Table 2. Sub-Scales Grouped by Estimated Reliability as Part of the ARC3 Survey

| | Past α | Current α |
|--|----------------------|------------------|
| Strong | | |
| Perceptions of campus climate regarding sexual misconduct (module 4) | N/A | .93 |
| Sexual harassment by faculty/staff (module 5) | .79–.97 ^a | .95 |
| Sexual harassment by students (module 6) | N/A | .95 |
| Stalking perpetration (module 8) | .82 ^b | .95 |
| Sexual violence victimization (module 11) | .89 ^c | .92 |
| Sexual violence perpetration (module 12) | .89–.93 ^d | .94 |
| Bystander intervention (module 16) | .82 ^c | .94 |
| Campus safety (module 17) | .91 ^f | .91 |
| Good | | |
| Possible outcomes/academic satisfaction (module 1) | .87 ^g | .86 |
| Possible outcomes/satisfaction with life (module 1) | .74 ^h | .89 |
| Possible outcomes/general mental health/well-being (module 1) | .85 ⁱ | .82 |
| Knowledge of campus sexual misconduct resources (module 4) | N/A | .86 |
| Awareness about campus community resources (module 4) | N/A | .85 |
| Sexual harassment by students/virtual sexual harassment (module 6) | N/A | .83 |
| Stalking victimization (module 7) | N/A | .89 |
| Dating violence victimization (module 8) | .96 ^j | .89 |
| Dating violence perpetration (module 9) | N/A | .87 |
| Peer responses/turning against (module 14) | .82–.90 ^k | .84 |
| Peer responses/general anticipated responses (module 14) | .89 ^k | .85 |
| Acceptable | | |
| Possible outcomes/academic disengagement (module 1) | .76 ^l | .75 |
| Peer norms/social support (module 3) | .60 ^m | .73 |
| Peer norms/informational support (module 3) | .70 ^m | .74 |
| Peer responses/positive support (module 14) | .74–.85 ^k | .74 |
| Consent (module 15) | .87 ⁿ | .76 |
| Marginal | | |
| Possible outcomes/academic disengagement (module 1) | .60 ^l | .69 |
| Perceptions of sexual misconduct on campus (module 17) | .57 ^f | .65 |

^a Fitzgerald et al. (1999). ^b Cupach and Spitzberg (2004). ^c Koss and Gidycz (1985). ^d Swartout, Swartout, Brennan, and White (2015). ^e McMahon et al. (2014). ^f Banyard et al. (2014). ^g Lent et al. (2007). ^h López-Ortega, Torres-Castro, and Rosas-Carrasco (2016). ⁱ McHorney, Ware, Lu, and Sherbourne (1994). ^j Hamby (2016). ^k Ullman et al. (2018). ^l Rebelez and Furlong (2013). ^m Franklin, Bouffard, and Pratt (2012). ⁿ Humphreys and Brousseau (2010).

Results

Internal Reliability of the Final Survey

Reliability estimates were similar across pilot sites; therefore, we base our findings on the overall estimates. These results suggest that a majority of the scales included in the ARC3 survey have strong internal reliability (18 out of 25 at .80 or above), whereas a minority fell into acceptable (5 between .70 and .79) or marginal (2 between .60 and .69) ranges. As described in Table 2, most internal reliability estimates from the current study were similar to those found in past research. Interestingly, respective estimates for the stalking perpetration, bystander intervention, life satisfaction, and peer social support items were notably higher in the current study compared with past research we reviewed; and the estimate for the consent knowledge items was the only one that was notably lower.

Correlations Among Measures in the Final Survey

We calculated correlations among modules and submodules that we expected to relate based on the extant empirical literature. As with the reliability estimates, correlation estimates for individual pilot sites were similar. Point biserial correlations among measures of possible outcomes (module 1: academic satisfaction, academic dissatisfaction, life satisfaction, overall health, and alcohol consumption) are reported in Table 3. The pattern of low to moderate correlations suggests that the measures are associated, as expected, but that they do not overlap to a degree sufficient to suggest any should be eliminated or combined. Previous research has found mixed relations between alcohol use and life satisfaction indicators (e.g., Murphy et al., 2005), which was also suggested here with nonsignificant correlations.

Table 3. Correlations Among Measures of Possible Outcomes and Alcohol Consumption

| Measure | Academic satisfaction | Life satisfaction | General mental health | Binge drinking |
|------------------------|-----------------------|-------------------|-----------------------|----------------|
| Academic Disengagement | -.19** | -.26** | -.30** | .24** |
| Academic satisfaction | — | .28** | .25** | -.07 |
| Life satisfaction | | — | .59** | -.03 |
| General mental health | | | — | -.04 |
| Binge drinking | | | | — |

** $p \leq .01$.

Correlations among measures of peer norms supporting sexual misconduct (module 3: peer social support, peer informational support) and sexual misconduct perpetration (module 8: stalking; module 10: dating violence; module 12: sexual violence) are reported in Table 4. Both peer support subscale scores, representing peer social and informational support for sexual misconduct, correlated positively and significantly with stalking, dating violence, and sexual violence perpetration.

Table 4. Correlations Among Peer Norms Supporting Gender-Based Violence and Perpetration

| Measure | Peer informational support | Stalking perp. | Dating violence perp. | Sexual violence perp. |
|----------------------------|----------------------------|----------------|-----------------------|-----------------------|
| Peer social support | .54** | .20** | .13* | .17** |
| Peer informational support | — | .23** | .16** | .18** |
| Stalking perp. | | — | .30** | .24** |
| Dating violence perp. | | | — | .07 |

Note. Perp. = perpetration.

* $p < .01$. ** $p < .001$.

Correlations among measures of perceptions of campus climate regarding sexual misconduct (module 4), institutional responses (module 13), and campus safety (module 17) largely supported our hypotheses and are detailed in Table 5. Of particular importance, perceived quality of institutional response was positively related with students' sense of safety on their campus, knowledge of how to report sexual misconduct on their campus, and understanding their specific campus resources (e.g., campus counseling services).⁴ Quality of institutional response was negatively related with students' perceptions that reporting sexual misconduct would draw a negative response from peers, and it was weakly and negatively related with the perception that sexual misconduct is not part of life on campus. Students' knowledge of the sexual misconduct

⁴ The ARC3 recommends this module be modified to match local campus resources.

reporting process positively correlated with both awareness of campus resources and sense of safety on campus. Contrary to our expectations, students' perceptions that sexual misconduct is not part of life on their campus was not significantly related with their knowledge of reporting options, awareness of resources, or perceptions of peer responses.

Table 5. Correlations Among Measures of Perceptions of Campus Climate Regarding Sexual Misconduct, Institutional Responses, and Campus Safety

| Measure | Knowledge | Awareness | Negative peer response | Sense of safety | SM ^a not a part of campus life |
|------------------------|-----------|-----------|------------------------|-----------------|---|
| Institutional response | .39** | .28** | -.55** | .46** | -.09* |
| Knowledge | — | .58** | -.25** | .24** | .07 |
| Awareness | | — | -.20** | .23** | .06 |
| Negative peer response | | | — | -.35** | .04 |
| Sense of safety | | | | — | -.30** |

^a SM = Sexual misconduct.

* $p < .05$. ** $p < .001$.

Reactions to the Survey

A plurality of students (31.7%) rated the distress they felt while responding to the survey questions as “neutral” compared with other things they encounter in day-to-day life; the second most endorsed response was “much less distressing” at 20.4%. A majority of students (56.4%) indicated that assessing the impact of sexual misconduct is “definitely important,” with no one reporting that asking about sexual misconduct was not important to any degree. Finally, a majority of students (54.6%) found participating in this study personally meaningful. Figures that further illustrate these results are available as online supplements to this article.

Additional open-ended responses were qualitatively analyzed to determine prevailing themes. The purpose of the open-ended questions was to collect students' responses to the survey, rather than develop a theory or understand a more general lived experience. We used the Sort and Sift, Think and Shift qualitative data analysis approach (Fryer et al., 2016; Maietta, 2011)—which often privileges the direct quotation for illustration, rather than a generalized theme or code—to analyze students' qualitative responses. Using this approach, we first created an inventory of all open-ended responses; we then used the Network Diagram feature in Atlas.TI (Version 7) qualitative data analysis software to visualize all responses within a single diagram. These processes helped us to uncover general patterns among the students' reactions and ultimately select representative responses. Students' comments were largely positive and almost exclusively addressed the institutions' responses to sexual misconduct, rather than the content of the ARC3 survey. One student noted: “[the institution] greatly improved on their reporting of sexual misconduct in the past year”; another responded: “Thanks for caring. I'm a commuter student but know how active [the institution] is with awareness of sexually aggressive events. I wish my undergrad would have been as proactive.” Many offered constructive feedback to the institution regarding sexual misconduct resources, reporting, and investigations. One student remarked that they would like to see incoming students “have all the information before the new student starts school so that they know beforehand where to go for help,” which supports the notion of campus climate surveys as prevention or intervention efforts. Another student was more critical of campus programming: “The mandatory information session is a little hostile towards people who

have already experienced sexual misconduct. There should be an opt-out option for people who don't want to relive their experience.”

Completion Rates and Timing

Of the 909 students who responded to the survey, 773 (85.0%) completed all 19 modules; 93.2% of the students who spent at least 12 min on the survey ultimately completed all the modules. The average time for completion across all respondents, including survey introduction and informed consent, was just under one half hour ($M = 29:50$, $SD = 16:30$; minutes:seconds).⁵ Students who reported one or more types of victimization took slightly more time ($M = 30:58$, $SD = 17:02$), and those who did not took slightly less ($M = 27:12$, $SD = 14:51$); this is due to the fact that students who reported experiencing sexual misconduct saw additional items related to the context of the misconduct and their reporting experiences.

Changes to the Survey Based on Pilot Results

Although the survey generally functioned well from a psychometric standpoint, we made minor changes to two modules based on the pilot results, and one additional module based on external developments in measurement. Two items that appeared in module 4 (perceptions of campus climate) were weakly correlated with the total score ($r = .25$ and $.38$); removing these items increased internal reliability of the scale from $.68$ to $.86$. A seven-item subscale that initially appeared in module 15 (consent) to measure consent-related behaviors had an unacceptably low internal reliability estimate ($\alpha = .63$), and was thus removed. Finally, although the scales initially included in module 14 (peer responses) functioned well in pilot testing, the original author of those items (from the Social Reactions Questionnaire) completed a revised version of the measure between the pilot test launch and the final survey release. At the behest of the original author, and after reviewing their extensive psychometric testing (Ullman, Relyea, Sigurvinsdottir, & Bennett, 2018), we decided to replace the items in module 14 with the updated scale.

Discussion

The ARC3 survey is a comprehensive, flexible, no-cost option to assess students' perceptions of their college or university's sexual misconduct prevention efforts, resources, and responses; rates of sexual misconduct victimization and perpetration; key predictors (e.g., alcohol use and hostile peer attitudes); and possible outcomes of sexual misconduct (e.g., academic disengagement and peer reactions). Results of pilot tests conducted across three universities suggest the scales within the final survey are internally consistent, and the relations between constructs assessed are largely in line with the extant research literature on those topics, which indicates scales within ARC3 survey generally have strong internal consistency and convergent validity.

Students generally found the survey content important, personally meaningful, and no more distressing than other things they encounter in their day-to-day lives; although, it should be noted that approximately 25% of students reported experiencing some level of distress during the survey. This aligns with previous findings on the impact of participating in research on trauma

⁵ Effects of extremely fast (<12 minutes) and slow (>2 hours) completions were removed from estimates.

and violence; fortunately, Cook and colleagues (2015) found that students who reported distress immediately after participating in a survey on trauma and violence generally reported a return to baseline on a follow-up assessment the next day. This previous study also suggests surveys on trauma and violence do not influence levels of positive affect. No adverse events were reported at any of the three sites in the present pilot study. The survey debriefing was customized at each site to provide students with resources should they find the need for support or counseling.

Open-ended responses collected at the end of the survey most frequently addressed students' perceptions of steps the institution could take to ensure safety. These responses demonstrate some students strongly engaged with the survey content by elaborating regarding campus policies and resources. Another sign of engagement with the ARC3 survey is the 85% completion rate. There are items embedded throughout the modules to assess inattention or random responding, which will help to ensure high data quality.

Recommendations for Future Survey Use

Each campus that chooses to implement the ARC3 survey should consider the relevance of each module to their student population and campus needs. The collaborative strongly suggests tailoring elements of the survey to fit local conditions and demographics, as well as practices and policies of each campus. Institutions should edit the educational and resource information in module 4 (perception of campus climate), the sexual misconduct reporting options in module 13 (institutional responses), and the demographics (module 18). With specific regard to the demographics, the collaborative also strongly recommends using items that match those of other institutional assessments to facilitate comparison and integration across different student surveys. Survey implementation outside the United States will require additional attention to the relevance of each module, nuances of how the items might be interpreted in different cultural contexts, and if applicable, standard procedures for language translation.

Evidence-based surveys such as the ARC3 allow institutions to track their sexual misconduct prevalence rates, campus climate, and associated factors across time, as one means of assessing the effectiveness of ongoing prevention efforts. Institutions using similar methods and measures will be able to compare their survey results in a collaborative effort to better understand and ultimately reduce sexual misconduct and improve campus climate. In aggregate, this could be an effective means of testing a variety of campus- or community-level prevention efforts, which might otherwise be impossible for a single institution to assess effectively. More work is needed to develop data-sharing protocols and other infrastructure necessary to facilitate this form of large-scale institutional collaboration.

The ARC3 survey assesses both sexual misconduct victimization and perpetration, which distinguishes it from many of the other campus climate surveys that only assess victimization (Wood et al., 2017). The ARC3 position is that meaningful prevention rests on identifying the reasons that sexual misconduct is perpetrated and the environments that foster it. Data on both victimization and perpetration create a strong scientific foundation to inform resource allocation and assess prevention efforts.

Caveats and Limitations

The ARC3 survey is comprehensive and thus somewhat long. Overall, 85.0% of participants who began the survey completed it in an average of approximately 30 min. In addition, of the students who spent at least 12 min taking the survey, 93.2% ultimately finished. Only one of the 773 students who completed the survey expressed concern about survey length in response to the open-ended survey reaction item (module 19); it is possible that students deterred by the survey length dropped out before seeing this module. Although the Campus Climate Survey Validation Study (Krebs et al., 2016) recommends climate surveys be less than 20 min, the current results suggest that the ARC3 survey length is not a major deterrent to adequate completion rates. However, the survey does require a moderate time commitment, which underscores the importance of adequate incentives to motivate completion.

Several potentially important elements of campus climate are not included in the ARC3 survey due to the aforementioned length concerns. These included but were not limited to elements related to intersectionality (e.g., Collins & Bilge, 2016), social class, and other aspects of the social ecology (e.g., Campbell et al., 2009). Moreover, as is the case with similar climate surveys, the ARC3 survey does not assess social desirability response bias. The ARC3 group intends to update the survey periodically in line with the shifting landscape that includes campus assessment needs and government mandates. Therefore, additional elements may be added in the coming years, and some current elements may be removed should they be found not maximally useful. In addition, many of the source measures adapted for use within the ARC3 survey may eventually be revised, as occurred during pilot testing, and those revisions will be considered in future iterations of the ARC3 survey. Any such changes would require a process similar to the one used to produce the initial ARC3 survey, focused on the intersecting perspectives of administrators, researchers, and students.

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