

## **RUNNING HEAD: Sexual assault competencies**

### **Abstract**

Competent prevention practitioners are critical for effective interventions. Although the importance of having a well-trained staff has been emphasized in the prevention science literature, most individuals tasked with the primary prevention of sexual assault are not adequately trained to do so (e.g., school staff, professionals trained in sexual assault response). Prevention practitioners responsible for implementing sexual assault prevention must possess certain core competencies, or knowledge and skills essential for job performance, in order to achieve optimal outcomes. These competencies include those needed for any primary prevention effort in addition to those specific to sexual assault prevention. The purpose of this study is to develop and pilot-test a competency assessment for sexual assault prevention practitioners working in military and civilian settings so that gaps for individuals and for teams can be identified and addressed. An existing assessment tool, which was designed for injury and violence prevention practitioners, was tailored to reflect sexual assault prevention-specific competencies as informed by the literature. The criterion validity of the newly tailored measure was tested with 33 individuals who had varying levels of expertise with sexual assault prevention. These individuals were categorized into three groups based on self-rated sexual assault prevention expertise (low, medium or high) in order to assess group differences. As expected, the high expertise group rated higher knowledge in all the competencies than the medium and low expertise groups. Implications for how the assessment tool can be used to identify gaps among individual practitioners and teams of practitioners are discussed.

**Keywords (5-7 keywords):** Core competencies, self-assessment, sexual assault, primary prevention, prevention practitioners

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**Development and Pilot Test of the Competency Assessment for  
Sexual Assault Prevention Practitioners**

Despite growing awareness and public outrage about the problem, sexual assault—i.e., unwanted sexual contact of any kind—remains widespread across the U.S. and has devastating short-term and long-term consequences for the survivors’ psychological and physical health as well as financial well-being (Martin et al., 2011). In the U.S., approximately 4.7% of women and 3.5% of men report experiencing sexual assault, which includes attempted or completed rape in addition to other forms of unwanted sexual contact, in the preceding year (Smith et al., 2018). The rates for sexual assault occurring for women in the military are comparable (Black et al., 2011). In the latest Workplace and Gender Relations Survey of Active Duty Members (WGRA), 6.2% of women experienced sexual assault in the preceding year (Breslin et al., 2019). Research has suggested that one in five women have experienced sexual assault since starting college (Muehlenhard et al., 2017).

Sexual assault is considered to be a public health problem because it is widespread there is some evidence to show it can be prevented with a comprehensive evidence-based prevention approach that targets modifiable risk factors and optimizes protective factors at individual, relational, organizational/community and societal levels of analysis (e.g., Dills et al., 2016). While there is an established process of intervention design and evaluation to demonstrate that sexual assault interventions are evidence-based, no analogous process exists for determining whether the professionals who conduct these EBIs are adequately trained and effective at delivering these interventions.

Critical for any workforce, competencies foster improved performance (Chouhan & Srivastava, 2014), and the workforce of prevention practitioners is no exception. Various reviews

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and guidance documents have highlighted the essential role of well-trained staff in prevention work and the importance of training staff on the required competencies. Nation and colleagues (2003) reviewed various prevention literatures (e.g., substance abuse) and identified that delivery of content by well-trained staff, along with eight other characteristics (e.g., theory-based program content), was strongly associated with intervention effectiveness. Fixsen and colleagues (2009) emphasized that essential implementation components of interventions included: recruiting qualified staff, conducting training before the intervention is delivered, providing on-the-job coaching by more experienced staff during intervention delivery, and evaluating the performance of staff. Finally, the Society for Prevention Research's identified staff training as a standard for prevention interventions (Flay et al., 2005).

Previous efforts have tried to determine whether prevention practitioners (i.e., professionals who perform work in the fields of primary prevention of injury and violence prevention) are competent in primary prevention in general. Specifically, the core competencies needed for prevention practitioners—i.e., the essential skills and knowledge for one's work—were developed in a consortium in the prevention science community (Songer et al., 2009) and an assessment tool (the Injury Prevention Assessment or IPA) was developed to allow prevention practitioners to self-assess on these competencies (Villaveces et al., 2010). These competencies include approaching an injury or violence problem with frameworks like the public health model, understanding how to analyze and use data for continuous quality improvement, designing and evaluating interventions, and managing a prevention program.

The research suggests that sexual assault prevention practitioners may require additional skills beyond the core competencies needed for injury and violence prevention in general (Songer et al., 2009). One of the factors that makes sexual assault a unique type of violence to

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prevent is the cultural pervasiveness of survivors being blamed – and internalizing blame – for the event, which results in internalized shame, risk of retraumatization, and underreporting. Combatting pervasive rape myths and avoiding harming participants with a history of sexual assault while administering sensitive program content are only some of the major challenges with which sexual assault prevention practitioners contend. The aforementioned IPA assessment tool (Songer et al., 2009; Villaveces et al., 2010) does not assess sexual assault-specific prevention competencies (e.g., group facilitator skills for using a trauma-informed approach). The sexual assault prevention community would benefit from the articulation of core competencies and incorporation of those competencies in an assessment tool, so that gaps in competencies can be identified and addressed with training, reassignments, or hiring new personnel. The purpose of this article is to (1) describe the development of a competency assessment tool, that builds off of existing prevention core competencies, but is designed specifically for sexual assault prevention practitioners working in both civilian and military settings) and (2) its pilot test assessing knowledge and job relevance of these specific competencies with practitioners reporting higher and lower levels of self-reported expertise in sexual assault prevention.

**Study hypotheses.** We hypothesized that pilot test participants with higher levels of self-reported expertise in sexual assault prevention would score higher on the competency assessment tool, reporting greater knowledge of competencies and perceiving greater job relevance of competencies. Specifically, we predicted that the high expertise group would have greater knowledge (H1a) and perceive greater job relevance (H2a) than medium and low expertise groups. We predicted that the medium expertise group would have greater knowledge (H1b) and perceive greater job relevance (H2b) than the low expertise group.

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### **Method**

**Literature search strategy and results.** In order to identify existing competency assessments and competencies needed for sexual assault prevention practitioners, we searched the formal and gray literatures. We searched the Web of Science database for the following search terms: (Rape OR sex\* assault\* OR sex\* harassment OR sex\* violence\* OR gender-based violence OR violence) AND (Primary prevention OR violence Prevention or prevent\*) AND (practitioner training OR Professional competenc\* OR skills OR core competencies) AND (competency assessment\* OR curriculum-based assessment OR assessment OR scale OR measure OR instrument OR questionnaire). In the Web of Science database, 477 references were returned from the search. The references were categorized as follows: descriptions of programs or evaluations (N=224), empirical studies about sexual assault (N=207), trainings or guidelines about best practices for professionals who respond to sexual assault (e.g., physicians, forensic nurses, mental health professionals) (N=13), information about therapy or response for sexual assault (N=12), practice recommendations for sexual assault prevention or response (N=12), assessment tools or competency criteria that can inform a tool (N=5), guidelines or standards for violence prevention practitioners (N=2), or miscellaneous (e.g., validation of a scale) (N=2). We searched Google for the following terms: (sexual assault OR sexual harassment) AND (Primary prevention OR prevention) AND (practitioner OR educator OR facilitator) AND (training OR train the trainer) and (assessment OR skills OR core competencies), which returned approximately 1,630,000 results. We reviewed the first twenty pages of results to find relevant resources. Resources deemed to be relevant often described sexual assault response (e.g., therapy).

We did not find self-assessment tools specific to sexual assault prevention practitioners,

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but we identified two self-assessment tools that were not specific to sexual assault. One of them, the IPA (Villaveces et al., 2010), consisted of self-ratings of knowledge about and job relevance of the core competencies for prevention work. Since prevention core competencies are the foundation of knowledge for sexual assault prevention practitioners (Runyan et al., 2005), we aimed to build on them by tailoring this assessment tool.

We read and systematically extracted information from these publications. Then we analyzed that information using constant comparative analysis (or thematic analysis). Four themes described specific competencies needed for sexual assault prevention work: (1) understanding and addressing the oppressive systems underlying sexual assault (e.g., Dills et al, 2016; NSVRC, 2012), (2) coordinating efforts across prevention and response (e.g., rape crisis centers) (e.g., Dills et al, 2016), (3) using a trauma-informed approach to anticipate and manage distressed feelings that may arise for program participants (Dills et al, 2016), and (4) expanding the prevention focus to include what the program is trying to promote (e.g., safe, respectful and equitable environments), not just what the program is aiming to prevent (i.e., sexual assault) (NSVRC, 2012). These themes were not found to be adequately covered by the IPA.

**Assessment tool development.** We then tailored the IPA by first deleting and rewording existing items to be more sexual assault-specific and then adding items that reflected any general prevention or specific sexual assault prevention competencies that were missing. Thirteen items were deleted because they were not relevant to sexual assault (e.g., Describe the biomechanics which underlie how injuries occur) or were covered already or merged with existing items (e.g., Describe various levels where prevention activities can be focused). Five more items were deleted because they were part of a competency that assess expertise on one-specific type of violence (e.g., Describe the causes and characteristics of the specific injury and/or sexual

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violence topic), which was no longer relevant since the entire assessment was focused on sexual assault. Regarding the general prevention items that were added, a single item was added to assess each of the following: knowledge of the multiple key elements of effective prevention practice (Nation et al., 2003), ability to access and use scientific articles (Basile et al., 2016), ability to distinguish interventions that are evidence-based from those that are not (Basile et al., 2016), ability to tailor prevention programs (Perkinson et al., 2017), knowledge of best practices concerning effective learning environments (NSVRC, 2012), and ability to convey program goals with a promotion paradigm (NSVRC, 2012; Walden & Wall, 2014). Regarding the sexual assault prevention competencies that were added, a single item was added to assess each of the following: knowledge of protective factors against sexual assault perpetration and victimization (e.g., Basile et al., 2016), understanding how oppressive systems lay foundation for sexual assault (e.g., Dills et al, 2016; NSVRC, 2012; Walden & Wall, 2014), understanding special issues concerning data and sexual assault such as underreporting (Yung, 2015), coordinating efforts across prevention and response (e.g., rape crisis centers) (e.g., Dills et al, 2016), and using a trauma-informed approach in program delivery (e.g., Dills et al, 2016; NSVRC, 2012) .

The resulting assessment tool had 70 items which were sorted into 8 competencies: (1) sexual assault as a major public health problem (10 items); (2) working with sexual assault data (10 items); (3) design, adaptation and implementation of sexual assault prevention activities (9 items); program evaluation (7 items); program management (6 items); dissemination (6 items); ability to foster change related to sexual assault prevention through policy, enforcement, advocacy and education (12 items); maintaining competency as a sexual assault prevention practitioner (5 items). See Table 1 for reliability information and descriptive statistics concerning the group averages for these competencies.

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The modified assessment tool was renamed the Competency Assessment for Sexual Assault Prevention Practitioners (CASAPP). We created an alternate version of the CASAPP (CASAPP-m) complete with military-specific language for use by the Sexual Assault Prevention and Response Office (SAPRO) in the DoD. For example, the following item in the general CASAPP “Describe how to establish and maintain an advisory group to assist with the development and monitoring of goals for sexual assault prevention within a population (e.g., a community, a state, among children, among Latinos, etc.)” became “Describe how to establish and maintain an advisory group to assist with the development and monitoring of goals for sexual assault prevention within a population (e.g., at a Military Service Academy, on a submarine or a ship, among service members with alcohol-related conduct offenses).” in the CASAPP-m.

**Assessment tool pilot test.** We then pilot tested the CASAPP to assess criterion validity of the assessment tool with a convenience sample of 33 researchers at the RAND Corporation, at DoD SAPRO, and at Portland State University, all of whom were Masters- or Doctoral-level researchers. We requested that participants provide self-ratings of their expertise in sexual assault prevention and any information that informed that rating (such as relevant trainings and work experience). We then categorized participants into low, medium and high expertise groups. Participants were instructed to take either the CASAPP or CASAPP-m depending on their workplace (RAND and Portland State University participants took the CASAPP and DoD SAPRO participants took the CASAPP-m). We collected participants’ impressions of the tool, which we used to refine the tool.

**Statistical Analysis.** Given their similarity in content, the analyses conducted combined responses from both versions of the CASAPP. All analyses were conducted in SPSS v22.0



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(George & Mallery, 2019). Cronbach's alpha coefficient was calculated for each competency. Then, we tested the study hypotheses through a series of ANOVAs and Bonferroni post-hoc tests predicting self-reported ratings of knowledge and job relevance for each competency subscale using a categorical coding of self-rated expertise (low, medium and high). Due to the modest sample size, no covariates were included.

### **Results**

The ANOVAs revealed that there was a significant effect of self-rated expertise for each of the 8 core competencies for both knowledge and job relevance. For example of one of the ANOVA findings, there was a significant effect of self-rated expertise for the 3 groups regarding knowledge for Competency 1 [ $F(2, 30) = 34.61, p < .001$ ]. Once the presence of between group differences were established, Bonferroni tests were conducted to do specific group comparisons (e.g., high versus medium expertise group). Table 2 displays the full results for the Bonferroni comparisons. Regarding the dimension of knowledge, the high expertise group had was significantly higher than the low expertise group on all of the competencies and was significantly higher than the medium expertise groups on all competencies except Competency 8 (ability to develop and maintain competency), thus lending support for H1a. For example, the high expertise group ( $M=43.62, SD=4.74$ ) had significantly greater knowledge about understanding sexual assault as a public health problem (competency 1) than the medium expertise group ( $M=30.11, SD=4.05$ ) with a mean difference of 13.50 ( $SE=2.62; p < .001$ ) and the low expertise group ( $M=23.55, SD=8.32$ ) with a mean difference of 20.07 ( $SE=2.50$ ). The medium expertise group was significantly higher from the low expertise group on competencies 2, 3, 4, and 8, thus finding partial support for H1b. Regarding the dimension of job relevance, the high expertise

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group had was significantly higher than the low expertise group on all competencies and was significantly higher than the medium expertise groups on all the competencies except competencies 5, 6, 7, and 8, this lending support for H2a. The medium expertise group was significantly higher from the low expertise group on competencies 2 and 4 for job relevance, thus lending partial support for H2b.

In total, 33 out of 48 tests were significant. To determine the likelihood of a Type 1 error rate (false positive) due to multiple comparisons (Sainani, 2009), we calculated the number of tests that would be expected to be significant by chance and compared that to our findings. The number of significant tests (34) is higher than the number of tests that would be expected to be significant by chance (48 tests total multiplied by 5%, or 2.4 tests), and therefore we are confident in these findings.

## **Discussion**

The CASAPP is informed by prevention science as well as practical guidance about what competencies—i.e., knowledge, skills—sexual assault prevention practitioners should have beyond the core competencies for prevention work outlined by Songer and colleagues (2009). Our analyses suggest that the assessment tool is valid, with the high expertise group scoring higher in knowledge on all competencies and higher in job relevance on most competencies. The subscales also demonstrated good internal consistency. However, certain limitations should be noted. The validity analyses utilized a small sample ( $n=33$ ) and relied on self-reported expertise. A larger sample with objective measures of expertise should be used for additional psychometric testing. Additionally, while the convenience sample we utilized for the pilot test provided preliminary validation of our assessment tool, the next step would be to administer the CASAPP to a random sample of individuals with varying levels of expertise and work experience.

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The assessment tool fills an important gap in the existing literature and is the first tool to our knowledge that include specific competencies needed for sexual assault prevention in both military and civilian settings. A previous needs assessment has found that practitioners working in the fields of sexual assault and domestic violence focused most of their efforts on response (e.g., counseling) rather than primary prevention and that they did not have adequate training and experience in primary prevention but were eager to learn about primary prevention (Martin et al., 2009). Although there are training programs for prevention practitioners in general (e.g., PREVENT Program; Runyan et al., 2005) and sexual assault prevention practitioners like those offered by the CDC (Rape Prevention and Education (RPE)) to fill the learning gaps, there are no self-assessment tools for teams of sexual assault prevention practitioners to first identify gaps in knowledge and task assignments.

We believe that the advantages of a well-trained prevention practitioner workforce would be significant. Well-trained staff can make the most use out of prevention funding, which tends to be limited, by adopting the most appropriate EBIs and delivering them in a way that maximizes the likelihood of achieving positive outcomes (e.g., Nation et al., 2003). Conducting prevention in this manner would help potential victims avoid sexual assault's devastating psychological (e.g., post-traumatic stress disorder, suicide) and economic (e.g., medical expenses, lost wages) toll (Martin et al., 2011). Further, trauma-informed prevention work would avoid causing additional harm to program participants with a history of sexual assault. Finally, rigorously conducted research has been sparse resulting in only a handful of strategies being proven to prevent sexual assault while there are many promising strategies that have yet to be tested with rigorous methods (DeGue et al., 2014; Orchowski et al., 2018; Wright, Zounlome, & Whiston, 2020). There is a need for competent professionals to conduct this research so that

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effective programs can be invested in.

Beyond the inherent value of sexual assault prevention, universities and the military have a particularly vested interest to have well-trained staff who do effective sexual assault prevention work because sexual assault thwarts the core missions driving these institutions. Sexual assault threatens education at universities as it hinders academic performance (e.g., declining grades) and has found to be more predictive of dropping out of college than other types of violence (Mengo & Black, 2016). The American College Health Association (ACHA, 2011) cautioned that students cannot learn in an unsafe environment and that survivors often face barriers to academic success. The ACHA (2011) and the CDC (Dills et al., 2016) galvanized universities to address sexual assault with a comprehensive approach and provided recommendations for trauma-informed prevention and response to guide them. Analogous to sexual assault threatening the mission of education for universities, sexual assault threatens the military's mission of having an effective force because it can result in personnel loss and it undermines unit cohesion, military readiness and ultimately military effectiveness (Breslin et al., 2019; Klein & Gallus, 2018). Important steps have been taken to improve the military's response to sexual assault (like the implementation of restricted reporting). We believe that the CASAPP would serve the military in their prevention efforts. In military settings, individuals working in prevention are often not trained, but are assigned these tasks as collateral duty (i.e., in addition to a full-time duty). In this case, this assessment is critical for determining whether on-the-job training is appropriately preparing these professionals to succeed.

The assessment tool could be used by entities at both the individual and team levels. At the individual level, the assessment tool could be used to identify areas where additional training would be beneficial. In addition to finding gaps in knowledge, the assessment tool can be used to

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identify and reassign individuals possessing specific sets of knowledge that might not yet be fully utilized when used at the team level. In addition, this assessment could also be used to structure job announcements and to assess the quality of training programs through pre/post assessments. The assessment tool could also be used to determine the knowledge and skills to implement high quality prevention across an entire team, which could be critical as this work is often conducted by teams.

### **Conclusion**

High quality sexual assault prevention requires certain competencies to ensure programming is well executed, evaluated, and sustained. The CASAPP is a tool that can help both individuals and prevention teams monitor and improve those skills. The two versions (general and military) of the assessment tool and instructions can be requested from the corresponding co-author.

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Table 1. Reliability and descriptive statistics for knowledge and job relevance in the eight competencies of the CASAPP for the low, medium, and high expertise groups.

Competency	Dimension: Knowledge			Dimension: Job Relevance				
	Cronbach's Alpha	Low expertise M (SD)	Medium Expertise M (SD)	High expertise M (SD)	Cronbach's Alpha	Low expertise M (SD)	Medium Expertise M (SD)	High expertise M (SD)
1. Understand the problem	0.9505	23.55 (8.32)	30.11 (4.05)	43.62 (4.74)	0.968	22.36 (13.46)	33.67 (11.51)	42.46 (5.32)
2. Interpret & use data	0.953	25.00 (8.99)	33.44 (6.86)	45.69 (3.66)	0.962	22.00 (12.08)	37.89 (9.05)	44.46 (6.01)
3. Design, tailor, & implement programs	0.960	16.55 (7.79)	23.22 (4.68)	39.15 (4.10)	0.971	18.73 (13.81)	28.33 (11.51)	38.46 (6.40)
4. Program evaluation	0.972	14.82 (7.34)	22.00 (6.82)	32.46 (2.40)	0.985	14.82 (10.50)	28.89 (7.77)	32.15 (4.62)
5. Build & manage a program	0.968	18.00 (8.23)	21.44 (6.58)	42.46 (8.47)	0.978	20.45 (13.57)	26.89 (14.71)	42.69 (11.70)
6. Disseminate	0.950	11.91 (7.04)	14.44 (3.54)	26.08 (3.48)	0.950	12.73 (8.84)	17.44 (6.91)	26.15 (4.34)
7. Foster change	0.972	21.18 (10.75)	23.44 (7.16)	47.00 (9.45)	0.973	23.27 (16.02)	30.00 (15.79)	47.77 (11.00)
8. Maintain & develop competency	0.937	10.73 (5.76)	14.89 (4.65)	22.54 (2.30)	0.953	9.45 (7.49)	14.89 (6.17)	21.31 (3.35)

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Table 2. Bonferroni post-hoc tests identifying differences between the high, medium and low expertise groups on knowledge and job relevance in the eight competencies of the CASAPP.

Competency	Dimension: Knowledge			Dimension: Job Relevance		
	Group comparison: Mean difference (SE)			Group comparison: Mean difference (SE)		
	Medium and low	High and low	High and medium	Medium and low	High and low	High and medium
1. Understand the problem	6.57 (2.71)	20.07 (2.50)***	13.50 (2.62)***	11.30 (4.65)	20.10 (4.24)***	8.80 (4.49)
2. Interpret & use data	8.44 (3.01)*	20.69 (2.74)***	12.25 (2.90)**	15.89 (4.14)**	22.46 (3.77)***	6.57 (4.0)
3. Design, tailor, & implement programs	6.68 (2.57)*	22.61 (2.35)***	15.93 (2.48)***	9.61 (4.83)	19.73 (4.40)***	10.13 (4.66)
4. Program evaluation	7.18 (2.57)*	17.64 (2.34)***	10.46 (2.48)**	14.07 (3.52)**	17.34 (3.21)***	3.27 (3.40)
5. Build & manage a program	3.44 (3.56)	24.46 (3.25)***	21.02 (3.44)***	6.43 (5.93)	22.24 (5.40)**	15.80 (5.72)*
6. Disseminate	2.54 (2.23)	14.17 (2.04)***	11.63 (2.15)***	4.72 (3.06)	13.43 (2.79)***	8.71 (2.95)*
7. Foster change	2.26 (4.22)	25.82 (3.84)***	23.56 (4.07)***	6.73 (6.36)	24.50 (5.80)**	17.77 (6.14)*
8. Maintain & develop competency	11.81 (1.78)***	7.65 (1.89)**	4.16 (1.96)	5.43 (2.60)	11.85 (2.37)***	6.42 (2.50)*

Note. \* p < .05. \*\* p < .01. \*\*\* p < .001.

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### References

- American College Health Association (2011). Position Statement on Preventing Sexual Violence on College and University Campuses.
- Basile, K.C., DeGue, S., Jones, K., Freire, K., Dills, J., Smith, S.G., Raiford, J.L. (2016). STOP SV: A Technical Package to Prevent Sexual Violence. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Black, M.C., Basile, K.C., Breiding, M.J., Smith, S.G., Walters, M.L., Merrick, M.T., Chen, J., & Stevens, M.R. (2011). The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Breslin, R., Davis, L., Hylton, K., Hill, A., Klauberg, W., Petusky, M., & Klahr, A. (2019). *2018 Workplace and Gender Relations of Active Duty Members: Overview Report* (No. OPA Report No 2019-027). Office of People Analytics Alexandria United States.
- Chouhan, V. S., & Srivastava, S. (2014). Understanding competencies and competency modeling—A literature survey. *IOSR Journal of Business and Management*, *16*(1), 14-22.
- DeGue, S., Valle, L. A., Holt, M. K., Massetti, G. M., Matjasko, J. L., & Tharp, A. T. (2014). A systematic review of primary prevention strategies for sexual violence perpetration. *Aggression and violent behavior*, *19*(4), 346-362.
- Dills, J., Fowler, D., Payne, G. (2016). *Sexual Violence on Campus: Strategies for Prevention*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Fixsen, D. L., Blase, K. A., Naoom, S. F., & Wallace, F. (2009). Core implementation components. *Research on social work practice*, *19*(5), 531-540.



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- Flay, B. R., Biglan, A., Boruch, R. F., Castro, F. G., Gottfredson, D., Kellam, S., ... & Ji, P. (2005). Standards of evidence: Criteria for efficacy, effectiveness and dissemination. *Prevention science*, 6(3), 151-175.
- George, D., & Mallery, P. (2019). *IBM SPSS Statistics 26 step by step: A simple guide and reference*. Routledge.
- Klein, M., & Gallus, J. A. (2018). The readiness imperative for reducing sexual violence in the US armed forces: Respect and professionalism as the foundation for change. *Military Psychology*, 30(3), 264-269.
- Martin, S. L., Coyne-Beasley, T., Hoehn, M., Mathew, M., Runyan, C. W., Orton, S., & Royster, L. A. (2009). Primary prevention of violence against women: Training needs of violence practitioners. *Violence Against Women*, 15(1), 44-56.
- Martin, S. L., Macy, R. J., & Young, S. K. (2011). *Health and economic consequences of sexual violence*. In J. W. White, M. P. Koss, & A. E. Kazdin (Eds.), *Violence against women and children, Vol. 1. Mapping the terrain* (p. 173–195). American Psychological Association. <https://doi-org.proxy.lib.pdx.edu/10.1037/12307-008>
- Mengo, C., & Black, B. M. (2016). Violence victimization on a college campus: Impact on GPA and school dropout. *Journal of College Student Retention: Research, Theory & Practice*, 18(2), 234-248.
- Muehlenhard, C. L., Peterson, Z. D., Humphreys, T. P., & Jozkowski, K. N. (2017). Evaluating the one-in-five statistic: Women's risk of sexual assault while in college. *The Journal of Sex Research*, 54(4-5), 549-576.
- Nation, M., Crusto, C., Wandersman, A., Kumpfer, K. L., Seybolt, D., Morrissey-Kane, E., & Davino, K. (2003). What works in prevention: Principles of effective prevention

## **RUNNING HEAD: Sexual assault competencies**

programs. *American psychologist*, 58(6-7), 449.

National Sexual Violence Resource Center (2012). Core competencies for sexual violence prevention practitioners.

Orchowski, L. M., Berry-Cabán, C. S., Prisco, K., Borsari, B., & Kazemi, D. M. (2018).

Evaluations of Sexual Assault Prevention Programs in Military Settings: A Synthesis of the Research Literature. *Military medicine*, 183(suppl\_1), 421–428.

Perkinson, L., Freire, K.E., & Stocking, M. (2017). Using Essential Elements to Select, Adapt, and Evaluate Violence Prevention Approaches. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Runyan, C. W., Gunther-Mohr, C., Orton, S., Umble, K., Martin, S. L., & Coyne-Beasley, T.

(2005). PREVENT: a program of the National Training Initiative on Injury and Violence Prevention. *American journal of preventive medicine*, 29(5), 252-258.

doi:10.1016/j.amepre.2005.08.013

Sainani, K. L. (2009). The problem of multiple testing. *PM&R*, 1(12), 1098-1103.

Shadish, & Cook, (2009). The renaissance of field experimentation in evaluating interventions. *Annual review of psychology*, 60, 607-629.

Smith, S.G., Zhang, X., Basile, K.C., Merrick, M.T., Wang, J., Kresnow, M., Chen, J. (2018).

*The National Intimate Partner and Sexual Violence Survey (NISVS): 2015 Data Brief – Updated Release*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Villaveces, A., Stucky, B. D., Runyan, C. W., Moore, K. S., & Berlin, S. P. (2010). The

Development of an Instrument for Evaluating Core Competencies in Violence and Injury

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Prevention. *Journal of Public Health Management and Practice*, 16(4), 337-344.

doi:10.1097/PHH.0b013e3181bede2a

Wright, L. A., Zounlome, N. O. O., & Whiston, S. C. (2020). The Effectiveness of Male-Targeted Sexual Assault Prevention Programs: A Meta-Analysis. *Trauma, Violence, & Abuse*, 21(5), 859–869.

Yung, C. R. (2015). Concealing campus sexual assault: An empirical examination. *Psychology, public policy, and law*, 21(1), 1.