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**TITLE:** Reducing Sexual Assault at the U.S. Air Force Academy: Adaptation, Implementation, and Evaluation of the Sexual Communication and Consent Program

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**CONTRACTING ORGANIZATION:** University of Florida, Gainesville, FL

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#### 14. ABSTRACT

The Sexual Communication and Consent (SCC) program provides a blended instructional model of sexual assault prevention and response training, including universal classroom content that provides common learning points and covers standard learning objectives, interspersed with targeted multimedia intervention content based on common evidence-based risk factors and delivered via individual tablets. Highlighted by the Department of Defense Sexual Assault Prevention and Response Office as a promising practice in its 2019 Prevention Plan of Action (DoD, 2019) following successful implementation at Basic Military Training in San Antonio, Texas, the SCC program addresses identified gaps in USAFA's sexual assault prevention programming by targeting individual risk for cadets and incorporating a leadership perspective to prepare them for situations they may encounter with individuals under their command. The current study will implement and evaluate SCC at USAFA with the following specific aims:

- **Aim 1:** Assess the feasibility and acceptability of the SCC sexual assault prevention program for four-degree (freshman) cadets at USAFA.
- **Aim 2:** Adapt SCC content for USAFA and develop supplemental SCC program content for first class (senior) USAFA cadets targeting leadership values and behaviors.
- **Aim 3:** Assess SCC program impact on proximal (knowledge, attitudes, beliefs, self-efficacy) and distal (sexual assault prevalence) outcomes among cadets receiving the program.

<b>15. SUBJECT TERMS</b> <i>Sexual assault prevention; tailored prevention; tablet-based training; individual risk; sexual assault victimization; sexual assault perpetration; revictimization; Sexual violence; prevention; evaluation; intervention; curriculum development; program adaptation; USAFA; BCT; leadership training</i>			<b>17. LIMITATION OF ABSTRACT</b>  Unclassified	<b>18. NUMBER OF PAGES</b>  24	<b>19a. NAME OF RESPONSIBLE PERSON</b> USAMRDC
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## 1. INTRODUCTION:

Military sexual assault is a highly sensitive, volatile issue with many high-profile incidents in recent years. Victims of sexual violence may experience health and psychological sequelae, such as injury, depression, anxiety, posttraumatic stress disorder, alcohol abuse, and repeat victimization. The Air Force is committed to identifying and implementing evidence-based strategies for preventing sexual assault and revictimization among its ranks, evaluating successes and challenges both overall and for specific vulnerable subpopulations, and improving victim response. The current study supports this mission through the implementation and evaluation of the evidence-informed Sexual Communication and Consent (SCC) program with USAFA cadets. Extensively tested within Air Force Basic Military Training (BMT), the SCC program represents an interactive blended instructional model, including universal classroom content that provides common learning points and covers standard learning objectives, interspersed with targeted multimedia intervention content based on common evidence-based risk factors and delivered via individual tablets. This project aims to enhance USAFA's existing sexual assault prevention programming by targeting individual risk for cadets and incorporating a leadership perspective to prepare them for situations they may encounter with individuals under their command.

**The scope of our study includes the following specific aims:**

- **Aim 1:** Assess the feasibility and acceptability of the SCC sexual assault prevention program for four-degree (freshman) cadets at USAFA.
- **Aim 2:** Adapt SCC content for USAFA and develop supplemental SCC program content for first class (senior) USAFA cadets targeting leadership values and behaviors.
- **Aim 3:** Assess SCC program impact on proximal (knowledge, attitudes, beliefs, self-efficacy) and distal (sexual assault prevalence) outcomes among cadets receiving the program.

## 2. KEYWORDS:

Sexual assault prevention; tailored prevention; tablet-based training; individual risk; sexual assault victimization; sexual assault perpetration; revictimization; Sexual violence; prevention; evaluation; intervention; curriculum development; program adaptation; USAFA; BCT; leadership training

### 3. ACCOMPLISHMENTS:

#### What were the major goals of the project?

Below is a list of project tasks and milestones organized by study aim, as identified in our statement of work (Full SOW presented in the Appendix). We have included a completion date for those items that have been accomplished. For activities in progress, we have provided the estimated percent completion.

**Aim 1:** Pilot test the feasibility and acceptability of the current SCC sexual assault prevention program for four-degree cadets at USAFA.

1. Finalize implementation and study design (completed February 2021)
2. Prepare SCC app and tablet technology for USAFA implementation (completed June 2021)
3. Acquire all required Survey Control, IRB, & HRPO approvals (completed July 2021)
4. Conduct the SCC pilot test (completed October 2021)

**Aim 2:** Adapt SCC content for USAFA, including the development of supplemental content for first class USAFA cadets targeting leadership values and behaviors.

1. Identify needed SCC program adaptations (completed December 2021)
2. Adapt/Develop program content (completed June 2022)
3. Develop conceptual model for new leadership training content (November 2021: 80%)
4. Conduct formative research to inform leadership development training content recommendations (Expected September 2022: 80%)

**Aim 3:** Assess feasibility, acceptability, and preliminary program effects of the adapted SCC program on proximal (knowledge, attitudes, beliefs, self-efficacy) and distal (sexual assault prevalence) outcomes among cadets receiving the program.

1. Examine feasibility and preliminary impact of the adapted SCC program (Completed May 2023)
2. Analyze data and disseminate findings (August 2023: 50%)

## What was accomplished under these goals?

**Aim 1** work was centered around preparing for and completion of the SCC pilot at USAFA. The program preparation and implementation occurred in Year 1 (Y1), and the pilot test was completed in Year 2 (Y2). Milestones accomplished under each of the following tasks (delineated by project year) are described below:

- a) **Finalized implementation and study design (Y1):** Upon initiation of our award, we convened a kick-off meeting to build rapport between project partners (UF, RTI, and USAFA). We reviewed the proposed study aims and plans/methodology. Through our weekly team meetings, we learned about USAFA prevention priorities, their unit organization and capacity, and what approvals would be needed to move forward. We worked with USAFA SAPR and Cadet Wing leadership to identify the ideal implementation plan for SCC. We would implement during Basic Cadet Training (BCT). Specifically, SCC training would occur simultaneously with the standard programming (CHiPS), and SAPR staff would randomly assign squadrons to one or the other.
- b) **Prepared SCC app and tablet technology for USAFA implementation (Y1):** With our implementation plan in place, we were able to move toward adapting measures and SCC app and classroom content to be USAFA-specific where possible prior to the pilot. In addition to preparing content, we also prepared the physical equipment for program delivery (80 iPads and accessories) and updated the instructor training manual to include feedback from the BMT pilot and to make training more specific to USAFA.
- c) **Acquired all required Survey Control, IRB, & HRPO approvals (Y1):** We secured appropriate approvals from the USAFA Cadet Wing Commandant to use designated class time for piloting the SCC training, the A1 and USAFA Survey Control Offices, three institutional review boards (USAFA, UF, and RTI), and DoD HRPO.
- d) **Conducted the SCC pilot test (Y1 & Y2):** In June 2021, the UF and RTI scientific teams conducted a three-day training with USAFA SAPR staff to prepare for SCC program delivery and implementation. With a staff of 12 instructors, we ran the pilot study from July 7-21, delivering SCC to over 160 Basics. SCC was delivered over 3 two-hour sessions to six classes ranging in size between 25 and 30 Basics. Basics completed a pre-test and post-test embedded within the training sessions; we conducted a 3-month follow-up survey during the Fall designated survey and assessment time (DSAT) to inform potential response rates to longer-term follow-up assessment and required sample size for the Aim 3 study.

### Summary of Pilot Data

We completed pilot test follow-up data collection in November 2021 during the Fall DSAT period. A total of 37 cadets completed online follow-up assessment (23% response rate). Data from the initial SCC pilot was analyzed and summarized to report out to leadership and to inform recommended adaptation to the program for the larger Year 2 pilot. Results from the pilot study were presented at USAFA to justify additional data collection of the adapted program in 2022-2023. In sum:

- The program was implemented with 2 squads of basics (N = 162); 68% screened into the Male Healthy Relationships program, and 26% screened into the female primary victimization prevention program; the remaining basics screened into one of the higher risk revictimization or male victimization groups.
- Cadets gave the program high acceptability ratings and provided helpful feedback to support adaptation.
- Multiple sources (e.g., facilitators, embedded tablet usage data, few observed technological problems in the classroom, SAPR staff) indicated high implementation feasibility and enthusiasm for the program.
  - Overall, acceptability and feasibility ratings were **as good as, or better than**, those observed in our prior feasibility testing at Lackland AFB (BMT).
- We also observed significant pre- to post-test changes in the desired direction for knowledge, attitudes, and beliefs (e.g., self-efficacy to resist unwanted sexual advances)
  - Response rates at follow-up were too low to examine long-term outcomes, and there were no instances of sexual violence reported at 3-month follow-up, suggesting a need for alternative methods for assessing longer-term outcomes in the study planned for Y3 (e.g., in-person survey administration and an additional 9-month assessment in Spring 2023 DSAT).

### Summary of Instructor Focus Group Results

Results from the instructor focus groups indicated that the program implementation was overall feasible, and that the program content was acceptable to cadets.

#### A. Instructor training:

- a. Instructors indicated that the training they received prior to program implementation was sufficient but warned that less experienced instructors may need additional training. If instructors outside of the Academy were contracted to implement future trainings, additional time will need to be allotted for training and practice.

#### B. Program content:

- a. Instructors described a need for a more in-depth definition of consent and more time spent discussing what consent looks like.
- b. Implementing the training in cadets' third or fourth year at the Academy may allow for more participation in the alcohol-related portion of the program when a greater portion of cadets are of legal drinking age.
- c. Instructors recommended additional follow-up discussion or debriefing after specific classroom-based activities.

#### C. Program implementation:

- d. Instructors noted that the students were most engaged and willing to participate in the classroom instruction portions of the content. They warned against prolonged periods where students were completing tablet content only, as students quickly became tired or disengaged from tablet content. When students became disengaged, they were responsive to candy as incentives for completion of modules.
- e. Instructors indicated they would prefer paper handouts to be moved to a digital format for ease of distribution and ease of access for cadets.
- f. Instructors indicated that they may be overwhelmed by dealing with potential IT issues if all cadets were using their own devices (instead of the provided iPads) to complete the trainings, especially since it is common for cadets to come into training late or have to leave early. They suggested it may be helpful to have a designated IT helper, or explicitly assign one of the instructors to handle IT issues during certain times in the instructor manual.

**Aim 2** and the primary focus of FY 2 included identifying adaptation needs and then subsequently adapting the SCC program to include Cadet and Leadership feedback, including the development of supplemental content for first degrees focused on SAPR-related leadership training. To achieve this aim, we engaged in two parallel research processes:

1. We used the pilot data (summarized above) to inform specific changes that were needed to optimize the SCC curriculum and implementation structure within the USAFA environment. Perhaps most notably, **we transitioned the SCC program from tablet-based delivery to a web-based platform**, minimizing technology-related burden on instructors and enhancing the feasibility of sustainable program implementation. We have completed the iterative process of integrating indicated adaptations to: **the SCC program content** (e.g., streamlining web content to make more space for in-class discussions, addressing any language flagged as potentially victim-blaming, adapting statistics and scenarios to be more USAFA-specific to enhance relevance); **implementation plan** (e.g., moving the pre-test and screener out of program session 1 into its own session so it could be administered to all four degree Basics in 2022, reducing instructor requirements from 2/room to 1/room given the smaller-group implementation setting at USAFA); and **instructor training procedures** (e.g., updating troubleshooting guide to reflect the shift to web-based delivery, shortening training for SAPR-trained staff, revising the distress response protocol).
2. Our formative work in Year 1 (review of the literature and curriculum, convening and regularly meeting with the USAFA Leadership Training working group), revealed USAFA already has an extensive leadership training framework. In Year 2, we aimed to leverage the existing training framework as a starting point for supplemental material implementation. To inform updates to the leadership curriculum, we engaged in a rigorous formative research process so we could better understand the current training's strengths and areas for needed improvement. To achieve this, we aimed to conduct formative focus groups and interviews with first and second class USAFA cadets (n = 20), USAFA leadership training staff (n = 10), and recent USAFA graduates (via SOS at Maxwell AFB; n = 20). We conducted 26 interviews with Captains attending SOS at Maxwell AFB; Qualitative data coding and analysis are in progress. In February 2023, we began recruiting USAFA cadets and AOCs/AMTs. We completed five interviews with AOCs/AMTs and six interviews with cadets. However, due to Cadets and AOCs/AMTs working off site over the summer, USAFA requested a pause in data collection until September 2023. In the meantime, we will begin to clean, code, and analyze data from the 11 completed interviews. We will resume data collection in August 2023 and anticipate analysis and dissemination to be ongoing through August 2024. Toward this end, we have requested a 1-year no-cost extension to facilitate completion of this work. A final report with leadership training recommendations will be submitted to USAFA by August 2024.

**Aim 3** integrates the work accomplished in Aims 1 and 2 to conduct a larger feasibility and acceptability assessment of the USAFA-adapted SCC program. Milestones accomplished under each of the following tasks are described below:

- a) Finalized implementation and study design (Y2):** The full feasibility and acceptability assessment of the adapted SCC involves a much larger sample and data collection with a comparison group. Based on pilot data, we also recommended that instead of one follow-up assessment in October, there should be two follow-up assessments (October 2022 and April 2023) administered in-person if possible. To accommodate these shifts in study design from pilot to main study, we worked with USAFA SAPR and Cadet Wing leadership to identify the ideal implementation plan. In sum, we moved the pre-test/screening assessment out of training day 1 and into a separate SAPR-controlled training at the beginning of BCT; SAPR randomly assigned squadrons to receive either training as usual (CHiPS) or SCC; we administered the online post-test and acceptability assessment at the end of both programs, so we could maximize power ( $n = \sim 1,000$ ) and have pre-test and post-test data from the entire incoming cohort of BCT cadets, enabling cross-program comparisons. Unfortunately, USAFA IRB did not approve in-person data collection for follow-ups during DSAT (October 2022; April 2023), so we reverted to the protocol we piloted, using online administration, but with enhanced recruitment methods (e.g., prenotification emails, a study-specific flyer to be attached to the DSAT recruitment email, and study-specific reminders to all four degrees).
- b) Acquired all required Cadet Wing, Survey Control, IRB, & HRPO approvals (Y2):** Given the significant changes in study design from the pilot to the full study, we submitted modifications and secured new approvals from the USAFA Cadet Wing Commandant to use designated class time for testing the SCC training, the A1 and USAFA Survey Control Offices, three institutional review boards (USAFA, UF, and RTI), and DoD HRPO.
- c) Recruited and Trained Instructors and Data Collection Staff (Y2):** Data collection efforts and program implementation with the full cohort of Basics required a significant staffing footprint. The USAFA SAPR office and Violence Prevention Integration team recruited the 16 required staff. RTI team members traveled to USAFA and conducted a three-day training that oriented new staff to the project, leveraged repeat staff expertise, and allowed staff to practice data collection processes and program implementation. All staff were trained on new web-delivery practices and troubleshooting. Training occurred about one-month prior to implementation, and the research team facilitated a zoom check-in one week prior to BCT to allow instructors and staff to ask any questions that may have come up since training.
- d) Testing Feasibility, Acceptability, and Preliminary Outcomes of Adapted SCC (Y2-3):** We implemented a rigorous evaluation of SCC with the full incoming class of Cadets who began BCT during Summer 2022. USAFA SAPR, VA, and VPI staff administered baseline/pre-test assessments via required SAPR training time at the beginning of BCT; squadrons were then assigned to receive either SCC or training as usual—both administered over 3 2-2.5 hour sessions; post-session acceptability assessments and post-test assessment of outcomes were built into the SCC training; SAPR, VA, and VPI staff implemented SCC and administered all acceptability and post-test assessments after day 3 of training. In Year 3, we conducted a 3-month follow-up assessment to see if proximal program effects would be sustained past BCT, and to examine initial effects on proximal behaviors (e.g., use of protective behavioral strategies, alcohol use, and bystander behaviors) during the Fall 2022 DSAT. We also conducted a 9-month follow up assessment to test the behavioral outcomes and the longevity of effects detected during BCT during the Spring 2023 DSAT. Analysis of baseline, post-test, and 3- and 9-month follow-up data is ongoing. We have disseminated preliminary findings through leadership briefings and national conference presentations; we are also planning to disseminate findings via peer-reviewed journal articles.

**What opportunities for training and professional development has the project provided?**

Sixteen USAFA SAPR staff and victim advocates completed three half-days of training to learn best practices for delivering the SCC curriculum. Training included didactic professional development and hands-on practice with program content, with opportunities for peer feedback as well.

Research staff at UF and RTI have received rigorous training in qualitative research methods, specifically conducting focus groups and interviews, data transcription and transcript scrubbing (to ensure no PII is included), and qualitative coding and analysis.

**How were the results disseminated to communities of interest?**

Briefings on preliminary findings and potential for impact were delivered to the USAFA Commandant and Cadet Wing leadership in January 2023.

Information about project study design, timeline progress, and preliminary outcomes was presented by PI, Dr. Nichole Scaglione, at the Interim Progress Report meeting in May 2023. Preliminary pre-/post-test results were also presented at the Military Health System and Research Symposium in August 2023.

**What do you plan to do during the next reporting period to accomplish the goals?**

Planned study activities for our No Cost Extension year are listed below, organized by specific aim:

Aim 1:

1. N/A: COMPLETE

Aim 2

1. Finish conducting formative research interviews with USAFA cadets and leadership training personnel, to inform recommendations for and broader assessment of the leadership training curriculum.
2. Complete qualitative data coding and analysis to identify thematic, data-driven program recommendations.
3. Finalize a conceptual model, based on formative data, to guide development of supplemental leadership training content and assessment.
4. Reconvene the USAFA Leadership Training Working Group to create a plan of action for adapting, implementing, and assessing new and/or enhanced leadership curriculum content.

Aim 3

1. Finalize analysis of 2023 cohort data according to our pilot-driven analysis plan.
2. Disseminate findings via scientific journals, conference presentations, and leadership and military community briefings.

#### 4. IMPACT:

##### **What was the impact on the development of the principal discipline(s) of the project?**

Pilot data indicate the SCC program is acceptable and feasible to implement in the USAFA training environment, and it has the potential to achieve reductions in sexual assault victimization and perpetration, as suggested by pre-/post-differences in targeted proximal outcomes (i.e., date rape attitudes, confidence in resisting unwanted sexual advances). Collectively, findings support the use of SCC in this environment and suggest only minimal content adaptation is needed from the BMT environment. Overall, the adapted web-based SCC program was feasible to implement and had high rating from both cadets and program instructors. SCC is the first tailored sexual assault prevention program, providing theoretical improvements in training, and increasing program reach to individuals often underserved (e.g., those with prior victimization; males at risk for sexual assault).

##### **What was the impact on other disciplines?**

Overall, the adapted web-based SCC program was feasible to implement and had high rating from both cadets and program instructors; this integrated technology approach for delivering tailored intervention could serve as a model for other disciplines that aim to reduce risky behavior, or for addressing sensitive outcomes with varying individual risk factors (e.g., substance abuse or suicide prevention).

##### **What was the impact on technology transfer?**

The transition from tablet-based delivery to web delivery made it very clear that web delivery is more sustainable and cost-effective if delivered in a reliable Wi-Fi environment. It is also a more portable technology, which is critical when thinking about adapting evidence-based programs for other settings (e.g., across Services).

**What was the impact on society beyond science and technology?**

Beyond the scientific and technological impacts, this program has potential to change behavior (via improved knowledge, skills, and attitudes) and improve social conditions among service members, and ultimately resilience and force readiness.

## 5. CHANGES/PROBLEMS:

### Changes in project staff or approach, and reasons for change:

Nothing to report.

### Actual or anticipated problems or delays and actions or plans to resolve them:

#### Aim 2: Delay in leadership curriculum formative research timeline:

We conducted 26 interviews with Captains attending SOS at Maxwell AFB; Qualitative data coding and analysis are in progress. In February 2023, we began recruiting USAFA first- and second-class cadets and training instructors (AOCs/AMTs). We completed five interviews with AOCs/AMTs and six interviews with cadets. However, due to Cadets and AOCs/AMTs working off site over the summer, USAFA requested a pause in data collection until September 2023. In the meantime, we began to clean, code, and analyze data from the 11 completed interviews. We will resume data collection in September 2023 and anticipate analysis and dissemination to be ongoing through August 2024. Toward this end, we have requested a 1-year no-cost extension to facilitate completion of this work. A final report with leadership training recommendations will be submitted to USAFA by August 2024.

#### Aim 3: Accounting for low participant retention at 3 and 9-month follow-up assessments:

USAFA has a designated survey and assessment time each semester, spanning 5 days (Thursday-Tuesday): once at the end of October and once at the beginning of April. Any research study designed to collect research data with Cadets is required to use this time or seek approval to gather data outside of DSAT. We piloted the feasibility of this data collection approach in our 2021 cohort and determined it would not produce a large enough response rate (22%) to adequately assess program outcomes. We worked with USAFA to develop and acquire the appropriate approvals for an alternate data collection plan, which would still utilize DSAT, but the surveys would have been administered in person (e.g., following a mandatory training), just as the pre- and post-test surveys were administered with great success during BCT. CW and A9 signed off on the plan, however, IRB did not. They indicated it was against institutional protocol and would not authorize the in-person data collection. We were once again restricted to remote data collection during DSAT with no direct contact with participants. We attached study-specific flyers to all USAFA communication to help our survey stand out from the list of surveys cadets were eligible for; we achieved a 19% response rate at 3-month follow-up and <10% response rate at 9-month follow-up. To increase participation and address the low retention mid-study, we requested permission to provide an individual incentive (Crumbl Cookies) at the 9-month follow up. Even with the incentive in place (albeit with additional barriers to receive the incentive), we still experienced low enrollment, which will limit our ability to directly examine longer-term behavioral outcomes.

The unexpected limitations of the data have caused delay in analysis while we consult with statisticians to confirm the best path forward that allows us to maximize use of the data while presenting unbiased results. The challenges with DSAT continue to be ubiquitous across studies, and there are ongoing conversations among USAFA leadership to identify ways to enhance participation or reassess data collection permissions. We continue to be part of those conversations, offering best practices in survey methodology. We anticipate completion of data analysis and dissemination via conference presentations, leadership briefings, and peer-reviewed publication to be complete by the end of the no cost extension period.

**Changes that had a significant impact on expenditures**

None of the challenges described above had a significant or unexpected impact on expenditures.

**Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents****Significant changes in use or care of human subjects**

All changes in the human subjects protocol from pilot to full study were expected and consistent with our proposal; modifications were submitted through the appropriate channels and approved by multiple IRBs and HRPO.

**Significant changes in use or care of vertebrate animals**

Nothing to report.

**Significant changes in use of biohazards and/or select agents**

Nothing to report.

## 6. PRODUCTS:

### Journal publications.

Nothing to report at this time, though we have several manuscripts in progress.

### Books or other non-periodical, one-time publications.

Nothing to report.

### Other publications, conference papers and presentations.

Scaglione, N. M., Blakey, S. M., Kan, M. L., Grimes, K. E. L., Dorsainvil, M., Charm, S., Eckhoff, R., & Watkins, R. L. (2023, August). *Using a Data-Driven Process to Adapt and Implement Tailored Sexual Assault Prevention Training at the US Air Force Academy: Challenges, Successes, and Opportunities*. Symposium presented at the 2023 Military Health Systems Research Symposium, Kissimmee, FL.

\*Blakey, S. M., Scaglione, N. M., Kan, M. L., Dorsainvil, M., Grimes, K. E. L., Eckhoff, R., Watkins, R. L., Goldstein, S., & Del Valle, T. (2023, August). *Initial Evaluation of a Tailored Sexual Assault Prevention Program at the United States Air Force Academy*. Poster presented at the 2023 Military Health Systems Research Symposium, Kissimmee, FL.

\*Dorsainvil, M., Blakey, S., Watson, C., Kan, M., Grimes, K., & Scaglione, N. M. (2023, November). *Acceptability of sexual assault prevention programming at the US Air Force Academy: Comparing Tailored vs. Universal Approaches*. Abstract accepted for presentation at the American Public Health Association annual meeting, Atlanta, GA.

\*We are in the process of converting several of this year's presentations into peer-reviewed publications to be submitted during the NCE. We are also planning several additional conference submissions and manuscripts to disseminate key findings related to our formative work examining sexual assault leadership training (Aim 2).

**Website(s) or other Internet site(s)**

Nothing to report.

**Technologies or techniques**

The web-based SCC program will be among the first integrated technology to deliver tailored sexual assault prevention content based on an individual's risk factors. The training website is currently being updated to support sustained implementation at USAFA.

**Inventions, patent applications, and/or licenses**

Nothing to report.

**Other Products**

As part of this project, we have revised the SCC curriculum, website, and training manual and measures; collected pilot data; developed formative research focus group and interview protocols; and produced project summary materials for communicating with USAFA leadership. All of these are unpublished materials that will inform the remainder of the study and future work in this area.

## 7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

### What individuals have worked on the project?

- 1) PDs/PIs:
  - Dr. Nichole Scaglione, UF/Overall Project PI, *No change*
  - Dr. Marni Kan, RTI Site PI, *No change*
  - Dr. Ken Robinson, USAFA Site PI, *No change*
- 2) Other Personnel working at least one person month per year:
  - Dr. Shannon Blakey, RTI Associate Project Director, *1 person month*
  - Dr. Taylor Del Valle, UF Project Coordinator, *1 person month*

### Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?

Nothing to report.

**What other organizations were involved as partners?**

We did not have any partners in FY 3 outside of the proposed research team.

## 8. SPECIAL REPORTING REQUIREMENTS

### COLLABORATIVE AWARDS:

N/A

### QUAD CHARTS:

Uploaded separately into eBRAP; copy provided below.

Reducing Sexual Assault at the U.S. Air Force Academy: Adaptation, Implementation, and Evaluation of the Sexual Communication and Consent Program  
 Log Number: PT190035  
 Award Number: W81XWH-20-2-0014



**PI: Nichole Scaglione, PhD Org: University of Florida**

**Amount: \$883,875.00**

**Study/Product Aim(s)**

- Aim 1:** Assess the feasibility and acceptability of the SCC sexual assault prevention program for four -degree (freshman) cadets at USAFA.
- Aim 2:** Adapt SCC for USAFA environment and develop supplemental content for first class (senior) USAFA cadets targeting leadership values and behaviors.
- Aim 3:** Assess SCC program efficacy on proximal (knowledge, attitudes, beliefs, self-efficacy) and distal (sexual assault prevalence) outcomes among cadets receiving the program.

**Approach**

Our team will employ a mixed -methods approach to evaluate the feasibility and acceptability of implementing the SCC program at USAFA, a formative research approach to adapt and augment the existing program as needed with input from current cadets and alumni, and a three -wave longitudinal survey design to implement and evaluate the adapted SCC program to determine feasibility, acceptability, and impact on behavioral outcomes among USAFA cadets. We undertake these aims in support of USAFA's mission to educate, train, and inspire men and women to become leaders of character, motivated to lead the United States Air Force in service to our nation.



Accomplishment: The webbased SCC program was tested at USAFA with the full class of Cadets who started Basic Cadet Training in June 2022 (n = ~ 1,000). We also completed leadership training form interviews (n = 26) at Maxwell AFB; interviews with 2<sup>nd</sup> degree Cadets (n = 6) and AOC/AMTs (n = 5) are in progress at USAFA. Analysis and dissemination of findings are ongoing.

### Timeline and Cost

Activities FY 1 2 3			
Regulatory Approvals (currently working through updates for Y2 activities)	[Progress bar]		
Aim 1: Feasibility Assessment	[Progress bar]		
Aim 2: Program Adaptation (complete) & Leadership Training Development (delayed)	[Progress bar]		
Aim 3: Adapted SCC Feasibility, Acceptability & Efficacy Assessment	[Progress bar]		
<b>Awarded Budget (\$883,875)</b>	<b>\$334,369</b>	<b>\$260,129</b>	<b>\$289,377</b>

Updated: (08/15/2023)

### Goals/Milestones

**FY1 Goals**– Regulatory Approvals, Feasibility Assessment

- UF, RTI and USAFA regulatory approvals
- Program implementation planning
- Develop assessment instruments
- Test initial SCC feasibility/acceptability with four degree cadets

**FY2 Goals**– Program Adaptation

- Identify needed adaptations to the SCC curriculum and integrate necessary changes
- Complete formative research to inform SCC leadership recommendations
- Conduct pre- and post-test of adapted SCC efficacy assessment during 2022 BC T

**FY3 Goals**– Efficacy Assessment, Data Analysis and Reporting

- Complete 3- and 9-month follow-ups for Aim 3 SCC efficacy assessment
- Conduct data analyses and dissemination of findings

### Comments/Challenges/Issues/Concerns

- Formative data collection for leadership training was paused until August 2023; we have requested a 1 year no cost extension to complete the intended work
- SCC program evaluation analyses were delayed due to challenges matching anonymous data; analyses are ongoing, and dissemination will continue throughout the no cost extension period.

### Budget Expenditure to Date

Projected Expenditure To Date: \$83,875 Actual Expenditure \$ 788,413

## 9. APPENDICES:

STATEMENT OF WORK  
PROJECT START DATE Aug 16, 2020

**Site 1:** University of Florida  
PO Box 118210  
Gainesville, FL 32611  
PI: Dr. Nichole Scaglione

**Site 2:** RTI International  
3040 E. Cornwallis Road  
Research Triangle Park, NC 27709  
Partnering PI: Dr. Marni Kan

**Site 3:** USAFA  
2304 Cadet Drive  
US Air Force Academy, CO 80840  
Partnering PI: Dr. Warren (Ken)  
Robinson

	Timeline	Site 1	Site 2	Site 3
<b>Specific Aim 1:</b> Pilot test the feasibility and acceptability of the current SCC sexual assault prevention program for four degree (freshman) cadets at USAFA				
<b>Task 1: Finalize implementation and study design</b>	Months			
Work with USAFA leadership to determine best setting for implementation (e.g., BCT vs. required course)	1-2	X	X	X
Adapt acceptability and feasibility measures for USAFA pilot	1-2	X	X	
Develop IRB and HRPO protocols	1-3	X	X	X
<i>Milestone(s) Achieved:</i>				
UF & USAFA IRB Approval (RTI will defer to prime)	4	X	X	X
HRPO Approval	6	X		X
<b>Task 2: Prepare SCC app and tablet technology for USAFA implementation</b>				
Reformat content to be delivered in 3 2-hour sessions and program adaptations to measures	2-6		X	
Purchase, provision, and set up one classroom of pilot tablets and equipment (headphones, privacy screens)	4-8		X	
<i>Milestone Achieved:</i> SCC content and tablets are ready for pilot testing	8	X	X	
<b>Task 3: Conduct SCC pilot test</b>				
Identify and train USAFA instructors	8-9	X	X	X
Enroll cadets and implement training (including baseline and post-test cadet assessments)	8-12		X (virtual support)	X (Target n = 300)
Conduct post-implementation focus group with USAFA instructors	12	X		
<i>Milestone Achieved:</i> Complete pilot feasibility and acceptability assessment	12	X	X	X
<b>Specific Aim 2:</b> Adapt SCC content for USAFA, including development of supplemental content for first class (senior) USAFA cadets targeting leadership values and behaviors				
<b>Task 4: Identify needed program adaptations</b>				
Conduct formative focus groups and key informant interviews with first class cadets and USAFA staff to inform supplemental leadership content	7-12	X	X	X
Analyze pilot and formative research data	12-15	X	X	
Map findings to theory-driven constructs for content development and adaptation	14-18	X	X	
<i>Milestone Achieved:</i> Arrive at an evidence-based plan for adapting intervention content	18	X	X	

	Timeline	Site 1	Site 2	Site 3
<b>Specific Aim 2 (continued):</b> Adapt SCC content for USAFA, including development of supplemental content for first class (senior) USAFA cadets targeting leadership values and behaviors				
<b>Task 5: Adapt/Develop program content</b>				
Implement planned adaptations to existing tablet and classroom SCC content	18-21	X	X	X
Develop and integrate supplemental leadership content into the SCC curriculum	18-24	X	X	
<i>Milestone Achieved:</i> Finalize adapted SCC program	24	X	X	
<b>Specific Aim 3:</b> Assess feasibility, acceptability, and preliminary program effects of the adapted SCC program on proximal (knowledge, attitudes, beliefs, self-efficacy) and distal (sexual assault prevalence) outcomes among cadets receiving the program				
<b>Task 6: Conduct feasibility and preliminary efficacy study of the adapted SCC program</b>				
Update IRB and HRPO protocols with any changes to implementation plans, measurement, or data collection procedures resulting from the pilot	22-24	X		
Identify and train (or re-train) USAFA instructors	23-24	X	X	X
Enroll cadets and implement training (including baseline and post-test cadet assessments)	25-28		X (virtual support)	X (Target n = 1200)
Identify and acquire data sources for assessing broader program impact (e.g., campus climate survey data; annual Service Academies survey)	25-32	X	X	X
Conduct web-based 6-month follow-up assessment	30-34	X	X	
<i>Milestone Achieved:</i> Complete assessment of program feasibility, acceptability, and preliminary effects	34	X	X	X
<b>Task 7: Analyze data and disseminate findings</b>				
Clean data and integrate cadet, instructor, and campus data sources (on a rolling basis)	26-34	X	X	
Conduct analysis of feasibility, acceptability, and proximal and distal program effects	28-36	X	X	
Disseminate findings to USAFA, DoD, and scientific stakeholders	30-36	X	X	X
Prepare scientific manuscripts and conference presentations for submission (to include pilot, formative, and outcomes-based findings)	19-36	X	X	X
<i>Milestone Achieved:</i> USAFA, DoD, and scientific communities will be aware of research findings and feasibility of adapting SCC to unique environments	36	X	X	X