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TITLE: Preventing Health Damaging Behaviors in Male and Female Army Recruits

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14. ABSTRACT Health damaging behaviors of young military personnel are reflections of health problems facing all young people in the U.S. Military life presents opportunities and challenges that may both protect and place young troops at risk for health damaging behaviors. Challenges for maintaining a healthy armed force include high rates of sexually transmitted infections (STIs), unintended pregnancies (UIPs), misuse of alcohol/substances, and personal sexual violence defined as violence within one's personal (dating or marital) relationships. The common thread through these negative health outcomes is volitional behavior. Such behaviors do not only result in illness or injury, but also negatively impact performance of military duties and threaten military readiness. Despite military leadership in setting standards and policies regarding professional behavior and universal health care for preventing and eliminating such negative health outcomes, many health problems remain. Building on our previous military research, we plan to develop and evaluate a cognitive-behavioral, skills-building intervention to prevent and reduce young troops' risk for STIs, UIPs, alcohol/substance misuse, and personal sexual violence. This research also seeks to establish the best training practices for educating young troops about health issues that impact military performance and readiness. Finally, it will have direct implications for health promotion and disease prevention education strategies designed to reach military men and women early in their careers.					
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3. INTRODUCTION

The proposed study will utilize a group, randomized controlled study design to evaluate the effectiveness of a cognitive-behavioral intervention to: (1) prevent sexually transmitted infections (STIs), unintended pregnancies (UIPs), alcohol and other substance misuse, and exposure to or involvement with personal sexual violence among Army recruits; (2) reduce participants' risk for STIs, UIPs, alcohol and other substance misuse, and exposure to or involvement with personal sexual violence by (a) decreasing gaps in knowledge and misperceptions about risk and prevention, (b) increasing motivation to change risk behaviors, (c) building effective skills to engage in health promoting behaviors, (d) decreasing sexual risk behavior; and (3) determine the best strategy for educating participants about the sensitive health matters such as STIs, UIPs, alcohol and other substance misuse, and exposure to or involvement with personal sexual violence. Additionally, all participants will complete self-administered questionnaires and will be screened for STIs (*C. trachomatis* and *N. gonorrhoeae*) at baseline and 12 months post-intervention and will be screened for pregnancy/UIP at 12 months.

4. BODY

Research activities accomplished in calendar year from January 1, 2007 through December 31, 2007 included the following:

1. Institutional Review Board (IRB) approval to conduct focus groups was received from the United States Army Medical Research and Materiel Command (USAMRMC) Human Research Protection Office in May 2007 and the University of California, San Francisco, Committee on Human Research, initially in March 2007 and re-approved with modifications requested by the USAMRMC Human Subjects Research Review Board (HSRRB) May 2007.

The primary purpose of the focus groups (anonymous small-group discussions) was to determine the best intervention strategy to affect behavioral change among soldiers in Advance Individual Training (AIT) at Fort Jackson, the group who will be the focus of this intervention research to prevent sexually transmitted infections (STIs) and unintended pregnancies (UIPs). Another purpose of the focus group discussion was to better understand AIT soldiers' knowledge, attitudes, beliefs, and behaviors related to risk and prevention of STIs, UIPs, and alcohol and substance misuse. In addition, the information gathered from the focus group discussions was to better understand the Army-specific context in which health behaviors occur. For example, we were interested in learning how a recent or impending deployment may influence risk for STIs, UIPs, and alcohol and substance misuse.

2. Six separate male and female focus groups were conducted at Fort Jackson in Columbia, SC on September 28-29, 2007. Four groups were among soldiers in AIT (two male and two female groups) and two groups among junior enlisted personnel (one male and one female).
3. Results of the focus group discussion indicate a clear need for Army-specific interventions to prevent the risk of behaviors related to the acquisition and transmission of STIs and UIPs by increasing accurate knowledge, improving protective attitudes, enhancing motivation to enact behavior change, increasing communication, problem-solving, and decision-making skills to

reduce STI- and UIP-related skills. Specifically, three major areas of potential risk were identified:

- a. In male-female soldiers social interactions during periods of leave
 - i. During weekend leaves male and female AIT soldiers socialize at clubs, malls, and other places. While all do not engage in activities that may increase their risk for STIs and UIPs, some do drink and engage in unprotected sexual behavior.
 - ii. Although some indicated knowledge regarding methods of reducing risk, including abstinence from drinking or drinking in moderation and/or abstinence from sexual activity or using barrier methods to reduce risk during sexual behavior, some reported limited or incorrect knowledge, negative attitudes, a lack of motivation and skills to reduce their risk while engaging in these behaviors.
 - iii. Both male and female soldiers indicated that STIs and UIPs are of concern for them and heard of instances where these negative health outcomes have occurred.
 - iv. Some soldiers reported that going to the Troop Medical Clinic is a great place to go for reproductive health concerns such as STIs or pregnancy, some indicated concern that their health information would not be kept privacy, which may prevent them from seeking healthcare in a timely manner or for prevention purposes.
- b. When transitioning from AIT training to first duty station, especially on a new post
 - i. Junior enlisted soldiers, especially female soldiers, reported knowledge of instances when soldiers first arrive to a new duty station, they receive a great deal of attention from male soldiers. It was reported that some soldiers are motivated by genuinely helping the “newbie” and some are motivated by possible opportunities for selfish reasons such as garnering attention or even dates. Some soldiers perceived this to be a particularly vulnerable time for female soldiers, especially those who are naïve or unsuspecting of the other the person(s) motives.
 - ii. Some soldiers (especially female soldiers) indicated that there is a need for training to give young male and female soldiers skills about how to handle social transitions to a new post.
- c. When learning about their initial deployment abroad (e.g., Iraq)
 - i. Both male and female soldiers reported feelings of being prepared for deployment in terms of their technical skills, but reported apprehension about the unknown and unexpected things to come; concern that family members and other love ones will worry about them; and unease about not having opportunities for rest and relaxation during long periods of deployment.
 - ii. As a result of these concerns, some soldiers reported an accelerated rate of engaging in some behaviors including drinking more and/or engaging in sexual activity.
 - iii. Along these lines some reported (males) wanting to make sure they leave a

legacy (child) behind if the event that they do not return from deployment, thus prompting opportunities for engaging in unprotected sexual intercourse.

STATEMENT OF WORK (SOW)

1. Brief commanding officers of the Department of the Army, Headquarters, U.S. Army Training Center and Fort Jackson, Fort Jackson, SC.
 - a. We have briefed COL Thomas Hayden, COL James Mundy, COL Dunemn, LTC Larry Andreo, and LTC Sonya Corum. This task was accomplished in 2006.
2. Conduct focus groups to assist in the development of: (1) comparable gender-specific interventions to reduce health damaging behaviors associated with sexually transmitted infections (STIs), unintended pregnancies (UIPs), alcohol and other substance misuse, and personal sexual violence; and (2) pre- and post-intervention self-administered questionnaires to assess knowledge, attitudes, and beliefs, and behaviors associated with STIs, UIPs, alcohol and other substance misuse, and personal sexual violence.
 - a. As reported above in section 4, Body, focus group discussions were conducted in September 2007.
3. Develop comparable gender-specific interventions for male and female Army recruits to: (1) prevent acquisition of STIs and UIPs; and (2) reduce the risk of STI- and UIP-related behaviors including alcohol and other substance misuse, and personal sexual violence.
 - a. Development of an Army-specific intervention is currently underway. Specifically, we are developing the curriculum, including the training manual for the STI/UIP prevention intervention, an Army-specific video, and the comparison nutrition, fitness and injury prevention intervention. Based on our focus group discussions, it is apparent that due to the manner in which AIT soldiers are trained and the common concerns, the focus of the intervention will be co-ed, but could be administered separately for male and female soldiers.

The following SOW tasks have not been completed, as they are contingent upon activities yet to be accomplished.

4. Pilot-test the gender-specific interventions, self-administered questionnaires, and the biological specimen collection protocol for feasibility.
5. Implement the intervention within the context of basic training.
6. Conduct a 12-month follow-up of intervention participants.
7. Evaluate the effectiveness of each gender-specific intervention and compare differences across interventions on study participants' acquisition of STIs and UIPs during their first year of military service.

8. Examine key sub-questions related to STIs and UIPs: (1) assess psychosocial, behavioral, and contextual factors associated with STIs and STI-related risk at baseline and STIs and UIPs at follow-up; (2) document the prevalence of personal sexual violence at basic training entry; (3) examine relationships among personal sexual violence, STIs, and STI-related risk at baseline and STIs and UIPs at follow-up; and (3) determine the relationship between alcohol and other substance misuse and personal sexual violence and the relationship of these factors to STIs and STI-related risk at baseline and STIs and UIPs at follow-up.
9. Disseminate study findings through: (1) briefs given to participating military commands; (2) presentations at military-specific preventive medicine meetings as well as annual scientific meetings; and (3) publications submitted to scientific journals.

5. KEY RESEARCH ACCOMPLISHMENTS TO DATE

Our research accomplishments to date include: (1) Identification of a suitable cohort in which to implement the proposed research (see description of these activities in the Body section above. (2) Examination of scientific literature and published interventions in order to identify elements of effective interventions to prevent STIs, UIPs, alcohol and other substance misuse, and personal sexual violence to guide the development of interventions in the proposed research (see our previous annual report dated January 20, 2006). (3) Completion of focus group discussions that is being used as a basis for development of the intervention to prevent STIs and UIPs in soldiers undergoing AIT trainees.

6. REPORTABLE OUTCOMES

There are no reportable outcomes to date.

PROPOSED PROJECT ACTIVITIES:

Our plans for the coming year include implementing SOW activities outlined in items 3 and 4 above. Specifically, we plan to (1) finalize the proposed intervention curricula; (2) development of the comparison intervention on nutrition, fitness, and injury prevention; (3) pilot-test the interventions to demonstrate feasibility; (4) complete the self-administered questionnaires that will be used to evaluate the efficacy of the intervention; (5) develop the biological specimen collection protocol for feasibility.

7. CONCLUSIONS

There are no scientific conclusions that can be made at this time.

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9. APPENDICES

None.

10. SUPPORTING DATA

None.