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TITLE: Preventing Health Damaging Behaviors and Negative Health Outcomes  
in Army and Marine Corps Personnel During the First Tour of Duty

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# REPORT DOCUMENTATION PAGE

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<b>13. SUPPLEMENTARY NOTES</b>					
<b>14. ABSTRACT</b> 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 Marine Corps 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**

Part of this year was spent seeking Institutional Review Board (IRB) approval to conduct elicitation research at each participating performance site, including our home institution, the University of California, San Francisco (UCSF), the Naval Health Research Center (NHRC), San Diego, CA to conduct research at the Marine Corps Recruit Depot, Parris Island, SC, and the Brooke Army Medical Center (BAMC), San Antonio, TX to conduct research at Fort Sam Houston, San Antonio, TX, and the Human Subjects Research Review Board (HSRRB) at Fort Detrick, MD, as required. IRB approval has been received from UCSF, NHRC, and the HSRRB. However, due to the excessively long delays in obtaining approval from the BAMC IRB and due to need for a larger sample size than we previously thought it would take to effectively evaluate the effectiveness of the intervention, we requested, and were granted approval from COL Brian Lukey, USAMRMC, our Grant Officer (GOR), to modify our Statement of Work to focus exclusively on Marine Corps recruits. As a result, we withdrew our IRB application from the BAMC IRB. Our approved modified Statement of Work is as follows:

#### **STATEMENT OF WORK (SOW)**

1. Brief commanding officers of the Marine Corps Recruit Depot (MCRD) Parris Island, SC and the Beaufort Naval Hospital, Beaufort SC.
  - a. In addition to receiving IRB approval, we continued briefing command leaders at both MCRD and Naval Hospital in Beaufort, SC through ongoing telephone and electronic communication. The command leaders included Mr. Eric Junger GS11, LTC Neal Pugliese, CAPT Rodney Towery, MAJ William Clark, MAJ Douglas Alexander, and CDR Arthur Giguere. After receiving approval to conduct focus groups it was withdrawn by the Executive Officer of the Training Command. The reason cited for declining participation in the study at this time was significant training demands.
  - b. We subsequently briefed staff from the Headquarter Marine Corps, Preventive Medicine Office, Quantico, VA. Our contact was CDR David McMillan. After months of

interactions we were then referred to LCDR Janet Spira from the First Marine Expeditionary Force (I MEF), Camp Pendleton, CA. After numerous interactions and tremendous interest and in the potential health benefits of our proposed intervention, at the request of LCDR Spira we sent a written brief to the Commanding General of I MEF. Despite tremendous interest and months of electronic and telephone communication, LCDR Spira informed us that her Surgeon General declined participation in our study at this time due to the I MEF's significant preparations for deployment and the large number of troops who are currently deployed, despite their interest in the intervention.

- c. We are currently planning to identify command leaders of the Base Units at Camp Pendleton to determine whether they will be able to accommodate our proposed research study at this time.

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

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.
3. Develop comparable gender-specific interventions for male and female Marine Corps 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. Although we have not had the opportunity to implement the focus group phase of the study to assist in the development of the Marine Corps-specific intervention, we have continued to work on developing the interventions by focusing on aspects of the intervention's development that do not require direct input from the Marine Corps. Such activities include conducting extensive literature reviews and examining effective health promotion-disease prevention interventions related to STIs, UIPs, alcohol and other substance misuse, and personal sexual violence. Specifically, our team is engaging in the following formative research activities that will contribute ultimately to the development of the proposed interventions:
    - b. Review relevant theoretical frameworks that guided the development and evaluation of previously effective health interventions related to STIs, UIPs, alcohol and other substance misuse, and personal sexual violence. As a result of our extensive literature review to date, and based on our previous military-specific intervention and research, we have decided to use the Information, Motivation, Behavioral Skills model (IMB) as the primary theoretical foundation to guide the development of the proposed intervention (See Appendix 1 for an overview of prevalent psychological and social theoretical frameworks that have guided previous interventions). Other theoretical frameworks that will be used will include Harm Reduction Theory and the Theory of Gender and Power,

along with other theories and models of health behavior and behavior change. See Appendix 2, for an overview of the learning objectives for major components of the proposed intervention as well as an overview on how the theoretical frameworks will be utilized to guide the development of the proposed intervention targeting each of the primary health outcomes of interest.

- c. The proposed control group arm of the intervention will focus on nutrition and injury prevention. Formative research activities related to this intervention include conducting extensive literature reviews and gathering current epidemiological information related to injury prevention and nutrition. See Appendix 3 for an overview of the learning objectives and a preliminary outline of the control intervention. This arm of the intervention trial will also be guided by principles of the IMB model.
4. Pilot-test the gender-specific interventions, self-administered questionnaires, and the biological specimen collection protocol for feasibility.
5. Implement the gender-specific interventions at MCRD within the context of recruit 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 recruit 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**

The key research accomplishments to date are described above. Primarily, we have begun development of the interventions, and are still in the process of identifying a Marine Corps cohort that will be used to carry out the above outlined SOW.

## **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 2-5 above. Specifically, we plan to conduct focus groups, finalize the proposed intervention curricula, and pilot-test the interventions, self-administered questionnaires, and the biological specimen collection protocol for feasibility in each command. Moreover, we will continue to conduct briefs in order to identify the appropriate command to carry out the SOW.

## 7. CONCLUSIONS

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

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## **9. APPENDICES**

**Appendix 1:** Theoretical Frameworks That Have Guided Development of Interventions to Prevent STIs/HIV (15 pages)

**Appendix 2:** Intervention Learning Objectives for each Outcome of Interest (11 pages)

**Appendix 3:** Control Intervention Fitness for Life II Module Outline (5 pages)



## Theoretical Frameworks That Inform HIV/STI Prevention Interventions

Theoretical Framework	Interventions That Use This Theory
<p><b>Information Motivation and Behavioral Skills (IMB) (1).</b></p> <p><b>Fundamental Assumptions</b>                      IMB model asserts that HIV prevention information, HIV prevention motivation, and HIV prevention behavioral skills are fundamental determinants of HIV preventive behavior. To the extent that individuals are well informed, motivated to act and possess behavioral skills required to act effectively, they will be likely to initiate and maintain patterns of HIV preventive behavior.</p> <div data-bbox="157 592 1012 938" data-label="Diagram"> <pre>                     graph LR                         A[HIV Prevention Information] &lt;--&gt; B[HIV Prevention Motivation]                         A --&gt; C[HIV Prevention Behavioral Skills]                         B --&gt; C                         A --&gt; D[HIV Prevention Behavior]                         B --&gt; D                         C --&gt; D                     </pre> </div> <p><b>Elicitation</b>                      Elicitation of existing levels of health promotion information, behavioral skills and health promotion behavior</p> <p><b>Intervention</b>                      Design and implementation of empirically targeted intervention to address health promotion information, motivation behavioral skills, and health promotion behavioral deficits.</p> <p><b>Evaluation</b>                      Evaluation of intervention impact on health promotion information, motivation and behavioral skills and health promotion behavior.</p>	<p><b>Becoming a Responsible Teen FOCUS</b>                      Theory Based STD Prevention Program for Female College Students</p>

*Appendix 1: Theoretical Frameworks That Have Guided Development of Interventions to Prevent STIs/HIV*

<b>Theoretical Framework</b>			<b>Interventions That Use This Theory</b>																																				
<p><b>Social Cognitive Theory/Social Learning Theory (2).</b></p> <p>Emphasizes that a person’s behaviors and cognitions affect future behavior. Human behavior is explained in terms of a triadic, dynamic, and reciprocal model in which behaviors, personal factors (including cognitions) and environmental factors all interact. The result is that a person’s behavior is uniquely determined by these interactions.</p> <p>The original social learning theory was based upon classic learning principles. Albert Bandura and others added more cognitive concepts to help in the explanation of behavior thus the change to social cognitive theory.</p> <p>Major Concepts In Social Cognitive Theory and Implications for Interventions</p> <table border="1"> <thead> <tr> <th>Concept</th> <th>Definition</th> <th>Implications</th> </tr> </thead> <tbody> <tr> <td>Environment</td> <td>Factors physically external to the person</td> <td>Provide opportunities for social support</td> </tr> <tr> <td>Situation</td> <td>Persons perception of the environment</td> <td>Correct misperceptions and promote healthful norms</td> </tr> <tr> <td>Behavioral Capability</td> <td>Knowledge and skill to perform a given behavior</td> <td>Promote mastery learning through skills training</td> </tr> <tr> <td>Expectations</td> <td>Anticipatory outcomes of a behavior</td> <td>Model positive outcomes of a healthful behavior</td> </tr> <tr> <td>Expectancies</td> <td>The values that the person places on a given outcome, incentive</td> <td>Present outcomes of change that have functional meaning</td> </tr> <tr> <td>Self Control</td> <td>Personal regulation of goal directed behavior or performance</td> <td>Provide opportunities for self-monitoring, goal setting, problem solving and self-reward</td> </tr> <tr> <td>Observational Learning</td> <td>Behavior acquisition that occurs by watching the actions and outcomes of others’ behaviors</td> <td>Include credible role models of the targeted behavior</td> </tr> <tr> <td>Reinforcements</td> <td>Responses to a person’s behavior that increase or decrease the likelihood of reoccurrence</td> <td>Promote self-initiated rewards and incentives</td> </tr> <tr> <td>Self efficacy</td> <td>The person’s confidence in performing a particular behavior</td> <td>Approach behavioral change in small steps to ensure success; seek specificity about the change sought</td> </tr> <tr> <td>Emotional Coping responses</td> <td>Strategies or tactics that are used by a person to deal with emotional stimuli</td> <td>Provide training in problem solving and stress management; include opportunities to practice skills in emotionally arousing situations.</td> </tr> <tr> <td>Reciprocal Determinism</td> <td>The dynamic interaction of the person, the behavior, and the environment in which the behavior is performed.</td> <td>Consider multiple avenues to behavioral change including environmental, skill and personal change.</td> </tr> </tbody> </table>			Concept	Definition	Implications	Environment	Factors physically external to the person	Provide opportunities for social support	Situation	Persons perception of the environment	Correct misperceptions and promote healthful norms	Behavioral Capability	Knowledge and skill to perform a given behavior	Promote mastery learning through skills training	Expectations	Anticipatory outcomes of a behavior	Model positive outcomes of a healthful behavior	Expectancies	The values that the person places on a given outcome, incentive	Present outcomes of change that have functional meaning	Self Control	Personal regulation of goal directed behavior or performance	Provide opportunities for self-monitoring, goal setting, problem solving and self-reward	Observational Learning	Behavior acquisition that occurs by watching the actions and outcomes of others’ behaviors	Include credible role models of the targeted behavior	Reinforcements	Responses to a person’s behavior that increase or decrease the likelihood of reoccurrence	Promote self-initiated rewards and incentives	Self efficacy	The person’s confidence in performing a particular behavior	Approach behavioral change in small steps to ensure success; seek specificity about the change sought	Emotional Coping responses	Strategies or tactics that are used by a person to deal with emotional stimuli	Provide training in problem solving and stress management; include opportunities to practice skills in emotionally arousing situations.	Reciprocal Determinism	The dynamic interaction of the person, the behavior, and the environment in which the behavior is performed.	Consider multiple avenues to behavioral change including environmental, skill and personal change.	<p>HIV/STI                      Becoming a Responsible Teen                      AIDS Prevention for Adolescents                      AIDS Prevention and Health Promotion Among Women                      Get Real About AIDS                      Be Proud/Be Responsible                      Safer Sex Efficacy Workshop                      Reducing the Risk                      Project Respect                      Street Smart                      Project Light                      Project Safe                      Personal Sexual Violence                      Scruples                      Date Rape Prevention                      Substance Abuse                      Healthy Workplace                      ATLAS/ATHENA</p>
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<b>Theoretical Framework</b>	<b>Interventions That Use This Theory</b>
<p><b>The Tran theoretical and Stages of Change Model (3).</b>                      This theory asserts that behavior change happens in 5 stages, and is affected by some critical assumptions underlying the model.</p> <ul style="list-style-type: none"> <li>• Pre-contemplation—stage at which a person has no intention to take action to change a behavior in the next 6 months.</li> <li>• Contemplation—stage at which a person intends to change in the next 6 months. They are aware of the pros of changing a behavior, but are also acutely aware of the cons.—this balance often keeps people in this stage for a long period of time.</li> <li>• Preparation—stage at which a person intends to take action in the immediate future (i.e. the next month). They may have already taken some significant action in the past year. The person often has a plan of action</li> <li>• Action—the stage at which a person has made specific overt modifications in their lifestyle within the last six months. Not all modifications of behavior count as action in this model. People must attain the criterion that scientists and professionals agree is sufficient to reduce the risk of disease.</li> <li>• Maintenance—this is the stage where the person is working to prevent relapse, but they do not use the behavior change processes as much as someone who is in the Action stage.</li> </ul> <p><b>Critical Assumptions</b>                      Processes of change—these are the covert and overt activities that are used to help people progress through the stages.</p> <ul style="list-style-type: none"> <li>• Consciousness raising—increased awareness about the cases that relate to a particular behavioral problem, and its consequences and cures</li> <li>• Dramatic Relief—experiencing the negative emotions that go along with unhealthy behavior</li> <li>• Self- Re-evaluation—realizing that behavior change is important part of ones self identity</li> <li>• Environmental reevaluation—realizing the negative or positive impact of the health behavior on one’s social and physical environment.</li> <li>• Self liberation—making a firm commitment to change</li> <li>• Helping relationships—seeking and using social support for healthy behavior change</li> <li>• Counter-conditioning—substituting healthy behaviors for unhealthy ones</li> <li>• Contingency management—increasing rewards for positive health behavior change, decreasing rewards for unhealthy behaviors</li> </ul> <ol style="list-style-type: none"> <li>1. Stimulus Control—removing reminders or cue to engage in unhealthy behavior, and adding cues to increase engagement in healthy behaviors</li> <li>2. Social Liberation—realizing that the social norms are changing in a direction that supports healthy behavior change.</li> </ol>	<p>HIV/STI Interventions</p> <p>A Tailored Minimal Self -help Intervention to Promote Condom Use in Young Women.</p>

*Appendix 1: Theoretical Frameworks That Have Guided Development of Interventions to Prevent STIs/HIV*

<b>Theoretical Framework</b>	<b>Interventions That Use This Theory</b>
<p><b>AIDS Risk Reduction Model (4).</b></p> <p>This model was introduced in 1990 provides a framework for explaining and predicting the behavior change efforts of individuals specifically in relation to HIV/AIDS.</p> <ul style="list-style-type: none"> <li>• Stage 1—Recognition and labeling one’s behavior as high risk</li> <li>• Stage 2—Making a commitment to reduce high risk sexual contacts, and to increase low risk activities</li> <li>• Stage 3—Taking action. This stage is broken down in to 3 phases; 1) information seeking, 2) obtaining remedies, 3) Enacting solutions.</li> </ul>	<p>HIV/STI Interventions</p> <p>A tailored minimal self-help intervention to promote condom use in young women.</p> <p>Project FIO Project Connect Project Safe</p>

<b>Theoretical Framework</b>	<b>Interventions That Use This Theory</b>
<p><b>Theory of Reasoned Action/Theory of Planned Behavior (5).</b></p> <p>Based on the premise that humans are rational and that the behaviors being explored are under volitional control., the theory provides a construct that links individual beliefs, attitudes, intentions and behaviors</p> <ul style="list-style-type: none"> <li>• Behavioral Intention—Perceived likelihood of performing a behavior</li> <li>• Attitude-Behavioral Belief—Belief that the behavioral performance is associated with certain attributes or outcomes</li> <li>• Evaluation—Value attached to a behavioral outcome or attribute</li> <li>• Subjective Norm-Normative Belief—Belief about whether each referent approves or disapproves of the behavior</li> <li>• Motivation to Comply—Motivation to do what the referent think</li> <li>• Perceived behavioral Control</li> <li>• Control Belief—perceived likelihood of occurrence of each facilitating or constraining condition</li> <li>• Perceived power—perceived effect of each condition in making behavioral performance difficult or easy. (Bolded area = Theory of Planned Behavior.)</li> </ul> <p><b>Theory of Planned Behavior</b></p> <p>The theory of Planned Behavior is an extension of TRA. Perceived Behavioral Control is added to the model in an effort to account for factor outside the individual’s control that may affect their intention and behavior. This extension is based in part on the idea that behavioral performance is determined jointly by motivation and ability.</p>	<p>HIV/STI Interventions                      Get Real about AIDS                      Be Proud/Be Responsible (TPB)                      Project Respect                      Project Light                      A Tailored Minimal Self-Help Intervention to Promote Condom Use in Young Women</p> <p>Substance Abuse                      ATLAS/ATHENA</p>

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<p><b>Conservation of Resources Theory (6).</b></p> <p>Theory asserts that an individual aspires to preserve, protect, and build resources. Resources are characterized by objects, conditions, personal characteristics, or energies that have specific importance for the individual.</p> <p>Stress occurs when a person is threatened with the loss of resource, or the actual loss of resources.</p>	<p>AIDS Prevention and Health Promotion Among Women</p>

*Appendix 1: Theoretical Frameworks That Have Guided Development of Interventions to Prevent STIs/HIV*

<b>Theoretical Frameworks</b>	<b>Interventions That Use This Theory</b>
<p><b>Social Inoculation Theory (7).</b></p> <p>This is a theory that emphasizes social pressures to adopt unhealthy behavior. Based on the belief that young people lack the negotiating skills to resist unhealthy behaviors that come from peer pressure and other influences, the theory proposes a range of techniques that can be used to “inoculate youth from such pressure.</p> <p>G. Turner, J. Shepherd, <i>Health Educ. Res.</i> <b>14</b>, 235-247 (1999).</p> <p>Healthy attitudes or behavior can be threatened by not knowing how to defend them against the pressure for unhealthy ones. The process used to inoculate the individual consists of presenting the arguments that support the desired behavior, followed by a presentation of arguments used to promote the undesired behavior, followed in turn by answers refuting such arguments.</p>	Reducing the Risk

*Appendix 1: Theoretical Frameworks That Have Guided Development of Interventions to Prevent STIs/HIV*

<b>Theoretical Framework</b>	<b>Interventions That Use This Theory</b>
<p><b>Elaboration Likelihood Model (8).</b></p> <p>Elaboration Likelihood Model (ELM) conceptualizes attitude change on a continuum the two main routes are the peripheral route, and central route processing.</p> <p>Peripheral Route processing is when the individual attends to superficial issues such as the presenter's physical characteristics</p> <p>Central Route processing is when the individual attends to the central meaning of the message.</p> <p>Model suggests that if the participants find the message of low personal relevance to them, they will focus on the peripheral route processing instead of the central route processing therefore only causing temporary attitude change.</p> <p>If the participant finds the message to be of personal relevance they will focus on the central route processing and therefore be more likely to exhibit long term attitude change.</p>	<p>Date Rape Prevention Program for Racially Diverse College Men</p>



*Appendix 1: Theoretical Frameworks That Have Guided Development of Interventions to Prevent STIs/HIV*

<b>Theoretical Frameworks</b>	<b>Interventions That Use This Theory</b>
<p data-bbox="138 185 520 220"><b>Social Norms Approach (9).</b></p> <p data-bbox="138 256 1299 329">Social Norms approach suggests that one’s behavior is influenced by incorrect perceptions of how member of one’s social groups think and act.</p> <p data-bbox="138 365 1314 513">The approach predicts that overestimations of problem behavior will increase these problem behaviors, while underestimations of healthy behaviors will discourage individuals from engaging in them. Therefore if you correct the misperception of group norms it will likely reduce the problem behavior or increase the prevalence of healthy behavior.</p>	<p data-bbox="1335 185 1766 220">Rape Prevention Project for Men</p>

*Appendix 1: Theoretical Frameworks That Have Guided Development of Interventions to Prevent STIs/HIV*

<b>Theoretical Framework</b>	<b>Interventions That Use This Theory</b>
<p><b>Cognitive Behavior Theory (10).</b></p> <p>The foundation of this model is that youth need specific cognitive and behavioral skills in order to resist pressure and successfully negotiate interpersonal encounters. The model has three components</p> <ol style="list-style-type: none"><li>1. Activities to personalize information about sexuality, reproduction and contraception</li><li>2. Training in decision making and assertive communication skills</li><li>3. Practice applying those skills in personally difficult situations.</li></ol>	Reducing the Risk—HIV/STI Intervention

*Appendix 1: Theoretical Frameworks That Have Guided Development of Interventions to Prevent STIs/HIV*

<b>Theoretical Framework</b>	<b>Interventions That Use This Theory</b>
<p><b>Theory of Gender and Power</b> (11).</p> <p>Theory originally developed by Robert Connell. It is a social structural theory based on philosophical writings of sexual inequality, gender and power imbalances.</p> <p>Three major structures characterize gendered relationships</p> <ul style="list-style-type: none"> <li>• Sexual division of labor—examines the economic inequities favoring males</li> <li>• Sexual division of power—examines inequities and abuses of authority and control in relationships and institutions favoring males</li> <li>• Sexual cathexis, which examine social norms and affective attachments.</li> </ul> <p>These structures are overlapping but distinct and work together to explain the gender roles that people assume.</p> <p>DiClemente and Wingood added to this theory by postulating that gender based inequities arise from the 3 structures and generate different exposures and risk factors that influence women’s risk for disease.</p> <p>The structure exist at 2 different levels</p> <ol style="list-style-type: none"> <li>1. Societal</li> <li>2. Institutional</li> </ol>	<p>None Identified.</p>

**Proposed Model Conceptualizing the Influence of the Theory of Gender and Power on Women’s Health**

<b>Societal Level</b>	<b>Institutional Level</b>	<b>The Social Mechanisms</b>	<b>Exposures</b>	<b>Risk Factors</b>	<b>Biological factors</b>	<b>Disease</b>
Sexual division of labor	Work site, School, family	Manifested as unequal pay which produces economic inequities for women	Economic exposures risk factors	Socio economic	—	—
Sexual Division of Power	Relationship Medical System Media	Manifested as imbalances in control which produce inequities in power for women	Physical exposures	Behavioral risk factors	Douching Pregnancy Contraception	HIV
Structure of Cathexis: Social norms and affective attachments	Relationships Family Church	Manifested as constraints in expectations, which produce disparities in norms for women	Social Exposures	Personal risk factors		

**Theory of Gender and Power Exposures, Risk Factors, and biological Properties**

<p><b>Sexual Division of Labor</b>  <b>Economic Exposures—Women who:</b></p>	<p><b>Socioeconomic Risk Factors—Women who:</b></p>
<ul style="list-style-type: none"> <li>• Live at poverty level</li> <li>• Have less than a high school education</li> <li>• Have no employment or are under-employed</li> <li>• Have a high demand- low control work environment</li> <li>• Have limited or no health insurance</li> <li>• Have no permanent home (are homeless)</li> </ul>	<ul style="list-style-type: none"> <li>• Are ethnic minorities</li> <li>• Are younger (less than 18 years of age)</li> </ul>
<p><b>Sexual Division of Power:</b>  <b>Physical exposures—Women who have:</b></p>	<p><b>Behavioral Risk Factors—Women who have:</b></p>
<ul style="list-style-type: none"> <li>• A history of sexual or physical abuse</li> <li>• A partner who disapproves of practicing safer sex</li> <li>• A high-risk steady partner</li> <li>• A greater exposure to sexually explicit media</li> <li>• Limited access to HIV prevention (drug treatment, female controlled methods, school based HIV prevention education)</li> </ul>	<ul style="list-style-type: none"> <li>• A history of alcohol and drug abuse</li> <li>• Poor assertive communication skills</li> <li>• Poor condom use skills</li> <li>• Lower self-efficacy to avoid HIV</li> <li>• Limited perceived control over condom use</li> </ul>
<p><b>Structure of Social Norms and Affective Attachments:</b>  <b>Social Exposures—Women who have:</b></p>	<p><b>Personal Risk Factor—Women who have:</b></p>
<ul style="list-style-type: none"> <li>• A partner who is older</li> <li>• A desire or whose partner desires to conceive</li> <li>• Conservative cultural and gender norms</li> <li>• A religious affiliation that forbid the use of contraception</li> <li>• A strong mistrust of the medical system</li> <li>• Family influences not supportive of HIV prevention.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited knowledge of HIV prevention</li> <li>• Negative beliefs not supportive of safer sex</li> <li>• Perceived vulnerability to HIV/AIDS</li> <li>• A history of depression or psychological distress.</li> </ul>
<p><b>Biological Properties: Anatomical and biomedical properties</b></p>	
<ul style="list-style-type: none"> <li>• HIV is transmitted more efficiently from men to women than from women to men, as women are the receptive partner during sexual intercourse</li> <li>• STD's aside from HI, are also transmitted more efficiently from men to women than from women to men; these STD's can increase women's vulnerability to HIV</li> <li>• STD's are more asymptomatic in women; thus, women may be less likely to seek treatment for STD's and more likely to develop STD related complications</li> <li>• Biological characteristics such as having sex while menstruating, using OCM's history of cervical ectopy, and having an immature cervix may increase HIV risk among younger women.</li> </ul>	

*Appendix 1: Theoretical Frameworks That Have Guided Development of Interventions to Prevent STIs/HIV*

<b>Theoretical Frameworks</b>			<b>Interventions That Use This Theory</b>																					
<p><b>Health Belief Model (12).</b></p> <p>The Health Belief Model is a psychological model that was developed in the 1950's by social psychologists as a way to explain and predict health behaviors by focusing on the attitudes and beliefs of the individual.</p> <p>Key Concepts and Definitions of the Health Belief Model</p> <table border="1"> <thead> <tr> <th>Concept</th> <th>Definition</th> <th>Application</th> </tr> </thead> <tbody> <tr> <td>Perceived susceptibility</td> <td>One's opinion of chances of getting a condition</td> <td>Define populations at risk and risk levels  Personalize risk based on a person's characteristics or behavior  Make perceived susceptibility more consistent with individuals actual risk</td> </tr> <tr> <td>Perceived Severity</td> <td>One's opinion of how serious a condition and sequelae are</td> <td>Specify consequences of the risk and the condition</td> </tr> <tr> <td>Perceived benefits</td> <td>One's opinion of the efficacy of the advised action to reduce the risk or seriousness of impact</td> <td>Define action to take: how, where, when, clarify the positive effect to be expected</td> </tr> <tr> <td>Perceived barriers</td> <td>One's opinions of the tangible and psychological costs of the advised action</td> <td>Identify and reduce perceived barriers through reassurance, correction of misinformation, incentives, assistance</td> </tr> <tr> <td>Cues to action</td> <td>Strategies to active one's readiness</td> <td>Provide how to information, promote awareness, employ reminder systems</td> </tr> <tr> <td>Self-efficacy</td> <td>One's confidence in one's ability to take action</td> <td>Provide training and guidance in performing action. Use progressive goal setting give verbal reinforcement Demonstrate desired behaviors Reduce anxiety</td> </tr> </tbody> </table>			Concept	Definition	Application	Perceived susceptibility	One's opinion of chances of getting a condition	Define populations at risk and risk levels  Personalize risk based on a person's characteristics or behavior  Make perceived susceptibility more consistent with individuals actual risk	Perceived Severity	One's opinion of how serious a condition and sequelae are	Specify consequences of the risk and the condition	Perceived benefits	One's opinion of the efficacy of the advised action to reduce the risk or seriousness of impact	Define action to take: how, where, when, clarify the positive effect to be expected	Perceived barriers	One's opinions of the tangible and psychological costs of the advised action	Identify and reduce perceived barriers through reassurance, correction of misinformation, incentives, assistance	Cues to action	Strategies to active one's readiness	Provide how to information, promote awareness, employ reminder systems	Self-efficacy	One's confidence in one's ability to take action	Provide training and guidance in performing action. Use progressive goal setting give verbal reinforcement Demonstrate desired behaviors Reduce anxiety	<p>AIDS Prevention for Adolescents in school</p>
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*Appendix 1: Theoretical Frameworks That Have Guided Development of Interventions to Prevent STIs/HIV*

<b>Theoretical Frameworks</b>	<b>Interventions That Use This Approach</b>
<p><b>Harm Reduction Theory (13).</b></p> <p>Harm Reduction is a pragmatic approach to drug and alcohol consumption and their related problems. It is based on 3 core objectives</p> <ul style="list-style-type: none"> <li>• To reduce harmful consequences associated with drug and alcohol use,</li> <li>• To provide an alternative to zero-tolerance approaches by incorporating use goals (abstinence or moderation) that are compatible with the needs of the individual,</li> <li>• To promote access to services by offering low-threshold alternatives to traditional drug and alcohol prevention and treatment.</li> </ul>	<p>SHAHRP VOICE BASIC</p>

### Preventing Sexually Transmitted Infections

**Learning Objectives:**

- Increase knowledge about the signs, symptoms and consequences of STIs/HIV/AIDS
- Increase knowledge about the transmission and prevention of STIs and HIV
- Build communication skills to prevent STIs and HIV
- Develop skills to identify resources available for testing and treatment of STIs and HIV.
- Increase confidence in ones ability to access testing and treatment resources as needed.

Information	Motivation	Behavioral Skills	Behavioral Outcomes
<p>Increase knowledge about the prevalence of STIs and HIV in young people (adolescents and young adults).</p> <p>Increase awareness of how STIs and HIV are transmitted</p> <p>Describe the signs and symptoms of STIs and HIV</p> <p>Describe current treatment of STIs and HIV</p> <p>Discuss risky sexual behaviors associated with STI/HIV risk</p> <p>Discuss and correct misinformation about STIs and HIV</p> <p>Increase awareness of the role of alcohol in sexual decision making.</p> <p>Increase knowledge of where to get tested and treated for STIs on and off base.</p>	<p><b>Personal</b></p> <p>Increase awareness of how getting an STI/HIV could lead to more serious health consequences such as, fertility problems or complications with child birth.</p> <p>Discuss how complications from an undetected/untreated STIs/HIV impact:</p> <ul style="list-style-type: none"> <li>• Health</li> <li>• Relationships</li> <li>• Career</li> </ul> <p>Increase awareness of how STIs and HIV infection are prevalent in the military.</p> <p><b>Social Norms</b></p> <p>Describe how Religious or cultural mores could play a role in avoidance of sexual situations that might expose a participant to an STI or HIV.</p> <p>Discuss how social stigma associated with HIV could have negative impact on:</p> <ul style="list-style-type: none"> <li>• Peers</li> <li>• Family</li> <li>• Unit</li> <li>• Romantic Partners</li> </ul>	<p>Increase skills in one’s ability to obtain and/or purchase condoms</p> <p>Build skills in proper use of male and female condoms</p> <p>Build skills to communicate with sexual partners about:</p> <ul style="list-style-type: none"> <li>• Sex</li> <li>• Practicing safer sex</li> <li>• Getting tested for STIs and HIV</li> </ul> <p>Build skills in one’s ability to:</p> <ul style="list-style-type: none"> <li>• Sustain</li> <li>• Maintain</li> <li>• Renegotiate safer sex agreements across time.</li> </ul> <p>Provide an opportunity for participants to self-assess their own STI/HIV acquisition risk.</p>	<p>Reduce the incidence of STIs or HIV.</p> <p>Increase the incidence of</p> <ul style="list-style-type: none"> <li>• Safer sex</li> <li>• Abstinence</li> <li>• Not combining alcohol and sex</li> <li>• Negotiating condom use with sexual partner</li> </ul>



*Appendix 2: Intervention Learning Objectives for Each Health Outcome of Interest*

<b>Information</b>	<b>Motivation</b>	<b>Behavioral Skills</b>	<b>Behavioral Outcomes</b>
	<p><b>Self Efficacy</b>            Increase confidence in ability to protect oneself against STIs and HIV through</p> <ul style="list-style-type: none"> <li>• Abstinence</li> <li>• Proper condom use</li> <li>• Not engaging in sexual situations that might expose one to STIs or HIV.</li> <li>• Not mixing alcohol and sex.</li> </ul> <p><b>Perceived Vulnerability</b>            Increase awareness of how assumptions about a potential sexual partner can influence one's perception of risk. (I.e. He/she has a good job and reputation therefore he/she is probably safe and clean).</p> <p><b>Behavioral Intention</b>            To protect oneself from contracting an STI or HIV by</p> <ul style="list-style-type: none"> <li>• Practicing abstinence</li> <li>• Engaging in safer sexual practices</li> <li>• Not combining alcohol and sex</li> <li>• Not engaging in sexual situations that might put one at risk for STIs or HIV.</li> </ul>		

### Preventing Unintended Pregnancy

**Learning Objectives:**

- Increase knowledge about unintended pregnancy (UIP).
- Increase knowledge about hormonal and barrier contraceptive methods.
- Build communication skills to prevent unprotected sexual encounters.
- Provide skills for increased and consistent contraceptive use.
- Examine values, beliefs and attitudes that could increase UIP
- Increase knowledge about UIP in young people including the advantages and disadvantages of prevalent contraceptive methods

Information	Motivation	Behavioral Skills	Behavioral Outcomes
<p>Provide a historical overview of contraceptive methods.</p> <p>Provide basic information about male and female anatomy and physiology and:</p> <ul style="list-style-type: none"> <li>• Describe how pregnancy occurs</li> <li>• Describe ovulation, when it occurs and how it relates to pregnancy</li> </ul> <p>Discuss the impact of UIP on a woman when she is in the military.</p> <p>Provide information about the contraceptive methods available to prevent pregnancy</p> <ul style="list-style-type: none"> <li>• hormonal</li> <li>• barrier</li> <li>• abstinence from vaginal intercourse</li> </ul> <p>Discuss pros and cons of each</p>	<p><b>Personal Motivations</b></p> <p>Examine long term and short term career goals, and how an UIP could impact those goals for both men and women.</p> <ul style="list-style-type: none"> <li>• Effects on career and reputation</li> <li>• How it could affect deployment</li> <li>• Amount of time served</li> <li>• Financial and housing issues.</li> <li>• Relationships with friends, family</li> <li>• Romantic partner(s)</li> </ul> <p>Examine personal values, beliefs, and attitudes about contraception and sexual partner communication</p> <p>Examine the reasons why a young person would choose pregnancy</p> <ul style="list-style-type: none"> <li>• Benefits of becoming pregnant</li> <li>• Motivations for pregnancy, either avoiding one or having one</li> </ul>	<p>Increase skills</p> <ul style="list-style-type: none"> <li>• to negotiate contraception with all sexual partners</li> <li>• obtain contraception</li> <li>• consistently use chosen contraception method as appropriate for their goals</li> </ul> <p>Increase skill in identifying, obtaining, and consistently using contraception as appropriate for their goals.</p> <p>Enable participants to create a plan for using contraception if desired, and choosing the method of contraception that is right for them.</p> <p>Identify a secondary method of contraception if:</p> <ul style="list-style-type: none"> <li>• A partner is resistant,</li> <li>• Preferred method is unavailable.</li> </ul>	<p>Reduce unintended pregnancies and impregnation among participants.</p> <p>Increase the use of contraceptive methods in sexual encounters.</p> <p>Reduce frequency of unprotected sexual encounters and mixing sex with alcohol.</p> <p>Increase revisiting issue of contraception use over time with health care provider.</p>

*Appendix 2: Intervention Learning Objectives for Each Health Outcome of Interest*

<b>Information</b>	<b>Motivation</b>	<b>Behavioral Skills</b>	<b>Behavioral Outcomes</b>
<p>contraceptive method.</p> <p>Increase awareness of how unintended pregnancy can increase risk for STIs and HIV.</p> <p>Discuss the importance of the role that men play in preventing of UIP.</p> <p>Discuss the potential outcomes of UIP</p> <ul style="list-style-type: none"> <li>• Abortion</li> <li>• Adoption</li> <li>• Miscarriage</li> <li>• Raising a child while in the military.</li> </ul> <p>Familiarize participants with the statistics of UIP in general population as well as specifically within the military</p>	<p><b>Social Norms/Motivations</b>            Discuss religious and cultural attitudes toward contraception</p> <ul style="list-style-type: none"> <li>• Withdrawal</li> <li>• Rhythm method</li> </ul> <p>Discuss the attitudes and behaviors of friends and peers with regard to using contraception</p> <ul style="list-style-type: none"> <li>• Discuss how those attitudes can impact their own choice to use or not use certain contraceptive methods</li> </ul> <p><b>Perceived Vulnerabilities</b>            Examine personal fears about UIP.</p> <ul style="list-style-type: none"> <li>• Impact on career</li> <li>• Fear of raising a child as a young single parent.</li> <li>• Financial instability and not being able to provide for one’s child.</li> <li>• Fear of childbirth and pregnancy</li> </ul> <p><b>Self Efficacy</b>            Increase confidence about discussing sex and identifying a method of contraception for personal use</p> <p>Increase confidence about negotiating with sexual partners about contraception</p>		

*Appendix 2: Intervention Learning Objectives for Each Health Outcome of Interest*

Information	Motivation	Behavioral Skills	Behavioral Outcomes
	<b>Behavioral Intentions</b> Avoid unintended pregnancy  Practice contraception in all sexual encounters		

Key: UIP= Unintended pregnancy; STI= Sexually Transmitted Infection  
**Preventing Personal (Relationship/Dating) Violence**

**Learning Objectives**

- To increase awareness of the prevalence of and factors that contributes to relationship violence.
- To develop skills for avoiding relationship violence.
- To increase communication skills to avoid relationship violence.
- To change attitudes and norms about decreasing relationship violence.
- Decrease situations where relationship violence occurs.

Information	Motivation	Male Behavioral Skills	Female Behavioral Skills	Male Behavioral outcomes	Female Behavioral outcomes.
Define sexual assault and consent using legal military definitions.  Define relationship violence  Define a consensual sexual relationship  Provide relationship violence prevention resources that are available to	<b>Personal</b> Increase awareness of situations that may increase the risk for relationship violence.  Increase awareness about how trauma from relationship violence can create life long problems including: <ul style="list-style-type: none"> <li>• Problems in sexually and emotionally intimate relationships</li> <li>• Increased risk of re-victimization</li> <li>• Post traumatic stress disorder.</li> </ul>	Assist participants in identifying aspects of a healthy relationship <ul style="list-style-type: none"> <li>• Discuss expectations for relationship</li> <li>• Discuss how they want to be treated</li> <li>• Build negotiation skills</li> <li>• Build assertive communication skills</li> <li>• Build active listening skills</li> </ul> Provide opportunities to practice <ul style="list-style-type: none"> <li>• Negotiation skill building</li> <li>• Assertive</li> </ul>	Assist participants in identifying aspects of a healthy relationship <ul style="list-style-type: none"> <li>• Discuss expectations for relationships</li> <li>• Discuss how they want to be treated</li> <li>• Build negotiation skills</li> <li>• Build assertive communication skills</li> <li>• Build active listening skills</li> </ul> Provide opportunities to practice	Reduce the frequency of engaging in sexual behavior while under the influence of alcohol  Increase in partner communication about sex, sexual intimacy and consent in relationships  Positive change in attitudes with regard to sex/gender roles.  A decrease in the acceptance of relationship violence.	Reduce frequency of participant engaging in risky situations. <ul style="list-style-type: none"> <li>• Going to secluded places with new partner.</li> <li>• Drinking to excess.</li> <li>• Giving mixed messages</li> <li>• Not letting a friend know when she will be back from a date</li> </ul> Reduce the

*Appendix 2: Intervention Learning Objectives for Each Health Outcome of Interest*

<b>Information</b>	<b>Motivation</b>	<b>Male Behavioral Skills</b>	<b>Female Behavioral Skills</b>	<b>Male Behavioral outcomes</b>	<b>Female Behavioral outcomes.</b>
<p>participants.</p> <p>Examine the role that excessive alcohol consumption may play in relationship violence</p>	<p><b>Social Norms</b></p> <p>Increase knowledge of relationship violence as an issue that is prevalent in civilian populations and in military populations (i.e. The Marines)</p> <p>Discuss how relationship violence can negatively impact</p> <ul style="list-style-type: none"> <li>• Readiness for combat</li> <li>• Esprit de corps</li> <li>• Morale within the unit</li> </ul> <p>Discuss how sex roles and gender roles contribute to relationship violence</p> <ul style="list-style-type: none"> <li>• Examine the role of the media in contributing to stereotypes and gender role expectations and their relationship to relationship violence.</li> <li>• Discuss societal norms about relationships               <ul style="list-style-type: none"> <li>○ Male entitlement in relationships. (if he pays for the date he is entitled to sex.</li> <li>○ Women believing that if a male pays for the date they are expected to have sex.</li> </ul> </li> </ul>	<p>communication skill building</p> <ul style="list-style-type: none"> <li>• Active listening skill building</li> </ul> <p>Build communication skills to effectively communicate with partners about sexual intimacy and the parameters of sexual activity</p> <ul style="list-style-type: none"> <li>• No sex</li> <li>• Safer sex</li> <li>• Only certain types of sex.</li> <li>• Never assume to know what a woman wants. Always ask before engaging in a sexual activity.</li> <li>• Increase ability to identify potential warning signs that may increase the risk of relationship violence.</li> </ul>	<ul style="list-style-type: none"> <li>• Negotiation skill building</li> <li>• Assertive communication skill building</li> <li>• Active listening skill building</li> </ul> <p>Build communication skills to effectively communicate with partners about sexual intimacy and the parameters of sexual activity</p> <ul style="list-style-type: none"> <li>• No sex</li> <li>• Safer sex</li> <li>• Only certain types of sex.</li> </ul> <p>To develop a safety plan for risky relationship situations</p> <ul style="list-style-type: none"> <li>• Assist participants to develop and articulate a personal plan to avoid risky relationship/ sexual situations</li> <li>• Not drinking to excess</li> <li>• Speaking up if a sexual situation makes you uncomfortable.</li> <li>• Not sending mixed messages about sexual interest.</li> </ul>	<p>A decrease in incidence of relationship violence.</p>	<p>frequency of engaging in sexual behavior while under the influence of alcohol</p> <p>Increase in ability to communicate sexual parameters to a relationship partner</p> <p>A decrease in the acceptance of relationship violence.</p> <p>A decrease in the incidence of relationship violence.</p>

*Appendix 2: Intervention Learning Objectives for Each Health Outcome of Interest*

Information	Motivation	Male Behavioral Skills	Female Behavioral Skills	Male Behavioral outcomes	Female Behavioral outcomes.
	<ul style="list-style-type: none"> <li>• Increase awareness of how power and control issues can negatively impact relationships and contribute to relationship violence.</li> <li>• Discuss male expectations of relationships               <ul style="list-style-type: none"> <li>○ Having a sexual partner</li> <li>○ Fulfilling emotional needs</li> <li>○ Fulfilling physical needs.</li> <li>○ Benefits of being in a couple</li> </ul> </li> <li>• Discuss women’s expectations of relationships               <ul style="list-style-type: none"> <li>○ Having to have a man</li> <li>○ The need to always be in a relationship</li> </ul> </li> </ul> <p>Discuss ways that women and men can be allies to one another in social/relationships</p> <p>Men—respecting a woman’s boundaries when she say no in a sexual situation</p>		<ul style="list-style-type: none"> <li>• Be aware of your surroundings and if you feel uncomfortable get out.</li> <li>• Avoid isolated and secluded places</li> <li>• Make sure a friend/buddy is with you or knows where you are and when you are supposed to be home.</li> </ul>		

*Appendix 2: Intervention Learning Objectives for Each Health Outcome of Interest*

Information	Motivation	Male Behavioral Skills	Female Behavioral Skills	Male Behavioral outcomes	Female Behavioral outcomes.
	<ul style="list-style-type: none"> <li>○ No=No</li> <li>○ Maybe=No</li> <li>○ Drunk (unable to consent)=No</li> <li>○ Woman being unsure= No</li> <li>○ Women—stating clearly to relationship partner when a sexual advance is not wanted. Not giving ambiguous signals</li> </ul> <p>Increase empathy and understanding for victims of relationship violence.</p> <p><b>Perceived Vulnerability</b> Increase awareness of how relationship violence could negatively impact a Marine’s career and reputation.</p> <p>Increase awareness of how relationship violence can contribute to an increased risk of contracting and STI, HIV or UIP.</p> <p><b>Self efficacy</b> Increase self confidence to avoid situations that could increase risk of relationship violence</p> <p><b>Behavioral Intention</b></p>				

*Appendix 2: Intervention Learning Objectives for Each Health Outcome of Interest*

<b>Information</b>	<b>Motivation</b>	<b>Male Behavioral Skills</b>	<b>Female Behavioral Skills</b>	<b>Male Behavioral outcomes</b>	<b>Female Behavioral outcomes.</b>
	Increase intention to avoid situations that increase the risk of relationship violence.				



**Preventing Alcohol Misuse/Abuse**

**Learning Objectives:**

- Provide basic information about the effects of alcohol.
- Increase understanding of the role that alcohol plays in sexual risk behavior.
- Reduce misuse of alcohol.
- Reduce the occurrence of alcohol use when engaging in sexual behavior.

<b>Information</b>	<b>Motivation</b>	<b>Behavior Skills</b>	<b>Behavioral Outcomes</b>
<p>Increase knowledge about blood alcohol levels and blood alcohol content.</p> <p>Discuss basic facts about alcohol and how it affects the body.</p> <p>Discuss factors that influence the effects of alcohol</p> <ul style="list-style-type: none"> <li>• Gender differences with regard to alcohol consumption</li> <li>• Alcohol content in each drink</li> <li>• Amounts consumed</li> <li>• Amount of time between drinks</li> <li>• Gender and body weight composition</li> <li>• Water consumption (hydration)</li> <li>• Empty or full stomach</li> <li>• Hormonal changes in women</li> <li>• Alcohol dehydrogenase</li> <li>• Use of other medicines or drugs</li> <li>• Mental and emotional state</li> </ul>	<p><b>Personal</b></p> <p>Discuss the negative impact of excessive alcohol use.</p> <ul style="list-style-type: none"> <li>• Hangovers</li> <li>• DUIs</li> <li>• Risky sexual behaviors</li> <li>• Reduction of work capability</li> <li>• Lost days of work</li> </ul> <p>Increase understanding of reasons for drinking.</p> <ul style="list-style-type: none"> <li>• Have fun</li> <li>• Relieve stress</li> <li>• Increase courage (Liquid courage)</li> <li>• Fit in</li> <li>• Deal with negative emotions (upset or anxiety)</li> <li>• Loneliness (first time away from home)</li> <li>• Boredom (wanting to experiment)</li> <li>• Social pressures to use alcohol.</li> </ul> <p><b>Social Norms</b></p>	<p>Increase skills for setting personal limits for alcohol misuse.</p> <p>Increase skills for creating safe drinking environments.</p> <ul style="list-style-type: none"> <li>• Set up a buddy system to aide in adhering to personal limits set for alcohol consumption</li> <li>• Appoint a designated driver</li> <li>• Eat before drinking</li> <li>• Being properly hydrated</li> <li>• Avoiding alcohol misuse in dating situations</li> <li>• Avoiding risky sexual behaviors while drinking</li> <li>• Communicating intentions and limits of alcohol use with peers.</li> </ul>	<p>Reduce amount of alcohol misuse.</p> <p>Reduce number of days per month that alcohol was consumed</p> <p>Reduction in frequency of lost days of work due to alcohol misuse.</p> <p>Reduction in frequency of engaging in alcohol use and sexual behavior.</p> <p>Reduction in frequency of engaging in alcohol use and driving or working.</p>

*Appendix 2: Intervention Learning Objectives for Each Health Outcome of Interest*

<b>Information</b>	<b>Motivation</b>	<b>Behavior Skills</b>	<b>Behavioral Outcomes</b>
<p>Increase awareness of the relationship between</p> <ul style="list-style-type: none"> <li>• Alcohol and sexual behavior.</li> <li>• Alcohol and driving</li> <li>• Alcohol and relationship violence</li> </ul> <p>Discuss reasons why people chose to use alcohol.</p> <ul style="list-style-type: none"> <li>• Social Disinhibitor</li> <li>• Increases Courage (Liquid courage)</li> <li>• Expected norm of the group</li> <li>• To relieve stress</li> <li>• To relax</li> <li>• To reduce boredom</li> </ul> <p>Discuss patterns of alcohol use</p> <ul style="list-style-type: none"> <li>• Experimental</li> <li>• Occasional</li> <li>• Situational</li> <li>• Intense</li> <li>• Compulsive</li> </ul> <p>Provide basic information and statistics about alcohol use and misuse in</p> <ul style="list-style-type: none"> <li>• Civilians</li> <li>• The military wide</li> <li>• Marines Corps</li> </ul> <p>Educate participants about the symptoms of problem drinking</p>	<p>Discuss the expectations both spoken and unspoken for alcohol use within</p> <ul style="list-style-type: none"> <li>• Marine Corps wide</li> <li>• Unit</li> <li>• Personal peer groups</li> </ul> <p>Discuss benefits of alcohol use</p> <ul style="list-style-type: none"> <li>• Marine Corps wide</li> <li>• Unit</li> <li>• Personal peer group</li> </ul> <p>Discuss how the media and how that portrayal influences alcohol use (by increasing the desire for use)</p> <p><b>Perceived Vulnerability</b> Examine how knowledge, beliefs, and values about alcohol use affect the use and misuse of alcohol.</p> <ul style="list-style-type: none"> <li>• Family history of alcoholism.</li> <li>• Religious beliefs/values about alcohol use</li> <li>• Family norms around alcohol use. (permissive or prohibitive drinking)</li> </ul> <p><b>Self efficacy</b> Increase confidence in one's ability to not misuse alcohol</p> <p>Increase confidence in one's ability to drink appropriately in</p>		

*Appendix 2: Intervention Learning Objectives for Each Health Outcome of Interest*

<b>Information</b>	<b>Motivation</b>	<b>Behavior Skills</b>	<b>Behavioral Outcomes</b>
<p>Provide resources that are available on and off base to participants.</p> <p>Encourage them to seek assistance for alcohol misuse if they feel that they need it.</p>	<p>any situation</p> <p>Increase confidence in one's ability to misuse alcohol and engage in sexual behavior.</p> <p><b>Behavioral Intention</b>            Increase intention to avoid alcohol misuse and</p> <ul style="list-style-type: none"> <li>• Sex</li> <li>• Dating situations</li> <li>• Driving and operating equipment</li> </ul>		

**Key:**

DUI= Driving under the influence of alcohol

Misuse defined as heavy alcohol use (5 or more drinks at one time)

Misuse includes engaging in behaviors that increase the negative impact of alcohol such as

- Drinking quickly
- Drinking on an empty stomach
- Drinking when not properly hydrated
- Drinking and engaging in sexual behavior
- Drinking and driving or using other equipment
- Drinking during emotional upset
- Drinking while taking medications and other drugs.

## Control Intervention: Fitness for Life II

### Learning Objectives:

- Identify individual/cultural/social influences on nutritional choices
- Summarize the Dietary Recommendations for Americans 2005
- Skillfully use food labels to meet nutritional needs
- Identify healthier choices in markets, restaurants and mess halls
- Define nutritional requirements for peak physical performance
- Define basic fitness concepts
- Develop a personal fitness program for peak performance
- Reduce their risk of physical training and work place injuries
- Identify basic injuries and initiate care
- Recognize how alcohol and tobacco use effects health and performance
- Recognize stress and how to use stress reduction techniques
- Take personal responsibility for goals, motivation and skills required to meet individualized dietary needs and fitness goals

Module Outline:

- I/M Introduction Material –  
Program overview, purpose and goals  
(General overview and session specific introductions)
- I/M Supersize Me, A Film of Epic Portions (Segment)  
Gain attention  
Raise awareness of the individual/cultural/social problems  
Establish basic facts regarding obesity epidemic
- M Self-Assessment Survey (Perkins-Porras, et. al, 2005)  
Tool assess participants’ dietary needs for change and their  
readiness for change  
  
Complete tool and score...grouping purpose not discussed  
with participants. Use tool for later small group discussions
- I/M Large Group Discussion  
Where do I usually eat?  
How do I decide what I’m going to eat?  
Who do I eat with?  
Why do I eat?  
Who or what influences these choices?  
Location  
Time of Day  
Peer Pressure  
Money  
Media  
Who is responsible for my choices?
- I Nutrition Basics Slide Set (USHHS and USDA, 2005)  
My Pyramid  
Dietary Recommendations for Americans 2005
- B Food Label Video (FDA, 2004)  
Reading, understanding and using as a tool
- I Cultural Influences Discussion (family/society/media/military)

- MB Healthy Goal Setting worksheet
- IMB Small Group or On-line Homework based on levels of contemplation
- Group Definitions:
- Group 1 – Precontemplators, not currently thinking about improving their nutrition/exercise
- Strategy:
- Make aware of eating patterns
  - Explain health benefits
  - Raise motivation to change
  - Short-long term goals established
  - Individualized advice
- Group 2 – Contemplators, thinking about improving nutrition/exercise but not either intending to do so within the next month or not confident of being able to stick to the plan
- Strategy:
- Increase motivation and confidence
  - Think specifically how to put into practice
  - Problem solve/anticipate difficulties
  - Short-long term goals review/reinforcement
- Group 3 - Preparation/Maintenance, thinking and planning to improve nutrition/exercise within next month and confident of success or are currently working to improve nutrition/exercise practices
- Strategy:
- Help feel more confident of success
  - Make firm commitments
  - Develop practical skills
  - Advise on purchases/preparation
  - Problem solve/anticipate difficulties
  - Short-long term goals review/reinforcement
- I Large group discussion based on questions fielded on-line
- IM Small Group Discussion and/or Role Play  
Levels of Contemplation and Personal Assessment

*Appendix 3: Control Intervention Fitness for Life II Module Outline*

- B Introduction to Dietary Recall Worksheet –  
“Homework” (USDA...MyPyramid.gov, 2005)
- B Demonstration of On-line Tools  
My Pyramid, Calorie King and specific restaurant sites
- I/M Weight Management Slide Set
- B Dietary Recall Worksheet (Session 2 or 3)  
(USDA...MyPyramid.gov, 2005)-  
Individual completes based on homework/recall  
Based on chow hall meals
- B Portion Distortion Game
- I Restaurant Confidential/Snacking/Shopping Slide Set  
(Multiple sources)
- I/M Fitness and Physical Activity - Slide Set  
Setting Training Goals  
The Basics  
• Before you start...equipment and clearance  
• Stretching  
• Strength Training  
• Endurance/Cardiovascular Training  
• Cross Training Opportunities  
Supplement Use
- B Starting and Working with a Training Log
- I Nutrition for Peak Performance  
Informational slide set  
Carbohydrates, protein, hydration...  
Training/nutrition log – expanding on the training log  
Day of Event Menu Activity  
Information/Support Resources  
On-line – Nike, GNC...sites  
Military Fitness Programs

*Appendix 3: Control Intervention Fitness for Life II Module Outline*

- IMB Sports and Work Place Injury Prevention and “First Aid”  
Slide Set
- Types of Injuries
  - Prevention Techniques
  - First Aid
  - Seeking Medical Attention
  - Rehabilitation
  - Possible Long-term Consequences
- I/M/B Alcohol and Smoking – ask Cherrie – focus and materials?
- I/M/B Stress and Stress Reduction Techniques  
Slide Set
- B Contemporary Comfort Food - Large Group Discussion  
Individual/cultural/social influences  
Simple modifications to make healthier choices
- B Dietary Recall Worksheet (Session 4)  
(USDA...MyPyramid.gov, 2005) -  
Return analysis of individual worksheets/discuss results  
Worksheet reflects one day’s choices  
Set short/long term goals for nutrition and exercise
- I/M Conclusions –  
Program review, purpose, future topics (sessions 1, 2  
and 3) and wrap-up questionnaire (session 4)