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Military Women; Rape, Deployment, Combat, PTSD, Traumatic Brain Injury, Care Disparity

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**ABSTRACT**

**Background/Rationale:** This research addresses DoD and DVA health care delivery needs of two priority populations: women exposed to combat, and women sexually assaulted during military service, and for individuals experiencing traumatic exposures and women's health outcomes, such as post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI) and their subsequent health service use or barriers to care.

**Objective(s):** The objectives of this study focus on identification of the antecedent risks for and consequent health outcomes of traumatic exposures (assault, combat) and barriers to DoD, VA, and civilian health care for Regular Military (RM) servicewomen. We also seek to identify differences in these outcomes between RM and Reserve and National Guard (R/NG) servicewomen interviewed in our concurrent VA study.

**Methods:** This study had a cross-sectional study design with two sequential phases. Phase 1 included focus groups to refine study questions specific to RM service women. Phase 2 will involve telephone interviews of 769 RM service women.

**Findings:** We have completed both Phases of data collection and are currently analyzing study findings. We have received an extension of this study to January 31, 2013 (given delays in focus group completion associated with Base Commander approvals, and data set complexity for analyses). For Phase 1 of this study, 13 focus groups (n=49) were conducted with US Army trained Officers, Regular Military service men and women at two United States Air Force bases (One United States Army base and Army Veteran groups). Focus group proceedings have been transcribed, coded and analyzed for input into Phase 2 study questions. For Phase 2 data collection computer assisted telephone interviews (CATI) were completed with 664 currently or previously serving Regular Military (active component) service women. Quality assurance processes, data cleaning and weight have been completed and data analyses are under way. Continuing review approval obtained from local IRB and HRPO CR acknowledgement memos have been received. Initial findings have been accepted for oral presentations and manuscript submissions have begun.

**Impact:** There will be significant implication for DoD and DVA policy and resource allocation if we find identifiable risk or protective factors associated with deployed RM service women's violence exposures, and/or an association between deployed women's military response to their traumatic exposure(s) and their current health status and access to care.

**15. SUBJECT TERMS**

Military Women; Rape, Deployment, Combat, PTSD, Traumatic Brain Injury, Care Disparity
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INTRODUCTION

The primary goals of this study are to identify the antecedent risks and subsequent health consequences of physical and sexual assault (victimization) in active component- Regular Military (RM) OEF/OIF service women. Specifically, we will compare victimization and other endpoints (e.g., post-traumatic stress disorder, traumatic brain injury) in four subgroups: 1) women deployed to combat related regions once; 2) women deployed to combat related regions more than once, 3) women deployed to non-combat regions outside of the United States (US); and 4) women never deployed outside of the US. Combat regions will be identified to include Iraq and Afghanistan.

This study will involve two sequential phases. Phase 1 will refine the subject interview and will involve: 1) formative focus groups with segregated male and female populations to generate risk factors and trauma outcomes; and 2) refinement of the scripted interview. Phase 2 will involve a cross-sectional study design using stratified random sampling to complete 664 interviews with RM women to identify comparison groups of veterans and active duty service members by deployment status. One hundred United States Military Academy Trained officers will be included in this sample to address officer risk and resiliency factors heretofore unstudied. Phase 2 data will be collected by computer-assisted telephone interview (CATI). This cross-sectional design allows us to gather subject information on a single occasion and demonstrate associations that may provide early clues to risk factors for and health outcomes of violence exposures.

BODY

I. We have completed Phase 1 of this study.

A total of 13 focus groups for Phase 1 were accomplished:

1. United States Academy Trained female Officers (2 groups). 10-18/19-2008

2. Offutt Air Force Base (4 groups: 1 male and 1 female Officer; 1 male and 1 female Enlisted): 10-17-2009

3. McConnell Air Force Base. (2 groups: 1 female Officer and 1 female Enlisted: 11/14/09

4. Cedar Rapids/Davenport, IA area Veterans groups (2 groups: 1 male veteran Officer and Enlisted combined; 1 female veteran Officer and Enlisted group combined.: 2-10-2010

5. Fort Leonard Wood Army Base (3 groups: 1 male Officer, 1 male Enlisted, 1 female Enlisted): 2-27-2010

6. Total sample for all focus groups was 49 participants
   a. 13 Academy Trained female officers
   b. 22 Regular Military women
   c. 14 Regular Military men

Note: because of the ongoing difficulty in obtaining Base Commander support letters required by HRPO for all of the military bases identified for inclusion in this study phase, we submitted and received permission from HRPO to conduct focus groups with Army Veterans in order to have a more representative sample of participants (that is, a sample not primarily composed of Air Force
service members). Following this HRPO approval, the above noted focus groups were conducted with Army Veteran groups from the Cedar Rapids/Davenport, Iowa area.

II. We have completed Phase 2 of this study.

1. Focus groups were transcribed, coded (using coding dictionary developed by research team) and entered into NVivo 8.0 for analysis. There is ongoing analysis of coded focus group transcripts for use in conference presentations and paper submissions.

2. Phase 2 Computer Assisted Telephone interviews (CATI) development was completed using focus group input.

3. VA and local IRB Continuing Review approval for Phase 2 was received 3/10/11.

4. CATI programming and beta testing were completed.

5. Data sample was received from DMDC April 2010.

6. Interviewers were hired, mandatory VA and IRB interviewer training completed, interviewer initial reviews of CATI with feedback to programmer and co-investigators.

7. HRPO approval for all aspects of Phase 2 of this study received October 1, 2010.

8. 664 computer-assisted telephone interviews (CATI) completed. An additional 75 interviews were completed with Academy-trained Officers (for a total of 100).

9. Quality assurance completed.

10. Local (University of Iowa and Iowa City VA) IRB approval for study continuing review (CR) obtained 1/23/2012.

11. Local IRB approval along with full CR submission submitted to HRPO 7/11/2012.

12. CR acknowledgement memorandum from HRPO received 7/13/2012.

13. Because of the delays we experienced related to completion of Phase 1 focus groups and complexity of our data, we requested and received an extension that now has January 31, 2013 final completion.

14. This DoD data set has been cleaned and sample weighting completed.

15. This DoD data set has been combined within a co-existing data set with the sister study that was VA funded to compare Reserve/National Guard data set in order to allow extension of findings.
KEY RESEARCH ACCOMPLISHMENTS TO DATE

I. Characteristics associated with service women’s receipt of care following sexual assault in military (SAIM) are identifiable. Most women don’t seek SAIM related care.
   - Following sexual assault in military (SAIM), servicewomen were significantly more likely to report receiving mental health care than medical care (26% v 16%, p < .0001).
   - Most service women seeking post-SAIM medical care received it within 30 days (97%).
   - Most service women seeking post-SAIM mental health care received it more than a year later (33%).
   - Factors associated with medical care receipt included completed sexual assault (as opposed to attempted) and officially reporting SAIM.
   - Factors associated with mental health care receipt included white race, an on-duty SAIM, and officially reporting SAIM.
   - Most service women (67%) did not seek post-SAIM care because of embarrassment, confidentiality concerns, and perceived career consequences.
     o (Oral presentation 1, Mengeling submitted manuscript)

II. Servicewomen can identify risk factors for gender-based violence and consequent coping behaviors during deployment.
   - Military women face a constellation of circumstances that put them at risk of rape and sexual harassment while deployed to combat related areas.
     o (Oral presentation 2)

III. Deployed Servicewomen report unique barriers and facilitators to mental health care compared to their non-deployed counterparts.
   - Active component women were no more likely to be deployed than Reserve/National Guard (p=.12)
   - Deployed participants were more likely to know where to receive mental health counseling (93% v 85%); to believe mental health prescriptions could interfere with their job performance (48% v 40%, p<.01); that they would be seen as weak (38% v 29%), <.001); but less likely to believe their unit would lose confidence in them (49% v 35%, p<.002) if they sought mental health care.
   - Half of those deployed to Iraq/Afghanistan had concerns that their mental health care would not remain confidential.
   - Half said they would talk informally with off-duty healthcare providers if they had a mental health concern during deployment.
   - Those who believed their care would not remain confidential were more likely to endorse presenting a physical complaint to see a provider in order to bring up mental health concerns (53% v 39%, p<.001).
     o (Oral presentation 3)

IV. Officers and Enlisted women from both Active Component (AC) and Reserve/National Guard (RNG) identified the role alcohol plays in sexual assault/harassment in the military, both during deployments and stateside.
   - While there was a consensus in agreement on the contribution of in military alcohol in sexual assault and harassment, minor differences in perceptions between RNG and AC service women were noted.
• Stigma related to alcohol use was discussed at greater length by AC than RNG service women.
• Both groups identified ways older service women attempted to protect younger female soldiers from victimization associated with alcohol use.
  o (Poster presentation 1)

V. **Military health care providers articulated unique barriers to accessing care as a function of their military role.**
• Similar barriers were expressed by both Activate Component and Reserve or National Guard Officers.
• Barriers included: 1) putting others before self ("doctors aren’t supposed to need doctors" and "we are the last people we take care of"); 2) knowing the person that they have to seek care from ("I stalled and stalled and stalled and finally went over to women’s health then one of the nurse practitioners I almost never see, so ok she can do my Pap"); and 3) lack of privacy or role overload while being a patient when seeking health care ("I’ve had my patients in the waiting room start talking to me about their medical problems while I’m sitting there waiting for my [mental health] appointment").
  o (Poster presentation 2)

VI. **Nearly one in five women in the AC and RNG smokes cigarettes and characteristic/risk factors for smoking are identifiable.**
• Approximately 37% of servicewomen had a lifetime history of cigarette use, with 18% reporting current smoking.
• 31% of lifetime smokers initiated smoking during their military service.
• Independent correlates of current smoking included pay grade, household income, having a service-connected disability, illicit drug or illegal prescription medication use, and taking medication for depression, anxiety, or stress (all $p < 0.05$).
• Having an enlisted pay grade, presence of a service-connected disability, being white, and a history of ≥ 2 deployments were all associated with starting to smoke during military service ($p < 0.05$).

**REPORTABLE OUTCOMES**

Oral presentations using DoD data:

1. Mengeling, M, Booth, BM, Torner, J, Sadler, AG. *Reporting In-military Sexual Assault and Current Mental Health of OEF/OIF Active Component, Reserve, and National Guard Servicewomen*, Orlando, FL, June 24-26, 2012*.

   * Academy Health 2012 Carol Weisman & Gary Chase Gender-Based Research Award Best Abstract Presented to Michelle Mengeling, Ph.D.


Poster Presentations using DoD data:

Submitted Manuscripts using DoD Data:

Manuscripts in Preparation using DoD Data:
- Sadler AG, Mengeling MA, Torner JC, Cook BL, Booth BM. Impact of Deployment on Sexual Assault in Active Component and Reserve/National Guard Servicewomen
- Mengeling MA, Booth BM, Torner JC, Sadler AG. Reporting in Military Sexual Assault: Outcome Differences and Reporting Satisfaction.
- Vander Weg MW, Mengeling MA, Booth BM, Torner JC, Sadler AG. Impact of Trauma type and timing on Cigarette Smoking in Military Women.
- Cheney AM, Booth BM, Reisinger HS, Torner JC, Sadler AG. Ways Women Cope During Deployment.
- McClain M, Young B, Mengeling MA, Booth BM, Torner JC, Sadler AG. The Military Environment and Sexual Assault in Servicemen.

CONCLUSIONS
- Characteristics associated with service women's receipt of care following sexual assault in military (SAIM) are identifiable. Most women don't seek SAIM related care.
- Deployed Servicewomen report unique barriers and facilitators to mental health care compared to their non-deployed counterparts.
- There are similarities and differences between AC and RNG perceptions of alcohol as a risk factor for SAIM.
Military health care providers articulated unique barriers to accessing care as a function of their military role.

Nearly one in five women in the AC and RNG smokes cigarettes in this study sample and characteristics/risk factors for smoking are identifiable.

REFERENCED APPENDICES

Abstracts for:

1. Mengeling, M, Booth, BM, Torner, J, Sadler, AG. Reporting In-military Sexual Assault and Current Mental Health of OEF/OIF Active Component, Reserve, and National Guard Servicewomen, Orlando, FL, June 24-26, 2012*.

* Academy Health 2012 Carol Weisman & Gary Chase Gender-Based Research Award Best Abstract Presented to Michelle Mengeling, Ph.D.


Submitted papers under peer review:


ABSTRACT PAPER PAP63517-2

Call for Papers
Abstract Submission Form View - GNH

Abstract  Reporting In-military Sexual Assault and Current Mental Health of OEF/OIF Active
Title  Component Reserve, and National Guard Servicewomen
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             Sciences
Full Name  Jame C Torner
Organization  Carver College of Medicine, University of Iowa
Full Name  Anne G Sadler
Organization  Iowa City VA Health Care System
Research Objective:
Determine barriers to reporting sexual assault in-military (SAIM), differences in post-assault health care, and current mental health status.

Study Design:
A cross-sectional retrospective study stratified by deployment experience (ever deployed, deployed to Iraq and/or Afghanistan, deployed elsewhere). Participants completed a computer-assisted telephone interview assessing deployment experiences, socio-demographics, trauma exposures, health care utilization, and health outcomes.

Population Studied:
1404 OEF/OIF-era servicewomen from five Midwestern states, with 75% still serving. Sample comprised of 47% Reserve and National Guard (RNG) and 53% Active Component (AC) (10% and 49% response rates, respectively).

Principal Findings:
Almost a fifth (18% RNG; 18% of AC) of service women reported at least one attempted and/or completed sexual assault during military service (SAIM). Among these, 20% reported at least once using either restricted reporting (confidential report that does not trigger an official investigative process) or unrestricted reporting (triggers an official investigative reporting process through the service member's chain of command), with the majority using unrestricted reporting. Similar rates of reporting were found for those who experienced only attempted SAIMs compared to those who experienced only completed SAIMs. Those who reported were more likely to have a physical injury (40% v 21% p<.01). Reporting was more likely to occur if the SAIM occurred on base (69% v 41%, p<.001) and on-duty (27% v 11%, p<.01). Those who reported were more likely to have received medical care (59% v 6%, p<.001) and mental health care (57% v 19%, p<.001) and to receive that care within 24 hours of the sexual assault (79% v 36%, p<.05). Among women who received health care, those who reported were more likely to have been examined with a forensic rape kit (67% v 18%). Overall, the majority of women who experienced a completed SAIM did not receive any post-assault medical care. Women who chose not to report often endorsed reasons such as not knowing how to report, being too embarrassed, and fearing that a report would negatively affect their career. Current PTSD symptoms were associated with women who endorsed being too embarrassed to report (25% v 10%, p<.05). Women who reported multiple SAIMs were more likely to screen positive for current PTSD and depression. There was no difference in number of attempted and/or completed sexual assaults and whether or not a woman chose to report nor whether she received post-assault medical care.

Conclusions:
The stigma associated with sexual assault reporting may present a barrier to seeking needed medical care, which in turn may significantly delay receiving any physical and/or mental health care following a sexual assault.

Implications for Policy, Delivery or Practice:
While clinicians are sensitized to query gender-based violence, lifetime sexual assault which includes SAIM should be routinely assessed and addressed by clinicians throughout the military woman's life span. Provision of mental health services for the treatment of ongoing trauma, depression, and PTSD for women Veterans is essential.

Primary Funding Source: VA
Other: Department of Defense

The category to which your CALL FOR PAPERS abstract is being submitted: gender
Abstract
A cross-sectional study to determine if deployment status is associated with greater self-reported barriers to mental health (MH) care.
1,339 OEF/OIF-era Active Component (AC) and Reserve and National Guard (RNG) servicewomen were surveyed about current health, health risk behaviors, and care utilization; sampled from 5 Midwestern states and stratified by deployment (never deployed, deployed to Iraq or Afghanistan (IAA), deployed elsewhere).
AC were no more likely to be deployed than RNG (pc.12); deployed participants were more likely to know where to receive MH counseling (53% v 66%, p.001); to believe MH prescriptions could interfere with their job performance (48% v 40%, p.c.01); that they would be seen as weak (38% v 29%, p.01); but less likely to believe their unit would lose confidence in them (49% v 35%, p.c.002) if they sought MH care. Half of those deployed to IA had concerns their MH care would not remain confidential. Half said they would informally talk with off-duty healthcare providers if they had a MH concern during deployment. Those who believed their care would not remain confidential were more likely to endorse preserving a physical complaint to see a provider in order to bring up MH concerns (33% v 30%, p.001).
Deployed servicewomen report unique barriers and facilitators to MH care compared to their non-deployed counterparts. Clinicians must be educated that deployed servicewomen may have concerns about confidentiality and if so are acculturated to access MH care by presentation with physical complaints. Deployed healthcare providers may be a high risk population for burnout or secondary traumatization.

Learning Objectives (complete):
* Learning Objective 1: Identify unique barriers and facilitators to MH care for deployed servicewomen.
* Learning Objective 2: Consider how concerns about confidentiality may influence treatment-seeking behaviors.
* Learning Objective 3: Associate facilitators and barriers with seeking mental health care.

Program Type Keyword:
Prevention/Early Intervention.

Population Type Keyword:
Military/Peacekeepers/Veterans

Additional Information (complete):
* Presentation Level: Introductory
  * Are there any exercises or material that are potentially distressing to attendees?
    * No
  * Have I read the statement and: I accept
    * Yes/No
  * Are there any restrictions on presenter availability for this submission?
    * No
  * Is this presentation require additional AV?
    * No
  * Region.
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Industrialized countries

* Language:

Is English your primary language?

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Participants:

Mengeling, Michelle, PhD\(^1\); Booth, Brenda, PhD\(^2\); Torner, James, PhD\(^3\); Sadler, Anne, PhD, RN\(^4\)

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Abstract Title: In their own words: Service women's perceptions of the role of alcohol in sexual assault in the military

Lead Presenter:
Cretzmeyer, MT (Iowa City VAMC REAP)

Author List:
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Torner JC (Iowa City VAMC REAP & Carver College of Medicine Public Health Division, University of Iowa Hospitals and Clinics.)
Sadler AG (Iowa City VAMC REAP)

Objectives: This study used qualitative methods to explore service women's perceptions of the contribution of alcohol to sexual assault and harassment in the military.

Methods: A total of fourteen focus groups were held, eight with groups of OEF/OIF era Reserve/National Guard (R/NG) service women (N = 39) and six with Regular Military (RM) and Veteran OEF/OIF era service women (N = 22) in five Midwestern states. Groups were stratified by Officer/Enlisted personnel and deployment status. The research team developed a coding dictionary of relevant themes. Twenty-nine percent of the transcripts were independently coded by two researchers. Agreement between the coders was 80% or better for the majority of themes/codes. Differences were resolved and used to refine codebook definitions. Remaining transcripts were coded by one of the two trained researchers and entered into NVivo 8.0 for data management and analysis.

Results: Officers and Enlisted women from both military groups identified various myths and realities related to the role alcohol plays in sexual assault/harassment in the military, both during deployments and stateside. While there was a consensus in agreement on the contribution of in military alcohol in sexual assault and harassment, minor differences in perceptions between R/NG and RM service women were noted. For example, stigma related to alcohol use was discussed at greater length by RM than R/RG service women. Both groups identified ways older service women attempted to protect younger female soldiers from victimization associated with alcohol use.

Implications: Despite the ban on alcohol in OEF/OIF deployments, it appears alcohol occurs in these arenas and is a contributing factor in sexual assaults and harassment. Similar myths regarding women's responsibility for victimization when under the influence of alcohol exist in the military as research demonstrates in civilian populations.

Impacts: In-military sexual assault and harassment are contributors to women veterans post deployment mental and physical health problems. Alcohol is a known contributor to sexual misconduct and alcohol use by victims may deter access to medical care during deployment as well as willingness to report assaults both in military and in VA settings, contributing to increased adverse health outcomes.
Abstract Title: OEF/OIF Active Component and Reserve/National Guard Female Health Care Provider's Barriers to Care

HSR&D Content Areas: Enhancing quality, access, and continuity

This abstract is eligible for the Post-Doctoral Poster Competition: No

Is this submission based on an HSR&D-funded study? Yes

Is this submission QUERI-related? No

Lead Presenter:
Mengeling, MA (CRIISP & Midwest RHC, Iowa City VAMC & Dept of Internal Medicine, University of Iowa, Iowa City, IA)

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Booth BM (CEMHor COE & University of Arkansas for Medical Sciences, Little Rock, AR)
Torrer JC (University of Iowa School of Public Health, Iowa City, Iowa)
Sadler AG (CRIISP Iowa City VAMC, Iowa City, Iowa)

Objectives: Qualitative methods explored barriers to care for servicewomen who are also military health care providers.

Methods: Fourteen focus groups stratified by Officer/Enlisted personnel and deployment status were conducted in five Midwestern states; three OEF/OIF era Reserve/National Guard (R/NG) Officers (N = 15) and two OEF/OIF era Regular Military (RM) Officers (N = 9) focus groups. The research team developed a coding dictionary of relevant themes. Twenty-nine percent of the transcripts were independently coded by two researchers. Agreement between the coders was 80% or better for the majority of themes/codes. Remaining transcripts were coded by one of the two trained researchers and entered into NVivo 8.0 for data management and analysis.

Results: Health care providers articulated unique barriers to accessing care as a function of their military role. Similar barriers were expressed by both Activate Component and Reserve or National Guard Officers. Barriers included putting others before self ("doctors aren’t supposed to need doctors and we are the last people we take care of"); knowing the person that they have to seek care from ("I stalled and stalled and finally went over to women’s health then one of the nurse practitioners I almost never see, so ok she can do my Pap"); and lack of privacy or role overload while being a patient when seeking health care ("I’ve had my patients in the waiting room start talking to me about their medical problems while I’m sitting there waiting for my [mental health] appointment").

Implications: Military health care providers have unique barriers to care due to their military role. There appears to be a cultural mindset that doctors don’t need care or have time for care, have discomfort with boundaries as they must receive mandatory annual care from peers they may work with routinely, and moreover have greater barriers to mental health care given lack of confidentiality when they share waiting rooms with their own patients.

Impacts: The barriers encountered by military health care providers may contribute to amplified symptoms and adverse health consequences due to delayed care. VA clinicians must recognize that there may be disparities in care for this high risk population.
Post-Sexual Assault Health Care for OEF/OIF Servicewomen: Who Seeks Care and Why Most Don’t

Abstract

**Background and Objective:** Sexual assault has both acute and chronic health consequences. Our objective was to investigate servicewomen’s receipt of medical and mental health (MH) care following sexual assault in-military (SAIM), identify characteristics associated with receipt of care specific to SAIM, and query reasons why women did not seek care.

**Design and Participants:** Cross-sectional, Midwestern population-based computer-assisted telephone interview of OEF/OIF/OND Active Component (AC) and Reserve/National Guard (RNG) servicewomen, active duty and veterans of which 15% (204/1339) had experienced a SAIM.

**Main Measures:** Receipt of medical and MH care for at least 1 SAIM, victim and assault characteristics, and reasons why SAIM-related health care was not sought.

**Key Results:** Servicewomen were more likely to report receiving MH care than medical care (MC) post-SAIM(s) (26% v. 16%, p<.0001). Among those who sought MC, care was obtained within 30 days of SAIM (97%) compared to women who sought MH care, where 33% got care more than a year post-SAIM. Factors associated with receipt of MC included completed sexual assault and officially reporting SAIM. Factors associated with receipt of MH care included white race, an on-duty SAIM, and officially reporting SAIM. Most servicewomen (67%) did not seek post-SAIM care because of embarrassment, confidentiality concerns, and perceived career consequences.

**Conclusions:** SAIM characteristics associated with receipt of care are identifiable. Most servicewomen are not seeking SAIM-related care and therefore assault-specific health consequences are likely unaddressed. Compared to women currently serving, veterans were no
more likely to report seeking care. Given extensive prior research documenting severe and chronic consequences of sexual assault, our study findings emphasize the need for Military, VA, and civilian providers to query SAIM history in order to provide appropriate and optimal care throughout women's lifespans.
Prevalence and Correlates of Cigarette Smoking among Operation Iraqi Freedom- and Operation Enduring Freedom-era Servicewomen

Abstract

Introduction: Tobacco use adversely affects the health and readiness of military personnel. Although rates of cigarette smoking have historically been elevated among men serving in the military, less is known about tobacco use in servicewomen. This study examined the prevalence and correlates of tobacco use among women in the military as well as factors associated with starting to smoke during military service.

Methods: Data from a cross-sectional survey of 1,339 women serving in the active duty component (AC) or in the Reserve/National Guard (RNG) were used to examine cigarette use in female servicewomen. Associations between self-reported tobacco use history, sociodemographics, military service, and psychosocial factors were investigated using logistic regression analyses.

Results: Approximately 37% of servicewomen had a lifetime history of cigarette use, with 18% reporting current smoking. 31% of lifetime smokers initiated smoking during their military service. Independent correlates of current smoking included pay grade, household income, having a service-connected disability, illicit drug or illegal prescription medication use, and taking medication for depression, anxiety, or stress (all \( p < 0.05 \)). Having an enlisted pay grade, presence of a service-connected disability, being white, and a history of \( \geq 2 \) deployments were all associated with starting to smoke during military service (\( p < 0.05 \)).

Conclusions: Although considerable progress has been made in reducing the gap in tobacco use between military and civilian populations, nearly one in five women in the AC and RNG smokes cigarettes. Further efforts are needed to address cigarette use in this population. In addition to
providing resources to assist smokers with quitting, additional attention should be given to preventing smoking initiation, particularly among deployed female personnel.
• http://www.academyhealth.org/Communities/content.cfm?ItemNumber=6530
  Mengeling, M, Booth, BM, Torner, J, Sadler, AG. Reporting In-military Sexual Assault and Mental Health of OEF/OIF Active Component, Reserve, and National Guard Current Servicewomen, Orlando, FL, June 24-26, 2012*.

  * Academy Health 2012 Carol Weisman & Gary Chase Gender-Based Research Award Best Abstract Presented to Michelle Mengeling, Ph.D.

• http://www.istss.org/AM/Template.cfm?Section=Home1&Template=/CM/ContentDisplay.cfm&ContentID=5067