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Tobacco Use in the Army: Illuminating Patterns, Practices, and Options for Treatment

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ABSTRACT Tobacco use by soldiers has been prevalent throughout the 20th century. Tobacco has been seen as a "right."[1] Additionally, tobacco was viewed as a boost to a soldier's morale and to provide comfort, while reducing stress in austere conditions. Today, tobacco is known to increase healthcare costs, adversely affect readiness,[2] and impact the military members' physical performance.[3] The purpose of this ethnographic study was to describe patterns, practices, and experiences of active duty Army soldiers who use tobacco, have quit using tobacco, and have relapsed after a period of tobacco abstinence. Five themes were uncovered: 1.) Experiences associated with use of tobacco, 2.) Tobacco use in the Army, 3.) Experiences of starting and restarting tobacco, 4.) Balancing health risks with tobacco use, and 5.) Tobacco use regulations and policies. Findings are consistent with the conclusion that the Army culture supports soldiers' tobacco use.

Tobacco use by the general population in the United States has steadily declined;[4] yet, tobacco use in the military has not declined and may even be increasing in some specific age groups. In a literature review of military tobacco use, Nelson and Pederson[5] summarized the prevalence of tobacco use in recruits and members; they also reported on recent studies that document nonusers of tobacco who become users after accession. A recent study found that 25.1% of male and 14.1% of female soldiers, ages 18 to 25, reported starting smoking after entering the Army to (a) relax or calm down (30.8%), (b) relieve stress (29.5%), and (c) relieve boredom (23.5%), (d) curb appetite, (e) fit in with friends, (f) be like family who smoked, (g) control weight, (h) be "cool," and (i) fit into the unit.[6]

Military members cited the following reasons for tobacco use: (a) it is effective in combating stress,[7-10] (b) it is available,[1,6] (c) it is part of military culture,[6] and (d) because the tobacco industry actively markets to the military.[11] When entering the military, recruits experience forced abstinence from tobacco use during basic military training (BMT); however, past tobacco users typically return to their tobacco-use patterns within 1 month of BMT completion.[12,13] Furthermore, smokeless tobacco (ST) use may be increasing in the military since it can be used when smoking is not permitted.[14] Researchers have reported that ST users are more likely than nonusers to become smokers.[15,16]

Culture is defined as a common set of norms that help groups organize themselves, and it provides individuals with a sense of continuity and community.[17] Additionally, some researchers have suggested that culture shapes tobacco use.[18] Usual demographic variables (i.e., age, gender, ethnicity) fall short of presenting an accurate accounting of tobacco-use patterns.[18] Thus, to fully understand tobacco use and cultural patterns that influence tobacco use, an ethnographic approach was used to examine the influence of the Army culture on tobacco use. Specifically, the current research study aim was focused on describing patterns, practices, and experiences of active duty Army soldiers who use tobacco, quit using tobacco, and relapsed after a period of tobacco abstinence. In this study, the Army was considered the culture.

Ethnography is a qualitative method that uses participant observation as a central strategy to help initiate and augment information collected through formal and informal interviews.[19] Ethnography in this study was used to understand tobacco-use patterns in the Army culture[20] and to observed and "learn from people" as they were actively involved in socialevents in a natural setting.[20] Although themes are not intended to be generalized, they offer a generalizable perspective of what is happening in the culture for future hypotheses testing.[19]

METHOD

Setting

The study setting was an Army post in the western U.S. with a population of almost 14,000 soldiers during the study, of which 90% were male. During the course of the study approximately one-third of the population was deployed. The population of soldiers consisted of 88% who were enlisted, 10% officers, and 2% warrant officers. Three Institutional Review Board (IRB) approvals were received before the study implementation. All participants completed study consents, Health Insurance Portability and Accountability Act (HIPAA) waivers, and demographic information sheets after being informed about the study.

Sample

Interviews were conducted between 2004 and 2006 and guided by semistructured open-ended questions.[21] Additionally,

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informal interviews, conducted throughout the study, were recorded in field notes. When unfamiliar or unusual activities were observed, "insiders" or soldiers in the culture were asked to interpret these activities. Researchers used purposive sampling to identify potential participants by gender, rank, and ethnicity in troop medical clinics and the Post Welcome Center. Also, snowball sampling was used to find participants that were underrepresented in the study (i.e., officers who used tobacco). Potential participants were approached by researchers who informed them about the study. If these individuals agreed to participate in the study, the study was described in depth and soldiers were asked to sign consents and complete a demographic questionnaire. Consistent with ethnography, hundreds of informal interviews and observations took place during data collection. Observations and information collected in the informal interviews were recorded in the researchers' field notes. Data saturation occurred after 72 formal interviews. Audiotaped interviews were carried out by three interviewers, and the interviews ranged from 10 to 40 minutes in length. Table I summarizes the sample characteristics.

Data Management and Analyses

Audiotaped interviews were transcribed by a professional transcriptionist and one researcher audited the transcripts for accuracy. Consistent with ethnographic methods, data analysis began with the initial interviews, continued during data collection, and after data collection was completed, particularly data abstraction, thematic analysis, and ensuring trustworthiness of findings. The Ethnograph software (version 5.0) was used during analysis.

During data analysis, each transcript was coded by two researchers and then discussed by the research team. Next, the research team moved the data into categories and domains that represent what is happening in the culture. Finally, the categories and domains are abstracted into themes, moving the data from specifics to a more global perspective. A theme is defined as a single recurring idea that is embedded in more than one domain and it makes up a cognitive map of the culture.[21] In this study, the themes uncovered during data analysis represent study findings.

Methods to enhance trustworthiness of findings such as member checking, thick descriptions, and prolonged engagement were used to enhance study rigor.[22] Member checking is taking the findings back to members of the culture to ensure accuracy of descriptions. A thick description is a vivid story about an experience, event, observation, or something that occurred in the culture, and prolonged engagement refers to the time spend in the study culture collecting data.[22] Data used in the analysis included formal/informal interviews, and field notes.

Uncovering themes is the product of ethnography. A cultural theme is a single recurring idea that is embedded in more than one domain, or "elements in the cognitive map which make up the culture" (p. 186).[21] During research meetings and informal discussions, the researchers identified commonalities and differences in the soldiers' tobacco experiences that guided future interviews. Whether there was agreement or disagreement on the initial categories, domains, and themes, these discussions moved the analysis to themes, and helped researchers use member checking to find out if the study finding represented the study culture with soldiers.[22]

TABLE I. Sample Demographics

Sample Size	N = 72
Gender	Males = 59, female = 13
Marital status	Single = 22, married = 42, divorced = 7, widowed = 1
Age	Range = 17–47, mean age = 28.6, median Age = 26.5
Rank of enlisted and officers	Enlisted (E) = 62[a] E1–E3 = 20, E4–E6 = 31, E7–E8 = 11 Officers (O) = 10[b] O1 = 3, O2 = 1, O3 = 4, O4 = 2
Currently abstaining from tobacco	Yes = 45 No = 25 Missing = 2
Ethnicity	Caucasian = 51 African American = 11 Latino = 6 Middle Eastern = 2 Other = 1 Missing = 1
Length of time smoked	Range = 1–32 years, mean = 9.5 years, median = 7 years
Times tried to quit	Range = 0–100, mean = 4, median = 2, missing = 5
Longest time abstained	Range = 1 week to 26 years, mean = 2 years, median = 6 months

[a]Enlisted ranks from Private to Command Sergeant Major. [b]Officer ranks from 2nd Lieutenant to Major.

RESULTS

Five themes were uncovered during the analysis and each theme will be briefly summarized below. Exemplars for each theme are in Tables II through Table VI. A detailed description and discussion of each theme can be obtained from the first author upon request.

Experiences Associated with the Use of Tobacco (See Table II)

Soldiers' reasons for using tobacco were varied. Some enjoyed the relaxation effect they experienced when using tobacco; but soldiers also used tobacco to combat stress, to stay awake, and to fight boredom. Soldiers' increased stress was identified as a reason for tobacco relapse and many soldiers who had been deployed talked about tobacco use in combat to sharpen their focus and temper fear.

Soldiers also mentioned enjoying the oral stimulation from tobacco use and noted that when they abstained they missed it. Some soldiers substitute items such as toothpicks and food to replace the oral stimulation they received

TABLE II. Theme: Experiences Associated with the Use of Tobacco, Direct Quotes

Tobacco as "relaxation"	"I feel a lot more relaxed [after using tobacco]. Like worry-free. I don't care."
Tobacco as a "routine" experience	"It is very easy to get back into the habit ... I didn't think about you know whether to start or not ... [I just] grabbed a cigarette not thinking [and] popped it in my mouth and lit it up."
Tobacco as a "social" experience	"I've [gotten to know] a lot more people outside smoking cigarettes than I would just chilling in the day room watching TV." "Smoking engenders kind of a social life."
Tobacco as "comfort"	"[Tobacco] is your friend that is never going to leave you." "[Smoking tobacco helps] feel like you're connected to back [home]."

TABLE III. Theme: Tobacco Use in the Army

Tobacco prevalence	"No matter who you're around in the Army, you're always going to have somebody who smokes around you." "[Soldiers] get to their new unit and they try to assimilate with folks ... I see them smoking all the time." "I've seen people come in the Army and they don't smoke and like after their first two or three months ... they smoke because they see everybody else [using it]."
Tobacco use among officers	"Dip is more prevalent with officers." "[Smoking tobacco is] frowned upon. [There is] a social stigma associated with it." "[I] chew and dip openly ... in meetings, buildings [and] it was never really frowned upon. Nobody ever really said anything to me about it."
Tobacco use on the job	"Some jobs are extensive, some jobs are not ... some jobs last 18 to 20 hours, and tobacco use is the only way to keep you up [awake] the whole time." "That's pretty much how I got started ... out in the field you have a lot of down time where you're just sitting around." "If you get over there [deployed] and nothing is well established ... you're going to have problems [getting tobacco] so most people plan ahead."
Taking smoke breaks	"People in the Army start smoking because they'll get breaks." "It's out of physical need [and] the only people [who do not] get a smoke break are those who didn't smoke." "'Smoke them if you got them' is [still] very popular in the Army."

from tobacco use. Others viewed their tobacco use as part of their daily routine, just like showering and shaving. Also, the experience of tobacco use was connected to being at home, particularly when the soldier was deployed. Tobacco was also part of social interactions and spending time with others. Soldiers spoke of using tobacco to meet others, to be accepted as a soldier, or because it was an expected behavior.

Tobacco Use in the Army (See Table III)

Soldiers described the Army as an environment with intense tobacco users; however, not many officers openly used tobacco. The officers in this study believed that using tobacco in front of their troops exhibited poor role modeling, a belief communicated to junior officers by senior officers. If an officer used tobacco, it was more discretely, or the officer used ST.

When the Army restricted smoking (i.e., office, meeting, field training, deployed), soldiers often used ST depending on the soldier's preference and external restrictions/situations. For instance, if smoking posed a potential danger (i.e., fire, explosion) to a gasoline truck driver, ST was often used. Although soldiers believed that the Army did not create tobacco users, they believed the Army played a role in handing down tobacco-use traditions, and it created an environment that was tobacco friendly. If soldiers wanted to quit tobacco, many did not believe the Army environment was conducive to abstinence. Smoke breaks were viewed as a legitimate break; however, some soldiers who did not use tobacco felt their need for a break was not always recognized because of their lack of "physical need" for tobacco.

Experiences of Starting and Restarting Tobacco (See Table IV)

Soldiers' initial experiences with tobacco were similar regardless of the type of tobacco chosen. Many soldiers recalled their first tobacco experiences with friends, before or after entering the Army. Regardless of the type of tobacco (e.g., ST, smoking), most soldiers did not find their first tobacco experience pleasant and reported they experienced light headedness, dizziness, disorientation, dry heaves, nausea, and vomiting; however, these experiences did not deter soldiers from continuing tobacco use. Soldiers also remembered their forced tobacco cessation period during BMT; however, they did not believe that going without tobacco was a problem since they were so "busy." A number of soldiers recalled restarting tobacco post BMT. Although some soldiers reported planned relapses of tobacco use, others described relapses that were spontaneous. Some soldiers just "picked up a cigarette" when one was available and returned to tobacco use.

Balancing Health Risks with Tobacco Use (See Table V)

Soldiers were aware of the health risks associated with tobacco yet most smokers reported that they had no intention of quitting. Younger soldiers' rationale for their continued use was related

TABLE IV. Theme: Experiences of Starting and Restarting Tobacco

Starting experiences	"Just feeling sick."
	"I started using tobacco because everybody else was doing it."
Experiences of restarting	"I went to Iraq, [and on the] second day started smoking again due to stress."
	"One night I had a couple of beers, [and] started smoking again."
Cessation during basic military training	"I witnessed a recruit ... smell [tobacco on the drill instructor]. I could see the joy on the Private's face when he smelled it .... they want you to come by [them] because they want to smell the smoke on you."
	"[Looking forward to] that freedom to buy it [cigarettes] again."
	"I had my heart set on it ... seeing all those other guys getting to [use tobacco]... [and it] did make me want it [tobacco] ... then I got it."
	"Cigarettes kind of calm you down ... so you just kind of like, go back to that."

to their youth, speculating that they would think about quitting later in life, or when pregnancy occurred. Some soldiers had experienced short-term diseases (e.g., bronchitis, sore throat) related to tobacco use but as soon as they recovered from it, they returned to tobacco use. Healthcare and dental providers provided advisement and education about tobacco risks, but the advice did little to stop soldiers' tobacco use. Some reported that family members attempted to influence tobacco cessation with limited success.

Soldiers were also aware of potential problems associated with second-hand smoke and its detrimental effects (e.g., mucous membrane irritation, cancer) on others. Soldiers worried about second-hand smoke and the effects of second-hand smoke on family members. Many soldiers did not smoke in their homes or around family.

Soldiers knew about tobacco cessation programs that were offered on post but few had attended. Soldiers who had tried to quit did so by weaning themselves, or going "cold turkey." Soldiers who were currently abstinent worried about relapse when placed in wartime conditions; however, most soldiers in this study who smoked or used tobacco did not want to quit. Soldiers believed that to abstain from tobacco, one needed to be motivated to quit or "leave the Army." When soldiers were asked about why they felt it was necessary to leave the Army if they wanted to be successful in tobacco cessation, many indicated that tobacco was very available to them and there was a lot of use among other soldiers, which made it difficult to abstain when so many others were using it around them.

TABLE V. Theme: Balancing Health Risks with Tobacco Use

Future health risks	"No soldier here in America ... nobody can ever tell you they don't know, everybody knows, we are very much aware of what cancer can do to you."
	"I just figure being so young and active and health, maybe it's a risk I can afford to take at this point ... it's fun and pleasurable for me [and] it's not really hurting me or holding me back right now."
	"I just always figured by the time I get old enough or I smoke long enough ... maybe they will have made some medical advances [to cure the disease]."
	"They [dentists] tell you, you'd better quit ... they said it's not good for you and they show you pictures [of what tobacco can do to you]."
Present health risks	"I felt horrible [from smoking] ... I mean your lungs feel horrible. It's awful cough up stuff."
	Soldiers experienced sore gums, gum disease, and heartburn swallowing tobacco juice.[a]
Health risks to others	"I don't think really ... dipping and chewing is (*sic*) the problem. I think cigarettes is (*sic*) more of a problem ... because when I dip, I'm only killing myself ... if I was smoking in my house, I'd be killing all my kids and my wife."
Balancing health risks with quitting	"If I get out of the Army, I don't have any reason to smoke anymore or do any tobacco really."
	"I don't think there is really anything out there that can probably stop it. It's gotten to the point where I don't even want to stop. I know what kind of monster awaits (*sic*)."
	"The first time I did try to quit and I was doing physical training (PT), I noticed that PT was a lot harder without nicotine. My body was used to having nicotine and then it didn't have it, it [my body] was having trouble functioning without it ... so I realized that was a physical addiction as well as a mental dependency."
	"I'll just smoke a cigarette then. And once you have that first one, it is not turning back."

[a]Observations recorded in field notes.

Tobacco-Use Regulations and Policies (see Table VI)

Tobacco restrictions were multilevel, extending from individual/unit restrictions to state/federal laws, policies, and regulations. Soldiers predominately knew the tobacco restrictions and modified their behaviors accordingly. Soldiers used

TABLE VI. Theme: Tobacco-Use, Regulations and Policies

Theme	Quotes/observations
Controlling use through regulations	"If you need to [use tobacco] that bad you needed to excuse yourself, and there's typically areas set up to satisfy that urge and not be in the sight of the [BMT] trainees but some drill instructors [did] break that policy [and use ST during interactions with recruits]."
	"I would say it's kind of overlooked because they're trying to give these guys as much freedom as they can with those [living in the] barracks ... everybody knows that people smoke in the barracks."
	"[If commanders] designated smoking spots so far away ... because it's about a million miles to walk to it, [it discourages smoking]."
The lack of a ST policy	The Army does not impose the same restrictions on smokeless tobacco (ST) as it does on smoking tobacco.
	"I think it is [ST] more accessible as far as being in a building. You know being able to hide it if you can't smoke in the buildings."
	"You don't have to leave the building to take a smoke break."
	ST was used in all setting (indoors and outdoors). ST use in meeting was established by the person in charge. If the individual used ST openly in a meeting, the subordinates knew it was "okay" to use ST.[a]
Policies change depending on "who's in charge"	"There's definitely a lack of uniformity [in ST use indoors]."
	"Some commands will be like 'hey, smoke wherever you want to smoke' [and] some commands will be like 'you can't smoke but two hundred meters from this door ... there is definitely a lack of uniformity."
	Some supervisors limit tobacco use at the unit level.[a]
Tobacco is costly	"[The habit of tobacco use is] "expensive."
	"I think the Army is increasing its values, trying to implement certain values ... have a clean cut Army."
Tobacco use is a choice	"If you choose to smoke or use tobacco then that's your choice."
	"You know they are staying out late, they're drinking ever though they are underage. And then drinking turns to social smoking because my friends are doing it. So I think the Army kind of accidentally promotes smoking. Then you put a young person into a stressful situation. All they know from their past and watching movies and things are when people are under that amount of stress, when it's over they have a cigarette."
	"[Tobacco reduction or abstinence is] not going to happen voluntarily because it has become ingrained in the way these people operate. The military, it's funny because the people as they come in they learn from these guys who have been in twenty years and so all these bad habits and good habits ... the gear might change but the same attitudes get passed on."
	Most commanders and supervisors are neutral about tobacco use.[a]
Discrimination and smoking	"Yeah, it is such a pain when you are in a bar or something in the middle of a Monday Night Football game with three seconds left and you want to smoke a cigarette and you gotta wait."
	"I am saying be careful how you lay down those laws and those regulations. ...I'm whatever age [and I've] been fighting for my country for so long and here's another supposed right that they're taking away from me."

[a]Observations recorded in field notes.

ST indoors because it was not restricted and they could get their work done while using tobacco. Also, the use of ST indoors was allowed by group consensus in meetings. If the supervisor/commander who was conducting the meeting openly used ST, the subordinates were allowed to use ST in the meeting as well. During the study period, the Army did not regulate ST indoors, except in healthcare settings.

Soldiers noted the regulations were modified depending on whether the supervisor/commander used tobacco. If the supervisor/commander used tobacco, the regulations were relaxed, or perceived as less stringent whereas, if the supervisor/commander did not use tobacco, the tobacco restriction governed by regulation was enforced.

Tobacco was recognized as a costly habit and some soldiers had considered quitting because of the cost; however, no soldier had abstained from tobacco on the basis of cost alone. Soldiers felt that tobacco use was their right and they alone should be the one to determine if they use it or not. Interestingly, some soldiers felt that state/federal regulations discriminated against them when tobacco use was restricted.

DISCUSSION

The findings from this study are consistent with those of others. Recruits come to the military and begin tobacco use because their friends use tobacco.[12,14,23] We found that soldiers used tobacco to make friends, combat stress, stay awake, and socialize with each other. Furthermore, soldiers taught other soldiers how and when to use tobacco. Although it is not clear if the Army culture influenced soldiers' tobacco use, seasoned soldiers were identified as conveying information about tobacco use as part of being a soldier.

Soldiers in this study used tobacco to relax, satisfy oral needs, socialize, and for comfort. Also, they believed tobacco use helped them moderate psychological, social, and physical

stresses, which were related to deployments, training requirements, loneliness, sleep deprivation, and the soldier's life situation. These findings are similar to those reported among Navy personnel during Desert Storm.[10]

The Army has recognized the impact that tobacco use has on the short- and long-term health of soldiers, their mental health, fitness levels, safety and overall healthcare costs, ultimately impacting the readiness of the troops.[7,24] Implementation of smoking restrictions and development of cessation programs by the Army reflects an awareness of the ill effects caused by tobacco use.[25] Soldiers knew the risks of using tobacco in this study[14] and yet they continued using tobacco because they felt their youthfulness would protect them from health problems. Also, they believed using tobacco was a minor risk compared to the risks they were exposed to in combat.

Although prevalence of ST use in the military has been examined in the literature,[14,16,26–29] no past research has documented the use of ST as a means for circumventing smoking restrictions. The prevalence of ST use indoors was an unexpected study finding.

Recent literature has suggested that the ST industry has tried to market its products as less harmful alternatives to smoking.[30,31] Soldiers viewed ST as safer than smoking tobacco; however, soldiers were aware of the relationship of ST and oral health. Also, ST was not viewed as impacting physical fitness, lung capacity, and overall health. ST could easily be used at work, fitting in with job classification restrictions. Findings in the current study were consistent with the literature on prevalence of ST use in the military.[24,25]

Dentists were reportedly assertive in educating soldiers about tobacco cessation, whereas, healthcare providers (HCPs) routinely asked soldiers if they wanted to stop using tobacco during primary care visits but if the soldier had no interest in cessation, no further discussion related to tobacco cessation followed. ST users specifically mentioned receiving education from dentists about oral health.[32,33] In an Army dental study, Chisick and others[34] found that 85% of the dentists conducted oral cancer screening and 75% provided verbal education. For the most part, soldiers did not view other healthcare providers as strong tobacco cessation advocates. Similarly, commanders and supervisors on post did not actively promote tobacco cessation, unlike other routine safety messages (e.g., not driving after drinking, use of seat belt). Soldiers reported that HCPs asked them about their tobacco use but it did not appear they use the 5 A's or the tobacco guidelines.[35,36] It is not clear if these guidelines were followed or if military HCPs have limited time, or access to tobacco cessation protocols and materials.[32] More research in this area is clearly warranted.

For over five centuries, tobacco has had a role in U.S. culture, and it has had a significant impact on the U.S. economy.[1] Cultural factors have played a major role in tobacco use, and this is evident in the Army's history.[37] Research that addresses the effects of culture on military tobacco use is warranted so that culturally relevant and sensitive tobacco interventions can be tested.

RECOMMENDATIONS

Reducing tobacco initiation by younger soldiers and resumption of smoking after BMT should be a priority for the Army since many soldiers between 18 and 24 years old are becoming the new generation of tobacco users. Reducing tobacco use in this age group and others will improve the overall health of the Army and impact mission readiness. The following recommendations are based on data collected during the study:

1. Limit Tobacco Use in Uniform. Soldiers believed that tobacco use was perceived as unprofessional, and if the Army wants to be viewed as a professional organization, it should not allow soldiers to use tobacco in uniform. If the Army does continue to allow soldiers to use tobacco, it should seriously consider limiting soldiers' tobacco use while in uniform, and develop guidelines to fit the new image it wants to portray to the public.
2. Restrict Tobacco Use on Military Posts. Tobacco use could be restricted on military installations. Models for such actions can be found in changes in state laws that have resulted in reductions in tobacco use. For example, California implemented a massive antitobacco campaign and subsequent legislative changes prohibiting tobacco use in restaurants and bars. As a result the state saw an increase in the use of tobacco cessation programs including counseling, nicotine replacement, patients' healthcare involvement, self-help groups, and smoking cessation classes.[38] Furthermore, restricting smoking in public places in California has helped change individuals' tobacco-use patterns.[38] If the Army restricts tobacco on its posts, it may provide a clear message that the culture of tobacco use in the Army is changing.
3. Address All Forms of Tobacco Use in Army Regulations. Army regulations should address "tobacco" and not just focus on "smoking." Currently, Army regulations restrict smoking tobacco indoors; however, ST is not considered. A few soldiers in the current study reported that some units had local policies restricting ST use indoors.
4. Prohibit Tobacco Sales in Post Exchanges. The Army should not allow tobacco products to be sold on post because it was relevant only for those who used tobacco. Continuing to sell tobacco on post implies that the Army condones tobacco use, contradicting health messages and undermining the Army's "healthy image" portrayed in the recruiting advertisements.
5. Develop and Evaluate Cessation and Prevention Programs for Use during and Immediately after BMT. Since BMT is a period when smoking is not allowed, reinforcement of nonsmoking during this period and support for continued nonsmoking after it could provide the basis for reducing tobacco use overall.
6. Design and Evaluate Military-Specific Tobacco Interventions. New tobacco cessation interventions that are culturally sensitive to the Army need to be designed, implemented, and evaluated. Research using inductive means

should be used to develop the military-specific intervention, taking into account the cultural influence of tobacco initiation, cessation, and relapse. Interventions should not include cessation techniques only for current users but also for those who are nonusers. Nonusers should be encouraged to maintain abstinence by HCPs. Also, cessation interventions could include education related to coping with stress. Since it is impossible to eliminate external stressors faced by the soldiers, the Army should help soldiers develop alternative coping mechanisms to deal with personal stressors (e.g., boredom, fear, loneliness).

7. Communication by Supervisors of Tobacco Cessation Messages. Health messages related to tobacco use should be consistently communicated from commanders and supervisors. All ranks need to be encouraged to stop tobacco use, and commanders/supervisors are the first who can influence the tobacco cultural change.[39] Furthermore, if senior leaders use tobacco they should be targeted for tobacco cessation by healthcare providers. Frontline supervisors also need to consistently educate and stress the importance of tobacco cessation as a deployment health and readiness issue (e.g., upper respiratory infections, BMT attrition). Tobacco education should be incorporated into monthly briefings similar to seatbelt safety, and drinking and driving education.
8. Reward for Not Using Tobacco. Soldiers recommended the military monitor tobacco nonuse patterns just as it monitors individuals for drug use. Some suggested that the Army should financially reimburse, or reward the soldiers who are saving the Army's healthcare costs by not using tobacco. This approach has been used in the civilian sector, differentiating healthcare costs and life insurance rates for nontobacco users.
9. Easy Access to Tobacco Intervention Programs. The Army should consider exploring ways to make tobacco cessation programs easily accessible. Although the Army has tobacco cessation programs on posts worldwide that offer an array of tobacco cessation interventions (i.e., support, nicotine replacement therapy, education), these programs are not always accessible with the high operational tempo (e.g., deployments, war, training). The Army should make every effort to make tobacco cessation programs accessible by developing online education and support groups. Furthermore, a toll-free access telephone number for tobacco cessation information and support could be established. Finally, the Army should target soldiers returning from deployments who are tobacco users with culturally relevant tobacco cessation interventions. Rigorous evaluations of any of these new programs need to be conducted before they are implemented on a wide scale.

LIMITATIONS

Study findings are only intended to provide insight and understanding of how the Army culture influences soldiers' tobacco initiation, use, and abstention as members of the Army. The findings are not necessarily representative of all branches of the military or all members of specific bases or services. The study findings provide direction for future research in tobacco education, cessation, and policy development.

CONCLUSIONS AND IMPLICATIONS

Tobacco use is prevalent in the Army and the Army culture supports its use. Because of the Army mission and the high stress, seasoned soldiers help recruits/younger soldiers tolerate the high stress levels when past coping mechanisms are not helpful. Tobacco is readily accessible to soldiers on military installations and in most deployed settings. This is consistent with Smith and her colleagues[2] findings, the military continues to offer cheap tobacco products in the military sales system. Furthermore, tobacco use continues to be viewed as a "right" by soldiers, and the U.S. military makes tobacco available to its members at a price below tobacco sold in the civilian sector.[2] Although military leaders may believe tobacco helps soldiers cope with stress and living in austere conditions, the shortsightedness of allowing tobacco use impacts soldiers' health, military readiness, and healthcare costs. Soldiers circumvent smoking restrictions in the Army regulations by using ST. The Army needs to include all forms of tobacco in any regulation that addresses tobacco use.

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