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Perspectives of US military commanders on tobacco use and tobacco control policy

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ABSTRACT

Background Tobacco use among members of the US military service is unacceptably high, resulting in substantial healthcare and personnel costs. Support of military command is critical to the success of tobacco control policies because line commanders are responsible for implementation and enforcement. This study is the first to examine US military line commanders’ perspectives about current tobacco control policies and the impact of tobacco on readiness.

Methods We conducted key-informant interviews with 20 officers at the US Army’s Command and General Staff College about military tobacco use and tobacco control policy.

Results Participants identified the long-term impact of tobacco use on military members, but were unaware of proximal effects on health and readiness other than lost productivity due to smoke breaks. Officers also discussed nicotine addiction and the logistics of ensuring that an addicted population had access to tobacco. Regarding policy, most knew about regulations governing smoke-free areas and were open to stronger restrictions, but were unaware of current policies governing prevention, intervention and product sales.

Conclusions Findings suggest that strong policy that takes advantage of the hierarchical and disciplined nature of the military, supported by senior line and civilian leadership up to and including the secretaries of the services and the Secretary of Defense, will be critical to substantially diminishing tobacco use by military personnel.

INTRODUCTION

As of 30 June 2015, there were 1 354 532 active duty US military personnel in the Department of Defense (DoD) and the Department of Homeland Security.1 Tobacco use among military personnel declined substantially over the past three decades, with 51% smoking in 1980 compared to 30.4% in 20082 and 24.5% in 2011 (the most recent published survey).3 In addition to smoking, 12.8% of personnel report using smokeless tobacco,3 and the prevalence of any nicotine use was unacceptably high at 49.2%, with the highest rates observed in the army (51.2%) and marine corps (60.8%).3 Tobacco adversely impacts service members and the DoD. Tobacco use costs the DoD a staggering US$1.6 billion annually for healthcare and lost productivity.4 In addition, it is estimated to cost the DoD over US$175 million (in 2015 dollars) in excess training costs per year because smokers are significantly more likely to be prematurely discharged.5 Tobacco negatively impacts military readiness in the near term.6 For example, tobacco users, particularly smokers, have lower levels of fitness and work capacity, decreased muscle endurance, impaired night vision and mental sharpness, and are more likely to be injured and experience wound healing complications compared with non-smoking troops.4 Tobacco use negatively affects the mental health of troops through several postulated psychological and physiological mechanisms, including the impact of withdrawal symptoms (eg, depression, irritability) when unable to consume tobacco4 6 and the long-term neurobiological consequences of nicotine exposure.7 For example, military smokers report experiencing greater work and life stress than their non-smoking peers, likely due to chronic nicotine withdrawal.8 In the general public, smokers exhibit greater risk for suicide compared with non-smokers in longitudinal cohort studies,9 and a dose–response relationship has been demonstrated between the number of cigarettes smoked and suicide among active duty US Army soldiers, and in adult cohorts in a number of countries.8 9

In order to address the negative impact of tobacco use, senior leadership has approved a number of policies which discourage use and require the provision of treatment services.4 10 For example, personnel have access to evidence-based treatments free of charge, including 24/7 access to the TRICARE Smoking Quitline and web-based treatment through a social marketing programme entitled Quit Tobacco, Make Everyone Proud, that includes a live chat service.4 11 The military also has implemented a number of tobacco control policies which address tobacco use treatment and prevention (DoDI 1010.10 Health Promotion and Disease Prevention), environmental tobacco smoke (DoDI 1010.15 Smoke-Free DoD Facilities) and tobacco product sales on military installations (DoDI 1330.09 Armed Services Exchange Policy).10 These policies restrict where tobacco can be used, and regulate the sale and distribution of tobacco.10

Each US military branch also has its own service-level tobacco policy.12–13 Lower-level policies can be more restrictive than DoD policy, allowing for policy innovation. Policies at the service, major command and installation levels address topics including tobacco use during military training programmes, installation-specific rules for tobacco use, smoking bans on submarines and tobacco-free medical facilities.11 16–18 Despite these efforts, several studies have shown that military tobacco policies are not effectively enforced, and that they

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are not a priority for military commanders.\textsuperscript{19–21} For example, the DoD policy requiring tobacco product prices to be no lower than 5\% below the most competitive community price has not been consistently enforced.\textsuperscript{22–24}

US military ‘line’ commanders (ie, those who lead troops in combat-related operations and support activities) are critical to the success of tobacco control policies because they are largely responsible for implementation and enforcement. However, because of the substantial time and effort required to access them, what is known about line commander’s perspectives on tobacco control has been studied only indirectly. For example, military policy makers and health promotion managers believe that line commanders do not perceive tobacco use as having significant impact on military readiness and place a low priority on tobacco control.\textsuperscript{25} Similarly, only 1.5\% of health messages and 0.08\% of all line commander’s messages written for installation newspapers in 12 months’ worth of military installation papers addressed tobacco use.\textsuperscript{26} This study is the first to directly interview US military line commanders, and assess their perspectives on factors that encourage tobacco use in the US military, tobacco’s impact on military readiness and awareness of tobacco control policies in the military.

\textbf{METHODS}

We recruited military line commanders at the US Army’s Command and General Staff College (CGSC) at Fort Leavenworth, Kansas. Officers attending CGSC represent the elite of mid-career officers, and are the future senior military leadership. Mid-career officers, usually those at the grade of O–4, serve as key staff officers in charge of managing personnel and administration, coordinating logistics, and developing and implementing combat and/or intelligence operations and are the ‘operational backbone’ (ref. 27, p. 1) of the US military. The mission of CGSC is to train mid-career officers to ‘conduct full spectrum operations’ (ref. 28, p. 1). This mission is aligned with the DoD’s goal to develop the tactical and operational capabilities of mid-career officers.\textsuperscript{29}

We worked with the Quality Assurance Office at the US Army CGSC to recruit for the study by emailing a study overview and requesting volunteers. We completed a target of 20 interviews to ensure that we captured a range of opinions and also reached saturation. Saturation was defined as the point at which no new themes emerged\textsuperscript{30} during the key informant interviews, and was assessed by investigators after each interview was debriefed.

Telephone-based, semistructured interviews explored general awareness about tobacco use and tobacco control policy in the military. Participants were assured that their anonymity would be preserved. The interviews were audiorecorded and transcribed verbatim. Complete transcripts were reviewed and coded by two members of the investigator team; theme coding was compared for consistency and if any discrepancies arose, coders met to discuss and reconcile them.\textsuperscript{16, 23} A third reviewer was available to review any unreconciled discrepancies. Analysis focused on commanders’ views on factors that encourage tobacco use in the US military, both the benefits and harms associated with use, and its impact on military readiness and their knowledge about current military tobacco control policies. We used NVivo 11.0 software for data management and analysis.

Study procedures were approved by institutional review boards at the National Development and Research Institutes, Inc, the University of California, San Francisco, the office of the Assistant Secretary of Defense for Health Affairs and the Human Protections Administrator in the Quality Assurance Office at the US Army CGSC.

\textbf{RESULTS}

Table 1 summarises the characteristics of the CGSC officers who participated in the key informant interviews for this study.

Consistent with the general composition of CGSC, the majority of participants were male active duty US Army officers at the O–4 (Major) rank. Other services (including US Navy, US Air Force and US Marine Corps) also were represented. The majority of participants (65\%) were former tobacco users.

\textbf{Reasons for and perceived benefits of tobacco use in the military}

Participants were asked why military personnel use tobacco. They identified two factors which promote use: aspects of military culture and psychological/physical issues faced by military personnel.

\textbf{Cultural}

Participants cited a long tradition of tobacco use as playing a role in the continued use of tobacco products in the military. As one noted: ‘…there’s still a sense of, this is the way we’ve always done it…. [W]e point to the people who came before us. And we say, “These guys are badass.”’ Another agreed, saying, ‘I think it’s historically a cultural thing, dating back to when cigarettes were in MRE [combat rations’]. This respondent suggested that smoking was a result of placing large numbers of youth under strict discipline: ‘You join when you’re young…. you just turned 18, and that’s the one thing you can do legally’.

Participants also noted that tobacco use could be key to peer relationships. One recalled the ‘peer pressure’ to smoke when he first joined: ‘the cool kids were the ones that were out there smoking’. Smoke breaks were a way to ‘temporarily escape the stress, talk with your buddies, talk about things other than work’. Smoke breaks facilitated work through the development of informal relationships. As one participant put it, ‘the smoke pit was where you can get stuff done in the, I would say, unofficial channels’.

Finally, participants reported that smokers’ ‘rights’ were often placed above the rights of non-users. For instance, smoking was seen as a permissible reason to take work breaks. One participant recalled that, ‘when I first came in…I had a feeling that smokers had more rights than non-smokers, because they actually took breaks every 30 to 45 minutes to go smoke a cigarette’. Another concurred, remarking that ‘nobody ever challenged a smoker’s break…. so therefore it seemed to me… they got more breaks’.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|}
\hline
\textbf{Characteristic} & \textbf{Means\textpm SD or \%} \\
\hline
Gender (% male) & 90.0\% \\
Race (% Caucasian) & 85.0\% \\
Hispanic/Latino descent (% yes) & 5.0\% \\
Length of military service (years) & 16.3±6.7 \\
Branch of service (% Army) & 85.0\% \\
Active duty (%) & 80.0\% \\
Rank/grade (% 0–4) & 85.0\% \\
Tobacco use status (%) & \\
\hline
Never user & 25.0\% \\
Past user & 65.0\% \\
Current user & 10.0\% \\
\hline
\end{tabular}
\caption{Participant characteristics}
\end{table}
Participants noted psychological and physical factors that play a role in military tobacco use. Coping with stress and boredom, particularly in deployed environments, was the most discussed benefit of tobacco use. As one participant put it, ‘people will just do it because there’s nothing else to do’. Another respondent called tobacco ‘a simple stress reliever’, and a third added, ‘without short term side effects’. Tobacco was also seen as having a practical use: ‘it kind of picked you up a little bit and... I found it a lot easier to stay awake’. Using tobacco was seen as providing a sense of control over ‘your own area and your own fate’.

Some respondents noted that, given the risks faced by military personnel, tobacco use was a relatively insignificant concern. One explained that, ‘you face near-death experiences. So you really don’t care what kind of adverse side effects cigarette smoking will give you’. The perception that tobacco only resulted in distal consequences played into this calculation. As one participant said, ‘if there’s a potential you’re going to die from being blown up by an IED, or be shot... how high does that rank on your meter? “Oh, I could die at 70 from lung cancer, when I could die tomorrow if this patrol doesn’t work out?”’.

Harms and mission impact of tobacco use

Physical fitness

A large number of participants believed that tobacco use, particularly smoking, had detrimental effects on fitness. One remarked, ‘those that smoke, they don’t run as fast. They don’t seem to have as much endurance’. Another agreed, saying: ‘I have not experienced anybody perform well as an avid smoker, physically. At best, I would say that they keep up’. In contrast, there were participants who felt that, because most of their troops were young, the impact on fitness was minimal, but would likely catch up with them later. As one said, ‘I’m always amazed [at fitness] tests for young people when they smoke, it doesn’t really have much effect on them. But...typically smokers will also have a tendency to have other problems down the road’.

Health/addiction

Participants mentioned several long-term health consequences of tobacco use such as heart and lung diseases, and oral cancers for smokeless users. However, perhaps because these issues were perceived to arise only after years of use, addiction itself was a more salient negative for readiness and mission effectiveness. Owing to addiction, smokers were less reliable: ‘they have to go get a nicotine fix right in the middle of your project... And they get distracted [and] edgy and grumpy’. One participant noted the extent to which military personnel go to ensure they have tobacco products available during deployment: ‘when I was in Desert Storm, I had a whole duffle bag of Copenhagen [spit tobacco] because we had no idea. ... what’s going to happen... My two [NCOs] had foot lockers full of smokes. So that kind of shows you the mentality of it’.

Reduced productivity

Participants frequently mentioned lost productivity due to smoke breaks. They believed that smokers spent considerable time during their duty day on smoke breaks. One commented that smokers were ‘gone for 30 minutes every time they wanted to have a cigarette. And if they had four cigarettes during the day that’s two hours that they were basically smoking and not doing their work’. Some participants noted that smoke breaks were viewed as unfair by non-smokers: ‘there’s a running joke among nonsmokers in the Army that when we get to, like, our 18th or 19th year, we’re going to take all our cigarette breaks and not come back to work until 20, and then we’ll retire’.

Costs to individual personnel and the military

Participants highlighted the economic costs of tobacco use to military personnel and the DoD. Costs to individuals included the money users paid for tobacco products relative to their salaries, which can be particularly low for junior enlisted personnel: ‘[they’re] spending upwards of 50, 75 bucks a week.... These are soldiers [whose] take-home pay is maybe $1400 or less per month’. Healthcare costs were discussed both as direct medical expenditures (eg, treating smoking-related illnesses) and indirect costs (eg, more sick days for smokers). One participant mentioned ‘increasing health costs and... number of sick days and... all of the health-related issues and all of the second- and third-order effects due to those health-related issues’.

Another cost mentioned was the logistical expense of supplying tobacco to deployed troops. One participant called this ‘a drain on the resources’, recalling that ‘when I was in Djibouti, Africa, tiny [post store], 20 by 20 feet, one row was nothing but tobacco’. Even if the military itself was not supplying the products, another participant pointed out that it still cost the service: ‘“My wife in Germany was sending it to me and my family in the States was sending it to me.... [Troops were getting] hundreds and thousands of pounds of mail, hundreds of truckloads of mail. How much of that was tobacco?’

Despite the negative impact on physical fitness, readiness, productivity, and the healthcare and logistical costs noted by participants, many did not believe that tobacco use affected mission completion. As one participant put it, ‘I don’t see tobacco use as affecting a majority enough of formations to really impact the overall mission’. It was also a matter of pride: ‘“when it comes down to where the rubber meets the road, the military will accomplish what its assigned tasks are’.

Military tobacco policy

Policy knowledge and policy effectiveness

When asked about their knowledge of current military tobacco policies, almost all officers were aware of the DoD instruction restricting the use of tobacco products in federal buildings, and the requirement that smoking areas be a certain distance from buildings. A small number of participants were aware of policies mandating tobacco cessation services and the recent smoking ban on US navy submarines. There was uncertainty about specific policy details. For example, one participant referenced the regulation against tobacco use in buildings and continued, ‘sometimes people want to apply that to smokeless tobacco’, although the policy applies to all tobacco use, not just cigarettes. Another mentioned cessation, saying, ‘at certain bases, I think maybe all of them, they have tobacco cessation courses’. This is a DoD-wide policy.

The same policies—smoke-free buildings and cessation services—were mentioned when participants were asked about any tobacco policies that they thought worked well. One commented, ‘I pretty much associate with the decrease in use of tobacco to limiting areas in which smokers can smoke’. Only a few of the CGCC officers could recall ever receiving information about the proximal impacts of tobacco on readiness as part of their mandated Professional Military Education, but they noted that they had received information regarding its impact on fitness. Tobacco was mentioned primarily to brief commanders on the
rules for tobacco use in that particular educational setting, or to provide updates about cessation services.

Policy changes
Participants were asked about specific policy options. Currently, all tobacco use is prohibited in buildings, despite the fact that using dip or smokeless tobacco does not present secondhand smoke risks. Most participants supported this approach. As one said, ‘…whatever is more lenient, people are going to move to that choice’. Another commented that ‘Cigarettes and smokeless tobacco are both carcinogenic. And from a public health standpoint they should both be regulated’.

However, a minority disagreed and thought policies should be less restrictive for smokeless products. As one put it, ‘I personally don’t think that there’s any need to ban smokeless tobacco use inside of buildings. I think that’d drive down productivity overall. People generally aren’t bothered by my or anyone else’s [smokeless] tobacco use’.

When participants were asked whether the military should stop selling tobacco products on installations, opinions varied. Some believed that it was a good idea: ‘it’s a whole lot cheaper to buy cigarettes in a commissary… just due to the difference in taxes. So I think it would be a positive move’. However, others thought that it would be ineffective: as one participant said, ‘unless they ban tobacco use by soldiers, people will just go off post to buy their cigarettes’. Others were concerned about individual liberties. One participant acknowledged that military stores had stopped selling some items that ‘were maybe not appropriate’, but he continued, ‘I just kind of wonder, if you start telling folks that they can’t do something that’s not, it’s not against the law to smoke’. Another said, ‘We’re making a mountain out of a molehill… People know the risks. They know the long-term health risks. And if they choose to do it for whatever reason, they choose to do it for whatever reason’. And one rejected the idea, saying, ‘I don’t think this is one of those things that gets solved by regulations’.

DISCUSSION
Participants were able to identify the distal impacts of tobacco use on military members (eg, greater risk for pulmonary and cardiovascular disease); however, most demonstrated little knowledge about proximal impacts on health and readiness. Unfortunately, participants minimised the impact by suggesting that while the negative consequences of tobacco use would increase with age, it did not substantially impact young troops.

Officers were generally convinced about the negative impact of tobacco on productivity, with many observing that tobacco users, particularly smokers, take frequent breaks. Their observations are aligned with studies demonstrating that current smokers have lower productivity when measured using indices of absenteeism and presenteeism, and that this results in greater costs for employers. A recent study estimated that the costs of smoking breaks alone were US$3077 per smoker annually to employers. Applied to the military, lost productivity costs to the military due to tobacco exceed US$1 billion annually.

Officers noted the logistical costs of ensuring that nicotine-addicted troops had access to tobacco. Some of those costs were shouldered by the troops themselves, who may devote a large proportion of their pay to tobacco. However, additional costs were directly borne by the military (eg, stocking remote stores with tobacco), or more tangentially (eg, delivering packages of tobacco from family to deployed troops).

Aside from policies restricting tobacco use in federal buildings, participants were generally unaware of other military tobacco polices. Further, most felt that the enforcement of tobacco policy varied considerably from installation to installation, confirming findings reported in previous studies. This lack of consistent enforcement resulted in a belief that tobacco is not a health priority. Participants expressed doubt as to the effectiveness or appropriateness of using policy to reduce tobacco use.

CONCLUSIONS
This study is the first to directly interview line commanders about their perspectives on tobacco use and control efforts in the military. Previous studies used indirect approaches, such as interviewing health promotion personnel and reviewing commanders’ written messages, or focused on enlisted personnel. Nevertheless, this study has some limitations. First, because of the sensitive nature of the interviews and the need to protect the interviewees’ confidentiality, we collected limited demographic data and did not link interviews to the demographic characteristics of interviews, including tobacco use status. Thus, we have no direct way of examining how tobacco use status may have influenced the perspectives of line commanders.

Second, the study was based on a convenience sample of CGSC students based on our target sample size (ie, first 20 volunteers) and saturation of themes. Thus, it is not possible to know how well the findings generalise to all Army commanders. However, we believe that the views expressed by interviewees likely reflect the sentiments of future military line command, as CGSC students represent some of the best and most committed officers. Third, participants were mid-level commanders; no studies have been done of top military leadership who are in a position to set wide-ranging policy, that is, flag or general officers or civilian leaders (eg, the secretaries of each service) at the major command or service levels.

Participants were not persuaded of the physical harms of smoking to young troops. They noted that military personnel often were facing much more immediate threats, which rendered the impact of tobacco use seemingly inconsequential. This is consistent with our comprehensive content analysis of military tobacco control policies, in which we found that of 97 tobacco policies that at the major command, service branch, and/or DoD levels, only 33% mentioned the proximal effects and 27.8% the economic/healthcare costs of tobacco use on readiness. However, commanders acknowledged consequences to the military for other aspects of tobacco use, particularly addiction and its sequelae: time and effort lost to smoke breaks and the logistical expenses of making sure troops had access to tobacco. Many participants were also unconvinced that, whatever the consequences of tobacco use, policy was likely to be effective at reducing it.

Currently, US military tobacco control policy focuses on providing education and cessation services. Our findings suggest that this approach will likely have only limited impact, because the very real costs to the organisation are largely imperceptible to the individuals most likely to be tobacco users: young troops and their immediate supervisors. Given the perception that tobacco is not a significant detriment to the mission or a priority of military command, policy innovation is unlikely to come from mid-level officers such as those interviewed here. Questions about ‘rights’ of smokers also will likely militate against lower-level policy efforts.

The lack of conviction that policy can be effective also suggests that substantial change must come from senior leadership, including the secretaries of the services and the Secretary of
Defense. The hierarchical nature of the military means that norms and priorities emanate from senior military leadership, through the approval and enforcement of strong tobacco control policy. Thus, an important component of military tobacco control is increasing the visibility of tobacco as a harm to readiness among senior leadership, and to provide education on the effective use of tobacco control policy. Only when senior military leaders see tobacco use as a significant and unnecessary impediment to the military mission, and believe that stronger policy can be effective, will the goal of a tobacco-free military be reached.

One potentially effective method of raising the visibility of tobacco as a harm to readiness is appealing to military pride: asserting that military personnel do not use addictive substances and do not require them to complete their mission. The military can impose restrictions on its members that would be unacceptable to civilians (eg, regulations governing fraternization). These findings suggest that strong policy that takes advantage of the hierarchical and disciplined nature of the military, along with the support of senior leadership including those at the service level in the DoD, will be critical to ending tobacco use by US military personnel.

What this paper adds

- In order to address the negative impact of tobacco use, US military command has enacted a number of important and progressive programmes and policies to discourage use and mitigate harm.
- Military ‘line’ commanders (ie, those who lead troops in combat-related and support activities) are critical to the success of tobacco control policies because they are largely responsible for implementation and enforcement.
- However, previous studies have only indirectly ascertained the views of military line commanders about tobacco control policies.
- This study is the first to directly interview US military line commanders and assess what they know about current military tobacco control policies and their perspectives on the impact of tobacco on military readiness.
- Interviewees were unaware of proximal effects on health and readiness other than lost productivity due to smoke breaks.
- Military line commanders expressed concerns about nicotine addiction and the logistics of ensuring that addicted troops had access to tobacco.
- Most were unaware of current policies governing prevention, intervention and product sales.

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Competing interests None declared.

Ethics approval Study procedures were approved by institutional review boards at the National Development and Research Institutes, Inc, the University of California, San Francisco, the Office of the Assistant Secretary of Defense for Health Affairs and the Human Protections Administrator in the Quality Assurance Office at the US Army CGSC.

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