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# Safety and Health at Work

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## Letter

### Letter to the Editor: Cancer Perceptions Among Smokeless Tobacco Users: A Qualitative Study of US Firefighters



Jitnarin et al [1] have confirmed varied perceptions about cancer and smokeless tobacco use in the fire service, warranting further investigation on the effects of smokeless tobacco on cancer risk and the importance of public perception of such risk to ensure firefighters' health. This study's conclusion suggests that firefighters may underestimate the potential harm of smokeless tobacco use, increasing cancer risk and contributing to high mortality prevalence in firefighters, which informs future initiatives against cancer [1]. However, the accuracy of the qualitative research used in this study could have been improved if the authors notice that the following pitfalls existed in their methodology.

First, a nonthreatening, nonjudgmental, and welcoming environment wherein interviewers and interviewees engage in an open dialog may be compromised if some participants raise negative comments during the interview process. In this study, some firefighters said, "I am going to get cancer anyway, so what the hell is the point of my having a chew? What's wrong with it, you know what I mean? I'm going to get it anyway..." (P38, lieutenant), "The cancer, I've not seen it yet. I've not seen the tie." (P18, fire chief), and ...When you tell a firefighter, they're going to get cancer from smokeless tobacco that means nothing to them because they understand the risk of cancer from the other portions of the job anyway." (firefighter). These negative personal responses may make other participants who strongly believe in an association between tobacco and cancer feel uncomfortable participating, sharing their true feelings, and even making them defensive, ultimately leading to nonproductive conversations because of the distrustful and unsafe environment. There are two potential solutions to address this dilemma: (1) Guidelines are clearly stated before the discussion in which all participants should respect different voices and welcome differing opinions from others. If any observed actions go outside these boundaries, the interviewers will remind the participants about the rules for engagement, and (2) a postdiscussion debriefing section with the interviewers to reflect, review, and discuss any possible errors existed during the conversation. If there are any errors identified, the suggested changes should be made in the following focus group.

Second, because voice recognition software—NVivo—carried out the transcription process instead of manual operations, there are some critical technological limitations [2]. This voice recording technology may only allow one single user, leading to the impossibility of transcribing the recording tapes by several interviewers [2]. Suppose the authors hire an intermediary to serve as an oral

transcriptionist between the interview tapes and the voice recognition package, in that case, there is the possibility of software inaccuracies. However, the issue of the limited user in the voice recognition system can be remedied. Compared with the written text, there may be overlapping and missing parts of paraphrased tape contents, resulting in misleading information when the oral transcriptionist interprets the transcripts [3]. These discrepancies can be fixed if the transcriptionist reviews and makes suggested changes based on the voice recognition recorded texts. However, hiring a third-party transcriptionist will compromise the cost-effective solution of using voice recognition software.

Third, participating firefighters with different rank/position (as shown in Table 1 [1]—Demographic characteristics of the 39 participants) from "firefighter" to "fire chief" may cause a "group think" dynamic [4]. In other words, power disparity between higher rank firefighters, such as a fire chief, may hold lower rank firefighters back from sharing their true feelings and thoughts about the perceptions toward cancer and smokeless tobacco use. A possible solution for this "group thinking" issue is for the largest proportion of participants (28.2%), the "battalion chief, deputy chief, and so on," to sit together while the smallest demographic of "driver operators" (2.6%) are interviewed individually. If power inequities exist, the statistical power differences would be decreased. Along with power differential inequities, our previous work shows that age differences can produce unfavorable results as well [5]. To deal with group thinking and age issues, we may consider classifying participants into subgroups by rank and age and then conduct interviews group by group.

In conclusion, this work provides informative guidance for the future research community about how to stop smokeless tobacco use in the fire service by improving the recognition of its potential relationship with cancer. However, potential limitations exist in their methodology that undermines the accuracy of exploring the true feelings toward the risk of tobacco on cancer. Smoking cessation initiatives targeting firefighters who may be at high risk of suffering cancer derived from tobacco should bring firefighters' acknowledgment of smoking dangers to the forefront of public attention.

#### Disclaimer

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### Conflicts of interest

The authors have no conflicts of interest to declare.

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