Smokeless tobacco (SLT) has significant adverse health consequences. In the last several decades, the prevalence of smokeless tobacco use in the US has substantially increased, particularly among adult males, from 2.2% in 1970 to 7.0% in 2011. Recent data indicate that the prevalence of smokeless tobacco use also is high in certain occupational groups including the military and the fire service. However, little is known about the characteristics of users and patterns of use in fire service, an occupational group that needs to maintain high levels of health and fitness. This study aimed to explore the relationships among variables associated with (1) smokeless tobacco use and (2) other tobacco use among male career firefighters. Detailed information on the predictors of smokeless tobacco use among firefighters will aid in developing more effective tobacco prevention and cessation intervention in fire service.

11 career fire departments were randomly selected from the International Association of Fire Chief’s (IAFC) Missouri Valley Region using cluster sampling approach. 478 career firefighters were consented which represented 97% of those available during our study visits.

More than 27% of the sample currently used tobacco. 14.4% used smokeless tobacco, 9.2% smoked cigarettes, and 4.1% used both cigarettes and smokeless tobacco. Younger participants were more likely to use smokeless tobacco (OR=1.04). Also, being white (OR = 8.40) and binge drank (OR = 2.71) were more likely to use smokeless tobacco. Stratified by tobacco use, participants who binge drank were more prone to smoke cigarettes (OR = 3.22) and use smokeless tobacco (OR = 2.58). Never smokers were more likely to exercise (OR = 5.47) more than those who smoked cigarettes. Participants who had high dietary fat intake tended to use both cigarettes and smokeless tobacco (OR=5.56).

DISCUSSION & CONCLUSION

Firefighters demonstrated substantially higher rates of smokeless tobacco use when compared to the US adult males, 18.5% vs. 7.0%. Thus, the high prevalence of smokeless tobacco use among firefighters should be addressed.

Being younger, white, and binge drinking were predictors of current smokeless tobacco use. These results correspond with the results of previous research.

Our findings suggested some health risk behaviors that influence smokeless tobacco use. Understanding these predictors of tobacco among firefighters is likely to increase awareness of risk factors and to improve the effectiveness of tobacco prevention program.