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The prevalence of smoking among soldiers of the gendarmerie in a provincial center and affecting factors: A cross-sectional study from Turkey*

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ABSTRACT

Determining the smoking rates and nicotine dependency levels of soldiers can be a guide in smoking cessation interventions and developing a policy for smoking prevention for soldiers serving in military units. The cross-sectional study was conducted with a total of 313 soldiers stationed in gendarmerie units in a city center in the Central Anatolian Region of Turkey. Data were collected between 01.06.2021 and 31.07.2021 by face-to-face interview technique using Personal Information Form and Fagerström Nicotine Addiction Test. It was determined that 54.6% of the participants smoked, 87.1% had low-moderate nicotine addictions, and 94.9% were smokers in their friends' circle. It was revealed that the prevalence of smoking among the participants was high, and the nicotine addiction levels of the participants working in the "Prison" unit were higher.

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Gendarmerie; nicotine dependence; nursing; prevalence; smoking; soldier

Introduction

It is stated that men carry a higher risk in terms of smoking-related health problems and death rates due to the fact that smoking rates are higher than women both in the world and in Turkey.[1,2] Many studies conducted in different occupational groups in Turkey reveal that men have higher rates of smoking and nicotine addiction than women in terms of gender.[3–9] One of the occupational groups in which smoking rates in men should be investigated is military service, which is a male-dominated and disciplined profession. In many studies conducted on soldiers in Turkey in which all participants were male, smoking rates were found to vary between 53.15% and 69.6%.[10–12] In another study, it was determined that approximately half of the soldiers smoked every day.[13] In another study, it was determined that police officers who have similar characteristics to soldiers smoke 4.8 times more than civilians.[14]

It is stated that the high rate of smoking in males is related to seeing cigarettes as a means of coping with stressful situations, emulating their peers who smoked during adolescence, being curious about cigarettes, and their desire to have their peers approve themselves.[15–17] In a qualitative study conducted to determine the smoking habits and attitudes of soldiers, it was reported that some of the participants stated that they socialized by chatting with other soldiers while smoking.[17] In addition, in military environments considered as a closed social group; it is stated that the risk of smoking increases due to reasons such as being assigned to another task, having to work away from friends and family from time to time, undertaking stressful tasks.[16,18]

Health professionals have important roles and responsibilities for individuals to stay away from unhealthy behaviors such as nicotine addiction, which is a common public health problem, and to adopt healthy lifestyle behaviors. In particular, public health nurses can determine the prevalence of smoking in individuals from different parts of the society, can guide smokers to quit smoking, can make effective interventions at the social level

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The summary findings of this master's thesis study was presented as a verbal with the title "The Prevalence of Smoking Among Military Personnel Stationed in a Provincial Center and Effective Factors" in 3rd International 4th National Public Health Nursing Congress held organized online, Turkey between 11–13 January, 2023.
This study was produced from the master's thesis of the first author.

in preventing nicotine addiction, and can be a pioneer in the formation of cigarette smoke-free workplaces and environments.[19] One of the working environments where public health nurses should be involved in the fight against nicotine addiction is military units. Compared to other working environments; combating smoking addiction is very important in military units, which are predominantly male, have a unique understanding of work and discipline and are known as a stressful environment.[13,16,18] Determining the smoking rates and nicotine dependency levels of soldiers can be a guide in smoking cessation interventions and developing a policy for smoking prevention for soldiers serving in military units.

While there are relatively few studies[10,20,21] investigating the prevalence of smoking among soldiers in the national literature, there is no study that deals with the frequency of smoking among the gendarmes, which is a different branch of the soldiers there are no studies. In addition, there was no study examining the prevalence of smoking among gendarmerie soldiers in the Central Anatolian region and the province where the research was conducted, and the factors affecting it. It can be said that regional data on this subject are limited. Gendarmerie is the armed general law enforcement force that ensures the protection of security and public order and fulfills the duties assigned by other laws and presidential decrees. The gendarmerie has duties to provide security and public order, to protect and watch over, and to perform judicial and military services. In this direction, this study was conducted to determine the prevalence of smoking among gendarmerie soldiers working in a city center in the Central Anatolian region of Turkey and the factors affecting it.

Materials and methods

Research type

The study was conducted with a cross-sectional design and "point prevalence" model, which allowed the measurement of the smoking frequency of gendarmerie soldiers and influencing factors in a short period of time, and it was not intended to evaluate the changes in the smoking habits of the participants over time.

Location and time, population, and sample

The study was carried out between 01.06.2021 and 31.07.2021 in the gendarmerie units located in a city center in the Central Anatolia region of Turkey. These units mostly work at desks or in the field and do not have an active duty in conflict zones. The universe of the research consisted of all military units (1027 soldiers) serving in a city center in the Central Anatolian region of Turkey. However, since the "Infantry Training Brigade Command", where 620 soldiers were on duty, did not allow work to be carried out, 407 soldiers serving in three separate gendarmerie units formed the universe. There is no other military unit in the city center that allows working except the gendarmerie units. In the study, it was aimed to reach the entire universe by not choosing a sample. The sample of the study consisted of 313 gendarmerie soldiers, since 35 soldiers were assigned to another mission, 33 soldiers were on annual leave and 26 soldiers did not accept to participate in the research. Due to the problem in obtaining consent, the sample represents one-third of the targeted population.

Data collection tools

The study data were collected through "Personal Information Form" and "Fagerstrom Test for Nicotine Dependence".

Personal information form

The form developed by the researchers by reviewing the literature[22,23] consisted of 3 parts and 34 questions. In the first part of the form (first 11 questions), there are questions related to sociodemographic characteristics of the participants (age, marital status, educational status, family type, income level, etc.), the second part consists of questions (questions 12–17) on professional characteristics (the unit where they serve, rank, duration of service in the profession, etc.), and the third part includes questions inquiring about smoking behaviors.

Fagerstrom Test for Nicotine Dependence (FTND)

In the study, in order to measure nicotine dependence levels of the participants who currently smoked, the Turkish version of "Fagerstrom Test for Nicotine Dependence" was used. FTND was developed by Fagerstrom and Schneider[24] in order to determine individuals' level of physical dependence on smoking, and Turkish adaptation and reliability study of the test was conducted by Uysal et al.[25] There are 6 questions in FTND, and the individual's dependence level is evaluated according to the responses. Two questions on the test are scored as "0", "1", "2", and "3", while the rest four questions are scored as "0" and "1". The score to be obtained from the test ranges from 0 to 10. Scores between 8–10 indicate very high dependence, 6–7 show high dependence, 5 indicates moderate dependence, 3–4 points show low dependence, and 0–2 demonstrate very low dependence. Cronbach's alpha coefficient of FTND was found to be 0.56 in the study conducted by Uysal et al.[25] In the present study, this coefficient was determined as 0.61.

Implementation of the study

The study was carried out with the soldiers who served in the gendarmerie units in a city center in the Central Anatolia region of Turkey between 01.06.2021 and 31.07.2021 and agreed to participate in the research. Before the study, participants who met the inclusion criteria and were included in the research sample were informed by the researcher about the purpose of the study, that participation in the study was voluntary and how long it would take to complete, and verbal and written consent was obtained from the participants. The researcher was not blind to the ranks of the participants during the interview, but this was not considered to cause any bias. "Personal Information Form" and "Fagerstrom Nicotine Addiction Test" were filled in with the participants during the face-to-face interviews in a suitable meeting room determined in the military units. It took approximately 15–20 min for the participants to fill out the forms given to them.

Ethical aspect of the study

Prior to the study, ethical approval was obtained from the Non-Interventional Clinical Research Ethics Committee of a university in the province where the study was conducted with the decision dated 14.04.2021 and numbered 2021-04/15, and institutional permission was obtained from the gendarmerie units through the governorship. Participants who accepted to participate in the study and were included in the study sample were informed about the study and their verbal/written consents were obtained. The ethical principles of the Declaration of Helsinki were followed throughout the study.

Statistical analyses

In the analysis of the study data, Statistical Package for the Social Sciences (SPSS) Version 23.0 software was used. Descriptive statistics and chi-square analysis were used in the analysis of the descriptive characteristics of participants included in the study, and numbers, percentages, average, minimum and maximum values and standard deviation were used. The normal distribution of study data was checked with the Kolmogorov-Smirnov test. In the comparison made to check whether there was a difference in the mean scores of the independent groups, the independent groups t-test was used for the data showing normal distribution, and ANOVA was used for the comparison of more than two groups. In the analysis of variance, the difference between the groups was examined with the Tukey Post Hoc test and Tamhane test. The homogeneity of the groups was checked with the Levene test. In the evaluation of the data, the level of significance was accepted as $p < 0.05$.

Results

The mean age of the participants was 29.84 ± 7.17, all of them were male, 70.9% were in the 20–30 age group, 57.2% were married, and 57.5% had a university or higher degree. The mean service period of the participants in the profession was 7.19 ± 7.53 years, 74.1% of them were had the rank of corporal, 83.1% were

working by being stationed in different cities in different periods, and 54.6% were smokers (Table 1).

The mean age when the participants started smoking was determined to be 17.19 ± 3.95 years, and their mean smoking duration was 11.02 ± 7.17 years, 56.2% of the participants have been smoking for 10 years or more, 93.0% of the participants who were smokers smoked every day, peer influence, stress, and sadness were among their reasons for smoking, and 94.9% of them had friends who smoked (Table 2).

The mean Fagerstrom Nicotine Addiction Test score of the smoking participants was 3.50 ± 2.35, whereas 50.3% had low, 36.8% had moderate, and 12.9% had high levels of nicotine addiction (Table 3).

There was no significant relationship between the smoking statutes of participants and their sociodemographic characteristics ($p > 0.05$). The smoking rates of the participants who had served for 1–4 years in their unit were found to be significantly higher than those of the participants who had served for 5 years or longer in their unit ($p < 0.05$) (Table 4).

No significant correlation was found between the nicotine addiction levels of the participants who were smokers and their sociodemographic characteristics ($p > 0.05$). It was determined that the mean FTND score of the participants whose unit was "Prison" was higher than the mean score of those who served in other units and units ($p < 0.05$). Nicotine addiction levels were significantly higher in those who smoked 11 or more cigarettes a day, those who continued to smoke for personal reasons, and those who smoked their first cigarette of the day in the first 5 min after waking up ($p < 0.05$) (Table 5).

Discussion

It was determined that 54.6% of the participants, who participated in the study, all of whom were male, were current smokers. In studies conducted with soldiers in Turkey, the prevalence of smoking has varied between 53.15% and 59%.[11,21,26] In

Table 1. Introductory characteristics of gendarmes ($n = 313$).

Sociodemographic characteristics		n	%
Age [Avg ± SD (min-max)] = [29.84 ± 7.17 (20–56) age]			
	20–30 years old	**222**	**70.9**
	31 years and older	91	29.1
Gender	Male	**313**	**100.0**
Marital status	Single	134	42.8
	Married	**179**	**57.2**
Educational status	High school	133	42.5
	University graduate and above	**180**	**57.5**
Family type	Nuclear family	**240**	**76.7**
	Extended family	73	23.3
Perception of economic situation	Income less than expenses	41	13.1
	Income equals expense	**205**	**65.5**
	Income more than expenses	67	21.4
Diagnosed disease	No	**296**	**94.6**
	There is	17	5.4
Smoking status	Smoker	**171**	**54.6**
	Never smoked-nonsmoker	111	35.5
	Quit smoking-not smoking	31	9.9
Professional features		n	%
Military personnel served	Provincial Gendarmerie Command	**187**	**59.8**
	Gendarmerie Commando Squadron	68	21.7
	Prison Gendarmerie Station Command	58	18.5
Rank	Corporal	**232**	**74.1**
	Sergeant	72	23.0
	Military officer	9	2.9
Duration of working in their units [Avg ± SD (min-max)] = [2.69 ± 2.49 (1–26) year]			
	1–4 year	**272**	**86.9**
	5–9 year	35	11.2
	10 years and above	6	1.9
Period of experience in the profession [Avg ± SD (min-max)] = [7.19 ± 7.53 (1–33) year]			
	1–4 year	**162**	**51.8**
	5–9 year	83	26.5
	10 years and above	68	21.7
How it works	Desk head	53	16.9
	Moving	**260**	**83.1**

Table 2. Smoking habits and nicotine addiction levels of smoker gendarmes ($n = 171$).

Features of smoking habits		n	%
First smoking age [Avg ± SD (min-max)] = [17.19 ± 3.95 (8–30) year]			
	15 years and under	63	36.8
	Over15 years old	**108**	**63.2**
Smoking time [Avg ± SD (min-max)] = [11.02 ± 7.17 (1–36) year]			
	1–4 year	25	14.6
	5–9 year	50	29.2
	10 years and above	**96**	**56.2**
The most important reason to start smoking	Stress and sadness	**60**	**35.1**
	Peer pressure	**51**	**29.8**
	Interest	31	18.1
	Wannabe	13	7.6
	Smoking in the family	12	7.0
	Prove yourself	2	1.2
	Reaction to the ban	2	1.2
Smoking frequency	Smoker every day	**159**	**93.0**
	Occasional smoker	12	7.0
Presence of smoking individuals in the circle of friends	There is	**297**	**94.9**
	No	16	5.1
Frequency of meeting with friends who smoke* ($n = 297$)	Every day	**170**	**57.2**
	Sometimes	127	42.8

Percentages are calculated over n.

Table 3. Nicotine addiction levels of smoker gendarmes ($n = 171$).

FTND questions		n	%
Number of cigarettes smoked per day	10 pcs and below	42	24.6
	11 pcs or more	**129**	**75.4**
Time to smoke first cigarette after waking up in the morning	1 h later	80	46.8
	Within 31–60 min	31	18.1
	Within 6–30 min	34	19.9
	In the first 5 min	**26**	**15.2**
Difficulty stopping without smoking in a place where smoking is prohibited	No	110	64.3
	Yes	**61**	**35.7**
The most difficult cigarette of the day to give up, according to the individual	Smoking at other times	94	55.0
	First cigarette after waking up in the morning	**77**	**45.0**
Whether the individual smokes more frequently in the first hours of the day after waking up	No	114	66.7
	Yes	**57**	**33.3**
Whether the individual is too sick to get out of bed but still smokes	No	114	66.7
	Yes	**57**	**33.3**
FTND [Avg ± SD (min-max)] = [3.50 ± 2.35 (0–9)]			
Nicotine addiction level	Low dependency (0–3 points)	86	50.3
	Moderate dependency (4–6 points)	63	36.8
	High dependency (7–10 points)	22	12.9

Table 4. Smoking status of gendarmes by some introductory characteristics ($n = 313$).

			Smoking status				
			Smoker		Non-smoker		
Sociodemographic characteristics			n	%	n	%	*Test value and *p* value
Age	20–30 years old	222	125	73.1	97	68.3	$X^2 = 0.863$
	31 years and older	91	46	26.9	45	31.7	$p = 0.353$
Marital status	Single	134	79	46.2	55	38.7	$X^2 = 1.766$
	Married	179	92	53.8	87	61.3	$p = 0.184$
Education status	High school	133	79	46.2	54	38.0	$X^2 = 2.119$
	University graduate and above	180	92	53.8	88	62.0	$p = 0.145$
Family type	Nuclear family	240	128	74.9	112	78.9	$X^2 = 0.701$
	Extended family	73	43	25.1	30	21.1	$p = 0.402$
Professional features							
Military personnel served	Provincial Gendarmerie Command	187	100	58.5	87	61.3	$X^2 = 0.943$
	Gendarmerie Commando Squadron	68	36	21.1	32	22.5	$p = 0.924$
	Prison Gendarmerie Station Command	58	35	20.5	23	16.2	
Duration of working in their units	1–4 year	272	155	**90.6**	117	82.4	$X^2 = 7.665$
	5–9 year	35	15	8.8	20	14.1	$\mathbf{p = 0.022}^{**}$
	10 years and above	6	1	0.6	5	3.5	
How it works	Desk head	53	26	15.2	27	19.0	$X^2 = 0.800$
	Moving	260	145	84.8	115	81.0	$p = 0.371$

*Chi-Square analysis; $^{**}p < 0.05$; X^2: Pearson Chi-Square analysis

Table 5. Fagerstrom test for nicotine dependence (FTND) scores according to some descriptive characteristics of military personnel who smoke ($n = 171$).

Sociodemographic characteristics		n	FTND total	Test value and p value
Age	20–30 years old	125	3.65 ± 2.33	[a]t = 1.402
	31 years and older	46	3.08 ± 2.41	$p = 0.163$
Marital status	Single	79	3.75 ± 2.33	[a]t = 1.320
	Married	92	3.28 ± 2.37	$p = 0.189$
Education status	High school	79	3.54 ± 2.22	[a]t = 0.212
	University graduate and above	92	3.46 ± 2.47	$p = 0.832$
Family type	Nuclear family	128	3.56 ± 2.40	[a]t = 0.568
	Extended family	43	3.32 ± 2.23	$p = 0.570$
Professional features				
Military personnel served	Provincial Gendarmerie Command[1]	100	2.98 ± 2.15	[b]F = 7.732
	Gendarmerie Commando Squadron[2]	36	3.83 ± 2.13	**$p = 0.001$**[*]
	Prison Gendarmerie Station Command[3]	35	**4.65 ± 2.71**	**1-3**[**]
Working military unit	Provincial Gendarmerie Headquarters[1]	79	3.02 ± 2.15	[b]F = 5.045
	Central District Police Station[2]	21	2.80 ± 2.20	**$p = 0.002$**[*]
	Gendarmerie Public Security Commando Squadron[3]	36	3.83 ± 2.13	**3 > 1-2**[**]
	Prison Gendarmerie Squadron[4]	35	**4.65 ± 2.71**	
Duration of working in their units	1–4 year	145	3.39 ± 2.30	[b]F = 1.827
	5–9 year	25	4.00 ± 2.59	$p = 0.164$
	10 years and above	1	3.22 ± 2.10	
How it works	Desk head	26	3.03 ± 2.37	[a]t=−1.090
	Moving	145	3.58 ± 2.35	$p = 0.277$
Smoking features		n	FTND Total	Test value and p value
First smoking age	15 years and under	63	3.76 ± 2.36	[a]t = 1.097
	Over 15 years old	108	3.35 ± 2.35	$p = 0.274$
Number of cigarettes smoked per day	10 pcs and below	42	1.73 ± 1.81	[a]t=−5.735
	11 pcs or more	129	**4.17 ± 2.15**	**$p = 0.000$**[*]
Reason for continuing to smoke	Social environment effect	10	2.00 ± 1.33	[a]t=−2.096
	Personal reasons	161	3.59 ± 2.38	**$p = 0.038$**[*]
Time to smoke first cigarette after waking up in the morning	1 hour later[1]	80	1.63 ± 1.34	[b]F = 105.340
	Within 31-60 minutes[2]	31	3.96 ± 1.53	**$p = 0.000$**[*]
	Within 6-30 minutes[3]	34	**5.11 ± 1.06**	**4 > 1-2-3, 3 > 1-2**[**]
	In the first 5 minutes[4]	26	**6.57 ± 1.74**	

[a]ANOVA Variance Analysis, [b]t-test in independent groups, *$p < 0.05$, **Tukey Post Hoc Test.

a study conducted in the two largest city centers of Turkey, the rate of smoking among soldiers was found to be 69.6%.[10] The finding of a lower smoking rate in our study compared to the rate reported by Bakır et al.[10] is thought to be related to the small sample size of our study. In previous studies conducted with soldiers in different countries such as the US, Germany, China, Sri Lanka, and Uganda, the prevalence of smoking has been found to vary between 23.6% and 56.1%.[13–15,27–30] Other studies have also shown a high prevalence of smoking among soldiers.[18,31,32] Our study, which is compatible with the relevant literature in Turkey and the rest of the world in terms of smoking rates in other military groups, reveals that the prevalence of smoking among gendarmerie soldiers is also high. It is thought that the high prevalence of smoking among gendarmerie soldiers may be associated with the stressful nature of the "military profession" and the behavior of smoking being an ineffective coping method to overcome this situation.[33] Although smoking rates vary in the results of different studies, it is seen that cigarette addiction is a common problem among men both in Turkey and the rest of the world.

In this study, it was determined that most participants had smokers in their circles of friends. Kılınç[26] reported that smoking soldiers also had friends who smoked. It was stated that living or being in an environment where people smoke increases the probability of starting to smoke for the first time or and starting to smoke again after quitting.[21,34] In a study conducted on US Air Force employees, it was observed that being in the presence of nonsmokers reduced the probability of smoking.[35] Argüder et al.[36] revealed that most participants started smoking due to the influence of their friends. In another study conducted with the soldiers of the US Air Force personnel, it was found that soldiers who had not smoked before started to smoke by taking their superiors and friends in training environments who were smokers as role models.[37] Findings in the literature revealing the relationship between smoking and living in a smoking environment

and the findings of this study support each other. It is thought that living in an environment where other people smoke and taking smokers as role models are effective in adopting the habit of smoking.

The mean age of onset of smoking among the participants of this study who were smokers was 17.19 ± 3.9 years, and the majority of them started smoking at the age of 15 or later. In two different studies on soldiers in Turkey, it was determined that most of the participants started smoking at the age of 15 or later, especially between the ages of 16 and 20.[21,26] In a study conducted in Israel, it was concluded that the mean age of starting to smoke among soldiers was 16.7 ± 2.4.[38] It was reported that the risk of starting smoking in the first year of service among nonsmoker soldiers was high.[39] It was stated that stress related to military duties was an important factor in starting smoking.[33] In our study, unlike others in the literature, whether the participants had started smoking before or after their military service started was not questioned, and they were directly asked a question about the age at which they started smoking. Our findings and other findings in the literature show that soldiers start smoking at a young age. As a matter of fact, it can be thought that young soldiers exhibit smoking behaviors or continue their previous smoking habits, both as a symbol of proving that they are adults and as a strategy to cope with the stress brought about by the harsh military environment in their military life, which coincides with the transition period of adolescence and young adulthood.

It was found in this study that more than half of the smoking participants had started smoking for personal and social reasons such as stress and peer pressure. Many studies have revealed that soldiers start smoking and continue to smoke due to stress and anxiety they experience.[13,15,17,26,40,41] In the studies conducted by Aksu and Uğraş-Dikmen[40] and Kılınç[26] it was determined that soldiers started smoking after entering the military environment. Tan et al.[17] reported that some soldiers smoke to be friend senior officers and their peers who smoke. Our findings and other findings in the relevant literature on the effect of "stress" and "peers" on the initiation or continuation of smoking in soldiers are similar. The literature shows that the military profession in particular is a stressful profession, and the military environment poses a risk in terms of starting or continuing smoking.

No significant relationship was found in this study between the smoking statuses of the participants and their sociodemographic characteristics such as age, education level, or perceived economic status ($p > 0.05$). Contrary to our results, in the literature, soldiers with low education and income levels[15,26,27,30,31,42–44] or soldiers with higher education and income levels[10] have been found to display different smoking rates. The reason for the absence of a significant relationship between the smoking statuses of the participants of our study and their sociodemographic characteristics may be the low representation power of the study due to its small sample size.

In our study, the mean FTND score of the participants whose unit was "Prison" was found to be higher than the mean score of those serving in other units ($p < 0.05$). This difference may be due to the possibility that gendarmerie soldiers working in the Prison Gendarmerie Command have to deal with more people, and the population they deal with is composed of convicted criminals. The smoking probability of soldiers serving in combat units was found to be higher than those serving in other units.[45] In another study, it was determined that the nicotine addiction levels of the soldiers who had to deal with more people in their unit (in the army) were higher than those of the soldiers who encountered fewer people.[46] In our study, unlike the results of other studies in the literature, the nicotine addiction levels of the participants who were serving in the "Prison" unit, involving dealing with convicted individuals, were higher. The reason for this is thought to be that gendarmerie soldiers have more judicial responsibilities in this unit, and the stress levels of these soldiers increase due to this responsibility.

Conclusion

In the study, it was revealed that the prevalence of smoking among participants was high and the nicotine addiction levels of participants working

in the "Prison" unit were higher. In addition, it has been determined that "stress" and "peers" have an effect on smoking participants starting or continuing to smoke. Based on these results, it is recommended that the gendarmerie be supported in terms of adapting to the unique conditions of the unit they serve and developing strategies to cope with stress, especially in the first years of their career. In general, it is recommended by health professionals, in particular by public health nurses, to train soldiers, who are special groups, about effective ways of coping with stress and the harms of smoking, to monitor the prevalence of smoking periodically, to give smoking cessation counseling to soldiers who are determined to be smokers, and to develop intervention programs for not smoking. Considering that most of the gendarmerie personnel have been smoking for 10 years or more and they are low-to-moderate dependent; these groups should be the primary focus for smoking cessation. The practice of smoking cessation counseling in gendarmerie soldiers is a valuable point in terms of public health in order to protect employee health. In addition to these, it may be recommended to conduct more comprehensive studies involving larger samples to determine smoking frequencies and factors affecting smoking for soldiers in general and soldiers working in different military units in particular.

Limitations

The study was conducted in only one city center in the Central Anatolia Region of Turkey, and there were difficulties in obtaining research permits from the military units. Additionally, as we were not allowed to conduct research with a large number of soldiers in the city center where the study was conducted, there was a small sample size, and this reduced the representation power of the study. Furthermore, due to the ongoing COVID-19 pandemic at the time of the study, there were difficulties in obtaining permission from the military units and involving gendarmerie soldiers working in the units where permission was obtained. Finally, the smoking statuses of the participants and their assessments of nicotine addiction were based on their self-reports.

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Authors' contributions

MME: statistical data entry, writing – reviewing and editing resources. SK: conceptualization, methodology, resources, statistical analysis, writing – original draft, writing – reviewing and editing. Murat Melih Erdoğan and Semra Kocataş designed the study protocol and provided supervision. Murat Melih Erdoğan jointly contributed to the recruitment and data collection processes. Data management and statistical analysis of the study was done by Semra Kocataş. The article was prepared by Semra Kocataş and Murat Melih Erdoğan. Semra Kocataş and Murat Melih Erdoğan commented on previous versions of the article, read and approved the final version.

Disclosure statement

The authors report there are no competing interests to declare.

Ethical statement

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