

Smoking Prevalence and Level of Nicotine Dependence among Final-Year Students at Van School of Health

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ABSTRACT: Objective: The aim of this study was to investigate the prevalence of smoking, reasons to start smoking, attitudes to smoking, and level of nicotine dependence among the final-year students at Nursing and Midwifery departments at Van Yüzüncü Yıl University, Van School of Health.

Materials and Methods: The study included 157 final-year students in the Nursing and Midwifery departments at Van School of Health who consented to participating in the survey. Data were analyzed using SPSS for Windows version 17.0 (SPSS Inc. Co., Chicago, IL, USA). Descriptives were expressed as frequencies and percentages. Relationships between variables were analyzed using the Z-ratio test.

Results: Of the 157 students, 93 (59.2%) students were enrolled in the Nursing and 64 (40.8%) students in the Midwifery department, comprising 66 (42.0%) men and 91 (58.0%) women. In terms of age groups, 68 (43.3%) were aged between 20-22 years, 79 were aged between 23-25 years, and 10 were aged 26+ years, with a mean age of 23±1.28 years. Of all the participants, 69.4% of them never tried smoking, 6.4% of them smoked occasionally, 19.7% of them smoked regularly, and 4.5% of them used to smoke but quit smoking in the past.

Conclusion: We suggest that awareness-raising activities on the hazards of smoking to human health, such as briefings and conferences, should be held at universities, informative programs on the disorders and conditions caused by smoking should be broadcasted on TV and radio channels, the bans on smoking in closed space and in hospital buildings and courtyard should be more closely monitored, cigarette sales on university campuses should be banned, and the number of smoking cessation polyclinics across Turkey should be increased.

KEYWORDS: Cigarette, students; school of health

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I. Introduction

Smoking behavior is a leading hazard to human health arising from a combination of social, psychological, and genetic factors. Moreover, tobacco smoke contains thousands of substances that are hazardous to every part of the human body, which also leads to high potential for addiction, has negative effects on both smokers and passive smokers, is responsible for approximately 4 million deaths per year, and results in various cancers and diseases (1,2,3).

Smoking behavior is also one of the most significant hazards to public health both in Turkey and around the world. Both active and passive smoking leads to death as well as psychological and financial losses. The 2008 report by the World Health Organization (WHO) estimated that there are about 1.3 billion smokers worldwide. Moreover, the 2011 WHO report indicated that around 22% of individuals aged over 15 years are smokers, comprising 36% of the male and 8% of the female populations. Accordingly, smoking is the leading cause of preventable death, studies reporting on the prevalence of smoking are considered highly important (4,5). The aim of this study was to investigate the prevalence of smoking, reasons to start smoking, attitudes to smoking, and level of nicotine dependence among the final-year students at Nursing and Midwifery departments at Van Yüzüncü Yıl University Van School of Health.

II. Materials And Methods

The study targeted all the 194 final-year students majoring in Nursing and Midwifery departments at Yüzüncü Yıl University Van School of Health and included 157 students that consented to participating in the survey and were reachable at the time of survey. The survey was conducted with a questionnaire comprising two sections: (I) demographic data and items on the attitudes to smoking and (II) the Fagerstrom Test for Nicotine Dependence (FTND). The FTND consists of 6 items, of which the Yes/No items are scored from 0 to 1 and the multiple-choice items are scored from 0 to 3 and the 6 items are summed to yield a total score of 0-10. A score of >4 generally indicates nicotine dependence, whereby a score of 1-2 indicates very low dependence, 3-4 indicates low dependence, 5 indicates moderate dependence, 6-7 indicates high dependence; and 8-10 indicates very high dependence.

The study was initiated after obtaining an approval from the local ethics committee. The questionnaire was administered, to students provided a verbal consent to participate. Data were analyzed using SPSS for Windows version 17.0 (SPSS Inc. Co., Chicago, IL, USA). Descriptives were expressed as frequencies and percentages. Relationships between variables were analyzed using the Z-ratio test. A p value of <0.05 was considered significant.

III. Results

Of the 157 students, 93 (59.2%) students were enrolled in the Nursing and 64 (40.8%) students in the Midwifery department, comprising 66 (42.0%) men and 91 (58.0%) women. In terms of age groups, 68 (43.3%) were aged between 20-22 years, 79 were aged between 23-25 years, and 10 were aged 26+ years, with a mean age of 23±1.28 years.

Table 1 presents the smoking status of the participants and their parents. It was revealed that 69.4% of the students never tried smoking, 6.4% of them smoked occasionally, 19.7% of them smoked regularly, and 4.5% of them used to smoke but quit smoking in the past. Additionally, 57.3% of the fathers and 15.3% of the mothers were smokers (Table 1).

Table 1. Smoking status of the participants and their parents (n=157)

Smoking status	n	%
Never tried smoking	109	69.4
Smoking occasionally	10	6.4
Smoking regularly	31	19.7
Used to smoke	7	4.5
Maternal smoking		
Smoker	24	15.3
Nonsmoker	133	84.7
Paternal Smoking		
Smoker	90	57.3
Nonsmoker	67	42.7
Total	157	100

The reasons to start smoking included curiosity (n=11; 22.9%), emulation (n=6; 12.5%), complying with friends (n=23; 47.9%) and other reasons (n=8; 16.7%) (Table 2).

Table 2. Reasons to start smoking among the participants (n=48)

	n	%
Curiosity	11	22.9
Emulation	6	12.5
Complying with friends	23	47.9
Other	8	16.7
Total	48	100

The reasons to continue smoking included addiction (n=13; 27.7%), pleasure (n=17; 36.2%), failure to quit (n=8; 17%), and other reasons (n=9; 19.1%) (Table 3).

Table 3.Reasons to continue smoking among the participants (n=41)

	n	%
Addiction	13	27.7
Pleasure	17	36.2
Failure to quit	8	17
Other	9	19.1
Total	41	100

Table 4 presents the number of cigarettes smoked by the participants per day. Accordingly, 29.3% of the participants smoked 1-5, 7.3% smoked 6-10, 19.5% smoked 11-15, 24.4% smoked 16-20, and 19.5% smoked 21+ cigarettes per day (Table 4).

Table 4.Number of cigarettes smoked by the participants per day (n=41)

	n	%
1-5	12	29.3
6-10	3	7.3
11-15	8	19.5
16-20	10	24.4
21+	8	19.5
Total	41	100

Attitudes to smoking were also investigated in the survey. Accordingly, 84.1% of the students agreed to the proposition that the health warning message ‘Smoking can be harmful for your health.’ should be placed on cigarette packs and 15.9% of them disagreed, 82.8% of them agreed to the proposition that cigarette advertising should be banned while 17.2% of them disagreed, 89.2% of them agreed to the proposition that cigarette sales to minors should be banned while 10.8% of them disagreed, 79.7% of them agreed to the proposition that smoking in public areas should be banned while 20.3% of them disagreed, 61.1% of them agreed to the proposition that cigarette prices should be substantially increased while 38.9% of them disagreed, and 54.1% of them agreed to the proposition that it is disturbing to see healthcare personnel smoking while 45.9% of them disagreed. The students were also asked whether they had ever tried quitting smoking and it was revealed that 29.2% of them had tried once, 22% of them had tried multiple times, and 7% of them had never tried.

Table 5.Students’ attitudes to smoking (n=157)

		YES		NO	
		(n)	%	(n)	%
The health warning message should be placed on cigarette packs.	132	84.1		25	15.9
Cigarette advertising should be banned.	130	82.8		27	17.2
Cigarette sales to minors should be banned.	140	89.2		17	10.8
Smoking in public areas should be banned.	125	79.7		32	20.3
Cigarette prices should be substantially increased.	96	61.1		61	38.9
It is disturbing to see healthcare personnel smoking.	85	54.1		72	45.9

*Z-ratiotest

In terms of the level of nicotine dependence, very low dependence was detected in 19.5%, low dependence in 14.7%, moderate dependence in 21.9%, high dependence in 34.1%, and very high

dependence in 9.8% of the participants. Moreover, the level of dependence was higher among the students in the Nursing department compared to those in the Midwifery department (Table 6).

Table6.Level of nicotine dependence (n=41)

	Nursing (n)	Midwifery (n)	Total (n, %) p*	
0-2 (very low dependence)	5	3	8 (19.5)	.727
3-4 (low dependence)	3	3	6 (14.7)	1.00
5 (moderate dependence)	2	7	9 (21.9)	.180
6-7 (high dependence)	1	13	14 (34.1)	.002
8-10 (very high dependence)	2	2	4 (9.8)	1.00
Total	13	28	41 (100)	.028

*Z-ratio test

IV. Discussion

Ohidaet al. (6) evaluated the smoking prevalence of female nurses in the national hospitals of Japan and reported a prevalence of 18.6%, which was similar to that of our study (19.7%). Another study (7) evaluated the smoking prevalence of students enrolled in Marmara University and reported that 19.4% of them were active smokers, 7.1% of them were occasional smokers, and 2.4% of them had quit smoking. Of note, the rates of active and occasional smokers were similar to those of our study. On the other hand, Buğdaycı et al. (8) and İlhan et al. (9) reported the rates of active smokers in their participants as 24.7% and 24%, respectively. Brady et al. (10) evaluated adolescents and reported the rate of active smokers as 23%, whereas Kanicka et al. (11) evaluated Public Health students at a university in Poland and reported a smoking prevalence of 30.8%. However, in a study conducted in 1990, Carmichael and Cockcroft (12) evaluated student nurses in a hospital in London and reported a rate of 43.0%. The remarkable difference between the rate reported by Carmichael and Cockcroft and that of our study (i.e. the decrease between these two rates) could be attributed to the community awareness-raising campaigns and the legal measures taken within the last decades. Moreover, it could also be associated with the female preponderance in our participants (13). Meaningfully, there have been several studies in the literature in which female participants have been shown to have a lower smoking prevalence compared to males (14,15).

In our study, 24 (15.3%) mothers of the participants were smokers and 133 (84.7%) were nonsmokers and 90 (57.3%) fathers were smokers and 67 (42.7%) were nonsmokers. It is commonly known that paternal or maternal smoking, or both can have negative impact on the children (4). A previous study evaluated Health School students in Mugla University and reported that the rates of maternal and paternal smoking were 13.8% and 47.3%, respectively (13). This study was similar to our study particularly due to the rate of maternal smoking. In the study by Doğan and Ulukol who investigated the smoking prevalence in an adolescent population, the rate of paternal smoking was 56.5%, which was highly similar to that of our study (57.3%).

The reasons to start smoking in our participants included curiosity (n=11; 22.9%), emulation (n=6; 12.5%), complying with friends (n=23; 47.9%) and other reasons (n=8; 16.7%). McAlister et al. (17) evaluated an adolescent population and reported that their participants started smoking mainly to make friends and comply with the social environment. In a study conducted in 2010, Satterlund et al. (18) suggested that adolescents start smoking to be accepted to a friends group. Another study evaluated medical school students and revealed that 54.4% of the smokers started smoking due to peer influence (19). Similarly, Göktalay et al. (20) evaluated Health School students at Celal Bayar University in 2011 and reported that 54.4% of the smokers started smoking due to peer influence and 10.3% of them as a result of emulation, which was similar to the rate of students who started smoking as a result of emulation in our study. Additionally, peer influence has been reported as the leading reason to start smoking in numerous studies conducted in Turkey (21,22). On the other hand, Çilingiret et al. (23) evaluated Health School students at a Turkish university and reported that 26% of the students smoked approximately one pack of cigarettes and 11.5% smoked more than one pack in a day. In our study, these rates were 24.4% and 19.5%, respectively. Moreover, the rate of participants who smoked 11-20 cigarettes was 43.9% in our study, which was reported as 49.4% by Kutlu et al. (24), 49.4% by Kaşıkçı et al. (25), and 36% by Tot et al. (26).

Baykan ve Naçar (27) reported that 79.5% of their participants agreed that the health warning messages should be placed on cigarette packs and cigarette advertising should be banned, 93.5% of them agreed that smoking in public areas should be banned, 88.5% of them agreed that cigarette sales to minors should be banned, and 74.5% of them agreed that the taxes on cigarettes should be increased. These rates were highly

similar to those of our study. On the other hand, in our study, the Fagerstrom Test for Nicotine Dependence (FTND) revealed that the level of nicotine dependence was higher among the Nursing students compared to the Midwifery students and a significant difference was found between the two groups. This finding could be attributed to the male preponderance in the Nursing students, which, as previously shown by Baykan and Naçar, is associated with the fact that the prevalence of smoking in male students is higher than in female students. Moreover, another study revealed that the level of dependence on the FTND is significantly higher in men than in women (28).

V. Conclusion And Implications

The results indicated that most of the final-year students at Van YuzuncuYil University Van School of Health were nonsmokers, the prevalence of smoking was higher in their fathers compared to their mothers, the rate of students with low dependence was greater than the rate of students with high dependence, and smoking prevalence was the highest among the students aged 23-25 years.

In light of these findings, we suggest that awareness-raising activities on the hazards of smoking to human health, such as briefings and conferences, should be held at universities, informative programs on the disorders and conditions caused by smoking should be broadcasted on TV and radio channels, the bans on smoking in closed space and in hospital buildings and courtyard should be more closely monitored, cigarette sales on university campuses should be banned, and the number of smoking cessation polyclinics across Turkey should be increased.

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