ORIGINAL ARTICLE

Evaluation of the Effect of Fear of COVID-19 on the Prediction of Smoking Cessation Success in Midibus and Minibus Drivers of in Samsun Province

Emre Akgül[1] , H. Nilden Arslan[2]

[1]Provincial Health Directorate, Bayburt, Türkiye
[2]Department of Public Health, Ondokuz Mayıs University Faculty of Medicine, Samsun, Türkiye

ORCID iDs of the authors: E.A. 0000-0002-1942-540X, H.N.A. 0000-0002-3237-7123.

Main Points

- In our study, more than half of the drivers smoked.
- The pandemic affects the idea of quitting smoking.
- It is thought that COVID-19 can reduce smoking and is an effective psychological fear factor in quitting smoking.

Abstract

The tobacco epidemic is one of the biggest public health threats facing the world. This study aimed to determine the smoking status of minibus drivers in Samsun and evaluate the effect of fear of COVID-19 on the prediction of smoking cessation success. The population of this cross-sectional study consisted of midibus and minibus route drivers in the central districts of Samsun. A questionnaire including COVID-19 status, COVID-19 Fear Scale, Fagerström Nicotine Dependence Test, changes in smoking habits, and Smoking Cessation Success Prediction Scale were applied to the participants. The smoking prevalence of 267 participants was 52.0%, and 1.1% had quit smoking during the pandemic. In this period, 12.2% of the current smokers had decreased their smoking, while 7.2% had increased it. While there was no correlation between the COVID-19 Fear Scale and the Fagerström Nicotine Dependence Test ($p = .163$) and the Smoking Cessation Success Prediction Scale ($p = .645$), there was a significant correlation between the Fagerström Test for Nicotine Dependence and the Smoking Cessation Success Prediction Scale ($p = .005$). The pandemic increases the will and desire to quit smoking and affects individuals in terms of quitting/reducing smoking more than increasing it.

Keywords: Fagerström, fear of COVID-19, pandemic, smoking, smoking cessation success

Introduction

In December 2019, the city of Wuhan, located in China's Hubei province, became the center of an unknown pneumonia epidemic that attracted attention not only in China but also internationally. This factor, which is the seventh member of the coronavirus family that infects humans, was named "2019-nCoV," and the disease was named "COVID-19" (Wang et al., 2020). In the following days, the COVID-19 infection spread rapidly, became a public health crisis threatening the world, and was defined as a pandemic by the World Health Organization (WHO) on March 11, 2020 (WHO, 2019).

COVID-19 is a disease that can range from asymptomatic disease to acute respiratory distress syndrome, multi-organ failure, and death (Gavriatopoulou et al., 2020). Risk factors for poor prognosis and mortality include male gender, age over 65, hypertension, diabetes, cardiovascular disease, and respiratory disease (Zhao et al., 2020; Zheng et al., 2020).

Another prominent risk factor for COVID-19 is smoking (Reddy et al., 2021). More than 1.2 billion people in the world use tobacco products, and more than 7 million people die every year due to tobacco use. It is known that 16 million people smoke in Türkiye. Tobacco and its products play a role in 23% of all deaths in our country and cause 100 thousand deaths per year (Çalişkan & Metintaş, 2018). Both current smoking and smoking history have been proven to significantly increase the severity of COVID-19 and the risk of death. Besides, patients with a smoking history increase the risk of disease progression, need for mechanical ventilation, and in-hospital mortality (Reddy et al., 2021).

COVID-19 is not only a medical condition but also a social phenomenon. During the pandemic, people have experienced fear and stress due to isolation, quarantine practices, curfews, infection of themselves or those around them, hospitalizations, stays in intensive care units, and witnessing deaths. In this unpredictable process, they showed self-protection and avoidance behavior in fear and panic (Gencer, 2020; Koçak et al., 2021).

The present study was planned considering the effect of the fear and panic created by the pandemic on smokers and the possibility that the pandemic may be a factor in smoking cessation. It was conducted on drivers due to the high prevalence of smoking among them (Güler et al., 2016), and all of the participants were male, which is a risk factor for COVID-19. The study aimed to determine the smoking status of minibus and midibus drivers and evaluate the effect of fear of COVID-19 on predicting smoking cessation success.

Material and Methods

The cross-sectional study was carried out between April 20, 2021, and June 7, 2021, with 267 drivers working on the midibus and minibus lines in the central districts of Samsun. The research population consisted of the drivers of 1083 vehicles on the midibus and minibus lines affiliated with the Samsun Chamber of Drivers and Automobile Tradesmen and located in the central districts. In the calculations made with the Minitab program using the results obtained from a similar study, the minimum sample size was calculated as 249 individuals (with 80% power and 5% type 1 error) (Güler et al., 2016). Due to data loss that may occur in the study, it was aimed to increase this number by 10% to reach at least 275 people. A questionnaire was applied to 289 people, but 22 questionnaires with missing data were excluded, and the study was completed with 267 people. The inclusion criteria were volunteering to participate in the study, in addition to being a midibus or minibus driver in the central districts. Data were collected by face-to-face survey method at bus stops. The survey application was completed before June 12, 2021, when the drivers were vaccinated in our country.

The questionnaire form created by the researchers consisted of two parts. In the first part, there were questions about sociodemographic characteristics and smoking status, as well as COVID-19 fear scale questions. In the second part, there were Fagerström Test for Nicotine Dependence (FTND) and Smoking Cessation Success Prediction Scale (SCSPS) questions. Smokers were asked to answer the entire questionnaire, while non-smokers were asked to answer only the first part.

The COVID-19 fear scale, which aims to determine the level of fear during the pandemic process, was developed by Ahorsu et al. (2020). The Turkish validity and reliability of the scale were conducted by Bakioğlu et al. (2020). The scale consists of 7 items with a 5-point Likert-type response. A minimum of 7 and a maximum of 35 points can be obtained from the scale, and the higher the score, the higher the fear of COVID-19.

The Fagerström Tolerance Questionnaire (FTQ) was developed by Fagerström in 1978 to assess nicotine dependence (Vink et al., 2005). However, the questionnaire was revised by Heatherton et al. in 1991, and the FTND used today with higher internal consistency and shorter length has emerged (Heatherton et al., 1991; Sağlam, 2017). Turkish validity of the test was performed by Uysal et al. (2004). A minimum of 0 and a maximum of 10 points are taken from the scale consisting of 6 questions; 0 – 2 points indicates very little dependence, 3 – 4 points indicate low dependence, 5 points indicate moderate dependence, 6 – 7 points indicate high dependence, and 8 – 10 points indicate very high dependence (Sağlam, 2017).

SCSPS is a scale that predicts the smoking cessation success of individuals. A validity and reliability study was conducted by Aydemir et al. (2019). SCSPS is a 5-point Likert-type scale comprising 10 questions (1, a very low; 2, a few; 3, average; 4, many; and 5, too many). The ninth question of the scale was scored reversely. The maximum score that can be obtained from the scale is 50, and the minimum score is 10. A high score obtained from the scale indicates that the success of smoking cessation will be high.

Ethical approval of the study was obtained from the XOndokuz Mayis University Clinical Research Ethics Committee (Approval Number: 2021/119, Date: 26.03.2021). Written informed consent was obtained from all participants before the application of the questionnaire.

Statistical Analysis

The study was analyzed using Statistical Package for Social Science (IBM SPSS Corp.; Armonk, NY, USA) version 21.0 software. Categorical variables were presented as numbers and percentages, and continuous variables as mean, standard deviation, median, minimum, and maximum values. Kolmogorov – Smirnov test, Student's t, Mann – Whitney U, Kruskal – Wallis, ANOVA, and Tukey-HSD tests were used for analysis. The Spearman correlation test was performed to determine the correlations between scale scores. In multivariate analysis, possible independent variables thought to affect the dependent variable were analyzed using logistic regression analysis. Enter method was applied to see all the independent variables in the model. The Hosmer— – Lemeshow test was used for model fit, and the Nagelkerke R^2 and Cox and Snell R^2 tests were used for the model's power to explain the dependent variable. The statistical significance level was accepted as $p < .05$.

Results

All 267 drivers participating in the study were male. The mean age was 42.5 ± 11.6 (18.0 – 67.0) years, while the mean years of driving was 17.0 ± 11.5 (1.0 – 45.0) years. 79.0% of the drivers were married, and 34.0% were high school graduates. More than

half of the participants (57.7%) perceived their economic situation as "middle-income"; 18.7% of the drivers had chronic diseases. While 38 (14.2%) people had COVID-19 disease, 36 (13.5%) lost their relatives due to this disease; 52.0% of the drivers were still regular smokers. The distribution of some characteristics of the participants is presented in Table 1.

The drivers' COVID-19 Fear scale score was 14.6 ± 6.9 (7.0 – 35.0). While this score was 14.5 ± 6.2 (7.0 – 35.0) in smokers, it was 15.0 ± 7.9 (7.0 – 35.0) in lifelong non-smokers ($p = 0.459$). The FTND score in smokers was 4.5 ± 2.6 (0 – 10.0), and the SCSPS score was 32.5 ± 9.5 (10.0 – 50.0). The rate of very little and little dependence was 52.5%, the moderate dependence rate was 15.8%, and the high and very high dependence rate was 31.7%. No one started smoking during the pandemic period. The answers given by the drivers who still smoked to the questions about how the pandemic affected their smoking habits are summarized in Table 2.

Fifty-five (39.6%) of the participants stated that they wanted to get support to quit smoking, 118 (84.9%) said that they knew that there were smoking cessation outpatient clinics, and 74 (53.2%) knew how to reach these outpatient clinics. Considering the scale scores according to the change in smoking habits, the COVID-19 fear scale score of those who increased smoking during the pandemic and those who did not plan to quit smoking was lower, but the difference was not statistically significant ($p > .05$). While the level of dependence was higher in those who increased their smoking in this period ($p = .001$), those who tried to quit smoking before the pandemic and those who thought about quitting during the pandemic had a higher SCSPS score ($p < .05$) (Table 3).

When the participants were asked about their reasons for quitting smoking during the pandemic, 91.8% stated that it was harmful to their health (Table 4). In this period, one person out of three people who quit smoking chose "Because smoking is harmful to health," one person chose "Because COVID-19 disease is more severe in smokers," and one person chose both "Because COVID-19 disease is more severe in smokers" and "Due to the hikes in cigarettes" as the reason for quitting smoking.

Smoking cessation thoughts (64.3%) were higher in smokers who had COVID-19 ($n = 14$) than those who had no COVID-19 ($n = 66$) (34.0%) and were exposed ($n = 19$) (21.1%) ($\chi^2 = 6.926$; $p = .03$). While 28.6% of those who lost any of their relatives due to COVID-19 ($n = 21$) had thought of quitting smoking during the pandemic period, 36.4% of those who did not ($n = 128$) had thought of quitting ($\chi^2 = 0.484$, $p = .487$).

While 67.3% of those who tried to quit smoking before the pandemic ($n = 55$) had thought of quitting smoking during the pandemic period, 14.3% of those who did not try ($n = 84$) had thought of quitting ($\chi^2 = 40.884$, $p < .001$).

Table 1.
Distribution of Participants' Sociodemographic and COVID-19-Related Characteristics

Variables		Mean	SD
Age (years)		42.5	11.6
Number of children		2.3	1.0
Number of years as a driver		17.0	11.5
		N	%
Marital status	Married	211	79.0
	Single	50	18.7
	Divorced/widow	6	2.3
Educational status	Primary school graduate	84	31.5
	Middle school graduate	49	18.4
	High school graduate	91	34.0
	College/university and above	43	16.1
Economic perception situation	Too bad	39	14.6
	Bad	43	16.1
	Moderate	154	57.7
	Good	31	11.6
Chronic disease status	Yes	50	18.7
	No	217	81.3
Status of contracting COVID-19 disease	Yes	38	14.2
	Treatment at home	34	12.7
	Treatment at hospital	4	1.5
	Exposed	28	10.5
	No	201	75.3
Losing a loved one due to COVID-19	Yes	36	13.5
	No	231	86.5
Smoking status	I have never smoked	80	30.0
	I smoked once or several times	20	7.5
	I used to smoke I quit before the pandemic	25	9.4
	I quit during the pandemic	3	1.1
	I still use it regularly	139	52.0
Total		267	100.0

Table 2.
The Change in the Smoking Habits of the Drivers During the Pandemic

Questions		n	%
Change in smoking habits during the pandemic period	No change in my smoking frequency	112	80.6
	My smoking frequency has increased	10	7.2
	My smoking frequency has decreased	17	12.2
Trying to quit smoking before the pandemic	Yes	55	39.6
	No	84	60.4
Consideration of quitting smoking during the pandemic period	Yes	49	35.3
	No	90	64.7

Table 3.
The Relationship Between the Changes in the Smoking Habits of the Drivers During the Pandemic and the Scale Scores

Questions		COVID-19 Fear Scale Median (Minimum – Maximum)	p	FTND Median (Min – Maximum)	p	SCSPS Median (Minimum – Maximum)	p
Change in smoking habits during the pandemic period	No change	14.0 (7.0 – 33.0)	.607*	5.0 (0.0 – 10.0)	.001*	32.0 (10.0 – 50.0)	.055*
	Increased	10.0 (7.0 – 35.0)		7.0 (2.0 – 10.0)		35.0 (10.0 – 46.0)	
	Decreased	14.0 (7.0 – 24.0)		3.0 (0.0 – 5.0)		38.0 (25.0 – 50.0)	
Trying to quit smoking before the pandemic	Yes	14.0 (7.0 – 35.0)	.581**	3.0 (0.0 – 10.0)	.060**	37.3 ± 7.7&	<.001***
	No	14.0 (7.0 – 29.0)		5.0 (0.0 – 10.0)		29.3 ± 9.3&	
Consideration of quitting smoking during the pandemic period	Yes	16.0 (7.0 – 35.0)	.095**	3.9 ± 2.4&	.064***	38.3 ± 7.4&	<.001***
	No	14.0 (7.0 – 28.0)		4.8 ± 2.6&		29.3 ± 9.0&	

Note: FTND = Fagerström Test for Nicotine Dependence; SCSPS = Smoking Cessation Success Prediction Scale.
*Kruskal – Wallis test.
**Mann – Whitney *U*-test.
***Student's *t* test.
&Mean ± SD.

Table 4.
Reasons for the Thought of Quitting Smoking During the Pandemic Period

Answers	n	%
Because smoking is harmful to health	45	91.8
Because COVID-19 disease is more severe in smokers	18	36.7
Due to price hikes in cigarettes	15	30.6
Due to the economic difficulties experienced as a result of the restrictions applied during the pandemic period.	14	28.5
Bothered by the smell	6	12.2
Due to smoking bans in closed areas	5	10.2
Individuals' beliefs	4	8.1
Other	1	2.0

Of those who thought of quitting smoking during the pandemic, 26.5% said that they reduced their smoking frequency, while 8.2% increased their smoking frequency, and 65.3% stated no change in their smoking frequency. While 61.2% of those who thought of quitting smoking wanted support from smoking cessation outpatient clinics, 38.8% did not.

There was no significant correlation between the COVID-19 Fear Scale score and the FTND score ($p = .163$, $r = .119$) and the SCSPS score ($p = .645$, $r = .039$). A correlation was determined between the FTND score and the SCSPS score, but it was very weak and negative ($p = .005$, $r = -.236$).

When the SCSPS scores of the current smokers were compared according to some characteristics (Table 5), the scale scores of those with middle-income economic perception status (34.10 ± 9.29) were higher than the other groups ($p = .021$). There was no significant difference between the change in smoking habits during the pandemic and SCSPS scores ($p = .055$). Those who tried to quit smoking before the pandemic ($p < .001$), those who thought of quitting smoking during the pandemic period ($p < .001$), and those who wanted to get support from smoking cessation outpatient clinics ($p < .001$) had higher SCSPS scores.

In further analysis, it was determined that the SCSPS scores of those who wanted to receive support from smoking cessation outpatient clinics were 3.3 times higher ($p = .007$). In addition, a one-unit increase in the FTND score decreased the SCSPS scores by 17% ($p = .026$) (Table 6).

Discussion

In this study, it can be considered that the COVID-19 fear levels of the participants were low. Since studies specifically involving the driver population could not be found, comparing our results with different groups in the literature suggests that the average score in our study is lower (Bakioğlu et al., 2020; Gencer, 2020; Gritsenko et al., 2021; Kalafatoğlu & Yam, 2021; Koçak et al., 2021). We believe this may be because the study was conducted approximately one year after the pandemic began. During this time, many people or those around them contracted the disease, their fear levels decreased after surviving it, and society became

Table 5.

Comparison of SCSPS Scores of Current Smokers According to Sociodemographic and COVID-19-Related Characteristics

SCSPS Score

Parameters		Mean ± SD	Median (Minimum – Maximum)	p
Age (years)	30 years and below	31.2 ± 8.3	32.5 (10.0 – 46.0)	.359*
	30 – 44	33.4 ± 9.8	35.0 (10.0 – 50.0)	
	45 – 59	31.4 ± 9.9	31.0 (10.0 – 50.0)	
	60 years and over	35.5 ± 8.3	38.0 (23.0 – 44.0)	
Childbearing status	Yes	33.0 ± 9.6	34.0 (10.0 – 50.0)	.207**
	No	30.6 ± 9.0	31.5 (10.0 – 46.0)	
Marital status	Married	33.0 ± 9.3	34.0 (10.0 – 50.0)	.326*
	Single	29.7 ± 9.6	30.0 (10.0 – 46.0)	
	Divorced-widow	34.2 ± 14.2	35.5 (16.0 – 50.0)	
Educational status	Primary school graduate	32.6 ± 9.8	33.0 (10.0 – 49.0)	.726***
	Middle school graduate	33.7 ± 8.9	36.0 (10.0 – 50.0)	
	High school graduate	32.4 ± 9.5	34.0 (10.0 – 50.0)	
	College-university and above	30.5 ± 10.0	29.5 (10.0 – 50.0)	
Economic perception status*****	Very bad (a)	28.1 ± 10.4	30.0 (10.0 – 46.0)	.021***
	Bad (b)	33.5 ± 8.8	36.0 (19.0 – 50.0)	
	Middle (c)	34.1 ± 9.2	36.0 (10.0 – 50.0)	
	Good (d)	28.2 ± 8.1	26.0 (18.0 – 43.0)	
Chronic disease status	Yes	32.2 ± 8.1	31.5 (18.0 – 50.0)	.560**
	No	32.5 ± 9.8	34.0 (10.0 – 50.0)	
Status of contracting COVID-19 disease	Yes	36.0 ± 11.7	41.0 (10.0 – 49.0)	.237*
	Exposed	31.5 ± 7.5	30.0 (18.0 – 46.0)	
	No	32.2 ± 9.5	33.5 (10.0 – 50.0)	
Losing a loved one due to COVID-19	Yes	32.3 ± 7.6	31.0 (20.0 – 46.0)	.784**
	No	32.5 ± 9.8	34.0 (10.0 – 50.0)	
Change in smoking habits during the pandemic period	No change in my smoking frequency	31.81 ± 9.46	32.00 (10.0 – 50.0)	.055*
	My smoking frequency has increased	31.40 ± 12.22	35.00 (10.0 – 46.0)	
	My smoking frequency has decreased	37.70 ± 6.80	38.00 (25.0 – 50.0)	
Trying to quit smoking before the pandemic	Yes	37.36 ± 7.70	38.00 (18.0 – 50.0)	<.001****
	No	29.32 ± 9.31	29.00 (10.0 – 49.0)	
Consideration of quitting smoking during the pandemic period	Yes	38.32 ± 7.44	38.00 (23.0 – 50.0)	<.001****
	No	29.33 ± 9.07	29.00 (10.0 – 48.0)	
Requesting support from smoking cessation outpatient clinics	Yes	38.12 ± 7.42	38.00 (24.0 – 50.0)	<.001****
	No	28.82 ± 8.99	29.50 (10.0 – 46.0)	

Note: **Mann – Whitney *U* test.
***ANOVA test.
****Student's *t* test.
*****Tukey-HSD (ac), *p* = .046.

accustomed to pandemic conditions. Much of this study was carried out after a nationwide lockdown was declared, and the decrease in the number of cases following the lockdown may have led to a lower level of fear in our study group.

The increase in anxiety due to increased death rates during the pandemic period, unemployment and economic concerns, the fear of losing health, the possibility of getting sick loved ones, and the feeling of loneliness brought about by quarantine and social distance practices are defined as "Coronaphobia" in the literature (Ozcelik & Kara, 2020). When smoking is added to this situation as a risk factor for COVID-19 disease (Reddy et al., 2021), the pandemic may have affected smokers to reduce or quit smoking (Gold et al., 2021). On the contrary, the increase in the need to

Table 6.
Logistic Regression Analysis of Factors That May Affect SCSPS Scores

Independent Variables in the Model		OR	95% CI	*p*
Age		0.999	0.961-1.040	0.977
COVID-19 Fear Scale		1.014	0.946-1.088	0.691
FTND		0.830	0.704-0.978	0.026
Economic perception situation	Good (reference)	-	-	-
	Middle	0.983	0.229-4.224	0.981
	Bad	1.238	0.244-6.283	0.797
	Too bad	0.566	0.102-3.139	0.515
COVID-19 status	No (reference)	-	-	-
	Exposed	0.730	0.225-2.370	0.601
	Yes	0.887	0.205-3.841	0.872
Losing a loved one due to COVID-19	No (reference)	-	-	-
	Yes	0.660	0.203-2.144	0.489
Have you ever tried to quit smoking before the pandemic period?	No (reference)	-	-	-
	Yes	2.103	0.821-5.385	0.121
Have you ever thought of quitting smoking during the pandemic period?	No (reference)	-	-	-
	Yes	2.483	0.907-6.794	0.077
Would you like to receive support from smoking cessation outpatient clinics?	No (reference)	-	-	-
	Yes	3.281	1.381-7.794	0.007

relieve tension and anxiety would increase the use of cigarettes (Vanderbruggen et al., 2020). In our study, 12.2% of current smokers decreased their tobacco use during the pandemic, while 7.2% increased it. Our study supports that smoking tends to decrease more during the pandemic period. A substantial portion of our study group (35.3%) wanted to quit smoking during the pandemic and declared they were ready to receive support (39.6%). Of those who wanted to quit smoking, 36.7% thought of quitting "because the COVID-19 disease is more severe in smokers" and 28.5% "due to the economic difficulties experienced as a result of the restrictions applied during the pandemic period." Similar to our study, in a study investigating the effect of COVID-19 on smoking patterns, 68.9% of the participants reported that they smoked less than normal in the last 28 days. This study revealed that as the fear of COVID-19 increased, the motivation to quit smoking increased (Gold et al., 2021). In our study, there was a significant relationship between the thought of quitting smoking during the pandemic period and the change in smoking habits, and 26.5% of those who thought of quitting smoking during the pandemic period reduced their smoking frequencies. Furthermore, the rates of smoking cessation thoughts in smokers who had had COVID-19 (64.3%) were higher than in those who had not had COVID-19 (34.0%) and who were exposed (21.1%) (*p* = 0.03). This information suggests that COVID-19 may reduce smoking and is an effective psychological fear factor in smoking cessation.

In a study performed with university students in Brazil, higher fear scores were determined in tobacco users than in non-smokers (*p* = .039). Although those with increased tobacco use had higher fear scores than those with decreased use, no significant relationship was found (Modena et al., 2021). In our study, no significant difference was observed between smokers and non-smokers regarding fear levels. However, although there was no significant relationship with the change in smoking during the pandemic, the fear levels were higher in those who reduced their smoking. This result supported our idea that those who reduced their smoking had a higher level of fear and could reduce their use of cigarettes with fear psychology. A study from England demonstrated that the quarantine did not cause a significant change in the prevalence of smoking, but there was an increase in quit attempts and quit success among smokers in the last year (Jackson et al., 2021).

Many studies indicate that health-related reasons are a critical motivator for smoking cessation. Health-related conditions such as personal health problems, future health concerns, illness of a family member, and doctor's advice are considered crucial motivations to quit smoking (Esen et al., 2018; McCaul et al., 2006; Sieminska et al., 2008) In a study performed before the pandemic, 76.9% of the cases wanted to quit smoking due to fear of disease, 19.7% for economic reasons, and 17.3% because of their current illness. Worrying about being sick in the future is determined to be the most common reason for quitting smoking. Moreover, health anxiety was significantly higher among those who wanted to quit smoking due to fear of contracting a disease (Esen et al., 2018). Similarly, in our study, the reasons for considering quitting smoking included the harmful effects on health (91.8%) and the more severe course of COVID-19 in smokers (36.7%). This suggests that before the pandemic, health concerns were a key motivation for quitting smoking, and the COVID-19 infection heightened these concerns. Supporting this, a study conducted on patients at a smoking cessation outpatient clinic found a significant relationship between awareness of the higher mortality rate

from COVID-19 among smokers and changes in smoking behavior due to the pandemic (Altuntaş et al., 2022). In our country, the success rate of smoking cessation in the ninth month was 55.0% in patients hospitalized due to COVID-19, based on follow-ups after they were discharged from the hospital (Turan et al., 2020).

According to the 2019 data from the Türkiye Health Survey, while the rate of individuals aged 15 and over who use tobacco every day in our country was 26.5% in 2016, it increased to 28.0% (41.3% for men and 14.9% for women) in 2019 (TSI, 2020). The prevalence of smoking in our study was 52%, higher than the Türkiye average. It has been reported that drivers' smoking frequency and nicotine dependence were higher than the general population and different occupational groups (Güler et al., 2016) The prevalence of smoking in our study is higher than the values given for the male population in Türkiye, which is in line with previous studies. In a study conducted in Aydın, 68.1% of the drivers were determined to smoke, and in a study from Mardin, 74% of the drivers smoked (Bayar & Can, 2020; Durmaz & Ozvurmaz, 2021).

When our study was evaluated regarding nicotine dependence, the FTND score was 4.5 ± 2.6 (median = 4.0). The rate of very little and low dependence was 52.5%, the moderate dependence rate was 15.8%, and the high and very high dependence rate was 31.7% in total. A study performed in Sivas stated that 69.9% of the drivers smoked, and according to FTND, it was reported that 39.9% were highly dependent, 47.9% moderately dependent, and 12.2% mildly dependent (very little and low) (Güler et al., 2016). Considering this study, we determined that our study group showed slightly lower values both in terms of prevalence and level of nicotine dependence. Given that smokers were unwilling to participate in the study and did not engage in the observations, we believe the prevalence of smoking and nicotine dependence levels in our population may be higher. The drivers work in a more stressful environment, influenced by long working hours, heavy traffic, and exposure to external factors such as vibration, noise, and exhaust fumes. Additionally, the repetitive nature of their job, which requires constant attention, and peer influence in smoking may contribute to their high levels of smoking and nicotine dependence (Güler et al., 2016).

In a study performed with patients admitted to the smoking cessation outpatient clinic, the mean SCSPS scores of the participants were 42.8 ± 4.5 (median = 44) (Tanımlı, 2020). These scores were higher than the scores in our study [32.5 ± 9.5 (median = 33)]. Considering that people who are willing to quit smoking and have a higher belief that they can quit smoking apply to smoking cessation outpatient clinics, it is an expected result to have higher SCSPS scores compared to our study group. In the same study, it was observed that those who quit smoking as a result of the treatments had higher SCSPS scores than those who could not quit. The scale score was not affected by gender ($p = .089$), marital status ($p = .135$), and education level ($p = .542$), and those without cardiovascular and respiratory diseases had a significantly higher SCSPS score than those with comorbidities ($p = .03$) (Tanımlı, 2020). Consistent with this study, we could not determine a relationship between SCSPS scores and age, marital status, and educational status in our study. Although the idea that chronic diseases can motivate people to quit smoking is common, in the study conducted by Tanımlı (2020), the SCSPS scores of those without chronic diseases were significantly higher.

However, although the percentage of chronic disease was lower in the group who quit smoking in the follow-ups, no significant difference was observed between the presence of chronic disease and the success of quitting (Tanımlı, 2020). In our study, no significant relationship was found between the SCSPS score and the presence of chronic disease. Similarly, Argüder et al. (2013) found no significant relationship between chronic disease and smoking cessation. In contrast, Önen et al. (2011) reported a lower smoking cessation rate in patients with cardiopulmonary disease.

Patients who are admitted to the smoking cessation outpatient clinic are mostly aware of this dependence and apply to the outpatient clinic for help in this regard (Uzer & Uzun, 2020). On the other hand, we wanted to investigate the wishes and desires of any segment of society regarding smoking cessation. Our study revealed that 39.6% of smokers wanted support from smoking cessation outpatient clinics, and in the logistic regression analysis, SCSPS scores were 3.3 times higher in those who wanted support from smoking cessation outpatient clinics (= .007). These results suggest that some people have not applied to smoking cessation outpatient clinics yet but intend to quit smoking.

Studies have reported that tobacco use in Türkiye is inversely proportional to the income level of men, and the success of smoking cessation is positively correlated with income (Elbek et al., 2021). In our study, on the other hand, we found a significant relationship between the SCSPS score and the state of economic perception, and that the SCSPS scores of those with very bad or very good economic perceptions were lower. People with a very bad economic perception may have received lower SCSPS scores due to the economic crisis and stress experienced during the pandemic. Those with good economic perception were less affected by the pandemic, and even though their nicotine dependence levels were lower, their SCSPS scores also indicated lower values.

A study performed during the pandemic in Türkiye reported that 31.9% of the participants had decreases in smoking behavior, while 25.8% quit smoking completely. The presence of people infected with the virus near the participants and the working status that generates active income have been determined as the variables that increase the individual's success in quitting smoking. There was no significant relationship between SCSPS scores and age and educational status (Cıtak Ş, 2021). These findings were consistent with our findings.

Tanımlı's (2020) study did not determine a substantial correlation between SCSPS score and FTND score ($p = .321$, $r = .056$). Contrary to this study, we observed a significant difference in the correlation between FTND and SCSPS, but the correlation level was very weak and negative ($p = .005$, $r = −.236$) (Tanımlı, 2020). Of course, with the scores obtained from these scales, whether people can quit smoking or a precise cut-off value for this cannot be determined. However, we aim to predict people more likely to quit with these scales.

The present study could not demonstrate a relationship between the fear of the COVID-19 scale and SCSPS and FTND. Moreover, we could not determine a significant relationship between having COVID-19 disease and losing any of their relatives due to COVID-19 and the SCSPS score. We considered that the reason why we could not find a relationship was that with the adaptation

to the process, the pandemic is no longer a fear factor, and the desire to live healthily may have replaced the fear. We found no study investigating the relationship between anxiety, stress, and fear levels and FTND during the COVID-19 pandemic. When similar scales were evaluated, no correlation was observed between the health anxiety scale score and the FTND score in a study conducted before the pandemic ($p = .422$). The mean health anxiety score of those who wanted to quit smoking due to fear of disease was significantly higher ($p = .023$). In the same study, no significant relationship was determined between high nicotine dependence levels and health anxiety, and high health anxiety was observed in those who wanted to quit smoking due to fear of disease (Esen et al., 2018).

Limitations

The results of the research cannot be generalized to the population due to the natural limitation of cross-sectional studies. The time spent during the pandemic, the adaptation of people to the pandemic conditions, and the fact that the study may have been conducted when the number of cases decreased after the full lockdown may have affected the scale scores. Furthermore, the fact that people who smoked more and were possibly more addicted to nicotine and did not want to participate in the study and may also have impacted our results. As a strength of our study, the questionnaires were conducted face-to-face. We believe that the fact that our group consisted of people who had not sought help to quit smoking may also provide valuable for smoking cessation studies.

Although various factors affected the level of fear during the pandemic, it could not be determined that the fear of COVID-19 and related factors effectively predicted smoking cessation success. However, the will and desire to quit smoking increased during the pandemic, and individuals were more ready to quit smoking and receive support from smoking cessation polyclinics. In conclusion, the pandemic period should start a new era in the fight against smoking. Projects and health policies to be developed during and after the pandemic should be performed more carefully, and this situation should be turned into an opportunity. Required smoking cessation support lines, awareness, and the number of outpatient clinics should be increased for those who want to quit smoking, and they should be accessible to the public. Besides, within the scope of smoking cessation studies, training should be given to some risky occupational groups, and people with the intention and desire to quit smoking should be guided.

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