

ORIGINAL ARTICLE

Students' Perspective on the Smoke-Free Campus Application at a University in Izmir

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Main Points

- Tobacco use, including passive smoking, is a significant public health issue, causing millions of deaths each year.
- Smoke-free campus practices is one of the studies carried out to prevent passive smoking among young people.
- The majority of students in the present study was unaware of the smoke-free campus initiative.
- Many students demonstrated support for the implementation of smoke-free campus policies; however, a considerable proportion perceived such policies as discriminatory.

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Abstract

This study aimed to assess the level of knowledge among students regarding the smoke-free campus concept at a university in Izmir and evaluate their perspectives on its implementation. A cross-sectional study was conducted during the 2022 – 2023 academic year, involving 486 students at a university in Izmir. Participants completed an online questionnaire, which gathered data on their sociodemographic characteristics, smoking status, and their attitudes toward the smoke-free campus initiative. Among the participants, 50.6% were female, and the median age was 20 years. Approximately 35% of students were smokers. Notably, 55.1% of participants had never heard of the smoke-free campus concept. Non-smokers were significantly more likely to report being “exposed to passive smoking,” feeling “disturbed by it,” and acknowledging the health risks associated with passive smoking. Students who smoked exhibited lower support for switching to a smoke-free campus,” perceiving it as “discriminatory practice.” Approximately 54.9% of students believed that “student participation in creating a smoke-free campus would impact its success,” and 91.8% agreed that “student opinions should be considered when determining smoke-free campus policies.” The study reveals an inadequate level of knowledge among students regarding the smoke-free campus concept, with a considerable portion being unaware of its existence.

Keywords: Smoke-free policy, tobacco, tobacco smoke pollution, tobacco use disorder, universities

Introduction

One of the most significant public health issues in the world is tobacco use. It causes a total of eight million deaths yearly, about 1.2 million of which are due to passive smoking. All types of tobacco are harmful, and there is no safe level of exposure (WHO - Tobacco, n.d.). Passive smoking, also known as secondhand smoke, refers to the inhalation of smoke from the burning end of a cigarette as well as the smoke exhaled by the smoker (“Tütünsüz Üniversite” İçin Adım Adım Uygulama Rehberi, 2019).The World

Health Organization recommends the establishment of completely smoke-free environments, which include e-cigarettes and smokeless tobacco products, in all workplaces without any form of institutional discrimination. These proposed environments should not include designated smoking sections (How to Make Your Campus Smoke-Free, n.d.). However, in our country, in the concept of a smoke-free air space, it is stated that special areas should be reserved for smoking in open areas, and smoking will be prohibited in places other than these areas (Tütün Kontrolü Uygulama Genelgesi, 2015).

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According to the Turkey Health Research 2022 Report, the rate of individuals aged 15 and over who use tobacco every day has increased from 26.5% in 2016 to 28.3% in 2022. Considering the distribution by gender, this rate was found to be 41.3% for males and 15.5% for females. The rate of individuals who do not use tobacco (quits and non-smokers) decreased from 69.4% to 68.0% from 2016 to 2022 (Türkiye Sağlık Araştırması 2022, n.d.).

According to a study conducted in five countries in Europe, the rate of smoking was found to be 12.3% among university students, and this rate was 15.5% among men and 11.1% among women (Brožek et al., 2019). In two different single-center studies conducted in our country, the rates of tobacco use among university students were found to be 38.4% and 35.6% (Karadağ et al., 2021; Vatansav et al., 2019). According to the Global Adult Tobacco Research 2016 data, it is observed that the decrease in the prevalence of tobacco use in Turkey has stopped and even started to increase since 2012 (Elbek et al., 2021). According to a study using data from the Global Adult Tobacco Survey, the group in which the greatest increase was observed from 2012 to 2016 in Turkey was the young adult group aged 15 – 24 (Summers et al., 2022).

Law No. 4207 on the “Prevention and Control of Harms of Tobacco Products,” which entered into force in 1996 in Turkey, was renewed in 2008. With this update, the concept of “Smoke-Free Airspace” was presented to the public for the first time (Dumansız Hava Sahası Uygulama Rehberi, 2011). According to the “Tobacco Control Practices Circular” issued by the Presidency of the Public Health Institution of Turkey, public institutions and organizations are required to restrict tobacco product consumption to designated areas within their outdoor premises. These designated areas should not exceed 30% of the total open space and must be located at least 10 m away from the entrance. Furthermore, there is a growing objective to promote and implement smoke-free campus initiatives (Tütün Kontrolü Uygulamaları, 2015). The Tobacco Control Strategy Document and Action Plan was renewed for 5 years in 2018 and includes activities to prevent passive exposure. This action plan includes the need to designate smoke-free areas for individuals at risk of passive exposure and implement regulations to restrict the use of tobacco products on university campuses (Tütün Kontrolü Strateji Belgesi ve Eylem Planı 2018 – 2023, n.d.). Smoke-free campus initiatives, aimed at eliminating passive exposure on university campuses, have been legally planned and were first implemented at a foundation university in İzmir (“Tütünsüz Üniversite” İçin Adım Adım Uygulama Rehberi, 2019; Tariheçe, Yaşar Üniversitesi, n.d.). The current active implementation of the smoke-free campus application in universities could not be determined due to unavailable data.

In this study, we aimed to determine the level of knowledge of the students about the smoke-free campus at a university in İzmir and to evaluate their approach to the application of the smoke-free campus.

Material and Methods

Sample Size Calculation

A cross-sectional study was conducted among university students studying at a university in İzmir. The universe of the research was determined as all undergraduate students aged 18 and over ($N = 14,700$). Based on the findings of a relevant study in the literature,

the projected level of support for the smoke-free campus initiative was estimated to be 49.9%. To achieve a statistical power of 95% and a type 1 error level of 5%, a precision level of 5%, and a minimum sample size of 375 individuals was calculated using OpenEpi (Karadağ et al., 2021).

Data Collection

The data collection phase of the research was carried out in the social areas of İzmir Katip Çelebi University's main campus in December 2022. Informed consent was obtained from the undergraduate students first, and then an online questionnaire was applied. The questionnaire form was prepared using Google Forms and consists of three sections and 27 questions. The first part includes the sociodemographic characteristics (age, gender, undergraduate department and education year, accommodation, income status) taken from everyone. In the second part, smoking statuses were questioned: if the participant smoked, when they started and why, their desire to quit, their reasons for wanting to quit, whether they smoked mostly on campus, the type of cigarette used, and the use of other tobacco products. In addition, the knowledge of all participants about secondhand smoke exposure and harm was evaluated. The last part includes the evaluation of the whole group's perspectives on the smoke-free campus implementation. The survey ends with an open-ended question that will provide an opinion on the subject.

In the sociodemographic data, the faculties were clustered into three groups. The faculty of medicine, the faculty of pharmacy, the faculty of health sciences, and the vocational school of health services were defined as the “health sciences cluster.” The faculty of engineering and architecture, the faculty of forestry, and the institute of science are included in the “natural and engineering sciences cluster.” Media and communication, finance, tourism guidance, sociology, Islamic sciences, and philosophy department are included in the “humanities and social sciences cluster.” The data collected in the 5-point Likert scale in the data collection form were converted into 3-point Likert scales during the analysis phase. “1—I strongly disagree,” “2—I do not support” responses were grouped as “I do not support,” “3—I am undecided” remained the same, and “4—I support,” “5—I strongly support” responses were grouped as “I support.” In the grouping of the answers given to the question, “Do you smoke?” those who answered “Regularly” or “I smoke intermittently (social smoker)” were included in the “smoker” group, and those who answered “Never smoked” or “I have not smoked for at least 6 months” were included in the “non-smoker” group. While the time to start smoking was grouped, those who started in “pre-high school” and “high school period” were grouped as “pre-university period,” thus two groups were formed as “pre-university” and “university period.”

Data Analysis

Data were evaluated in the statistical package program IBM Statistical Package for the Social Sciences Statistics Standard Concurrent User, V 25 (IBM SPSS Corp.; Armonk, NY, USA). Descriptive statistics were given as a number of units (n), percent (%), mean \pm standard deviation ($\bar{x} \pm sd$), median (M), and interquartile range (IQR). Categorical variables were shown as n (%). Pearson's chi-square test was used to determine the differences between variables. The statistical significance level was accepted as $p < .05$.

Ethical Committee Approval

İzmir Katip Çelebi University Non-Invasive Clinical Research Ethics Committee approval (decision no: 0529; date: November 24, 2022) was obtained for this cross-sectional study.

The STROBE checklist for cross-sectional studies was used in article writing (Babaoglu et al., 2021).

Results

The questionnaire form of the study was applied on the basis of individual, anonymous, and voluntary participation. A total of 492 people studying at Izmir Katip Celebi University's main campus participated in the study. Since six of the questionnaire forms were not filled properly, the statistics were excluded from the evaluation. The study included a total of 486 participants, with 50.6% of the students being female ($n = 246$) and 49.4% being male ($n = 240$). The age range of the participants was between 18 and 50, with a median age of 20.0 (IQR = 3).

When examining the distribution of students by faculties, it was found that 68.3% of all participants belonged to the Health Sciences cluster ($n = 332$) (Table 1).

Among the participants in the study, 35% ($n = 170$) of the total sample was identified as smokers. The prevalence of smoking among male participants was found to be 43.3% ($n = 104$), whereas among female participants, it was 26.8% ($n = 66$). Statistical analysis demonstrated a significant difference in smoking rates between the two groups ($p < .001$) (Table 2).

When examining the smoking habits of the participants, it was found that 68.9% ($n = 126$) started smoking during their pre-university period, while 31.1% ($n = 57$) began smoking during their university years (Table 3). The most common reasons cited for starting smoking were "stress" and "curiosity," accounting for 47.0% of responses (Figure 1).

Regarding the use of tobacco products other than cigarettes, among the smokers, 35.5% stated they used hookah, 31.7% used cigars, and 19.1% used e-cigarettes. In terms of cigarette type, 86.3% reported using pack cigarettes, while 13.7% used roll-your-own cigarettes. When asked about their desire to quit smoking, 40.4% ($n = 74$) of the students responded with "yes," while 24.1% ($n = 44$) were "undecided." The most common reasons for wanting to quit smoking were "maintaining my health" (45.9%; $n = 84$) and "improving my quality of life" (44.3%; $n = 81$) (Figure 2). Among the smoking students, 44.8% ($n = 82$) reported smoking equally on campus and outside, while 12.6% ($n = 23$) stated that they smoked more on campus than outside (Table 3).

The rate of smokers was found to be statistically significantly lower among participants living at home with their families compared to the other groups ($p = .014$). No significant relationship was found between income status and smoking status ($p > .05$) (Table 2).

Of the participants, 55.1% ($n = 268$) reported that they had never heard of the "smoke-free campus initiative." When comparing the responses of smokers and non-smokers to questions such as,

Table 1.
Characteristics of Participants

Variables	Statistics, n (%)
Gender	
Female	246 (50.6)
Male	240 (49.4)
Resides	
In a dormitory	164 (33.7)
Single at home	80 (16.5)
With friends at home	92 (18.9)
With family at home	150 (30.9)
Faculty of education	
Health sciences cluster	332 (68.3)
Natural and engineering sciences cluster	74 (15.2)
Humanities and social sciences cluster	80 (16.5)
Undergraduate year	
Preparatory class	15 (3.1)
1	158 (32.5)
2	157 (32.3)
3	70 (14.4)
4	53 (10.9)
5	27 (5.6)
6	6 (1.2)
Income status	
Income is less than expenses	172 (35.4)
Income is equal to expenses	252 (51.9)
Income is more than expenses	62 (12.8)
Smoking status	
Smoker	170 (35.0)
Non-smoker	316 (65.0)

"Does your university have a regulation limiting smoking?" "Do you support the university administration in obtaining students' opinions on implementing smoke-free campus practices?" and "Have you heard of the smoke-free campus initiative?" no statistically significant difference was found ($p > .05$).

The majority of those who felt uncomfortable with passive smoking on campus were non-smokers ($p < .001$). Non-smokers also exhibited a higher proportion of respondents who agreed with the statement "I think passive smoking poses a significant health problem for non-smokers" ($p < .001$).

Regarding the question, "What do you think about restricting the use of tobacco products in places where health, education and training, cultural, and sports services are provided?" the smoking group showed a statistically significant and higher rate of answering "I do not support" ($p < .001$) (Table 2).

The non-smoking group of students expressed support for the practice of "not using tobacco in open areas on the university

Table 2.
Comparison of Perspectives of Smokers and Non-smokers on Smoke-Free Campus Implementation

Statements	Smoking Status		Total	Test Statistics
	Smoker, n (%)	Non-smoker, n (%)		
I am exposed to secondhand smoke on campus				$\chi^2 = 81.645$ $p < .001$
Yes	64 (37.6) ^a	249 (78.8) ^b	313 (64.4)	
No	106 (62.4) ^a	67 (21.2) ^b	173 (35.6)	
I am uncomfortable with exposure to secondhand smoke on campus				$\chi^2 = 119.171$ $p < .001$
Yes	42 (24.7) ^a	240 (75.9) ^b	282 (58.0)	
No	128 (75.3) ^a	76 (24.1) ^b	204 (42.0)	
Do you think that passive smoking causes an important health problem in non-smokers?				$\chi^2 = 45.356$ $p < .001$
Yes	103 (60.6) ^a	269 (85.1) ^b	372 (76.5)	
No	42 (24.7) ^a	17 (5.4) ^b	59 (12.2)	
I don't know	25 (14.7) ^a	30 (9.5) ^a	55 (11.3)	
What do you think about restricting the use of tobacco products in places where health, education and training, cultural, and sports services are provided?				$\chi^2 = 154.828$ $p < .001$
I support	32 (18.8) ^a	236 (74.7) ^b	268 (55.2)	
I am undecided	32 (18.8) ^a	39 (12.3) ^a	71 (14.6)	
I do not support	106 (62.4) ^a	41 (13.0) ^b	147 (30.2)	
Have you heard of the smoke-free campus initiative?				$\chi^2 = 2.194$ $p = .139$
Yes	84 (49.4)	134 (42.4)	218 (44.9)	
No	86 (50.6)	182 (57.6)	268 (55.1)	
What do you think about not using tobacco in open areas on the university campus?				$\chi^2 = 40.842$ $p < .001$
I support	46 (27.1) ^a	145 (45.9) ^b	191 (39.3)	
I am undecided	24 (14.1) ^a	79 (25.0) ^b	103 (21.2)	
I do not support	100 (58.8) ^a	92 (29.1) ^b	192 (39.5)	
What do you think about providing information about smoking cessation methods to those who want to quit smoking on campus?				$\chi^2 = 48.515$ $p < .001$
I support	85 (50.0) ^a	254 (80.4) ^b	339 (69.8)	
I am undecided	48 (28.2) ^a	37 (11.7) ^b	85 (17.5)	
I do not support	37 (21.8) ^a	25 (7.9) ^b	62 (12.7)	
Would you support the transition to the smoke-free campus policy within the borders of our university?				$\chi^2 = 172.898$ $p < .001$
I support	31 (18.2) ^a	238 (75.3) ^b	269 (55.3)	
I am undecided	26 (15.3) ^a	41 (13.0) ^a	67 (13.8)	
I do not support	113 (66.5) ^b	37 (11.7) ^b	150 (30.9)	
I think the smoke-free campus is a discriminatory practice				$\chi^2 = 79.073$ $p < .001$
I agree	81 (47.6) ^a	40 (12.6) ^b	121 (24.9)	
I am undecided	39 (22.9) ^a	76 (24.1) ^a	115 (23.7)	
I do not agree	50 (29.5) ^b	200 (63.3) ^b	250 (51.4)	
I think it will be easy for students to adapt to this process if a smoke-free campus application is made				$\chi^2 = 53.981$ $p < .001$
I agree	11 (6.5) ^a	67 (21.2) ^b	78 (16.0)	
I am undecided	24 (14.1) ^a	107 (33.9) ^b	131 (27.0)	
I do not agree	135 (79.4) ^a	142 (44.9) ^b	277 (57.0)	

(Continued)

Table 2.
Comparison of Perspectives of Smokers and Non-smokers on Smoke-Free Campus Implementation (Continued)

Statements	Smoking Status		Total	Test Statistics
	Smoker, n (%)	Non-smoker, n (%)		
Does student participation affect success in creating a smoke-free campus?				$\chi^2 = 29.018$ $p < .001$
Effects	69 (25.8) ^a	198 (62.6) ^b	267 (54.9)	
I am undecided	44 (37.9) ^a	72 (22.8) ^a	116 (23.9)	
Not affected	57 (55.3) ^a	46 (14.6) ^b	103 (21.2)	
Do you support the university administration in obtaining students' opinions on implementing smoke-free campus practices?				$\chi^2 = 1.084$ $p = .298$
Yes	153 (90.0)	293 (92.7)	446 (91.8)	
No	17 (10.0)	23 (7.3)	40 (8.2)	
Does your university have a regulation limiting smoking?				$\chi^2 = 0.742$ $p = .690$
Yes, there is	13 (7.6)	18 (5.6)	31 (6.4)	
No, there is not	80 (47.1)	149 (47.2)	229 (47.1)	
I don't know	77 (45.3)	149 (47.2)	226 (46.5)	

Superscripts a and b show the difference between groups. Groups with the same letters are statistically similar. Values in bold indicate statistical significance.

campus,” whereas the smoking group did not support this practice ($p < .001$). The non-smoker group had a higher proportion of respondents who agreed with the statement, “I support providing information about smoking cessation methods to those who want to quit smoking on campus” ($p < .001$). Conversely, the smoking group had a higher rate of individuals who did not support the implementation of a smoke-free campus within the university premises and perceived it as a discriminatory practice ($p < .001$).

Regarding the statement, “I think it would be easy for students to adapt to this process if a smoke-free campus initiative is implemented,” those who answered “I agree” or “I am undecided” were found to be statistically significant and higher in the non-smoker group ($p < .001$). A total of 54.9% of the students ($n = 267$) stated

that student participation in creating a smoke-free campus would impact its success (Table 2). Furthermore, 91.8% of the participants ($n = 446$) supported the involvement of the university administration in seeking students' opinions when determining smoke-free campus policies.

As an open-ended question, participants were asked, “Is there anything you would like to point out about the subject?” Both supportive and opposing responses were recorded. It was observed

Table 3.
Information on Smoking Behaviors of the Smoker Group

Variables	Statistics, n (%)
Time to start smoking	
Pre-university period	126 (68.9)
University period	57 (31.1)
The desire to quit smoking	
Yes	74 (40.4)
No	65 (35.5)
I am undecided	44 (24.1)
Do you smoke a different number of cigarettes while on campus compared to when you are off campus?	
Greater number of cigarettes on campus	23 (12.6)
Equal number of cigarettes on campus and off campus	82 (44.8)
Fewer number of cigarettes on campus	78 (42.6)

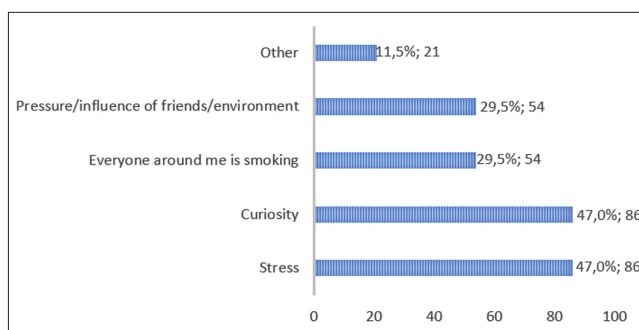


Figure 1. Reasons for starting smoking.

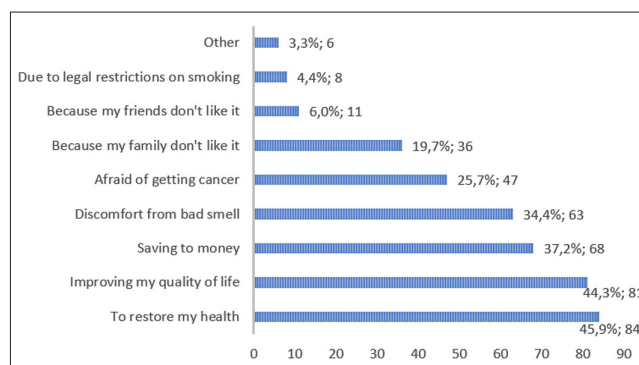


Figure 2. Reasons if there is a desire to quit smoking.

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that some negative comments stemmed from the misconception that the smoke-free campus policy would extend to the entire outdoor area.

Examples for some unsupporting comments:

"You should think about smokers as well as non-smokers, they don't have to leave campus just for your enjoyment...." (23, M)

"You're exaggerating, if I want to smoke while walking on the road, I will smoke while walking on the road, we do not blow smoke into anyone's mouth by force...." (21, F)

Examples for some supporting comments:

"I don't want anyone's freedom to be restricted, but I have asthma, and the fact that they can smoke anywhere and everywhere continues to restrict my freedom...." (23, F)

"When we walk outside for 2 minutes, we are almost finished with 1 package, an arrangement should be made urgently." (20, M)

Discussion

According to the findings of the Global Adult Tobacco Survey in 2016, the prevalence of smoking in Turkey was determined to be 31.6%.

(Global Adult Tobacco Survey 2016, n.d.). In research conducted among university students in Turkey, the prevalence of smoking among students exhibited considerable variation, ranging from 20.6% to 57.7% (Karadağ et al., 2021; Ünüvar & Dişçigil, 2017; Oğuz et al., 2018; Şahiner et al., 2020; Kekliktepe & Göğceğöz, 2020). Consistent with these findings, our study also revealed a similar range for the smoking prevalence among university students (35%). In this current study, male students' smoking prevalence was statistically significantly higher than that of female students. In the 2016 results of the Global Adult Tobacco Survey, the smoking rate of men was also found to be higher than that of women (*Global Adult Tobacco Survey 2016*, n.d.). A study among Uşak University students in 2015 revealed that 80% of smokers commenced smoking during the pre-university period (Çalışkan, 2015). Furthermore, a multinational study encompassing university students from five European countries reported the age of smoking initiation as 16 + 2.5 years (Brožek et al., 2019). Consistently, our study found that 68.9% of the participants reported initiating smoking prior to their university enrollment (Table 3). Based on these findings, it is suggested that tobacco control efforts should be initiated during the pre-university period.

The reasons cited by students for initiating smoking included "stress," "curiosity," "peer influence," and "environmental factors," respectively. Consistent with the findings of this study, Karadağ et al. also reported that the primary reasons for starting smoking were "peer influence," "curiosity," and "stress" (Karadağ et al., 2021). Implementation of smoke-free campus policies is believed to be an effective measure in preventing the influence of peer groups, which is a significant factor contributing to smoking initiation.

The prevalence of e-cigarette smoking among university students in European countries in 2019 was reported to be 2.9%

(Brožek et al., 2019). A study conducted in 2022, encompassing 11 countries including Turkey, revealed a usage rate of 4.5% for e-cigarettes (Alhajj et al., 2022). In our study, the prevalence of e-cigarette use was found to be 19.1%, which surpasses the rates observed in other investigations. This discrepancy might be brought on by the e-cigarette industry's growing incentives, particularly among young people, and the simplicity of obtaining goods from the internet. Furthermore, it should be noted that the university where the study was conducted is situated in a region of the country with a relatively higher socioeconomic status. This context may have influenced the demand and accessibility of e-cigarettes among students, as these products are often marketed as being "less harmful" and having a "cooler" image.

According to several studies held in Turkey, university students who smoke have a desire to stop smoking that ranges from 48% to 77.5% (Şahiner et al., 2020; Çalışkan, 2015; Kekliktepe & Göğceğöz, 2020; Ünüvar & Dişçigil, 2017). In our study, 40.4% of the students expressed their intention to quit smoking. This rate appears comparatively lower when compared to findings from other studies. The implementation of smoke-free campus initiatives is expected to enhance students' knowledge, potentially fostering a higher inclination to quit smoking among those who remain undecided. Among the reasons for smoking cessation, the predominant factors reported by students were "maintaining health" and "improving quality of life" (Figure 2). Similarly, studies conducted at three different universities consistently identified the primary reason for quitting smoking as the awareness of its harmful effects on health (Karadağ et al., 2021; Kekliktepe & Göğceğöz, 2020; Ünüvar & Dişçigil, 2017).

Among the students who smoke, 12.6% ($n = 23$) reported smoking more on campus, while 44.8% ($n = 82$) stated that they smoked equally on and off campus.

An American study found that smoking rates decreased between the year before and the year after the smoke-free campus application, and that this difference was statistically significant (Wray et al., 2021). Based on this finding, it is hypothesized that the smoke-free campus initiative may result in a decline in student smoking rates.

The prevalence of smokers living with their families was observed to be significantly lower compared to other groups. Consistent with these findings, studies conducted at two separate universities also reported a lower smoking rate among students residing with their families in comparison to other groups (Dayi et al., 2015; Karadağ et al., 2021). This trend can be attributed to the influence of parents who discourage their children from smoking and provide them with education about the harmful effects of smoking.

Among the participants, a significant proportion of 55.1% ($n = 268$) indicated that they were unaware of the smoke-free campus application. Despite conducting an extensive literature review in Turkey, no studies specifically addressing this information were found. These findings underscore the crucial need for increased awareness and dissemination of information regarding the smoke-free campus application among students and the

broader society. One potential approach to address this issue could involve creating a comprehensive list of universities that have successfully implemented smoke-free campuses and actively publicizing them. This way, students attending universities without such policies can become acquainted with the concept of a smoke-free campuses and potentially take the lead in advocating for its implementation within their own institutions.

According to the survey we conducted, it is seen that the majority of non-smokers think that they are affected by passive smoking on campus, but it was seen that these rates were higher (90%, 80%) in studies conducted in Spain and Australia (Burns et al., 2013; Sureda et al., 2015). This disparity could potentially be attributed to a lack of information regarding passive smoking in our country. Among the participating students, 76.5% of non-smokers and 60.6% of smokers believed that passive smoking poses a significant health issue for non-smokers. In a study by Vatansev et al. (2019), the majority (84%) stated that smoking in close proximity affects their health (Vatansev et al., 2019). In our study, non-smokers exhibited a higher proportion of perceiving passive smoking as a substantial health concern for non-smokers. Nearly all of the students in a different study on students in health-related departments believed that passive exposure would result in serious health issues. However, the majority of students in the same study (68.7%) believed that the smoking ban should only apply to indoor spaces (Durusoy et al., 2011). As a result, it is clear that people believe passive exposure does not occur outdoors, and it is clear that information should be provided on this topic.

In our study, 39% of participants supported not smoking on the university campus's open spaces, but the majority of them were non-smokers. This prohibition recommendation received more support from non-smokers (52.7%) than smokers in a study that was conducted abroad (Sureda et al., 2015).

The study revealed that a majority of all participating students, accounting for 55%, expressed support for the implementation of smoke-free campus policies. Conversely, 24.9% of the participants perceived such policies as discriminatory. In a study with a similar design done at a state university in Turkey, 49.9% of respondents said they would definitely support a smoke-free campus, 13.9% said it might be possible, and 13.6% said it was unacceptable (Karadağ et al., 2021). In a study conducted by Kekliktepe et al., it was observed that non-smokers exhibited a higher level of support for smoke-free campuses in universities, predominantly (Kekliktepe & Göğcegöz, 2020). Consistent with expectations, smokers in our study also exhibited a lesser degree of support for the implementation of smoke-free campus policies.

Participants who believed that students would have an easier time adapting to a smoke-free campus were found to be more prevalent among non-smokers compared to smokers. Similarly, in another study conducted among university students, non-smokers expressed a perception that the adaptation process would be smoother (Kekliktepe & Göğcegöz, 2020). Additionally, 54.9% of the students ($n = 267$) indicated that the active involvement of students in the establishment of a smoke-free campus would influence its success (Table 2).

In our study, which aimed to assess the knowledge and attitudes of students toward the concept of a smoke-free campus, it was

observed that their knowledge of the subject was inadequate, with a majority of students being unfamiliar with the concept altogether. It was also noted that non-smoking students are more likely to support the implementation of a smoke-free campus. However, it is noteworthy that nearly all students believe it is important to obtain their opinions in the decision-making process regarding a smoke-free campus application.

As a result, in order to reduce cigarette consumption from an early age, it is crucial to raise the level of knowledge among university students about smoke-free campuses, increase the visibility and awareness of smoke-free campus applications across the nation, and encourage more universities to adopt smoke-free campuses.

Limitations and Future Directions

This study has some limitations. The majority of participants in our study primarily consisted of first- and second-year students. While this introduces a limitation in terms of comprehensively evaluating the entire campus, it is plausible that this specific group may be more susceptible to the impact of decisions made by the university due to their extended duration of study. Since participation in the study was voluntary, it is possible that fewer students who smoke participated. However, other studies' findings are consistent with ours. When considering the overall population of undergraduate students at the university, the Health Sciences cluster constitutes approximately 30.4% of the total student population. However, among the participants in our study, this rate was notably higher at 68.3%. It should be acknowledged that the study's focus on health-related matters likely attracted a higher participation rate from students in the Health Sciences cluster. Their greater inclination to respond to the questionnaire can be attributed to their elevated levels of knowledge and sensitivity on the subject compared to students from other faculties.

Based on the responses provided by the students, it is evident that they hold the perception that smoking is prohibited in all areas of a smoke-free campus. However, it should be noted that in smoke-free campus implementations in our country, smoking is allowed in designated areas within the campus premises, particularly in outdoor spaces such as the campus garden. We believe that increasing awareness among students about this specific aspect of smoke-free campus policies could lead to higher levels of student support. Ensuring the active participation of students in smoke-free campus activities, such as establishing a student club within our university, is of vital importance in disseminating accurate information among students regarding the transition to a smoke-free campus. Faculty members can play a pivotal role by integrating relevant information into appropriate courses and identifying students who are interested in this initiative. The club members can strategize events, such as setting up informational stands across the campus, while also coordinating with students and faculty to invite speakers and organize panel discussions. This multifaceted approach aims to enhance student awareness and foster greater participation in preparation for the upcoming transition to a smoke-free campus policy.

Furthermore, we propose enhancing the visibility of smoke-free campus initiatives on universities' social media platforms. By doing so, students will become more aware of the smoke-free campus status during their university selection process.

Babaoglu et al. Students' Perspective on Smoke-Free Campus

Considering that smoking initiation predominantly occurs during the pre-university period, it is crucial to initiate prevention efforts during childhood. In the university setting, it is imperative to implement both preventive measures and supportive interventions aimed at reducing the frequency of smoking and promoting smoking cessation.

Ethics Committee Approval: This study was approved by the ethics committee of Izmir Katip Çelebi University (approval no: 0529, date: November 24, 2022).

Informed Consent: Informed consent was obtained from the participants who agreed to take part in the study.

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Geniřletilmiř Özet

İzmir’de bir üniversitede öğrencilerin dumansız kampüs uygulamasına yaklaşımı

Giriř

Tütün ürünleri kullanımı dünya çapında önemli halk sađlığı problemi olup Dünya Sađlık Örgütü (DSÖ) kurum ayrımı yapılmadan tüm çalıřma alanlarında %100 dumansız ortamlar sađlanmasını önermektedir. “Dumansız kampüs”, Ulusal Tütün Kontrol Programı ve Eylem Planı kapsamında üniversite kampüslerindeki pasif etkilenimin ortadan kaldırılması için yapılan uygulamalar bütünüdür. Bu çalıřmada İzmir’de bir üniversitede öğrencilerin dumansız kampüs hakkında bilgi düzeylerinin saptanması ve dumansız kampüs uygulamasına yaklaşımlarının deđerlendirilmesi amaçlanmıřtır.

Yöntem

Kesitsel nitelikteki bu arařtırmanın evrenini 2022 – 2023 öğrenim dönemindeki lisans öğrencileri oluřturmaktadır. Örneklem büyüklüğü 375 kiři olarak hesaplanmıřtır (OpenEpi). Katılımcılara sosyodemografik özellikleri, sigara kullanım durumunu ve dumansız kampüse bakıř açılarını sorgulayan 3 bölüm ve 27 sorudan oluřan online anket uygulanmıřtır. Veriler IBM SPSS Statistics Standard Concurrent User V 25 (IBM Corp., Armonk, NY, ABD) istatistik paket programında deđerlendirilmiřtir. Kategorik deđerkenler arası farklılıkların belirlenmesinde Pearson Ki-Kare testinden yararlanılmıřtır. İstatistiksel anlamlılık düzeyi $p < .05$ olarak kabul edilmiřtir. Etik kurul onayı alınmıřtır.

Bulgular

Çalıřmaya 486 öğrenci katıldı. Katılımcıların %50,6’sı kadın, ortanca yař 20’ydi. Öğrencilerin %35’i sigara içmekteydi ve %68,9’u sigaraya üniversite öncesi dönemde bařlamıřtı. Erkek katılımcıların %43,3’ü ve kadın katılımcıların %26,8’i sigara içmekteydi ($p < .001$).

Katılımcıların %68,3’ü sađlık bilimleri, %15,7’si dođa ve mühendislik bilimleri, %16,5’i beřeri ve sosyal bilimler grubundaydı.

Sigara içenlerin sigara bařlama nedenlerinde ilk iki sırada “stres” ve “merak” %47,0’řerlik oranla yer almaktaydı. Diđer tütün ürünleri kullanımına bakıldıđında %35,5’i nargile, %31,7’i puro, %19,1’i e-sigara kullandıđını belirtti. Sigara kullananların %86,3’ü paket, %13,7’si sarma sigara kullanmaktaydı. Sigara kullanan katılımcıların %40,4’ü sigarayı bırakmak istediđini %24,1’i ise bu konuda kararsız olduđunu belirtti. Sigara bırakma nedenleri sorgulandıđında %45,9 ile “sađlıđımı korumak” ve %44,3 ile “yařam kalitemi yükseltmek” ilk iki sırada yer aldı. Sigara kullanan öğrencilerin %44,8’i kampüste ve kampüs dıřında eřit miktarda, %12,6’sı kampüste dıřardan daha fazla sigara içtiđini belirtti.

Evde aile ile yařayanlarda sigara içenlerin oranı diđer gruplara göre istatistiksel olarak anlamlı düşük saptandı ($p = 0,014$). Gelir durumu ile sigara içme durumu arasında anlamlı bir iliřki saptanmadı ($p > .05$).

Katılımcıların %55,1’i dumansız kampüs uygulamasını hiç duymamıřtı. Kampüste “pasif içiciliđe maruz kaldıđını”, bundan “rahatsız olduđunu” ve “pasif içiciliđin sađlık sorunlarına yol açabileceđini” ifade edenlerin oranı sigara içmeyen grupta anlamlı olarak yüksekti ($p < .001$). Sigara içen gruptaki öğrenciler “sađlık, eğitim-öđretim, kültür ve spor hizmetlerinin verildiđi yerlerde tütün ürünleri kullanımının kısıtlanmasını”, “dumansız kampüs uygulamasına geçilmesini” daha düşük oranda desteklemekteydi ve bunun “ayrımcı bir uygulama” olduđunu düşünmekteydi ($p < .001$). Öğrencilerin %54,9’u “dumansız kampüs oluřturulmasında öğrencilerin katılımının bařarıyı etkileyeceđini” ve %91,8’i “üniversite yönetiminin dumansız kampüs uygulamalarını belirleme ařamasında öğrencilerin fikrinin alınması” gerektiđini düşünmekteydi.

Açık uçlu olarak sorduđumuz “konuyla ilgili belirtmek istediđiniz bir řey var mı?” sorusuna hem destekleyici hem de karřı çıkan cevaplar yazılmıřtır. Bazı olumsuz yorumların sebebinin dumansız kampüs uygulamasında yasađın tüm açık alanı kapsayacađı düşünceyi olduđu görülmüřtür.

Tartıřma

Yapılan çalıřmada öğrencilerin dumansız kampüs uygulamasıyla ilgili bilgi düzeylerinin yetersiz olduđu, çođunun dumansız kampüs kavramını dahi duymadıđı saptanmıřtır. Üniversitelerin sosyal medya platformlarında dumansız kampüs uygulama durumlarının daha görünür hale getirilmesi ile öğrencilerin konuya iliřkin farkındalıđı artacađı düşünölmektedir.

Amerika’da yapılmıř olan bir çalıřmada dumansız kampüs uygulaması öncesi ve sonrasındaki bir yılda sigara içme oranlarında düşüř izlenmiř ve bu fark istatistiksel olarak anlamlı saptanmıřtır . Bu sonuçtan da yola çıkarak dumansız kampüs uygulaması ile öğrencilerin sigara içme oranında azalma olabileceđi düşünölmektedir.

Literatürdeki çalıřmalarda da sigaraya çođunlukla üniversite öncesi dönemde bařlanmasından ötürü önlemeye yönelik çalıřmaların bu dönemde bařlaması önemli olduđu belirtilmiřtir. Üniversite döneminde ise hem önlemeye yönelik çalıřmalar hem de kullanım sıklıđının azaltılması ve bırakılmasını teřvik etmeye yönelik destekleyici çalıřmaların yapılması gerekmektedir. Üniversite yönetimlerinin dumansız kampüs uygulamasına geçiř sürecinde öğrencileri çalıřmalara dahil ederek öğrenci katılımını sađlamasıyla uygulamanın bařarısını artırabileceđi öngörülmektedir.

Uyguladığımız ankete göre sigara içmeyenlerde kampüste pasif içiciliğe maruz kaldığını düşünenlerin çoğunlukta olduğu görülmekle birlikte İspanya’da ve Avustralya’da yapılan çalışmalardaki oranların bu çalışmadan daha yüksek (%90, %80) olduğu görülmüştür. Araştırmamızda pasif içiciliğin sigara içmeyenlerde önemli sağlık problemlerine neden olduğunu düşünenlerin payı yine sigara içmeyen öğrencilerde daha çok bulunmuştur. Bunun nedeni olarak ülkemizde pasif içicilik hakkındaki bilgi eksikliği düşünülmüştür. Bu nedenle genç yaşlardan itibaren eğitimle pasif etkilenim hakkında farkındalığın artırılması gerekmektedir.

Öğrencilerin verdiği yanıtlardan dumansız kampüs uygulamasında hiçbir alanda sigara içilemeyeceğini düşündükleri anlaşılmaktadır. Ancak ülkemizde olan dumansız kampüs uygulamalarında kampüs bahçesi içerisinde belirlenmiş alanlarda sigara içilebilmektedir. Bu bilginin öğrenciler arasında yaygınlaşması ile öğrenci desteğinin artacağını düşünülmektedir.

Sonuç olarak, üniversite öğrencilerinin dumansız kampüs hakkında bilgi düzeylerinin artırılması, dumansız kampüs uygulamalarının ülke çapında daha görünür, bilinir hale getirilmesi ve sayıca daha çok üniversitenin dumansız kampüs uygulamasına geçmesinin teşvik edilmesi genç yaştan itibaren tütün ürünleri kullanımının azaltılması açısından önemlidir.