

Smoking Trends Among Adolescents in One Region of Korea

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ABSTRACT

This descriptive study examined the smoking status of adolescents in one region of South Korea. Data collection for this study was conducted online in 2021, under the supervision of the local education office. The survey participants were 28,256 students aged between 11 and 18 years. In this study, the smoking experience rate was 4.2%, the current smoking rate was 1.7%, and daily smoking rate was 0.9%. A comparison by school showed a high trend in specialized vocational high schools. In addition, compared with 2020, the overall smoking rate among adolescents showed a decreasing trend. In addition, the smoking experience rate, current smoking rate, and daily smoking rate in 2021 compared with 2016 showed a tendency to decrease overall. It is necessary to continuously implement and expand smoking prevention programs aimed at reducing smoking rates among adolescents and students.

Keywords: adolescent, smoking, trend

INTRODUCTION

Adolescence is a period of severe physical and mental changes during the developmental stages [1]. Health behaviors formed during this period have a significant impact on health throughout life. Smoking among adolescents is recognized as a health hazard, and tobacco contains various harmful substances such as nicotine, which are highly addictive as well as carcinogens [2-3]. Therefore, it also affects cancer, cardiovascular diseases, lung diseases, and mental health. The World Health Organization (WHO) ranks smoking as one of the most dangerous behaviors that threaten health. A person who starts smoking during adolescence may become a heavy smoker as an adult [5].

Since smoking is preventable, reducing the smoking rate is a top priority in a national health policy for global health promotion. In the city where this survey was conducted, school smoking prevention projects have been implemented for a long time, and student-led smoking prevention practices are promoted at school sites [6]. In this study, the smoking status of elementary, middle, and high school students in a region was identified to facilitate effective school smoking prevention projects.

The specific research objectives are as follows:

1. To identify the smoking status (experience rate, current smoking rate, daily smoking rate) of study subjects.
2. To identify the change in smoking rate by year.

METHODS

Study design

This descriptive research study aimed to identify the smoking status of adolescents in one region of Korea.

Participant and data collection

These data were part of a smoking status survey conducted by the A City Education Office. The smoking status survey in A City has been conducted every year since 2004, targeting elementary, middle school, general high school, and specialized vocational high school students. In 2021, an online survey was conducted from June to August.

In the case of elementary school students, the survey was conducted on 4th, 5th, and 6th grade students; and in the case of middle schools, general high schools, and specialized vocational high schools, the survey was conducted on 1st, 2nd, and 3rd grade students. There was a total of 28,256 participants, who were between the ages of 11 and 18 years.

For data collection, the survey was conducted using a personal computer or mobile device. Only students who voluntarily wanted to participate participated in the data collection.

In addition, to understand the change in smoking rate by year, it was compared with the results of the 2016-2020 research report [7].

Study Questions

In this study, the questionnaire data of 'smoking experience', 'current smoking rate', and 'daily smoking rate' among the questions used in the survey were analyzed.

The question about 'smoking experience rate' is 'Have you ever smoked a regular cigarette, even if it's just a sip or two?'. 'Smoking experience rate' refers to the proportion of people who have smoked at least one or two cigarettes in their lifetime.

The question about the 'current smoking rate' is 'In the past 30 days, on how many days have you smoked even one regular cigarette?'. 'Current smoking rate' refers to the proportion of people who smoked on one or more days in the last 30 days.

The question on 'daily smoking rate' is 'In the last 30 days, on how many days did you smoke even one regular cigarette?'. The 'daily smoking rate' refers to the percentage of people who smoked daily in the last 30 days.

RESULT

Smoking status of study participants

Table 1 shows the smoking status of the participants.

The 'smoking experience rate' was 4.2% of the total, 0.0% in elementary school, 1.8% in middle school, 5.8% in general high school, and 13.5% in specialized vocational high school.

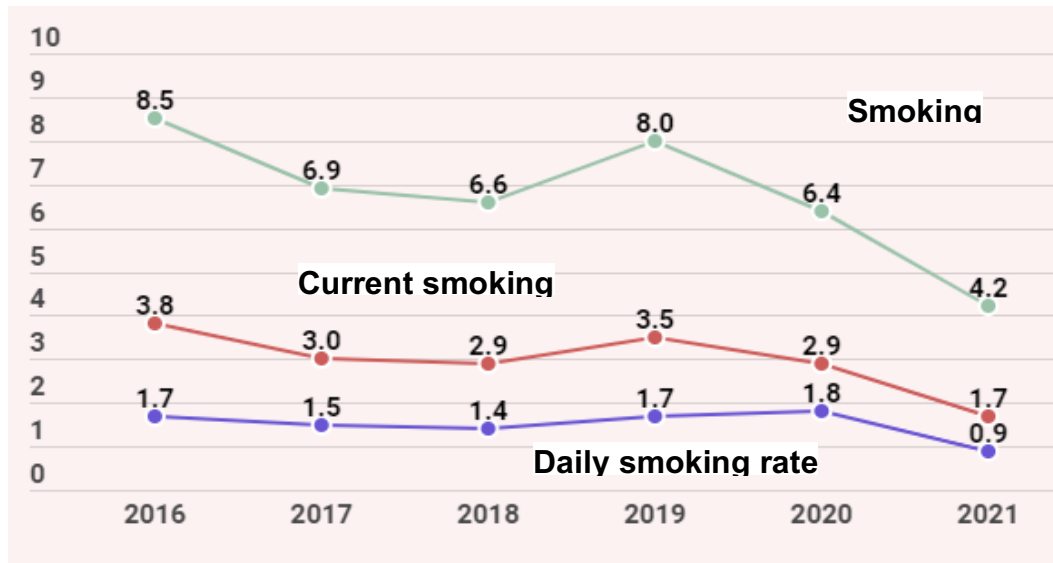
The 'current smoking rate' was 1.7% of the total, 0.0% for elementary school, 0.5% for middle school, 2.1% for general high school, and 6.9% for specialized high school.

The 'daily smoking rate' was 0.9% overall, 0.0% for elementary school, 0.1% for middle school, 1.2% for general high school, and 4.1% for specialized high school. Overall, there was a decrease compared to 2020.

(N=28,256) (%)								
Variable/Year		2021		2020	2019	2018	2017	2016
Smoking experience rate	Boy students	6.3	▼	9.2	11.5	10.1	10.8	13.4
	Girls students	2.2	▼	3.2	3.6	2.3	2.2	2.6
	Total	4.2	▼	6.4	8.0	6.6	6.9	8.5
	Elementary school	0.0	▼	0.0	0.1	0.1	0.1	0.6
	Middle school	1.8	▼	2.6	6.8	2.8	2.8	4.6
	High school	5.8	▼	7.5	16.2	9.2	9.6	10.8
	Specialized vocational high school	13.5	▼	22.1	32.3	22.7	22.9	23.9
Current smoking rate	Boy students	2.6	▼	4.3	5.3	4.5	4.8	6.1
	Girls students	0.8	▼	1.3	1.4	1.0	0.9	1.0
	Total	1.7	▼	2.9	3.5	2.9	3.0	3.8
	Elementary school	0.0	-	0.0	0.0	0.0	0.0	0.0
	Middle school	0.5	▼	0.8	2.5	0.8	0.8	1.3
	High school	2.1	▼	2.9	7.3	3.9	3.7	4.6
	Specialized vocational high school	6.9	▼	13.1	19.3	13.0	13.6	14.5
Daily smoking rate	Boy students	1.4	▼	2.7	2.7	2.3	2.4	2.7
	Girls students	0.4	▼	0.7	0.5	0.5	0.3	0.5
	Total	0.9	▼	1.8	1.7	1.4	1.5	1.7
	Elementary school	0.0	-	0.0	0.0	0.0	0.0	0.0
	Middle school	0.1	▼	0.3	0.5	0.2	0.2	0.3
	High school	1.2	▼	1.8	2.5	2.0	1.8	2.0
	Specialized vocational high school	4.1	▼	8.8	8.8	7.0	7.3	7.8
Compared to the 2020 survey, the increase in 2021 is expressed as ▲ (increase), ▼ (decrease).								

Changes in smoking rates by year

Based on this study, Figure 1 shows the change in youth smoking rate in one area from 2016 to 2021. 'Smoking experience rate', 'current smoking rate', and 'daily smoking rate' showed a decreasing trend from 2016 to 2018, an upward trend in 2019, and then decreased again until 2021.



DISCUSSION

This study investigated the smoking status of adolescent students in a single area. The 'current smoking rate' of the participants in this study was 4.2%, which was similar to or lower than the overall smoking rate of Korean adolescents (4.5 %). In addition, the results of this study showed that the 'smoking experience rate', 'current smoking rate', and 'daily smoking rate' all decreased compared to the previous year regardless of gender and school level. The year 2021 is the result of the investigation under the COVID-19 situation. Therefore, it is necessary to investigate in detail whether these results show change due to non-face-to-face education, social distancing due to the pandemic, or school smoking prevention education.

Also, the smoking rate of specialized vocational high school students was observed to be high in this study. Therefore, it is necessary to select specialized vocational high schools to support and manage intensive smoking prevention programs. It is necessary to continuously implement and expand smoking prevention programs to reduce smoking rates among adolescents and students.

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