

A Study on the Connected Items of Smoking Habit in Youth and Its Countermeasures

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ABSTRACT

In order to find out the connected items of smoking habit and to consider its countermeasures of smoking, a questionnaire survey was carried out in July 1985 to 1451 1st- and 2nd-grade college or university students.

The percentages of students who were currently smoking and who smoked in the past were 75.9% of male students and 35.9% of females. 40.1% of the male students and 42.6% of the female students first smoked when in high school and 31.1% of the male students and 28.9% of the female students when in junior high school. 60.1% of the male students and 63.2% of the female students took on the habit of regular smoking when in high school.

From an analysis according to Hayashi's quantification theory II, it was found that permissive consciousness and attitudes towards smoking, not to keep school rules and prohibition when in high school, lack of recognition of the hazardousness of smoking were items determining the smoking probability in the male students. And that indecision regarding the right to hate smoking, inability to choose a sports activity according to one's feelings were items determining the smoking probability in female students.

From these results, in order to prevent youth from smoking it is most important to take countermeasures through health education such as increasing knowledge and consciousness of the effects of smoking and promoting the mental and social well-being of junior high school and high school students.

Key words: *Quantification theory II, Smoking habit, School life*

People in every country have enjoyed smoking since ancient times. However, at present time, health hazards due to smoking and passive smoking have become a serious social problem. WHO, on several occasions since 1970, has earnestly advised the governments of many countries to reduce the number of smokers.

In Japan, though a non-smoking and rights to hate smoking movements are gaining momentum, smoking in Japan is still permitted because of traditional social custom. Thus, measures to counter smoking are far in the rear compared to American and European countries.

It is said that the smoking habit is formed by twenty years of age⁶⁾ and it is very hard to stop it once acquired. It is thus supposed more effective to deter youth from smoking than to advise adult smokers to stop smoking in consideration of measures to counter smoking.

In Japan, almost all students who graduate from junior high school enter high school and then some go to a university or college. Thus, an examination was made to determine whether school life has effect on smoking behavior in youth or not and measures to counter smoking are discussed.

INVESTIGATION AND METHODS

1. *Subjects:* The investigation was carried out on 1451 fresh-men and sophomores attending university or college and 1446 questionnaires were recovered. Thus, the survey was 99.7% effective. The number of male students was 685 and female students, 761.

2. *Questionnaire items:* The questionnaire consisted of 13 questions about smoking and 17 about daily life.

3. *The period and method investigation:* This investigation was carried out using a secret self-register system from June to July 1985. Generally, a teacher distributed the questionnaires to students, made them answer, and collected them soon after answering during school hours.

4. *Tabulation and analysis:* After a general examination of the replies, a more detailed investigation was conducted so as to evaluate the relationship between the high or low probability of acquiring the smoking habit and consciousness of smoking and daily life.

First, the students who did not have a smoking experience in the past, never smoke at a present, feel that they do not have the chance to smoke

habitually in the future, and have an aversion to smoking were classified as a low probability group in the future and those with an opposite attitude were classified as a high probability group.

Then, this probability was defined as the objective variable and consciousness of smoking and daily life were defined as independent variables. An analysis was carried out using Hayashi's quantification II³⁾. The relationship between the independent and objective variables was examined by the chi square test. Independent variables were selected from items showing significant differences.

A HITAC M-200H computer and Statistical Analysis System⁸⁾ and Program Package for Social Science II program were used to analyze responses to the questionnaire at the Hiroshima University Information Processing Center.

RESULTS AND DISCUSSION

The percentages of ever-smokers were 75.9% of the male students and 35.9% of the female students. The difference is quite remarkable. The values were higher than those for adult smokers in 1986, 66.5% in males and 14.0% in females⁴⁾. Though in Japan smoking at less than 20 years of age is prohibited by law, possibly most people smoking at more than 20 years old smoked before becoming a sophomore at a university or college.

40.1% of the male students and 42.6% of the female students first smoked when in high school and 31.1% of the male students and 28.9% of the female students when in junior high school (Fig. 1). The main motive for starting to smoke was curiosity or mischief, the percentages being 69.8% in male students and 87.8% in female students. These percentages are extremely high compared to other motives in both male and female students (Fig. 2). Ogawa et al⁷⁾ also have reported that the main motives for starting to smoke were curiosity.

High school and junior high school students are very impressionable. They have much curiosity and always want to imitate adults. They also feel much anxiety in regard to their future, such as whether they should go higher in their education, which school is best or what job is most suitable. Having to make such decisions may possibly start them on smoking but it does not necessarily become a habit.

The percentages of current regular smokers smoking everyday or once or more a week were 57.8% in sophomore male students and 10.9% in the same year female students. 60.1% of the male students and 63.2% of the female students took on the habit of regular smoking when in high school, to these percentages are extremely high compared to other periods in both male and female students (Fig. 3).

In particular, for a more detailed understanding of male students among whom are many regular smokers, 31.1% of the regular smokers of the 2nd year developed the habit when freshmen and 56.0%

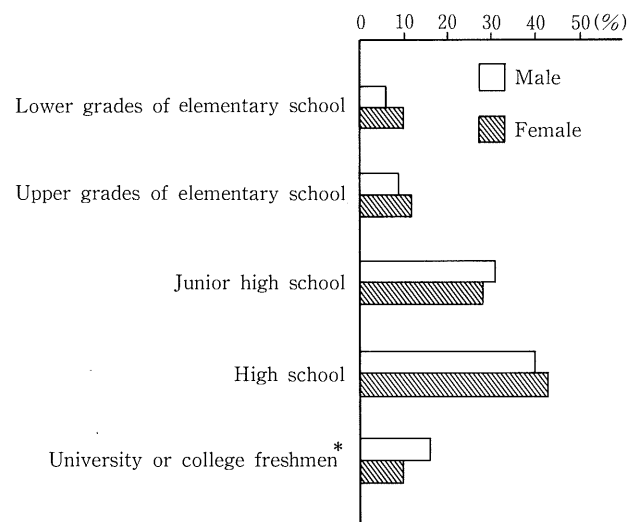


Fig. 1. First instance of smoking

* A calculation was made using only the answers from 2nd grade students

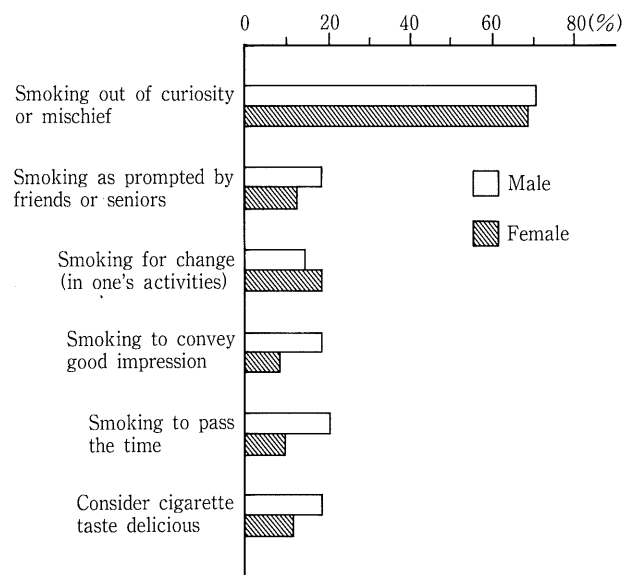


Fig. 2. The motives of first smoking

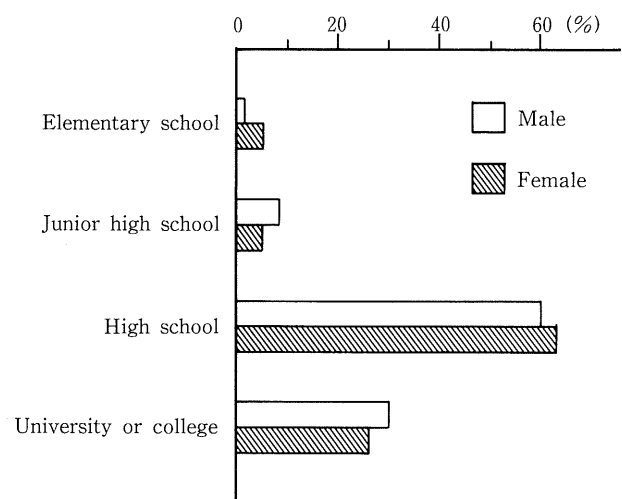


Fig. 3. The time of smoking habit formation

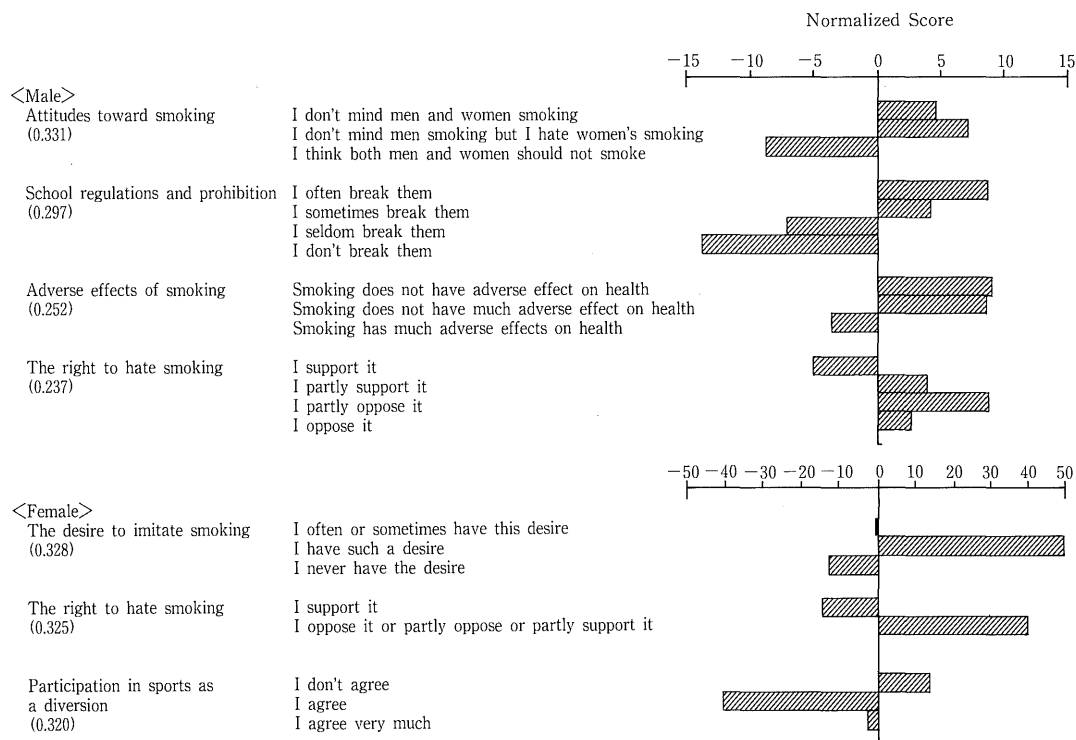


Fig. 4. Items related to large or small probability smoking
 Figures in parenthesis indicate the partial correlation coefficient

were in high school. 24.4% of the regular freshmen smokers developed the habit during their first year. The present survey was carried out from June to July, and thus the number of regular smokers was found to increase quickly within 2 to 3 months after entering the university in April.

Japanese high school students seriously consider their future and most feel anxious about it. Possibly, because of this thinking smoking behavior, probably arising primarily from curiosity, becomes a habit.

In Japan university or college students smoke even though they are not 20 years old. Some, after passing the entrance examination of a university or college, were relieved from the tension and then become to start smoking. It is possibly for these reasons that the number of regular smokers quickly increases after entering a university or college.

The high or low smoking probability was analyzed and the correlation ratio of male students was found to be 0.632 and in female students, 0.691. The discriminatory success rate of male students was 90.5% and for female students, 94.1%. Among the independent variables, items of higher rank in both ranges of normalized scores and partial correlation coefficients are shown in Fig. 4. The average of normalized score is a minus number for low smoking probability and is a plus number for high smoking probability.

Permissive consciousness and attitudes towards smoking, not to keep school rules and prohibition when in high school, lack of recognition of the

hazardousness of smoking, and indecision in regard to the right to hate smoking were items determining the smoking probability in the male students (Fig. 4). Bynner¹⁾ have reported that recognition of the hazardousness of smoking deter youths from smoking and it is suggested that health education is very important.

On the other hands, it was found that the desire to never smoke was a item reducing smoking probability in female students and indecision regarding the right to hate smoking, inability to choose a sports activity according to one's feelings were items determining the smoking probability in female students (Fig. 4).

Permissive attitudes towards smoking and low consciousness towards the right to hate smoking indicate that a person does not recognize the anti-sociality of smoking or that he or she may be self-centered. Eysenck²⁾ has reported that smokers is more anti-sociality than non-smokers and Muramatsu⁵⁾ has reported that smokers have a tendency to be self-centered. Such thinking may cause students to start smoking and take on the habit. Thus, it is inferred that school education should fasten proper attitudes and outlook to prevent this in the future.

The breaking of school rules indicates rebelliousness and suggests a lack of the attitudes to keep the rules set by school and society. It is quite difficult for such students to become adopted to school life. Thus there is much need to carefully determine the reasons for this difficulty. If there is something to adequately challenge the students,

such as study or extracurricular activity, they may possibly enjoy school life, even with anxiety. This may possibly lead to respect for school rules and consequent reduction in smoking.

The relationship between the consciousness of desire to imitate smoking and the probability of acquiring the smoking habit was stronger in female students. In Japan cigarette advertisements on TV and radio are not controlled at all. Therefore, the education such as establish their subjecthood which is not affected by bad customs surrounding them is expected. Furthermore, cigarette advertisement appealing to youth should be strictly controlled and careful attention should be directed to the present smoking situation.

Though recognition of the hazardousness of smoking is connected to high or low smoking probability, it is not particularly important among independent variables.

From these results, in order to prevent youth from smoking it is most important to take countermeasures through health education such as increasing knowledge and consciousness of the effects of smoking and promoting the mental and social well-being of students.

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