Frequency of Contact with Cigarette Advertising and Smoking Experience among Young Women in Japan

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Cigarette advertising plays a crucial role in adolescent smoking. A survey with a self-administered questionnaire was conducted to 198 female nursing students in Kitakyushu City in 1996 to provide primary data on the young women's contact with cigarette advertising in various media in Japan.

The proportions of respondents who had seen cigarette advertising on TV and that on billboards were both over 95% of the effective respondents, the highest among all the media, followed by magazines, newspapers and the radio. The proportion of respondents who “frequently” had contacts was the highest by TV, followed by billboards, newspapers, magazines and radio. Over 50% of students who had past/current smoking experience felt that they were “frequently” exposed to cigarette advertising, and, on the other hand, approximately 50% of those who had never smoked felt that they “occasionally” saw cigarette advertising, on both TV and billboards.

In Japan, young women seem to be heavily exposed to cigarette advertising through various media. This study implies that TV and billboards are the most frequently contacted media of cigarette advertising and perhaps the most influential to smoking among young people.

In Japan, youth smoking, cigarette advertising, media, smoking prevention

Cigarette smoking by adolescents is a big concern in Japan as well as in many other countries in the world. For instance, the proportion of senior students in Japanese high schools who smoked within the past month is reported to be 27% to 37% in males and 5% to 15% in females. This high smoking rate in minors is connected to high smoking prevalence among people in their twenties, that is, about 60% in males and about 20% in females in 1990. Recently, the smoking rate of young women has rapidly increased in Japan, contrasting with the gradual decrease in young men.

Among many factors that affect young people's attitude towards smoking, cigarette advertising plays a crucial role. Young people generally start to smoke because they consider it an adult, sophisticated, and attractive thing to do. Advertising could reinforce this notion and entice children and young adults to experiment with cigarettes and initiate tobacco habits. Cigarette advertisements increase young people's risk of smoking.

The purpose of cigarette advertising has always been to develop new consumers to keep the market profitable although the tobacco industry claims that advertising affects only brand share among competitors and does not increase total consumption. The industry's argument is flawed because many people quit smoking or die from smoking-attributable diseases every year. Cigarette advertising, therefore, has to continue to attract potential new customers, most of whom are children and adolescents.

Though many countries introduced some legislative restrictions regarding advertising of tobacco products, including a total ban of tobacco advertising, there is no legal regulation concerning cigarette advertising in Japan. Only a few self-restrictions are implemented by the tobacco industry, such as the limitation of broadcast hours of TV advertising and the ban of advertising in children's and women's magazines.

Though much effort has been made to prevent young Japanese people from experimenting with smoking, there has been only a few studies on cigarette advertising reported in Japan. This study, therefore, is conducted to provide primary data on young women’s contact with cigarette advertising in various media.

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SUBJECTS AND METHODS

This study was conducted as part of a survey on nursing students' attitude and behavior regarding smoking. A self-administered questionnaire was distributed to female students of three nursing schools in Kitakyushu City, Japan, in 1996. All the students were in the first year of their course, and this survey was carried out about one month after their enrollment in school. Among these three schools, one was a four-year college and the other two were three-year professional schools. One of the professional schools included a course for the assistant-nurse certificate.

The number of the subjects was 198, and that of the respondents was 197. The non-respondent was an absentee on the day of the survey. The effective response rate, thus, was 99.5%. The respondents were mainly 18 to 24 years of age though nine students were over twenty-five years old.

Questionnaire sheets were distributed by the author in each classroom. Each sheet was anonymously filled out and then put into an envelope. The author collected the completed questionnaires a few days later. There was no opportunity for the faculty of the schools to intervene in the survey process.

The following points were covered in this study: 1) Awareness of cigarette advertising in various media, that is, TV, radio, newspapers, magazines and billboards, 2) Perceived frequency of exposure to cigarette advertising in each medium, and 3) The current and past smoking status.

Measuring the exact frequency of exposure to cigarette advertising in the media has a lot of difficulties, especially in the case of objective measurement such as counting students' viewing of cigarette TV advertisements. The author, thus, used a subjective measure in the questionnaire, that is, the perceived frequency of contact with cigarette advertising that was asked by using three categories, "frequently," "occasionally" and "rarely."

RESULTS

Table 1 shows the awareness of cigarette advertising in various media among the respondents. Those who had no contact with the medium itself were excluded from each analysis; 1 student with TV, 41 with radio, 14 with newspapers and 7 with magazines. Smoking experience was divided into two categories, that is, people who had never smoked and those who currently smoked or had quit smoking. Respondents of this survey were relatively young, and former smokers did not have a long quitting period. I, therefore, combined current smokers and former smokers into people who had experienced smoking. In terms of awareness of cigarette advertising in the media, the proportions of respondents who had seen cigarette advertising on TV and that on billboards were over 95%, the highest among the media. Magazines and newspapers followed these two media, and radio received the lowest awareness. Smoking experience showed a significant positive rela-

| Media     | Smoking experience | Yes(%) | No(%) | Total(%) |
|-----------|--------------------|--------|-------|----------|
| TV ads    | Have seen          | 100.0  | 98.4  | 99.0     |
|           | Have not seen      | 0.0    | 1.5   | 1.0      |
|           | (n=160)            | (n=136)| (N=196)|          |
| Radio ads | Have heard         | 60.9   | 41.8  | 47.4     |
|           | Have not heard     | 39.1   | 58.2  | 52.6     |
|           | (n=46)             | (n=110)| (N=156)|          |
| Newspaper ads | Have seen       | 81.8   | 86.7  | 85.2     |
|           | Have not seen      | 18.2   | 13.3  | 14.8     |
|           | (n=55)             | (n=128)| (N=183)|          |
| Magazine ads | Have seen        | 79.7   | 58.8  | 65.3     |
|           | Have not seen      | 20.3   | 41.2  | 34.7     |
|           | (n=59)             | (n=131)| (N=190)|          |
| Billboard ads | Have seen       | 98.3   | 95.6  | 96.4     |
|           | Have not seen      | 1.7    | 4.4   | 3.6      |
|           | (n=60)             | (n=137)| (N=197)|          |

1) Smoking experience includes current and past smoking.
2) Respondents who had no contact with the medium itself were excluded.
3) p<0.05 (Chi-square test)
4) p<0.01 (Chi-square test)
relationship with the awareness of cigarette advertising both on the radio and in magazines.

Table 2 shows perceived frequency of contact with cigarette advertising in various media. Both respondents who had no contact with the medium itself and those who had no awareness of cigarette advertising were excluded from each analysis. The distribution of the categorized frequency varied among the media. The proportion of respondents who “frequently” had contact was the highest with TV, followed by billboards, newspapers, magazines and radio. A totally reverse order was observed in the proportion of respondents who answered “rarely.” Moreover, the distribution of perceived frequency of the contact was significantly different by smoking experience regarding TV and billboards; Over 50% of the students who had past/current smoking experience felt that they were “frequently” exposed to cigarette advertising, and, on the other hand, approximately 50% of those who had never smoked felt that they “occasionally” saw cigarette advertising on these two media.

In the other three media, that is, newspapers, magazines and radio, there was no significant difference observed in the distribution of perceived frequency of contact with cigarette advertising between people who had smoking experience and who did not.

**DISCUSSION**

In terms of the awareness of cigarette advertising, TV and billboards were the two most remarkable media in this survey. In addition, perceived frequency of the contact with cigarette advertising on both TV and billboards was the highest among all the media. In Japan, self-regulation of cigarette advertising on TV is implemented by the tobacco industry; Cigarette advertising on TV is broadcast only from 10:54 P.M. to 5:00 A.M. Due to this self-regulation, cigarette advertising on TV is in fact concentrated in only a few hours around midnight. TV is unlike radio or print in many ways, the most important of which is that it is a medium of moving images. TV advertising uses motion and action to create impact, uses stories to entertain, and touches feelings. The survey results suggest that respondents receive more memorable impacts from cigarette advertising on TV than from that of other media. Concentrated broadcasting of cigarette advertising during a

### Table 2. Perceived frequency of contact with cigarette advertising in various media, female nursing students.

| Media           | Smoking experience | Yes(%) | No(%) | Total(%) |
|-----------------|--------------------|--------|-------|----------|
| TV ads          | Frequently         | 58.3   | 40.3  | 45.9     |
|                 | Occasionally       | 31.7   | 50.7  | 44.8     |
|                 | Rarely             | 10.0   | 9.0   | 9.3      |
| (n=60)          | (n=134)            | (N=194) |
| Radio ads       | Frequently         | 10.0   | 15.2  | 13.5     |
|                 | Occasionally       | 39.3   | 32.6  | 35.1     |
|                 | Rarely             | 50.0   | 52.2  | 51.4     |
| (n=28)          | (n=46)             | (N=74)  |
| Newspaper ads   | Frequently         | 22.2   | 19.8  | 20.5     |
|                 | Occasionally       | 57.8   | 47.7  | 50.6     |
|                 | Rarely             | 20.0   | 32.4  | 28.8     |
| (n=45)          | (n=111)            | (N=156) |
| Magazine ads    | Frequently         | 29.8   | 12.0  | 19.4     |
|                 | Occasionally       | 38.3   | 45.5  | 42.7     |
|                 | Rarely             | 31.9   | 41.6  | 37.9     |
| (n=47)          | (n=77)             | (N=124) |
| Billboard ads   | Frequently         | 52.5   | 31.3  | 37.9     |
|                 | Occasionally       | 32.2   | 48.9  | 43.7     |
|                 | Rarely             | 15.3   | 19.8  | 18.4     |
| (n=59)          | (n=131)            | (N=190) |

1) Smoking experience includes current and past smoking.
2) Respondents who had no contact with the medium itself were excluded.
3) Respondents who had no awareness of the tobacco advertising were excluded.
4) p<0.05 (Chi-square test)
The study population of this survey was female nursing students. A few studies have shown that the smoking prevalence of female nurses was higher than that of the general female population in Japan. Among the nursing students of this survey, the current smoking rate was 17.8%, which was almost the same level with that of females in their twenties previously reported in Japan. The current results of this female nursing students' survey are probably not so different from those of the general young Japanese female population. The number of smokers among the nursing students could increase during either their study years or their professional lives. A longitudinal study of these subjects will be required to investigate the characteristics of nurses' smoking.

There are several limitations in this study, such as convenience sampling and small sample size. In terms of sampling, I used a convenience sampling in selecting schools, that is, a sampling without a specific randomizing measure. Though specific biases are probably not introduced into this sampling, a better-designed sampling should be applied to further research.

In many countries, various legislative restrictions on tobacco advertising are implemented by the government. Studies in some developed countries suggest that properly implemented total advertising bans could reduce tobacco consumption and smoking prevalence. For instance, Norway introduced a strict total tobacco advertising ban in 1975. Smoking prevalence in Norway has declined since the late 1970s among minors as
well as among adults. Further research on the influence of tobacco advertising on smoking behavior and social norms of people, particularly of young people, is required to develop appropriate measures for tobacco advertising control in Japan.

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