

CORRESPONDENCE

Subtle Instruction to Quit Smoking May be Efficacious for Certain Smokers

There is no doubt that well-designed advertisements influence behavior of consumers, though the effects may vary depending on the advertisement targets. This is particular true of tobacco advertisements. Deliberately coined words and images can effectively lead persons, especially youth, to acquiring smoking habits. However, demonstrating the effects of advertisements behavioral changes (eg. starting smoking and quitting smoking) in a framework of research is generally difficult, and epidemiologists tend to adopt a conservative stance against the association between such subtle messages and behavioral changes. Although we understand this stance as epidemiologists, we dare to report here a potential effect of a seemingly trivial message against smoking as observed in a follow-up study of smokers.

The follow-up study was conducted for first-visit outpatients of a cancer hospital, Aichi Cancer Center Hospital located in Nagoya, Japan, where HERPACC (Hospital-based Epidemiologic Research Programs at Aichi Cancer Center) has been run since 1988 (Inoue et al., 1997). All of the first-visit patients who answered that they were smokers in a HERPACC questionnaire were asked to participate in a 1-year follow-up study (Hamajima et al., 1999). The enrollment started in September 1997 and ended in September 1998. From February 1998, a pen embossed with either the message "Thank you for your participation" or "Tobacco is the cause of cancers" was provided for the participants, alternating

weekly. Throughout this period, one trained personnel was in charge of enrollment. The subjects were 1,131 out of 1,304 smokers. Two participants had died and the addresses for five participants were incorrect, resulting in 1,124 smokers (755 males and 369 females); 463 patients given no pen, 325 patients given a pen with "Thank you for your participation", and 336 patients given a pen with "Tobacco is the cause of cancers". Smoking habits and diagnoses were asked to the patients by a mail questionnaire two months after their participation. The response rate improved from 54.2% for the group not provided with pens to 59.5% for the group provided with pens (not significant). This represents a fairly good response rate for this sort of survey. The non-responders were likely non-cancer current smokers. There was no difference in the response rate between the two kinds of pens, as shown in Table 1. Among the self-reported non-cancer patients, the smoking cessation rate was 13.7%, 16.7%, and 17.3%, respectively, while among the self-reported cancer patients, 70.4%, 73.3%, and 81.1%, respectively. The statistical significant for the difference between 70.4% and 81.1% was marginal ($p=0.077$ by one-side Fisher's exact test), and not significant between 73.3% and 81.1%.

These results may be regarded as meaningless, if we ignore the influence of subtle messages on which advertisers continue to spend huge amounts of money. It could be easily

Table 1 - Response and Smoking Cessation According to the Patient Group

| Patient group | n | Respondents | Smoking cessation | |
|---|------|-------------|-------------------|----------------|
| | | | Non-cancer | Cancer |
| Given no pen | 463 | 251 (54.2) | 21/153 (13.7) | 69/98 (70.4) |
| Given a pen embossed with "Thank you..." | 325 | 192 (59.1) | 22/132 (16.7) | 44/60 (73.3) |
| Given a pen embossed with "Tobacco is..." | 336 | 201 (59.8) | 22/127 (17.3) | 60/74 (81.1)* |
| Total | 1124 | 644 (57.3) | 65/412 (15.8) | 173/232 (74.6) |

Note. % in the parentheses. * $p=0.077$ for 60/74 vs 69/98 and $p=0.194$ for 60/74 vs 44/60, by one-side Fisher's exact test.

pointed out that this is a non-randomized, insufficient power, biochemically unconfirmed study, so that the observed higher rate may have been caused by chance and/or by bias, providing no sound evidence. Nevertheless, this exploratory subgroup analysis gave us a suggestion that target-oriented message provision could also work for smokers under a sensitive situation. To our knowledge, there have been few studies which examine the effects of subtle messages or weak interventions on cessation rates among outpatients, one of the targets for cessation programs (The Smoking Cessation Clinical Practice Guideline Panel and Staff., 1996). Of course, further studies are required to confirm the effects of subtle messages on behavioral modifications, including smoking cessation, and to identify the subjects sensitive to such messages. Research on subtle interventions for health promotion should also be promoted, and this may result in more effective and economical tools and skills.

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References

- Hamajima N, Kurobe Y, Tajima K (1999). Smoking cessation rate among outpatients at a cancer hospital. *Tobacco Control*, **8**, 349-50.
- Inoue M, Tajima K, Hirose K, et al (1997). Epidemiological features of first-visit outpatients in Japan: comparison with general population and variation by sex, age, and season. *J Clin Epidemiol*, **50**, 69-77.
- The Smoking Cessation Clinical Practice Guideline Panel and Staff (1996). The Agency for Health Care Policy and Research Smoking Cessation Clinical Practice Guideline. *JAMA*, **275**, 1270-80.

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Personal Profile: Nobuyuki Hamajima

Dr. Hamajima graduated from Nagoya University School of Medicine in 1980. After being awarded a D.M.Sc. at Nagoya University in 1984 and M.P.H. at University of Washington, Seattle in 1986, he became an associate professor of Department of Public Health, Gifu University. In 1992, he moved to Department of Public Health, Sydney University as a visiting researcher, and enjoyed the environment down



under for a while. Next year he obtained a staff position at the Division of Epidemiology, Aichi Cancer Center Research Institute. He has been and continues to be interested in many fields; biostatistics, medical law, and cancer epidemiology and prevention. Now, his mind is occupied with genetic polymorphisms, environmental factors, and risk of cancer.