Role of pictorial warning on cigarette packets in tobacco cessation- A questionnaire survey among cigarette smokers in Chennai.

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SUBJECTS:

ABSTRACT

Background: The Framework Convention on Tobacco Control, advocates that person using tobacco products should be informed about the health consequences and threats posed by it. Warning labels on cigarette packages are meant to communicate such smoking-associated risks.

Aims: To find out the effectiveness of pictorial warnings present on cigarette packets in India for tobacco cessation among cigarette smokers.

Methods and Material: A structured questionnaire consisting of demographic details, health consequences of smoking and the effectiveness of various pictorial warnings on cigarette packets were distributed to 100 current smokers attending an outpatient department of a college in Chennai. Statistical analysis was done using SPSS version 17 and Kruskal Wallis test were used to find the association between socioeconomic status and effectiveness of pictures on helping smokers quit the habit of cigarette smoking.

Results:
Forty two percent of respondents showed definite evidence of dependence of smoking. 48% of the smokers perceive text warning is an efficient method to create awareness about ill effects of smoking. Fifty six percent emphasized the importance of pictorial warning and greater area to be covered for pictorial warnings. However, only 43% of the respondents felt that warning on cigarette packets helped them to quit smoking.

Conclusions:
Though pictorial warning is an effective method to improve the awareness among smokers on the ill effects of smoking, the size, area covered and the position of the picture on cigarette packets needs to be reviewed to improve the quit rate.

Key words: Cigarette packets, Cigarette smokers, Pictorial warnings, Tobacco cessation.

INTRODUCTION:
Tobacco use has been identified by the World Health Organization as the leading cause of preventable death. Of the 1.1 billion people who smoke worldwide, 182 million (16.6%) live in India. In 2004, in an estimated population of 1.065 million, 0.8-0.9 million Indians die annually from diseases associated with tobacco which amounts to approximately around 2500 a day. By 2020, it is predicted that tobacco will account for 13% of all deaths in India [1]. To date, more than 24 different smoking related diseases have been identified, including cardiovascular disease, respiratory disease, and 10 different forms of cancer. The extent to which smokers understand the magnitude of these health risks has a strong influence on their smoking behaviour [2].

Tobacco control legislation in India dates back to 1975, when the Cigarettes (Regulation of Production, Supply, and Distribution) Act, 1975 required the display of statutory health warnings on advertisements, cartons, and cigarette packages. The Act also contained specific restrictions for trading and commercialization practices regarding the production, supply, and distribution of tobacco. The Committee proposed that the statutory health warnings on cigarette packages should use strongly worded language.

The Framework Convention on Tobacco Control, a pioneer institute for tobacco cessation advocates that person using tobacco products should be informed about the health consequences and threats posed by it. Hence it is mandatory that smokers be informed about the consequences of smoking which will also act as a motivating factor to quit smoking. Warning labels on cigarette packages are meant to communicate such smoking-associated risk.
Recent research indicates that graphic health warnings have a stronger impact on smokers than text-only warnings. The International Tobacco Control (ITC) Project showed that Canadian smokers were more likely to cite graphic health warnings as a source of information regarding ill effects of tobacco. Further they were more aware of a range of adverse health effects of smoking compared to that of their counterparts in countries where there are text-only health warnings [3,4].

At present, cigarette packages in virtually every country carry warning labels, yet the size, number, and the way the health information is presented differs notably between countries. Labelling policies range from vague statements of risk (for example, “Smoking can be harmful to your health”), to graphic pictorial depictions of disease. Because of the variation between countries in package warning labels, an opportunity now exists to explore the impact of different warning policies on consumer knowledge.

But it was not until 2003 that India took major strides in tobacco control. The Central Government passed the Cigarettes and Other Tobacco Products Act (COTPA) applicable to all tobacco products in 2003. Section 7 of the Act makes it mandatory to display pictorial warnings on all tobacco products and the legislation prohibits the sale and import of tobacco products without the specified warnings. Only after 3 years of battle, both within and outside the court rooms, was an order from the Supreme Court of India passed, ensuring the enforcement of this provision from 31 May 2009 [4].

Even though black and white pictorial warnings covering 40% of cigarette pack area are made mandatory in cigarette packets from 31 May 2009 in India, continuous rotation of the pictures are not followed. Hence the present study was contemplated in order to find the effectiveness of pictorial warnings present in cigarette packets in India in tobacco cessation among cigarette smokers and also to find their perception regarding the type of warning on cigarette packs which they feel will help them quit smoking.

SUBJECTS AND METHODS:

After obtaining ethical clearance from the institutional review board of Ragas Dental College and prior consent from the participants, a cross sectional descriptive study was conducted from August to September 2011 among 100 male current tobacco smokers who attended the outpatient department of a Dental college and Hospital in Chennai. Persons younger than eighteen (18) years of age and individuals having other tobacco habits like chewing tobacco or other forms of tobacco smoking were excluded.

A self administered closed ended questionnaire consisting of 23 questions was formulated in English and Tamil version, which contained the demographic details, smoking history, knowledge of ill effects of smoking, interest in stopping smoking, effectiveness of pictures in quitting and the nature of new pictures which can be incorporated in cigarette packets.

A pilot study was conducted among 20 subjects using the above questionnaire to know the feasibility of the study. Necessary modifications were done in the questionnaire, which was used for conducting the survey.

The pretested questionnaire was administered to 100 cigarette smokers attending the out patient department during the study period and it took nearly 10-15 minutes for each participant to fill the questionnaire.

Data recorded were transferred and tabulated on to the computer in Windows Microsoft Excel (2007) format - for the purpose of the data analysis. SPSS version 17 was used for statistical analysis. Kruskal Wallis test were used to find the association between socioeconomic status and knowledge of ill effects of smoking and effectiveness of pictures on helping smokers quit the habit of cigarette smoking. Level of significance for the above analysis was set at 0.05.

RESULTS:

Around 120 eligible study participants were approached for the present study among which 100 participated, 20 smokers were not willing to participate in the present study as they did not want to discuss their tobacco related habits.

Majority (42%) of the respondents of this study were between 26-35 years. Fifty two percent of the respondents were labours and majority of smokers had a monthly family income between Rs. 5000 to Rs. 10000.

Ninety one percent of the study participants had smoked cigarette for more than six months, while 71% of the respondent smoked less than 10 cigarettes per day. Fifty eight percent of the study respondents preferred to smoke the first cigarette after 30 minutes after waking up while the rest preferred the first cigarette less than 30 minutes after waking up.

Education and family income played a significant role in increasing the awareness level about the harmful effects of cigarette. All the smokers having PG/ professional degree were aware of the ill effects of tobacco and a similar pattern was observed among smokers having annual income of more than Rs. 10,000. It
was found that advertisement in media was the main source of information regarding ill effects of smoking for 50% of the respondents, followed by doctors / healthcare providers for 21% of the respondents. Eighty one percent of the respondents were aware that smoking in public places affects the health of non smokers around them.

Though 48% of the respondents felt that text warning was effective, 52% had a negative opinion regarding text warning. Age played a significant role in this association where majority of smokers between 26-35 years were of a negative opinion regarding the effectiveness of text warning. There was no significant association between the socioeconomic characteristics and opinion regarding effectiveness of pictorial warning and smoking behaviour.

Sixty seven percent of the respondents in the study population had an opinion that it would be more effective if text warning were presented in regional languages along with English in the cigarette pack. Fifty six percent of the respondents did not avoid seeing the picture present in the cigarette pack.

It was observed that pictorial warning do not play a vital role in helping smokers to quit smoking as the number of respondents with positive and negative opinion were almost equal (43%) . However 14% of the respondent expressed no opinion regarding the same. Forty six percent of the respondents felt that it would be more effective when pictorial warning is present in each cigarette piece.

Table 1 demonstrates the relationship between socioeconomic characteristics and opinion regarding pictorial warning as an effective method to create awareness about ill effects caused by cigarettes. There existed no significant difference in the perception of the smokers regarding the effectiveness of pictorial warnings in helping them quit smoking based on education, occupations and monthly income of the smokers.

With regard the opinion of the smokers on what would be an effective pictorial warning when compared to the presently existing warning, a series of pictorial warnings, as depicted in Figure 1, were shown to them. Twenty nine per cent of the study participants felt that ‘e’ would be an effective pictorial warning, followed by ‘f’ (28.0%), ‘j’ (12.0%), ‘c’ (11.0%) and ‘i’ (10.0%).

DISCUSSION:

A study conducted by Hammond et al in 2006 revealed that health knowledge to be substantially lower among the majority of the world’s smokers, particularly those living in lower and middle income countries where resources for tobacco control are non-existent or lower by orders of magnitude. This is in consistent with our study results which showed that participants with an income of less than Rs.10000 and education lower than PG/professional degree had lower health knowledge about the ill effects caused by smoking.

In the study conducted by Hammond et al in 2006 approximately two-thirds of smokers cited cigarette packages as a source of health information regarding ill effects of smoking. Larger and more comprehensive warnings were more likely to be cited as a source of health information which is in contrast to our study where advertisement in media was the main source of information [2,3].

A research done by Elliott & Shanahan in Australia and study done by Bhat. P,K and Kumar.A in India showed that text only packs were not considered as impactful or as effective in conveying the potential negative health consequences of smoking as the graphic pack alternatives which was comparable to our study [http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-drugs-tobacco-warnings.htm, 7].

In our study 74% of the respondents had already seen the pictorial warning on the cigarette packet used in India. A Study conducted by Raute L.J et al among general population of Mumbai and Thane in India also showed that out of 712 participants, 89.9% were aware about health warning messages on cigarette packet [8].

Sixty six percent of the participants in our study thought that instead of black and white pictures, coloured pictures will be more effective and the picture should cover more pack area to convey the health information, which was similar to other study results [9, http://www.ndp.govt.nz/moh.nsf/pagescm/909/$File/smokinghealthwarningsmay2004.pdf].

As per WHO, effective warning labels should be large, clear, rotating, cover at least 50% of the principle display area and should be clearly visible. In our study most of the participants felt the same [http://www.who.int/tobacco/areas/ framework/en/]. This finding supports previous evidence that, although awareness and acceptance of the health risks of smoking may not be a sufficient condition for quitting, it serves an important source of motivation to help them quit smoking.
CONCLUSION:
The present study showed that pictorial warnings on cigarette packet is an effective method in creating awareness about the ill effects of smoking. However the size, area covered the type of picture, the position of the picture on cigarette packets needs to be reviewed to improve the quit rate. In this regard, the following recommendations can be considered to make pictorial warning in cigarette packs more effective:

1. Pictorial warning should be clear, visible and preferably colored.
2. At least 90% of cigarette pack area should be covered by pictorial warning.
3. The pictorial warning images need to be changed regularly.
4. In addition to text message in English, regional languages in India should also be considered.
5. Pictorial warnings on each cigarette piece can also be considered to improve the quit rate.

REFERENCES


Table 1: Relationship between socio-economic characteristics and opinion about “pictorial warning is an effective method to create awareness about ill effects caused by cigarettes

<table>
<thead>
<tr>
<th>Socio-Economic Characteristics</th>
<th>Opinion</th>
<th>Total</th>
<th>KW test H Value</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t Know</td>
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<tr>
<td>Up to 25</td>
<td>18</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>26-35</td>
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<td>16</td>
<td>8</td>
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<tr>
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<tr>
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<td>14</td>
<td>2</td>
</tr>
<tr>
<td>Degree/ Diploma</td>
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<td>09</td>
<td>8</td>
</tr>
<tr>
<td>Pg/Professional</td>
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<td>04</td>
<td>0</td>
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<tr>
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</tr>
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<td>06</td>
<td>2</td>
</tr>
<tr>
<td>Self employed/ others</td>
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<td>03</td>
<td>3</td>
</tr>
<tr>
<td>Professional</td>
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<td>03</td>
<td>1</td>
</tr>
<tr>
<td>Upto Rs.5000</td>
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<td>07</td>
<td>3</td>
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<td>8</td>
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<tr>
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<tr>
<td>Total Sample</td>
<td>56</td>
<td>32</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: Primary Data. NS – Not significant; **Significant at 5% level.
Figure 1: Effective Pictorial Warning on cigarette packet than the present one