ORIGINAL ARTICLE

Impact of tobacco health warnings on smokers in Pakistan

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Abstract

Objective: To see the impact of health warnings cigarette packets on the smoking habits of smokers.

Methods: The cross-sectional study was conducted in Karachi from July to October 2014, and comprised adult male cigarettes smokers. A self-administered questionnaire was presented to the participants who were selected through non-probability convenience sampling irrespective of their educational background. Data was analyzed using SPSS 17.

Results: Out of the 1500 subjects, 1330(88.7%) noticed warning on cigarette packets; 730(54.8%) considered the picture to have significant impact; 630(47.3%) tried to decrease smoking; and 430(32.4%) actually attempted to quit. Of the 430 who tried to quit, 300(69.7%) considered the picture as having had an impact.

Conclusion: The current health warnings on cigarette packets sold in Pakistan do not carry a significant deterrent impact.

Keywords: Health warnings, Tobacco, Cigarette packet. (JPMA 66: 59; 2016)

Introduction

Tobacco smoking is the most popular form of smoking and is practised by over one billion people in the world. The practice may have begun as early as 5000-3000 BC.[1] The most common method of smoking today is through cigarettes while other implements include pipes, cigars, bidis, hookahs and vaporisers. It has been suggested that smoking-related diseases kill one half of all long-term smokers; a 2007 report stated that about 4.9 million people worldwide each year die as a result of smoking.[2] Male and female smokers lose an average of 13.2 and 14.5 years of life respectively.[3] Most cases of lung cancer death, 90% in men and 80% in women, are caused by cigarette smoking.

According to the World Health Organisation (WHO), consumers have a fundamental right to accurate information about the risks of smoking, therefore warnings on tobacco packaging was considered to be the best possible means of creating awareness of risk factors.[4] In order to decrease the rising rate and risks associated with smoking, some countries made it mandatory to have cigarette packs containing health warnings. Internationally, more than 60 countries have adopted pictorial warning labels as a tobacco control policy.[5] The United States was the first to introduce text warning later followed by other countries, including Canada, most of Europe, Australia, India, Hong Kong, Singapore, Pakistan etc. In Singapore and Thailand, text labels were considered to be inferior in impression compared to the pictorial warning.[6] In December 2000, Canada became the first country to introduce graphic warning on cigarette packaging which was later joined by Brazil.[7] Moreover, from June 2011, 44 countries and jurisdictions in the America, Eastern Mediterranean, Europe, South East Asia and Western Pacific regions passed legislation to require pictures or images on cigarette packs, including Pakistan. Pakistan became the 26th country to introduce pictorial warning on cigarette packets.[8] One of the major concerns about this pictorial warning has been its eventual impact on smoking habit. The purpose of graphic warnings over text is that they provide more information, including the induction of emotional responses to the images, which would ultimately stimulate concerns and prevent people from smoking.

Local literature in relation to the impact of introducing pictorial warnings on cigarette packets with decrease in smoking is limited. The current study was planned to assess the response of smokers to pictorial warning, especially if it deterred them from smoking.

Subjects and Methods

The descriptive cross-sectional study was conducted in Karachi between July and October 2014 after approval from the review board of Ziauudin Medical University Hospital. The sample size was determined assuming percentage impact of graphic warnings on male cigarettes smokers to be 50% (taking 99.99% level of significance and 0.01% confidence limit). The study comprised male cigarettes smokers of more than 20 years of age irrespective of educational background. Male smokers below age 20 and all female smokers were excluded. The

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participants were selected using non-probability convenience sampling from 8 different areas of Karachi. Participants from 4 upper class areas like Clifton, Defence Housing Authority (DHA), Muhammad Ali Society and PECHS Society comprised one half of the study sample, while the other half was recruited from 4 lower class areas like Lyari, Korangi, Kemari and Garden West.

A questionnaire was distributed among the participants after a brief introduction about the purpose of study. For those who could not understand English, the questionnaire was translated into Urdu and the responses were later back-translated into English before data entry to ensure accuracy of translation. The first part of questionnaire consisted of demographic data of the participants like age, qualification, duration of smoking, monthly household earning and regularity of consumption of cigarettes. The second part consisted of multiple variables, including how many individuals out of the total participants noticed the warning on the cigarette packets according to their age and educational background. The other variable was for those individuals who noticed the warning; out of them how many considered it significant according to their educational background. Another variable was for those individuals who noticed the warning, among them how many decreased their smoking habit and tried to quit smoking. Moreover, one more variable was among individuals who found the warning significant and out of them how many decreased their smoking habit and ultimately tried to quit smoking.

The data was analysed using SPSS 17. Frequency and percentages were calculated for all quantitative variables. Stratification of educational status was conducted with the outcome variable. This was done using chi-square test and $p \leq 0.05$ was considered significant.

Results

In keeping with the sample size calculations, 1512 subjects were enrolled, but 12(0.8%) responses were incomplete and were excluded. As such, the final study sample comprised 1500(99.2%). Out of them, 375(25%) were in the 20-30 years age group, 645(43%) in 30-40 years, 270(18%) in 40-50 years, and 210(14%) were more than 50 years of age. Overall mean age was 37±6.3 years. Regarding education, 195(13%) were illiterate, 360(24%) were matriculate, 270(18%) were intermediate, 450(30%) were graduates and 330(22%) had done masters. Monthly household income of 675(45%) participants was between Rs.5000 and Rs.20000. Of the total, 720(48%) participants had duration of smoking between 1-5 years (Table-1).

Further, 1330 (88.7%) participants noticed warning on cigarette packets while 170 (11.3%) did not (Figure). There was not much difference among age groups in this regard ($p>0.05$). Among those who noticed the warning, 730(54.8%) considered the picture of significant impact, while 600 (45.2%) were not impressed. Likewise, 630 (47.3%) admitted decrease in smoking as a response, while 700 (52.7%) did not change their smoking habit even after noticing the warning.

Among those who were satisfied with picture impact, 410 (56%) decreased their smoking, while 220 (36.6%) of those who did not find the warning impactful also decreased their smoking. Out of 1330 who noticed the warning, 430 (32.4%) tried to quit smoking, but 900 (67.6%) did not. Of those who were impressed with impact of picture, 300(41%) tried to quit the smoking habit. Also, 130(21.6%) tried to quit their smoking even though they did not find the warning impactful (Table-2).

With regard to educational status, there was no statistical

Table-1: Demographic characteristics.

Demography (%)	Frequency (N)	Percentage
Age (years)		
20-30	375	25
31-40	645	43
41-50	270	18
51-80	210	14
Education		
Ill-literate	195	13
Matriculate	360	24
Inter	270	18
Graduates	450	30
Masters	330	22
Monthly household income		
Less than 5000	300	20
5000-20000	675	45
20001-50000	225	15
50001-100000	150	10
Greater than 100000	150	10
Duration of smoking(years)		
< 1	210	14
1-5	720	48
5-10	165	11
>10	405	27

Table-2: Attempt to quit smoking.

Description	Yes	Out of	%
Those who were impressed with the picture.	300	730	41%
Those who were not impressed with the picture.	130	600	21.6%
Overall	430	1330	32.4%

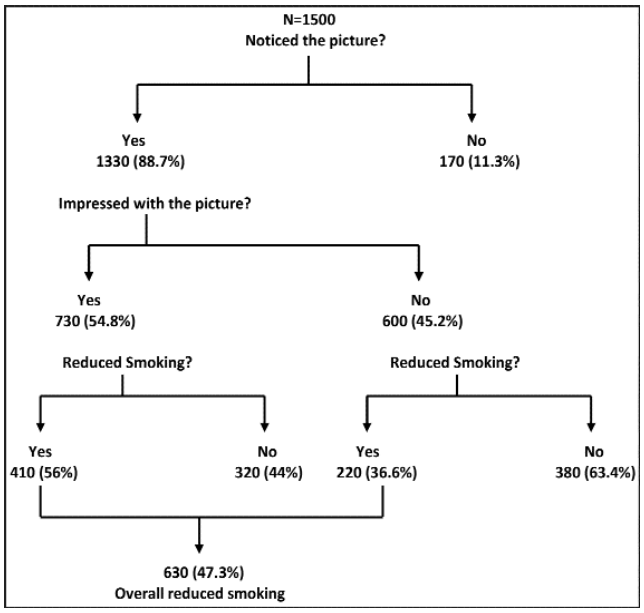

Figure: Attitudes of smokers towards graphical warnings.

difference across the four education-based groups (p=0.685).

Discussion

This descriptive study provides up-to-date information on attitude of smokers in Pakistan towards new graphic health warning issued by the Federal Ministry of Health more than a year ago. The study further analyses whether our smokers noticed the warning on cigarette packet and how it has impacted their smoking habit.

The International Tobacco Control Policy Evaluation research project includes a four-country comparative study,[9] which found that text-only labels (as seen in the US) were associated with lower levels of awareness about the health risks of smoking than prominent, pictorial warning labels (as seen in Canada and Australia). Furthermore, the study indicated that pictorial warning labels were more effective than text-only labels in urging people to think about quitting and deterring them from having a cigarette. The result is consistent with our study as large number of participants were impressed by graphical warning and had stopped smoking.

Moreover, in countries where health labels on tobacco products are mandatory, the warning is noticed mostly by adult smokers.[10] According to WHO, in the Global Adult Tobacco Survey (GATS) conducted in 14 Framework Convention Alliance for Tobacco Control (FCTC) countries in the year 2008-10,[11] more than 90% of men reported having noticed health warning on a cigarette packet except India (78.4%) and Mexico (83.5%), which is nearly same as in our study (88%). Furthermore, in GATS, smokers of age greater than 65 years were less likely to notice the warnings. This is in contrast with our study in which 81% of those over 50 years of age noticed the warning whereas the younger age groups were more likely to notice the warnings on packet. The fact that not everyone notices the health warning could be attributed to insufficient space reserved for the graphical warning on the packet and the habit of buying one or two cigarettes rather than an entire packet, which is the common practice in Pakistan.

Strikingly, those who noticed the picture, only 47.3% reported reduction in smoking. It is interesting to note that even in smokers who considered the picture of significant impact only 56% actually reduced their habit of smoking and only 41% made attempt to quit. This signifies the addictive potential of tobacco and lack of awareness and motivation available for those who want to quit.

In GATS survey[11] more than 25% of all men and women in 14 FCTC countries except Poland considered quitting smoking in response to pictorial warning. This proportion was more than 50% in 6 GATS countries (Bangladesh, Brazil, India, Thailand, Ukraine, and Vietnam).[12] In our study, only 32.4% participants made an attempt to quit smoking. The results call for introduction of awareness programmes in smokers of Pakistan regarding harmful effects and risk factors associated with cigarette smoking.

In our study, 11% population confessed that they did not notice the picture which is very similar with another local study[13] where teenagers were not bothered about labels on cigarette packet and do not bring these labels into consideration while handling any packet. Moreover, findings of another research in Qatar highlighted that a significant portion of sample population had no knowledge of these warnings present on the cigarette packs.[14] The results are inconsistent with the study in Australia where a large number noticed these warning and made attempts to quit their habit.[15] Moreover, another work in New Zealand revealed that the immediate social and physiological benefits prevents teenagers from quitting their habit. Therefore, printed labels had little impact on them.[16]

In 2006, Thailand introduced second set of prominent pictorial labels. As a result, 53% said that the pictorial warning labels made them think "a lot" about the health risks and 44% of smokers said that warnings made them "a lot" more likely to quit over the next month.[17] Similarly, Brazil also introduced the third set of warning to enhance

the effectiveness of warnings. In September 2011, the Tobacco Products Labelling Regulations (Cigarettes and Little Cigars)[18] came into force in Canada to strengthen graphic health warnings by covering 75% of the front and back of the packets. A similar study conducted on teenagers of Pakistan revealed that area covered by prohibition labels should be increased and they should be made easier to understand. This study also revealed that continuation of smoking and ignoring warning labels is the attitude that is inherited among children from their fathers. As fathers act as role model for sons, this factor has become highly evident in our society. Besides, the majority of the participants considered warning label as the formality on cigarette packs.[19] Therefore, we suggest that strong measures should be taken urgently in Pakistan to increase effectiveness of warning labels among smokers. This can be achieved by increasing the area covered by warning labels on a cigarette packet.

There are few limitations to our study. Firstly, the study was single-city in nature as it was only conducted in Karachi. Secondly, female smokers were not included. The results, therefore, cannot be generalised to the entire population.

Conclusion

Current health warnings on cigarette packets sold in Pakistan are not a significant deterrent. We propose a second set of graphical warning on cigarette packets in Pakistan which should be prominent and highlight the ill effects of cancer on health in a more impactful way and should cover over 50% of the front of a cigarette packet as it was introduced in Canada, Brazil and Australia.

References

1. Iain G. Tobacco: A Cultural History of How an Exotic Plant Seduced Civilization. New York: Grove Press; 2003
2. West R, Shiffman S. Fast Facts: Smoking Cessation. United Kingdom: Health Press Ltd; 2007.
3. Center for Disease Control and Prevention. Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Economic Costs- United States, 1995-1999. MMWR 2002; 51; 300-3
4. World Health Organisation. WHO report on the global tobacco epidemic, 2011: warning about the dangers of tobacco. Geneva: World Health Organisation, 2011
5. Sanders-Jackson AN, Song AV, Hiilamo H, Glantz SA. Effect of the framework convention on tobacco control and voluntary industry health warning labels on passage of mandated cigarette warning labels from 1965 to 2012: transition probability and event history analyses. Am J Public Health 2013; 103: 2041-7.
6. Fong GT. A Review of the Research on Tobacco Warning Labels, with Particular Emphasis on the New Canadian Warning Labels. Department of psychology, University of Waterloo; Waterloo, Ontario, Canada: 2001. Unpublished report
7. Harris G. F.D.A. Unveils Proposed Graphic Warning Labels for Cigarette Packs. The New York Times 2010 Nov 10.
8. Riordan M. Tobacco warning labels: Evidence of effectiveness. [Online] [Cited 2011 Jun 14]. Available from: URL: www.tobaccofreekids.org/re search/factsheets/pdf/0325.pdf.
9. Hammond D, Fong GT, Borland R, Cummings KM, McNeil A, Driezen P. Text and graphic warnings on cigarette packages: Findings from the international tobacco control four country study. Am J Prev Med 2007; 32: 202-9.
10. Graphic warnings on cigarette packets DO help smokers to kick the habit. Daily Mail 2011 May 27: Health. [Online] [Cited 2011 Nov 21]. Available from: URL: http://www.dailymail.co.uk/health/article-1391447/Graphic-warnings-cigarette-packets-DO-help-smokers-kick-habit.html#ixzz1k9v2X3Yn.
11. Cigarette package health warnings and interest in quitting smoking-14 Countries, 2008-2010. MMWR Morb Mortal Wkly Rep 2011; 60: 645-51.
12. "Governo lança novas imagens para embalagens de cigarro". [Online] [Cited 2009 Nov 14]. Available from: URL: www.globo.com.
13. Maula F, Adil M, Zamman S. The trends of tobacco use among medical and non-medical students in district bannu. Gomal J Med Sci 2004; 9: 236-8.
14. Awaisu A, Hagi A, Ashour MA, Kheir N. Pictorial Health Warnings on Cigarette Packages in Qatar: Preimplementation Awareness and Perceptions of Ever-Smokers versus Never-Smokers. Nicotine Tob Res 2013; 15: 1765-72.
15. Malouff JM, Emmerton AJ, Schutte NS. Changes in smoking level after viewing graphic cigarette warnings. Am J Addict 2013; 22: 388-90.
16. Hoek J, Hoek-Sims A, Gendall P. A qualitative exploration of young adult smokers' responses to novel tobacco warnings. BMC Public Health 2013; 13: 609.
17. International Tobacco Control Policy Evaluation Project (ITC). ITC Thailand survey summary, Waterloo. [Online] [Cited 2009 Dec 17]. Available from: URL: http://itcconference.com/ITCWorkshopResources/ITCprojectCountryBrochures/ITCThailand4PagerV115single.pdf
18. Tobacco Legislations. Tobacco product labeling in Canada 2011. [Online] [Cited 2011 Nov 21]. Available from: URL: http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/legislation/label-etiquette/index-eng.php.
19. Ahsan Zil-E-Ali, Ahsen NF, Iqbal H. Cancer illustrations and warning labels on cigarette packs: perceptions of teenagers from high socioeconomic status in Lahore. J Pak Med Assoc 2015; 65: 688-91.