Tobacco control laws in Pakistan and their implementation: A pilot study in Karachi
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Abstract
Objectives: In order to limit the high prevalence of tobacco use in Pakistan various tobacco control laws have been implemented. The objective of this study is to serve as a pilot study to assess the implementation of these laws in the largest city of Pakistan, Karachi.
Methods: A cross-sectional study was conducted in Karachi. The implementation of tobacco control laws in 'smoke-free' places, the adherence of tobacco companies to these laws, the regulation of cigarette sale, and the awareness and views of the general public regarding tobacco control laws were assessed via direct observation by visits and through self-administered questionnaires.
Results: The implementation of tobacco control laws in 'smoke-free' public places was found to be poor. Out of 37, only 23(62%) brands displayed pictorial warnings on their packs. 3(8%) of the brands were available in two different kinds of packs, both with and without pictorial warnings. Cigarette sale to minors was taking place at 80(85%) of the visited cigarette outlets. 50(53%) of the outlets displayed cigarette advertisements in the form of posters. 46(40%) of the persons questioned had awareness regarding the existence of ban on smoking in public places and 126(90%) of these were in favour of it.
Conclusion: The implementation of tobacco control law in Pakistan is poor. Non adherence to the law in public places was alarmingly high. Also, the study demonstrates the poor compliance to the tobacco control laws by tobacco companies. The sale of cigarettes is almost unregulated.

Keywords: Tobacco, Pakistan, Laws, Legislation. (JPMA 66: 875; 2016)

Introduction
According to the WHO report on tobacco epidemic 2013, tobacco is responsible for 6 million deaths and economic damages in excess of half a trillion dollars every year.1 A study in 2012 found out that globally 48.6% of men and 11% of women use tobacco.2 Around 1% of mortality worldwide is attributable to second hand smoking; 61% of morbidity from second hand smoking occurs in children.3 New literature is raising questions about the impact of third hand exposure to smoke (smoke remaining on indoor surfaces and dust particles after smoking).4 Quantitative figures for the damage caused by this exposure remain to be determined.

Tobacco can be taken in various ways with the most common in Pakistan being smoking.5 The 2013 WHO booklet on global tobacco epidemic reports that the daily prevalence of smoking among adults in Pakistan was 19% in 2011.1 A study in 2005 reported the prevalence of smoking among individuals aged greater than 15 years to be 15.2% overall, 28% among men and 3.4% among women; the highest prevalence in men was between the ages of 40-49 (40.9%).6

Various studies have documented the quantitative association between smoking and health problems such as coronary artery disease, lung cancer, bladder cancer, emphysema, peripheral vascular disease and neonatal mortality.7

While high income countries show a downward trend in smoking prevalence,8 figures for the use of tobacco in the developing world continue to rise.7 This growing trend in the developing world may be partly explained by the fact that tobacco industry has tried to tap the market in third world countries due to the stringent regulation, tobacco control and high taxation in the West.9 Also, this rise can be attributed to the vigorous marketing techniques employed by the tobacco industry in the developing world.10

The state of affairs in Pakistan regarding tobacco control law are not satisfactory. According to the WHO booklet 2013, in Pakistan, there is a ban on tobacco distribution and promotional discounts as well as the appearance of tobacco brands on TV and in films, but there is no ban on the funding of tobacco vending machines by tobacco
companies. To control the alarming figures regarding tobacco use in Pakistan, various tobacco control laws have been implemented. The first legislation which was introduced as the Cigarettes ordinance in 1979 made the printing of health warning on cigarette packets mandatory. In 2002, the Prohibition of Smoking in Enclosed Places and Protection of Non-smokers Health ordinance was promulgated. This ordinance prohibited the use of tobacco in public places and public services vehicle, the advertisement of tobacco products and sales to minors. Also, on November 3, 2004, Pakistan became a party to the WHO Framework Convention on Tobacco Control which aims to implement and devise strategies to reduce both the demand and supply of tobacco products by measures such as higher taxation and strict regulation of tobacco products, etc. However, the implementation of these laws is far from satisfactory, and as yet no concrete evidence regarding their poor implementation is available.

Objectives
The objectives of this study are as follows:

1. To observe via a pilot study the implementation of tobacco control statutes in the largest city of Pakistan.
2. To provide the Ministry of Health with concrete evidence regarding the current status of the implementation of tobacco control statutes in Karachi.
3. To highlight the need for creating awareness among the general public regarding the presence and implementation status of tobacco control laws.

Materials and Methods
A cross-sectional observational study was conducted in Karachi between February 2014 and July 2014. The objective of this study was to serve as a pilot study to assess the implementation of tobacco control laws in Karachi. There were four major aspects of the study.

To monitor the implementation of tobacco control laws in 'smoke-free' places various banks, offices, educational campuses, restaurants and public transport vehicles were chosen by convenience sampling. They were then surveyed by a team of three doctors. The implementation of tobacco laws at each location was surveyed and documented in a structured observation sheet that also included a checklist. The time spent at each site, except vehicles, varied from 20 minutes to 40 minutes, depending upon the area to be covered. Time spent in each public transport vehicle was 5 min. Each site was visited during the busiest hours; banks, offices, educational campuses were visited between 10 a.m. to 12 p.m while vehicles and restaurants were paid a visit during the morning rush hours (7 a.m to 9 a.m) and busiest dining hours (8 p.m to 10 p.m).

To survey and document the adherence of tobacco companies to tobacco control laws, cigarette packs of all 37 brands available in Karachi were assessed. The availability of various brands in packs both with and without warning signs was documented. Also, the packs were checked for the presence of pictorial signs and health warnings.

For the assessment of the regulation of cigarette sale in Karachi, convenience sampling was done to choose the outlets. At each outlet, 3 variables were observed; these included the presence of children's items, sale to minors and cigarette advertisement in the form of posters. The time for observation at each outlet was 10 minutes.

To assess the awareness of the general public regarding tobacco control laws, participants were chosen at random from the general public and their awareness and views regarding ban on smoking in public places were documented via self-administered questionnaire.

Results
Of the 91 restaurants surveyed, 64(70%) did not display 'no smoking' signs. People were observed smoking in 53(58%) of the surveyed restaurants. Only 30(33%) of the restaurants that our researchers visited were found to have designated smoking areas. Our team also visited 99 banks and offices. Only 33(33%) of these had 'no smoking' signs and smoking was witnessed in 29(29%) of them. There was a disparity in government banks and offices where smoking was observed 35(71%) as compared to privately owned banks and offices 12(24%). Of the 98 public transport vehicles (buses and mini-buses) surveyed, smoking was observed in 48(49%). Out of the 16 universities campuses (common rooms, sports and recreation areas and canteens or dining areas) surveyed, smoking was witnessed in 12(75%) of university campuses. Also, cigarettes were being sold within five hundred metres of the main entrances to 15(94%) of them.

Tobacco products of 37 locally manufactured brands were surveyed for adherence to the law necessitating the use of pictorial warning signs. Only 23(62%) brands displayed pictorial warnings on their packs. 3(8%) brands were available in two different kinds of packs, both with and without pictorial warnings.

Ninety four cigarette outlets were surveyed for monitoring the regulation of cigarette sale. Cigarette sale to minors was taking place at 80(85%) of these, and the
same percentage of outlets was also selling children’s items, like eatables, toys and sports goods. Cigarette advertisements in the form of posters were on display at 50(53%) of the outlets.

One hundred and fourteen individuals from the general public filled our study questionnaire. Only 46(40%) had awareness regarding the existence of ban on smoking in public places and 126(90%) expressed their support for such a ban.

Discussion
Our study is the first of its kind in Pakistan and its results shed light on the state of implementation of tobacco control laws in Pakistan. The first aspect of our study, which was compliance monitoring in public areas, comprised of assessment of various parameters, such as display of “no smoking” signs, evidence of active tobacco usage and ease of accessibility of cigarettes. The results demonstrate a poor implementation of tobacco control laws in Pakistan. In a similar study done in a tertiary care hospital in a ‘smoke-free’ city in India, Chandigarh, levels of implementation found were 37% in hospital buildings, 26.7% in office buildings, 14.3% in public places outside hospital building and 11.3% in residential areas. In contrast in our study, compliance was highest in banks and offices(only 29% had evidence of active smoking), followed by public transport, restaurants, and university campuses with evidence of active smoking in 49%, 58% and 71% of them, respectively.

As opposed to the figures from India given above, the implementation was found to be dramatically better in a number of other Indian states, like Sikkim, Tamil Nadu and Himachal Pradesh, where compliance rates have been detected to be around 82-100%. In another survey done in Mohali, Punjab, compliance was found to be as high as 92%. The wide variation among studies from India could be due to a number of factors, such as social and cultural variations, and dissimilarities in the tobacco control law enforcement between different states. Because many of these factors (potentially responsible for the wide variation) are also present in Pakistan, the adherence to tobacco control laws may also vary dramatically across Pakistan, as in India.

A high prevalence of smoking in public places in countries like India and Pakistan is dangerous partly because it increases social acceptability of the practice, making people undermine the detrimental effects of tobacco on health. Compared to India and Pakistan, studies from other countries(Australia, United States, Ireland and New Zealand) showed a much greater compliance with tobacco control laws in public places, like restaurants and bars. This reflects the strict enforcement of tobacco control laws in the aforementioned countries and may also be partly responsible for the lower prevalence rates of smoking in these countries.

Policies such as imposing a ban on smoking have a significant impact in reducing the prevalence of smokers in the population. Gualano, et al found that in Italy the ban on smoking led to a constant and statistically significant decrease in the percentage of Italian smokers. If proper implementation of tobacco control laws is effected in Pakistan, similar results might be possible in our setting as well.

As part of our study, tobacco products of 37 brands were surveyed for adherence to the law necessitating the use of pictorial warning signs. Only 62% of the brands displayed pictorial warnings on their packs while 8% of the brands were available in two different kinds of packs, both with and without pictorial warnings. In contrast, in a research conducted in eight former Soviet countries, health warnings were displayed on all packets from all countries. Pictorial warnings on packets from all except two countries met the minimum Framework Convention on tobacco control requirements. The pictorial warnings play a major role in initiating or augmenting those behavioral changes in smokers which are associated with quitting, as evidenced by a research in Mexico. The same research also added that media campaigning, if used along with health warning labels, provides added benefit in convincing tobacco users to quit. Health label warnings provide one of the most important modes of spreading anti-smoking information, as concluded in a study that gathered data from Canada, United States, United Kingdom and Australia. To control the use of tobacco in Pakistan, it is imperative that such measures be employed. Strict adherence to the laws that stipulate the guidelines for cigarette packs and health warning should be confirmed via tight monitoring.

Our study also found that as many as 85% of cigarette outlets were selling cigarettes to minors. Sale to minors is occurring in other parts of the world too; students in 12 high schools in New South Wales self-reported a cumulative illegal cigarette purchase rate of 38%. This easy access to tobacco is likely be one of the causes behind the high prevalence of smoking among adults in Pakistan. Ineffective implementation of the ban on sale to minors deprives us of a cost-effective method of reducing the smoking rates among adolescents. One-third of youth experimentation with tobacco occurs as a result of exposure to tobacco advertising, promotion and sponsorship. Thus, proper ban on advertisement of
tobacco products may help reduce the prevalence of smoking among adolescents.

The final objective of our study was fulfilled by finding out about the general public’s awareness regarding smoking control laws. Only 40% of those questioned had awareness regarding the existence of ban on smoking in public places, but the encouraging statistic is that 90% of these 114 people were in favour of such a ban. This awareness level needs to be increased via mass media campaigns, which as mentioned above, have a complementary effect when used together with pictorial health warnings on cigarette packs. Another way is to launch a graphic smoking cessation campaign, highlighting the negative health effects of tobacco use. This has already been demonstrated to be a means of promoting anti-smoking behavior among the adolescent population.

There is a dire need for strict implementation of anti-tobacco laws because in addition to benefits like reduced risk of heart and lung disease among the smokers themselves, these laws have also been found to prevent second hand smoke exposure among young people. According to a study in 2004, throughout the world, 40% of children, 33% of male non-smokers and 35% of female non-smokers were exposed to second-hand smoke. This is likely to be particularly true in a country like Pakistan where awareness regarding the effects of second-hand smoking is not widespread. Proper implementation of tobacco control laws can also help prevent the burden of disease from second hand smoking in Pakistan.

Conclusion
The pilot study shows that the implementation of tobacco control law in Pakistan is poor. Non adherence to the law in banks, offices, public transport vehicles, university campuses and restaurants was found to be alarmingly high. Also, the sale of tobacco to minors was found to be commonplace.

The findings of the study demonstrate poor compliance to the tobacco control laws by tobacco companies. The availability of cigarette in two different types of packs, in many cases without pictorial and health label warnings, in direct breach of tobacco control laws, is a cause for concern.

Our study results provide concrete evidence to the Ministry of Health regarding poor implementation of tobacco control law in Pakistan.

Recommendations
Considering the massive economic and health burden that widespread tobacco use is putting on our meager resources, strict and quick measures need to be taken for better implementation of tobacco control laws. There is a dire need to modify and improve the tobacco control laws in Pakistan so as to make them more effective. Certain facets of the tobacco control problem, such as lack of a ban on the funding of tobacco vending machines by tobacco companies etc., which have been overlooked during its formulation need to be modified. As opposed to Presidential ordinances, discussion on these laws in the parliament and acts of parliament might be a better way of preventing any lacunae during their formulation.

Strict adherence to the law must be ensured. Penalties like fines should be imposed without any discrimination upon the managing authorities and owners of public places where the law is flouted. Also, shop owners involved in tobacco sale to minors should be strictly dealt with and strong penalties should be levied.

Tobacco companies showing laxity in adherence to tobacco control laws must be strictly dealt with. Heavy fines and strict legal measures, including ban, must be taken against such companies to ensure the role of deterrent played by the health and pictorial warnings. Also, as recommended by the WHO report on tobacco epidemic 2013, taxes on tobacco industry should be raised.

Furthermore, awareness campaigns should be launched to increase public awareness regarding the devastating effects of tobacco use on health. These campaigns should also focus on the hitherto untouched aspects, such as second-hand smoking. It must be ensured that no media depictions of tobacco consumption are funded by tobacco companies.

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