

Perceived Effectiveness of Policy and Legislation on Smoking among Malaysian Adults

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Abstract

Background: Smoking is considered a risk factor for non-communicable diseases such as lung cancer², chronic obstructive pulmonary diseases (COPD)³ and cardiovascular diseases⁴. This has resulted in the equivalent of USD 0.9 billion being spent by the country in treating COPD, IHD and lung cancer.⁵ The government has formulated many policies and enacted laws, amongst others the Control of Tobacco Products Regulation 1993 (CTPR 1993), to decrease the consumption of tobacco products among Malaysians.

Aim & Objectives: To assess the perceived effectiveness of tobacco control policies and legislation among adults in Malaysia.

Methods/Study Design: A cross-sectional survey was carried out wherein a self-administered questionnaire was distributed to consenting participants.

Results/Findings: A total of 183 people aged between 22-87 years participated in the survey, of whom 9.8% (n=18) were smokers and the rest non-smokers. The responses on their perceptions of the effectiveness of various tobacco control measures and policies in Malaysia ranged from about 60% to more than 90% depending on the area in question.

Conclusion: There is a general perception there are effective and comprehensive tobacco control measures and policies in place. However, there is a need for more effective implementation and enforcement of these regulations to stop the increasing smoking prevalence in Malaysia.

Key words: Smoking, Policy and Legislation, Adults

Introduction

In Malaysia, about 68% of premature mortality is due to non-communicable diseases, especially ischemic heart disease (IHD).¹ Smoking is considered a risk factor for diseases such as lung

cancer², chronic obstructive pulmonary disease(COPD)³ and cardiovascular disease⁴. The equivalent of USD 0.9 billion is spent in treating COPD, IHD and lung cancer.⁵ In addition, the total cost attributable to smoking amounted to 16.49% of the National Health Expenditure of the country.⁶ Consequently, tobacco control is essential to reduce the smoking prevalence in the country not only to decrease the mortality caused by smoking related diseases, but also to reduce the economic burden posed by these diseases.

Tobacco control initiatives in Malaysia began in the 1970s, with the banning of smoking in cinemas in 1972 (Banning of smoking rules 1972)⁷. The government then enacted the Control of Tobacco Products Regulation 1993 (CTPR 1993) in an effort to decrease the consumption of tobacco products among Malaysians. In 2004, further amendments were made to the CTPR 1993 to strengthen its provisions.⁷ As a result, the advertising (direct and indirect) of tobacco products and sponsorships of events by tobacco companies were prohibited.⁷ In addition, the designation of no smoking areas increased from 5 areas in 1993 to 17 areas in 2004.⁸

Apart from legislation, various anti-smoking measures have also been introduced by the Malaysian government. For example, the “*Tak Nak*” (Say No) campaign was launched nationwide in 2004 to promote awareness of the dangers of smoking.⁸ In addition, more than 300 Quit Smoking Clinics were set up to assist smokers.⁷ Apart from this, a Tobacco Quit-line was set up by the National Poison Centre of Malaysia to further help smokers to quit.⁷ It was hoped that these tobacco control measures and policies would reduce the prevalence of smoking, as well as reduce the exposure to second-hand smoke among non-smokers.

It has been estimated that 23.1% of adults (43.9% males and 1.0% females) in Malaysia are current smokers, and only 9.5% of them have managed to quit smoking.⁷ What is more disturbing is that 10.7% of youths aged between 13-15 years are current smokers.⁹ It can be seen that the prevalence of smoking among Malaysian males remained high despite the various tobacco control measures and policies introduced by the government.¹⁰ Fears have also been expressed that the prevalence of smoking among females is likely to increase in developed and developing countries by 2025.¹¹

This survey was carried out to determine the public perceptions on the effectiveness of various tobacco control measures and policies in Malaysia. The study population was adults since they are the workforce of the nation. It was felt that is important to determine their opinions so that appropriate actions can be taken to reduce the prevalence of smoking in this country.

Aim & Objectives:

To assess the perceived effectiveness of tobacco control policies and legislation among adults in Malaysia.

Methods

The participants of this study included consenting members of the general public aged 18 years and above with an ability to read and understand English.

Study Design: In this cross-sectional study performed from November 2013 to January 2014, questionnaires were distributed to offices and common areas with prior permission from the respective departments/ institutions. An explanation regarding the study was provided via the explanatory statement with consenting participants completing the questionnaire. The completed questionnaires were then collected and analysed.

Questionnaires: A self-administered questionnaire was employed to assess the perceptions of the effectiveness of the tobacco control policies and regulations and various measures towards reducing the number of smokers in Malaysia. The questionnaire consisted of a mixture of qualitative and quantitative questions apart from demographic information. Participants were required to rate the effectiveness of policies/regulations and other measures using a 5-point Likert scale ranging from very effective to very ineffective. The various areas addressed by the questionnaire are presented in Table 1. No data was requested in the questionnaire that could lead to the identification of the participants. The questionnaire was validated via a pilot study among 24 subjects. All scales had good internal consistency with a Cronbach alpha value of more than 0.8.

Data was analysed using IBM SPSS Statistics 20.0 for windows. Non-parametric descriptive analysis and chi-squared tests were employed for evaluation.

Results

The preliminary results of this on-going study included 183 working adults aged between 22-65 years and all the data was included in the analysis. Of the respondents, 103 (56.3%) were females and 80 (43.7%) were males, of whom 9.8% (n=18) were smokers.

Perceived Effectiveness of Policies and Regulations

The government needs to be committed to controlling the prevalence of smoking in the country and reducing the incidence of new smokers with various policies and legal recourse. The perceptions on this area among the study population were explored, focusing on specific aspects related to prohibition of sales, advertisements and the prohibition of smoking in specific areas.

Restricting advertisements and sale of tobacco products

With respect to the banning of tobacco advertising and promotion as well as sponsorship by tobacco companies, a good proportion (61.2%) of the respondents felt these are effective. In addition, most respondents (66.5%) agreed that the prohibition of sale of any tobacco products to those under the age of 18 years was very effective. Another measure related to this is the display of pictorial health warnings on cigarette packs in an effort to discourage smokers, for which only

slightly more than half (54.1%) of the responders indicating that this effort is effective.

Prohibition of smoking in various areas

The government has also instituted a ban on smoking in designated areas, both in open and air-conditioned areas. The study population was asked about their perception of the effectiveness of the prohibition of smoking in various areas. With respect to hospitals and clinics, the vast majority (92.2%), whether smokers or non-smokers, thought that this was an effective measure, with about 60% saying that it is extremely effective. Looking next at the prohibition of smoking in entertainment centres or theatres, this did not get the same support as in hospitals and clinics, with only about 70% agreeing that this was effective. The next area of focus was public lifts or toilets. An almost similar percentage (61.2%) felt that this measure was effective. Similarly, 68.3% felt that the prohibition of smoking in public vehicles or public transport terminals is effective. However, a much higher percentage (82.4%) agreed that the prohibition of smoking in school buses was working well.

Moving on to the prohibition of smoking in areas used for any assembly of people in buildings other than private or residential buildings, a similar quantum – 67.6% - felt that this was effective. Other common areas for people to go to would be stadiums, sports complexes, fitness centres or gymnasiums. The prohibition of smoking at these areas does not seem to be working very well with about 69% indicating their satisfaction with its effectiveness. On the other hand, the vast majority (86.3%) felt that the prohibition of smoking at airports works well (as would be expected from the sight of people frantically smoking in the designated smoking areas!).

Considering next the effectiveness of the prohibition of smoking in government premises, 77.6% of the respondents are of the opinion that it is effective. A similar result was obtained on the prohibition of smoking in private sector offices with centralised air-conditioning, with 80.4% indicating that it works well.

Prohibition in an area that has young people would be at the National Service Training Centres (PLKN) where 63.8% felt that prohibition in this area is effective.

The areas that would affect most people would be air-conditioned eating places or shops, and this was the next area of focus. A vast majority (83.1%) felt that prohibition in these areas works well, with about half the respondents indicating that it is very effective. However, when it comes to prohibition of smoking in shopping complexes, the percentage dropped slightly, with only 70.9% persons indicating that they felt it was effective. The percentage drops further with respect to prohibition in internet cafes, with only 58.8% indicating that they feel that it effective. On the prohibition of smoking in buildings or public places used for religious purposes, almost three quarters of the respondents felt that is effective.

An area that would be of concern to many people is protecting babies and young children from cigarette smoke, bringing us to the prohibition of smoking in nurseries. The third highest affirmative percentage was from this area with 90.7% believing that the measure is working well, again with more than half indicating that it is very effective, with almost all smokers agreeing as well.

Another area of concern would be petrol stations with its danger of explosion from cigarette

sparks – 81.4% believed that the prohibition of smoking at petrol stations was effective, with more than half opining that is very effective. A related area would libraries, where again the risk of fire would have disastrous consequences – hence, it is not surprising that 92.4% indicating that prohibition here is very effective, the second highest percentage of agreement, with more than half believing that it is very effective and almost all smokers agreeing as well.

Perceived Effectiveness of Measures

Having policies and measures to reduce the prevalence of smoking need to go hand-in-hand with measures aimed at lowering the number of existing smokers and discouraging people from taking up smoking. The perception of the effectiveness of some of the measures instituted to date was surveyed among the study population.

Reducing sales of tobacco products

The first measure was the government's strategy of steadily raising the sales tax on cigarettes and controlling the price of tobacco products sold in the country. Most adults (65.6%) felt that raising the prices of cigarettes was effective in reducing the number of smokers, a view shared by a majority of the non-smokers. It appeared that even smokers seemed to be feeling the pinch since half of them agreed that this was effective.

Training of health professionals

Another area of focus was whether or not health professionals needed additional training on effecting quitting by smokers. This again seemed to be an aspect that needs beefing up, since most respondents (69.9%) believed that providing training to health professionals so that they could advise their patients on the risks of smoking, could play a major role in decreasing the number of smokers. However, there seems to be a significant difference between smokers and non-smokers in this regard since while almost 74% of non-smokers felt this to be true, only a third of the smokers attested to the effectiveness of this measure.

Support in quitting for smokers

The next aspect that was explored was whether or not smokers were receiving enough support in their attempts to quit smoking. Respondents were asked whether providing support groups for smokers would be effective in reducing the prevalence of smoking. There was overwhelming support for this with about 88% agreeing with this strategy, and about half of them felt that this would be very effective. The majority of smokers (66.7%) also found this an effective measure.

Exploring the area of support further, we focused on the effectiveness of the support from family and friends in helping to quit smoking. Most people (92.4%) went along this idea that this was indeed a very useful measure. Smokers agreed with this as well – 72.2% affirmed that the support from family and friends was important.

Quit smoking clinics and lines

Another national strategy that is being implemented is the setting up of quit-smoking clinics and quit-smoking lines. Again, close to 70% of those who participated thought that encouraging the use of these quit-smoking resources would be helpful for smokers to rid themselves of the habit. Unfortunately, this appears to be something that is not very much favoured by smokers, since only about a half of them felt this to be an effective measure.

In these quit-smoking clinics, one of the main options offered to smokers to assist them in quitting is the use of nicotine replacement therapy, for example, by using nicotine patches. Most non-smokers, more than 66%, believed that this would be an effective strategy. However, only about half the smokers agree that this is effective, while about a third of them were unsure of the effectiveness of this therapy.

Campaigns and talks

Apart from this, the government has been focusing on reducing the incidence of smoking in schools by carrying out anti-smoking talks. Most respondents felt that is good to focus on schoolchildren – more than 85% supported, with the majority of smokers attesting to the effectiveness of this strategy as well.

Besides this, the government has also focused on parents by organizing talks and campaigns. Most respondents (81.4%) agreed that we also need to gear efforts aimed at parents as an effective strategy, a view supported also by smokers.

Enforcement of laws and policies

With respect to policies and regulations, enforcement plays a crucial role. When asked about their perception on enforcement of smoking laws and policies being effective in reducing the number of smokers, a large proportion, 86.8% felt this is an effective measure.

All the above discussions are summarized in Table 2.

Discussion

In general, most respondents felt that the policies and regulations related to smoking in this country are effective, with 86.8% indicating that this would be effective in reducing the numbers of smokers. The perception seems to be that policies like not allowing the sales of tobacco products to those below the age of eighteen seem to work better than pictorial warnings on cigarette packs to discourage their purchase and use. However, this does not seem to fit with the increasing numbers of smokers in this country.

People also feel that the prohibition of smoking in designated areas seem to again work better in more areas than others – the most effective areas seem to be hospitals and clinics followed by libraries and nurseries. This may be related to perceptions of it being wrong to carry out practices deemed to be unhealthy in places where there is a high likelihood of being frowned upon for smoking. Libraries may have strict enforcement to protect the books and other material, while people may refrain from smoking in nurseries out of consideration of the babies and young children as well as the apparent high risk of public disapproval. The lowest levels of effectiveness seem to be in internet cafes, public lifts and toilets and other areas as seen in Table 1. These may be due to a lack of concern for the premises as well as the people around who do not smoke.

There is also a perception that efforts by health professionals to get smokers to quit do not seem to be very effective as evidenced by the recommendation for additional training, although quit smoking clinics and quit smoking lines as well as nicotine replacement are thought to be

effective measures. However, there is a need to determine whether these are being utilised optimally. People also felt that campaigns and talk aimed at parents and schoolchildren are good measures, but perhaps are not being implemented effectively. .

Conclusion

There is a general perception that there are effective and comprehensive tobacco control measures and policies in place. However, there is a need for more effective implementation and enforcement of these regulations to stop the increasing smoking prevalence among adults in Malaysia.

Conflict of Interest: None.

References

1. Yusoff UN, Mahat D, Omar A, Teh CH, Yoep N, Saari R. Burden of Premature Mortality in Malaysia. *International Journal of Public Health Research*. 2013; 3(1): 249-258.
 2. Biesalski HK, Mesquita BB, Chesson A, et al. European Consensus Statement on Lung Cancer: Risk Factors and Prevention. *CA: a cancer journal for clinicians*. May/June 1998; 48(3): 167-176.
 3. Devereux G. Definition, epidemiology, and risk factors. *BMJ*. May 2006; 332(7550): 1142-1144.
 4. Erhardt L. Cigarette smoking: An undertreated risk factor for cardiovascular disease. *Atherosclerosis*. 2009; 205(1): 23-32.
 5. Disease Control Division, Ministry of Health Malaysia: *Phase 2 (Group 2 Questions) of the Reporting Instrument under the WHO Framework Convention on Tobacco Control*. http://www.who.int/fctc/Malaysia_5y_report.pdf. (Accessed on 21 February 2014).
 6. Al-Junid SM. *Health Care Costs of Smoking in Malaysia*. November 2007.
 7. Institute for Public Health (IPH). *Report of the Global Adult Tobacco Survey (GATS) Malaysia 2011*. Ministry of Health Malaysia; 2012.
 8. ITC Project: *Findings from Wave 1 to 4 Surveys (2005-2009)*. Putrajaya, Malaysia: University of Waterloo, Waterloo, Ontario, Canada; University Sains Malaysia, Pulau Pinang, Malaysia; and Ministry of Health; March 2012.
 9. *WHO Report on the Global Tobacco Epidemic, 2013 country profile; Malaysia*. http://www.who.int/tobacco/surveillance/policy/country_profile/mys.pdf?ua=1
 10. Lim HK, Ghazali SM, Kee CC, et al. Epidemiology of smoking among Malaysian adult males: prevalence and associated factors. *BMC Public Health*. 2013; 13(8).
 11. Mackay J, Amos A. Women and Tobacco. *Respirology*. 2003; 8(2): 123-130.
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Table 1: Perceptions of effectiveness of prohibition of smoking in designated areas

Area	Effectiveness of smoking prohibition (%)
Hospitals and clinics	92.9
Libraries	92.4
Nurseries	90.7
Airports	86.3
Educational institutions	83.6
Eating places or shops	83.1
School buses	82.4
Petrol stations	81.4
Private sector offices	80.4
Government premises	77.6
Buildings or public places used for religious purposes	75.0
Shopping complexes	70.9
Entertainment centres or theatres	70.1
Stadiums, sports complexes, fitness centres or gymnasiums	69
Public vehicles or public transport terminals	68.3
Buildings for assembly activities (other than private or residential buildings)	67.6
National Service Training Centres (PLKN)	63.8
Public lifts or toilets	61.2
Internet cafes	58.8

Table 2: Perceived effectiveness of policy and legislation

Policy/legislation/measure	Effective (%)	Not effective (%)
Sales of tobacco products to children.	66.5	24.7
Display of pictorial health warnings on cigarette packs	54.1	34.5
Banning of tobacco advertising, promotion and sponsorship	61.2	23.0
Raising the prices of cigarettes	65.6	24.1
Training to health professionals so that they could advise their patients on the risks of smoking	69.9	19.1
Support groups for smokers	87.9	6.5
Support from family and friends	92.3	2.7
Quit-smoking clinics and quit-smoking lines.	69.4	8.7
Nicotine replacement therapy	65.0	7.6
Anti-smoking talks in schools	85.2	5.4
Talks and campaign for parents	81.4	7.1
Enforcement of smoking laws and policies	86.9	5.5