

Passive Smoking: Perceptions and Practices among Urban Working Adults

Jia Xuan Ooi, Kai Xuan Teh, Cai Liam Tam, Sivalal Sadasivan, Amudha Kadirvelu *

Jeffrey Cheah School of Medicine and Health Sciences, Monash University Malaysia

*** Corresponding Author: Amudha Kadirvelu**

Address: Jeffrey Cheah School of Medicine and Health Sciences
Monash University Malaysia, Jalan Lagoon Selatan
Bandar Sunway, 46150, Selangor, Malaysia
Email: amudha.kadirvleu@monash.edu

Abstract

Background: Many are aware that smoking is harmful to the health of smokers but minimal concern is given to those around smokers who are known as passive smokers. Many non-smokers are killed annually as a result of exposure to secondhand smoke. Passive smoking has also been strongly associated with poor health outcomes such as cardiovascular diseases, chronic obstructive pulmonary disease (COPD) and a range of cancers.

Aim & Objectives: To assess the awareness and practices among Malaysian urban working adults towards passive smoking.

Method: A cross-sectional survey to assess awareness and attitudes towards passive smoking was conducted among consenting working adults from urban areas in Malaysia.

Results: A total of 186 adults aged between 22-87 years participated in the study where 56.3% of the respondents were females and 43.7% males. Majority (98.9%) agreed that cigarette smoke is harmful to the non-smokers around while 22.4% were not sure if the smoke from shisha/water pipe was harmful. 66.1% agreed that sidestream smoke was more harmful than mainstream smoke whereas 29.5% were unsure which kind of smoke is more harmful. A total of 87.4% did not like people to smoke around them and 95.6% of the respondents did not like people to smoke in their house. Besides, 86.9% believed that smoking should not be permitted in the workplace. Most adults (74.9%) agreed that they have the right to ask people to not smoke in their presence whereas the rest (19.7%) were either unsure of their rights or disagreed (5.5%). Almost all of the participants (99.5%) felt that people should not smoke in front of children and children should be taught about the bad effects of smoking.

Conclusion: The awareness among urban working adults on passive smoking was fair though the practices were poor. Health education efforts on smoking should address the empowerment of non-smokers and must include culturally appropriate ways to express their desire for a smoke-free environment.

Key words: Passive smoking, awareness, adults

Introduction

According to the WHO Report on the Global Tobacco Epidemic 2011, tobacco use not only kills nearly 6 million people annually but also causes huge economic damage worldwide each year.¹ In Malaysia, more than 10,000 people die from smoking-related illnesses every year despite the fact that tobacco use is preventable.^{2, 3} If no urgent action is taken to reduce tobacco consumption, it is estimated that tobacco use related mortality will exceed one billion worldwide in the 21st century.⁴

Alarmingly, more than 600, 000 non-smokers die each year from breathing second-hand smoke (SHS).⁵ When smokers smoke, they emit sidestream smoke that is from the lit-end of a cigarette and mainstream smoke that is exhaled by the smoker. The non-smoking population are thus exposed to both sidestream and mainstream smoke resulting in their passive smoking.⁶ There is a misconception among the general public that the sidestream smoke is not as harmful compared to the mainstream smoke but evidence indicates that sidestream smoke is more toxic than mainstream smoke.^{7, 8, 9} The exposure to SHS have been associated with poor health outcomes such as cardiovascular diseases, chronic obstructive pulmonary disease (COPD) and a range of cancers.^{10, 11, 12, 13} Children exposed to SHS are also at risk of middle ear disease, sudden infant death syndrome (SIDS) and lower respiratory illnesses.^{4, 14} Reports also indicate an inversely proportional relationship between the infants' birth weight and the levels of exposure to SHS by their mother during pregnancy.¹⁵

In Malaysia, a number of governmental anti-smoking policies have been instituted. Direct advertising of cigarettes on television has been banned, smoking in governmental offices and schools is prohibited, and health warnings are required on cigarette packets. Anti-smoking campaigns (no-smoke weeks) have been presented yearly since 1987. However, despite these governmental efforts to reduce smoking rates, cigarette smoking remains high. An estimated 4 out of 10 adults (7.6 million) in Malaysia are exposed to SHS at home and 4 out of 10 (2.3 million) working adults are exposed to SHS indoors at their workplace. Approximately 70% (8.6 million) of those who visited a restaurant in the last 30 days were exposed to SHS.² Passive smoking continues to be an enormous threat and public health burden in Malaysia. The Global Adult Tobacco Survey (GATS) Malaysia, 2011 reported that 23.1% or 4.75 million Malaysian adults aged 15 years or older are current tobacco smokers of which 43.9% (4.64 million) were men and 1.0% (0.10 million) were women.² It is also reported that the number of current male smokers continues to remain high in Malaysia.¹⁶ A study on smoking habits among secondary school children reported that the children were greatly influenced by their fathers smoking habit.¹⁷

Though a number of studies have been done assessing the awareness and practices of smokers on smoking, not many studies have focused on the non-smoking population. In this study, we assessed the perceptions and practices of non-smokers on their exposure to secondary smoking.

Methods

Participants of the study included consenting males and females 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 placed in offices and common areas with prior permission from the respective departments/ institutions. Explanation regarding the study was provided via the explanatory statement and the consenting participants completed the questionnaire. The completed questionnaires were returned to a box that was placed at the selected study sites.

Questionnaires: A self-administered questionnaire was employed to assess the exposure, awareness and attitudes of adults towards passive smoking. The questionnaire consisted of a mixture of qualitative and quantitative questions besides demographic information. The individual items on knowledge, attitudes and practices from the questionnaire are presented in Table 1. No data was requested from the questionnaire that could lead to the identification of the participants. The questionnaire was validated via a pilot study done among 24 subjects. All scales had good internal consistency with 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.

Majority of the study participants (90.2%) were non-smokers and 9.8% of them were current smokers. Of the current smokers, 18.8% were males and 2.9% were females. Of the non-smokers, 27.3% had tried smoking before. Thirty percent of the population (14.3% of males and 29.4% of females) has spouse, siblings or children that are current smokers. More than half (52.6%) of the participants who have spouse, siblings or children that are smokers responded that their family members smoke within their home. Majority of the participants (72.7%) were exposed to SHS 0-3 times per week. 18.2% of the adults were exposed to SHS 4-7 times per week whereas 9% of them were exposed to SHS more than 7 times per week. Most of the adults strongly agreed that living with a smoker for many years may increase the risk of lung cancer due to secondary smoking while 6.5% of them were unsure.

Awareness and Attitude

About 90.8% of the adults agreed that they know the meaning of passive smoking. However, 6.1% adults were unsure of what was meant by passive smoking. Ninety percent of our study population agreed that cigarette smoke is harmful to those around the smokers. Two-third of the study population agreed (66.1%) that side-stream smoke was more harmful to health than main-

stream smoke. However, 29.5% of the population was unsure which smoke was more harmful, while 4.4% of them disagreed that side-stream smoke was more harmful.

Most of the study participants agreed that children were more vulnerable to passive smoking than do adults while 9.7% of them were either undecided or disagreed with this statement. Eighty two percent of the respondents strongly agreed that the children of parents who smoke have more respiratory ailments than those of non-smoking parents while the rest were unsure. About 71.6% of participants agreed that pregnant mothers exposed to secondhand smoke were more likely to experience stillbirth. However, 28.4% were unaware of the effect of secondary smoke to pregnant mothers.

Most of the participants (94.6%) didn't want their spouse to smoke and 96.7% did not want their children to smoke. About 65.6% did not like people smoking around them and 85% worried about their health when other people smoked around them. Almost 87% of the population felt that smoking should not be permitted in the workplace.

Nearly 75% of the adults (39.9%) strongly agreed that they have the right to ask people not to smoke in their presence. However, 19.7% were undecided and 5.5% of the adults felt it is not their right to ask.

Nearly 99.9% of the participants strongly agreed that children should be taught about the bad effects of smoking. Nearly 80% of the population agreed that they usually advise their friends or family members who were smokers to quit smoking. Almost 87.6% of the participants agreed that they usually advise pregnant women that regular exposure to cigarette smoke was harmful to their unborn child. Almost 98% of the respondents believed that children should be moved away or asked to move away when someone smokes. Nearly all the participants (99%) agreed that smokers should not smoke around pregnant women.

Perceptions of Non-smokers

Most of the non-smokers (54.7%) have had asked a smoker to stop smoking in their presence while 45.3% of them have never asked though they disliked the smoke around them. About 68.2% of the non-smokers reported that they would always or usually walk away when someone smokes in their presence.

Majority of the non-smokers (67.5%) thought that smokers should seek their permission before they light a cigarette in their presence. On the other hand, 11% felt that smoking is any individual's right and do not need permission from anyone while 21.4% were unsure of a smoker or non-smoker's rights. About 70% of our non-smoking participants reported that they usually ask smokers to follow the no-smoking regulations. When in a car or public transport, nearly 69% of them indicated that they would ask a smoker not to light their cigarette while the rest of them would usually not react to it.

Perceptions of Smokers

Ten percent of our study population was current smokers. Majority of the smokers (38.9%) were unsure whether they will light up a cigarette or not when non-smokers were around, with the percentage of females (66.7%) being two times higher than the males (33.3%). About 27.8% of the smokers agreed that they will not light up a cigarette when non-smokers were around, whereas 6.7% of males strongly disagreed with this statement (Table 2).

Half of the smokers agreed that they attempted to quit smoking in the past, with the percentage of women (66.7%) higher than the men (46.7%). About 44.4% of the smokers (46.7% men and 33.3% women) agreed that smoking was dangerous to their health while 11.1% of them were unsure. Approximately 46.7% of the men strongly agreed whereas 33.3% of women strongly disagreed that smoking had a negative impact on their health. Around half of the male smokers agreed that smoking was risky to the health of the people around while one-third of the females strongly disagreed with the statement.

Nearly thirty percent of the smokers (20% men and 66.7% women) disagreed that the pictorial health warnings on the cigarette packs had put them off smoking while 22.2% (20% men and 33.3% women) strongly disagreed with that statement. However, nearly one third of the male smokers were unsure if the pictorial health warnings had any effect on them.

Discussion

In general, approximately two-third of our study population had good knowledge about passive smoking and the adverse effects associated with secondary smoking. Nearly one-third of the participants had at least one family member that is currently smoking. Two-thirds of working adults did not like to be exposed to tobacco smoke although, almost three-quarter of our working adults were exposed to SHS at least 3 times per week. Seventy five percent of the study population felt that they have a right to ask people not to smoke in their presence though forty five percent of them have never done so. Two-third of them said they would just walk away when someone smoked in their presence. Almost all the smokers in our study reported that the pictorial health warnings on cigarette packs did not have any significant deterrent effect on their smoking habits.

Taking into consideration that all our study participants have completed at least secondary school and working in urban areas, the practices towards secondary smoking is poor. Although knowledge is important, health education programs should also address the more complex problem of motivating people to change their attitudes. Though most felt that they have a right to breathe clean air, most would not exercise their rights. This reluctance by the non-smokers to exhibit preventive behavior in public may be culturally based to some extent.

In conclusion, health education efforts on smoking should also address the empowerment of non-smokers and should include culturally appropriate ways to express their desire for a smoke-free environment. Health campaigns should also be extended to the school children encouraging them to defend their right to a smoke-free environment.

Conflict of Interest: None declared.

References

1. World Health Organization. WHO Report on the Global Tobacco Epidemic, 2011: Warning About the Dangers of Tobacco. Geneva: World Health Organization; 2011.
2. Institute for Public Health (IPH). Report of the Global Adult Tobacco Survey (GATS) Malaysia, 2011. Malaysia: Ministry of Health Malaysia; 2012.
3. World Health Organization. Report on the global tobacco epidemic, 2013: Enforcing Bans on Tobacco Advertising, Promotion and Sponsorship. Geneva: World Health organization; 2013.
4. World Health Organization. WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER package. Geneva: World Health Organization; 2008.
5. World Health Organization Media Centre. Tobacco. Geneva: World Health Organization; July 2013.
6. Quit South Australia. Information sheet: Passive smoking. Unley: Quit SA; August 2005.
7. Diethelm PA, Rielle J, McKee M. The whole truth and nothing but the truth? The research that Philip Morris did not want you to see. *Lancet*. 2005; 366: 86-92.
8. Schick S, Glantz S. Philip Morris toxicological experiments with fresh sidestream smoke: more toxic than mainstream smoke. *Tobacco Control*. 2005; 14: 396-404. doi: 10.1136/tc.2005.011288.
9. Schick S, Glantz S. Sidestream cigarette smoke toxicity increases with aging and exposure duration. *Tobacco Control*. 2006; 15: 424-429. doi: 10.1136/tc.2006.016162.
10. Action on Smoking and Health (ASH). Secondhand smoke: the impact on children. ASH Research Report. June 2011.
11. Raupach T, Schafer K, Konstantinides S, Andreas S. Secondhand smoke as an acute threat for the cardiovascular system: a change in paradigm. *Eur Heart J*. 2006; 27: 386–392. doi:10.1093/eurheartj/ehi601.
12. Yin P, Jiang CQ, Cheng KK et al. Passive smoking exposure and risk of COPD among adults in China: the Guangzhou Biobank Cohort Study. *Lancet*. 2007; 370 (9589): 751- 757. doi: 10.1016/S0140-6736(07)61378-6.

13. Malaysian Oncological Society. Victims of secondhand smoke. Malaysian Oncological Society. July 26, 2010. <http://www.malaysiaoncology.org/article.php?aid=780>. Accessed February 22, 2014.
14. U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Secondhand Smoke What It Means to You. Centers for Disease Control and Prevention. 2006.
15. Hanke W, Sobala W, Kalinka J. Environmental tobacco smoke exposure among pregnant women: impact on fetal biometry at 20–24 weeks of gestation and newborn child's birth weight. *Int Arch Occup Environ Health*. 2004; 77: 47–52.
16. Lim HK, Mohd Ghazali S, Kee CC et al. Epidemiology of smoking among Malaysian adult males: prevalence and associated factors. *BMC Public Health*. 2013; 13: 8.
17. Shamsuddin K, Abdul Haris M. Family influence on current smoking habits among secondary school children in Kota Bharu, Kelantan. *Singapore Med J*. 2000; 41(4): 167-171.

Table 1: Items on knowledge and practices from the questionnaire

Knowledge

I know what passive smoking is.

Smoke from the cigarettes of smokers is harmful to other people around them.

Smoke from shisha / water pipe is harmful to the people around them.

Living with a smoker(s) for many years may increase my risk of lung cancer.

Side-stream smoke is more harmful to health than main-stream smoke.

Children are more vulnerable to passive smoking than do adults.

Children of parents who smoke have more respiratory ailments than those of non-smoking parents.

Pregnant mothers exposed to second-hand smoke are more likely to experience stillbirth.

Cigarette smoke contains dangerous chemicals such as carcinogens

Practices

Do you mind if someone smokes around you?

Do you walk away when someone smokes around you?

Do you think you have the right to ask people not to smoke in your presence?

Have you ever asked a smoker to stop smoking in your presence?

Do you feel that smokers should seek for your permission before they smoke around you?

I usually ask people around me not to smoke when I am in a car or in public transport.

I usually ask smokers to follow the no-smoking regulations.

I usually talk to smokers about their health risks.

Table 2: Knowledge and attitudes of smokers

Item	Agree (%)		Undecided (%)		Disagree (%)	
	M	F	M	F	M	F
I will not light up a cigarette when non-smokers are around	46.7	33.3	33.3	66.7	20	-
I have attempted to quit smoking in the past.	66.7	66.7	26.7	33.3	6.7	-
I plan to quit smoking later.	60	-	33.3	100	6.7	-
Smoking is dangerous to my health.	93.4	33.3	6.7	33.3	-	33.3
Smoking is risky to the health of the people around me.	93.4	-	6.7	66.7	-	33.3
The pictorial health warnings on the cigarette packs had put me off smoking.	26.7	-	33.3	-	40	100

M: males; F: females