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Knowledge and Perception on Tobacco Smoke Exposure towards Children in Mukim Sungai Pelek, Sepang, Selangor

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ABSTRACT

Tobacco contributes to nearly 6 million deaths per year and 10% is attributed to the exposure of second-hand cigarette smoke. Studies show that people have knowledge on the dangers of passive smoking. They also agreed that children were more vulnerable to passive smoking than adults. This study aims to assess the knowledge and perception of tobacco smoke exposure towards children, in Mukim Sg Pelek, Sepang, Selangor.

A cross sectional study was done by using stratified, systematic and simple random sampling. The respondents that fulfilled the inclusion and exclusion criteria were interviewed with a structured questionnaire. The data was analysed using SPSS.

Majority of the respondents have good knowledge (89.8%) and good perception (84.1%) on dangers of tobacco smoke exposure towards children. Majority knew that tobacco smoke may influence health of the children which causes the children to be sick as they are susceptible to respiratory illness. Statistically, there was significant association between knowledge and perception towards smoke exposure.

In conclusion, there was good knowledge and perception status on the risk of secondhand smoke to children in Mukim, Sg Pelek, Sepang, Selangor.

Keywords: *smoking, knowledge, perception, children, Malaysia*

INTRODUCTION

Tobacco use contributes to nearly 6 million deaths per year, making it the leading cause of preventable death. Out of these 6 million, 10% is attributed to the exposure of second-hand cigarette smoke. [1] In a study done in a rural area in Negeri Sembilan, the prevalence of current smokers was 34.2%. [2] However, the National Morbidity and Health Survey done in 2015, shows approximately 22.8% of Malaysian population aged 15 years and above were smokers. [3]

Fifty one percent of respondents in district in India were reported to have an above average awareness on the dangers of passive smoking, [4] while 56.1% of respondents in Southern Nigeria had high knowledge on the negative impact of smoking on health and well-being. [5]

In a study with working Malaysian adults by Jia Xuan Ooi in 2014, 99.5% felt that people should not smoke in front of children. Ninety percent of the study participants also agreed that children were more vulnerable to passive smoking than adults while 82% of them strongly agreed that the children of parents who smoke have more respiratory ailments than those of non-smoking parents. [6]

Thus, the aim of this study was to determine the knowledge and perception of tobacco smoke exposure towards children in Mukim Sg Pelek, Sepang, Selangor. Therefore, a strategy and plan of action could be developed to strengthening the knowledge and improve the perception on tobacco smoke especially towards children.

MATERIALS AND METHODS

A cross-sectional study was carried out within two weeks in Taman Teluk Merbau, Sg Pelek, Sepang, Selangor. The

population sample consisted of a total of 200 houses with 241 sample size.

Stratified random sampling has been used to classify between the estate and terrace houses. The population of terrace houses was higher than estate by 3:1. Systematic random sampling was conducted to choose the respondents' house, followed by simple random sampling to select the respondent within the household. All residents aged 18 years to 70 years, not mentally retarded, deaf and mute, from each house were selected. Respondents who refused to participate in the survey or were not there during the survey after two visits, will be considered as non-respondents.

Data was collected through face to face interview using a set of validated questionnaire. The questionnaire consists of five questions for knowledge (α=0.75) and three questions for perception (α=0.85). [7]

Each question that was correctly answered will get 1 score. A total score was then computed according to each domain, namely knowledge and perception, by summing up individual scores, before being categorized through median scoring. Knowledge domain were classified as good (total score 3 or more) and poor (total score less than 3). Perception domain was classified as good (total score 2 or more) and poor (total score less than 2).

Chi-square test was used to determine the association between smoking status and knowledge of tobacco smoke exposure towards children. The level of significance was set at $p < 0.05$ and confidence level at 95%.

RESULT

A total of 226 respondents participated in this study giving a response rate of 94%.

Table 1: Prevalence of smoking among respondents

Smoking status	n	%
Smoker	30	13.3
Non-smoker	196	86.7
Total	226	100

Only 13.3% of respondents were found to be smokers.

Thirty one percent of respondents claimed there were family members who smoke in the house (Table 2).

Table 2: Presence of family members who smoke in the house

Smoking in the house	n	%
Yes	71	31.4
No	155	68.6
Total	226	100

Knowledge

Majority (89.8%) of the respondents have good knowledge on tobacco smoke exposure towards children (Table 3).

Table 3: Knowledge status among respondents

Knowledge status	n	%
Good	203	89.8
Poor	23	10.2
Total	226	100

Table 4 showed majority of the respondents (91.2%) knew that breathing tobacco smoke is a risk factor for child mortality and passive smoking harms child development (86.7%).

However, only 49.1% knew that childhood illnesses are associated with smoking around the child.

Table 4: Items on knowledge (N=226)

Statements	Yes n (%)	No n (%)
Breathing tobacco smoke is a risk factor for child mortality	206 (91.2)	20 (8.8)
There is a link between the health of children and between smoking by the parent	196 (86.7)	30 (13.3)
Passive smoking harms child development	196 (86.7)	30 (13.3)
Breathing tobacco smoke is a risk factor for many diseases in infants	194 (85.8)	32 (14.2)
Childhood illnesses are not associated at all with smoking around the child	115 (50.9)	111 (49.1)

Perception

Table 5 shows that the majority (84.1%) of respondents have good perception on the dangers of tobacco smoke exposure towards children.

Table 5: Perception status among respondents

Perception status	n	%
Good	190	84.1
Poor	36	15.9
Total	226	100

Table 6: Perception categories on tobacco smoke towards children (N=266)

Perception categories	n	%
Perception on likelihood of passive smoker children being sick with respiratory illness		
Reasonable	194	85.8
Not Reasonable	21	9.3
Not sure	11	4.9
Perception on susceptibility of passive smoker children having respiratory illness compared to other children		
Susceptible	195	86.3
Not Susceptible	15	6.6
Not sure	16	7.1
Perception on severity of tobacco smoke exposure towards children's health		
Influential	190	84.1
Not influential	17	7.5
Not sure	19	8.4

With regards to perception categories, majority of the respondents (85.8%) perceived that it was reasonable for passive smoker children to be sick with respiratory illness, it was more susceptible for passive smoker children to have respiratory illness compared to other children (86.3%) and the tobacco smoke may influence the children health (84.1%) (Table 6).

Table 7: Association between knowledge status and perception

Knowledge Status	Perception		Total n (%)	P-value (Chi-square test)
	Good n (%)	Poor n (%)		
Good	190 (93.6)	13 (6.4)	203 (100)	0.000
Poor	9 (39.1)	14 (60.9)	23 (100)	

Almost 94% of respondents with good knowledge, also have good perception and statistically it was significant (p>0.05).

Table 8 showed 86.2% of respondents with good knowledge, were non-smoker. However, statistically there was no significant association between knowledge on tobacco smoke exposure towards children and smoking status (p>0.05).

Table 8: Association between knowledge and smoking Status

Knowledge Status	Smoking Status		Total n (%)	P-value (*Fisher test)
	Yes n(%)	No n(%)		
Good	28(13.8)	175(86.2)	20(100)	0.747
Poor	2 (8.7)	21 (91.3)	23(100)	

DISCUSSION

The National Health Morbidity Survey 2006 (NHMS III), which has been done inclusive of all the states in Malaysia, reports that approximately 22.8% of the Malaysian population aged 15 years and above are smokers. [8] The prevalence of smoking remained at around 25% from 2011 to 2015 and a decline in smoking prevalence is observed in every state in Malaysia, where the declining trend is most notable in the Federal Territory of Kuala Lumpur and in Selangor, Malacca, and Kelantan. [9] As in Selangor, it was shown in our result which the prevalence was lower than national prevalence.

Rashid, et al in their study reports that individuals with good knowledge of the harms of smoking showed more support to smoke-free legislation at home. [10] Our study showed that only 31% of respondents smoke or have family members who smoke at home, which was lower than a study done in Penang by Rashid (38.4%). This might be due to their good knowledge on tobacco smoke exposure, which was higher than a study done in 2016 (63.5%). [11]

This shows that health education is sufficiently provided by the Ministry of Health and Ministry of Education during secondary years where multiple smoking talks and campaigns were held in schools. [12] However, although our study also showed that the knowledge status was good among non-smokers compared to smokers and consistent with a study by Lim et al, [13] but statistically there was no association between smoking status and knowledge. This might suggest that the urge to smoke was not due to lack of knowledge but probably of other factors such as peers, feeling of maturation, enjoyment, parents as idol, relaxation in free time, and feeling that smoking is the normal behavior of a man. (Nyi Nyi Naing, et al. 2004). [14]

A study by Ann V. Song in US, reports respondents believed 79% chance that there is a long-term effect if they

smokes cigarettes, while none believes that there is no long term effect, [15] which very consistent with our respondents' perception that tobacco smoke may influence the children's health, although some of them knew that childhood illnesses are associated with smoking around the child.

However, majority of them knew that breathing tobacco smoke is a risk factor for child mortality as it was reasonable for passive smoker children to be sick with

CONCLUSION

Overall, there was good knowledge and perception status on the risk of secondhand smoke to children in Mukim, Sg Pelek, Sepang, Selangor. However, no association was found between the knowledge and the smoking status of the respondents, which shows that the respondents continue to smoke even while knowing its risk to children, with some of them even smoking in their houses with the presence of their children.

Therefore, interventions should be held to educate their children so that they can constantly remind their parents to not smoke, especially in the house.

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