

KNOWLEDGE ON SMOKING BEHAVIOUR AMONG FELDA SETTLERS IN MALAYSIA

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ABSTRACT

Background: Smoking is a global problem and highly preventable. Having adequate and good understanding on the underlying related problem is a necessity for the implementation of any prevention programme.

Objective: This study aimed to explore the knowledge of the targeted community towards smoking.

Methods: A cross-sectional study conducted among 230 adults aged 18 years old and above (from a total of 457 adults) who were living in a Felda residence called Felda Raja Alias 1. This Felda is located in the district of Jempol, Negeri Sembilan. Respondents were selected using the systematic random sampling ($k=2$). A face-to-face interview was conducted using a pre-tested questionnaire with eligible respondents. The questionnaire consisted of 3 sections, the socio-demography background, smoking history and also knowledge related to smoking behaviour. The knowledge related to smoking was measured using a pre-tested 3-point likert scale questionnaire.

Result: Majority of the respondents were non-smoker (63.0%) with 43.5% of them had been smoking for more than 21 years duration, aged between 45 to 64 years old (46.5%), female (51.7%), received at least secondary education (57.8%), married (67.4%), had individual income of less than RM999 per month (71.7%) and had good knowledge related to smoking (62.6%). Role in the family was the only significant predictive factor, parents predicted to have better knowledge on smoking behaviour compared to other family members.

Conclusion: The findings suggest the importance of role played by parents in delivering and educating others on the negative impact of smoking on health. However, it would be very interesting to observe the effectiveness of parental intervention on smoke-free home program in future study.

Keywords: Knowledge, Smoking, FELDA residents, Malaysia

1.0 INTRODUCTION

Smoking is a common problem globally and is proven to negatively affect health. The negative effect is not only involving the active but also the passive smoker. It is also reported to be the single most important cause of death globally. WHO estimated more than 5 million deaths per year due to smoking (WHO, 2010). The number of adults who smoke in 187 countries increased from 721 million to nearly 1 billion between 1980 and 2012 (Ng et al. 2014).

For the past few decades, smoking has been recognized as the most significant cause of preventable morbidity and premature death. A lot of studies have linked smoking to coronary heart disease, cancer, emphysema, chronic bronchitis and other chronic illness. In the recent 2010-2011 Global Adult Tobacco Survey (GATS) Malaysia, it was reported that the percentage distribution of current smokers among Malaysian aged 15 years and older was 23.1% which was estimated to be about 4.64 million individual (WHO, 2013).

Various factors contribute to the prevalence of smoking which include the socio-demographic background of the community such as their gender and race (Wakefield et al. 2000; Naing et al. 2004; Poland et al. 2006) and also knowledge related to the effect of smoking on individual health and also health of others. Knowledge is defined by the Oxford English Dictionary as expertise and skills acquired by a person through experience or education; while perception is the process by which humans interpret and organize sensation to produce a meaningful experience of the world (Rosenstock, Strecher & Becker, 1988). It is currently well established that if people's perceptions of the commonality and acceptability of certain behaviour can be adjusted, their inclination to engage in that behaviour may also be influenced (Dao et al. 2013).

The adverse effects of tobacco smoking on general health are well documented and on average, cigarette smokers die ten years younger than non-smokers (Mathers & Loncar, 2006). A study conducted among Vietnamese adults on knowledge on the consequences of tobacco smoking reported that, although there was a high proportion among adults answering that active and second hand smoking can cause serious illness, only 51.5% of them understood that smoking can cause all three specific diseases (stroke, heart attack, and lung cancer) which were scientifically documented to have close relationships with smoking (Dao et al. 2013). This study aimed to determine the level of knowledge on smoking behaviour among the FELDA settlers in Malaysia. FELDA or The Federal Land Development Authority is a Malaysian government agency initially founded to handle the resettlement of rural poor into newly developed areas and to organise smallholder farms growing cash crops.

2.0 METHODS

A cross sectional study was conducted among the FELDA settlers of Felda Raja Alias 1 which is located in the district of Jempol, Negeri Sembilan, involving individual aged 18 years old and above. A total of 230 people were involved in the study from a total of 457 adults residents, who were selected using systematic random sampling ($k=2$). A face-to-face interview was conducted with each respondent. The questionnaire consisted of three separate

sections which were socio-demographic characteristic, knowledge related to smoking and smoking history. The questionnaire on knowledge consisted of 9 items which were measured using a 3-point likert scale, 0 = unsure, 1= true, 2= false. One mark was given for correct answer and zero mark for incorrect and unsure answer. The questionnaire was written in Malay, since all of the respondents involved were Malay ethnic residents and was pre-tested among residents of another village with almost similar background. The data were analysed using Statistical Package for Social Sciences (SPSS) version 22.0. The three levels of analysis were performed, descriptive, bivariate and multivariate. Descriptive statistics were performed on all variables. The mean value for knowledge was used as the cut-off point to decide on the two categories, poor and good level of knowledge. The level of significance was set at 0.05. Approval from the Ethical Committee Universiti Putra Malaysia was obtained prior to the data collection.

3.0 RESULTS

3.1 Characteristics of the respondents

Table 1 shows the characteristics of the 230 respondents who were involved in the study. Majority of the respondents were aged between 45 and 64 years old (46.5%), female (51.7%), received at least secondary education (57.8%), being children in the family (36.5%), married (67.4%), had low income of less than RM999 (71.7%), employed (39.6%), non-smokers (63.0%), had been smoking for 21 years or more (43.5%), smoked less than a pack in a day (48.7%) and had good knowledge on smoking behaviour (62.6%).

Table 1: Characteristics of the respondents (N = 230)

Factors	n (%)
Age (n=230)	
Less than 24 years old	59 (25.7)
25 to 44 years old	47 (20.4)
45 to 64 years old	107 (46.5)
65 years and above	17 (7.4)
Gender (n=230)	
Male	111 (48.3)
Female	119 (51.7)
Educational level (n=230)	
No formal education	6 (2.6)
Primary school	77 (33.5)
Secondary school	133 (57.8)
University	14 (6.1)
Role in the family (n=230)	
Father	65 (28.3)
Mother	74 (32.2)
Children	84 (36.5)
Others	7 (3.0)
Marital status (n=230)	

Single	69 (30.0)
Married	155 (67.4)
Divorced	2 (0.9)
Widowed	4 (1.7)
Monthly income (n=230)	
< RM999	165 (71.7)
RM1000-RM1999	55 (39.9)
>RM2000	10 (4.4)
Occupation (n=230)	
Unemployed	34 (14.8)
Working	91 (39.6)
Housewife	70 (30.4)
Student	35 (15.2)
Duration of smoking (n=85)	
Less than a year	6 (7.1)
1 to 5 years	16 (18.8)
6 to 10 years	12 (14.1)
11 to 20 years	14 (16.5)
21 years and more	37 (43.5)
Number of cigarettes per day (n=85)	
Less than one pack	41 (48.7)
1 to 2 packs	38 (44.7)
3 packs	6 (6.6)
Smoking status	
Yes	85 (37.0)
No	145 (63.0)
Knowledge on smoking (mean= 5.73±0.15)	
Poor (≤ 5.73)	88 (37.4)
Good (> 5.73)	146 (62.6)

3.2 Factors associated with level of knowledge among respondents

Meanwhile table 2 shows the contributing factors of knowledge related to smoking behaviour among the respondents. The variables were further categorized for the purpose of the analysis. The mean age was used as the cut-off point to decide on the two categories for age. The analysis showed that there was significant association between knowledge and gender, occupation, smoking status and number of cigarettes smoke in a day with $p < 0.05$.

Table 2: Factors associated with knowledge on smoking behaviour among respondents (N = 230)

Factors	Knowledge		Chi square p
	Poor n (%)	Good n (%)	
Age [mean= 41.57 ± 18.52]			
≤ 42 years old	41 (39.4%)	63 (60.6%)	0.563
> 42 years old	45 (35.7%)	81 (64.3%)	
Gender			
Male	54 (48.6%)	57 (51.4%)	0.001
Female	32 (26.9%)	87 (73.1%)	
Education level			
Primary/ no formal education	33 (39.8%)	50 (60.2%)	0.577
Secondary/ tertiary	53 (36.1%)	94 (63.9%)	
Position in family			
Parents	52 (37.4%)	87 (62.6%)	0.994
Children/ others	34 (37.4%)	57 (62.6%)	
Marital status			
Married/ ever married	31 (44.9%)	38 (55.1%)	0.122
Single	55 (34.2%)	106 (65.8%)	
Monthly income [median= RM800 (IQR= 200)]			
≤ RM 800	48 (33.8%)	94 (66.2%)	0.153
> RM 800	38 (43.2%)	50 (56.8%)	
Occupation			
Employed	37 (40.7%)	54 (59.3%)	0.002
Unemployed/ students	34 (49.3%)	35 (50.7%)	
Housewife	15 (21.4%)	55 (78.6%)	
Smoking status			
Yes	45 (52.9%)	40 (47.1%)	0.000
No	41 (28.3%)	104 (71.7%)	
Duration of smoking			
≤ 5 years	12 (54.5%)	10 (45.5%)	0.911
6 to 10 years	7 (58.3%)	5 (41.7%)	
11 to 20 years	8 (57.1%)	6 (42.9%)	
≥ 21 years	18 (48.6%)	19 (51.4%)	
No. of cigarettes/ day			
< 1 pack	59 (31.7%)	127 (68.3%)	0.000
≥ 1 packs	27 (61.4%)	17 (38.6%)	

3.3 Determinants of knowledge related to smoking behaviour

The multiple logistic regression analysis showed that only the role in the family was (OR = 0.104, 95%CI: 0.011-0.945) significantly predicting the level of knowledge on smoking

behaviour. Meanwhile, the number of cigarettes smoked in a day was almost significantly predicting the level of knowledge. None of the factors that were found significantly associated with level of knowledge in the inferential statistics were significant predicting factors. However, the model produced was weak since only 29.3% of the variation of the level of knowledge on smoking behaviour is predicted by role in the family (Nagelkerke $R^2 = 0.293$).

Table 3: Predicting factors of knowledge related to smoking behaviour among respondents (N= 230)

Factors	B	S.E	OR	p	95% CI	
					Lower	Upper
Constant	1.825	1.927	6.204	0.343		
Gender	-1.061	1.659	0.346	0.523	0.013	8.945
Age group	-1.226	1.049	0.293	0.242	0.038	2.292
Marital status	-0.179	1.078	0.836	0.868	0.101	6.909
Income	0.803	0.646	2.231	0.214	0.629	7.915
Occupation	0.381	0.565	1.464	0.500	0.484	4.432
Educational level	0.118	0.594	1.125	0.843	0.351	3.604
Role in family	-2.262	1.125	0.104	0.044	0.011	0.945
Duration of smoking	-0.431	0.715	0.650	0.547	0.160	2.640
No of cigarette/ day	0.923	0.479	2.516	0.054	0.984	6.431

Nagelkerke $R^2 = 0.293$

4.0 DISCUSSION AND CONCLUSION

The ill effect of tobacco smoking is highly preventable. The great mass of literature on the effects of smoking on health has left no doubt that smoking is a major preventable cause of morbidity and mortality (Minhas & Rahman, 2009). This study revealed that majority of the respondents had good knowledge on smoking behaviour though most of them were non-smokers. Having adequate and correct knowledge on the negative effect of smoking on health may create awareness and boost the spirit to stop smoking. Studies about the level of knowledge on the effect of smoking among smokers and non-smokers had been widely studied. Smokers tend to underestimate their personal risks from smoking, presumably in an attempt to minimize cognitive dissonance from smoking and shield themselves from worry (Weinstein, 2004). The findings of this study is similar to a study conducted among medical students in Pakistan, which reported that knowledge about the deleterious effects of smoking

was lowest among current smokers and highest among never smokers (Minhas & Rahman, 2009). Those who never smoke also agreed that smoking is a contributing factor of heart disease (70.7%) compared to the current smokers (36.9%) (Minhas & Rahman, 2009).

Meanwhile, the 2010 GATS in Vietnam showed that adults' knowledge of specific diseases related to tobacco smoking was still vague as reflected in only 51.5% adults knew that smoking can cause all three diseases of stroke, heart attack, and lung cancer (Dao et al., 2013). Additionally, the study also reported that current non-smokers were 1.6 to 1.7 times likely to have better knowledge than current smokers. Respectively; the non-Kinh ethnic groups in Vietnam were less likely to have knowledge (OR=0.7 and 0.4) than Kinh ethnic group smokers (Dao et al. 2013). Having access to positive information was also found to have a close association with knowledge of smoking-health risks (OR=2.3 and 1.9, with $p<0.001$), in which the more knowledge they gained, the better knowledge of health consequences of tobacco smoking they obtained (Dao et al. 2013).

This study also found that parents tend to have better knowledge related to smoking behaviour compared to other members of the household. Parents should utilize their knowledge by educating other family members on the negative impact of smoking on health. According to Harakeh and colleagues who conducted a study on smoking behaviour among parents and adolescents the quality of the parent-child relationship and parental knowledge affected adolescents' smoking behaviour indirectly, while parental smoking behaviour had a direct effect (Harakeh et al. 2004). Strict control and psychological control were found to be unrelated to adolescents' smoking onset (Harakeh et al. 2004).

A qualitative study conducted among parents in a city in the Eastern Canada revealed that parents perceived smoking to be a latent danger for their children (Small, Kushner & Neufeld, 2012). In order to deter smoking from occurring, they verbally interacted with their children on the topic and took action by having a no-smoking rule (Small, Kushner & Neufeld, 2012). Three interaction approaches were identified from the interviews, which differed by style and method of interaction. These include discussion about smoking with their children, telling their children about the health effects of smoking and their opposition to it and also by acknowledging their children the negative effects of smoking, in which they responded only when their children brought it up (Small, Kushner & Neufeld, 2012).

In conclusion, having good knowledge on the effect of smoking on health is crucial in order to create better awareness on the importance of quit smoking. Parents should utilize their knowledge on the related issue in order to create a free-smoke home by educating their children and other family members on the danger of smoking the smokers and others. Further study should explore on the effectiveness of using parents as intervention to reduce smoking prevalence among adolescents which has become a very worrying situation.

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