UNIVERSITI PUTRA MALAYSIA

KNOWLEDGE, ATTITUDE AND PRACTICE OF SECONDARY SMOKE AMONGSECONDARY SMOKERS IN FELDA RAJA ALIAS 1, NEGERI SEMBILAN IN JUNE 2013

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KNOWLEDGE, ATTITUDE AND PRACTICE OF SECONDARY SMOKE AMONG SECONDARY SMOKERS IN FELDA RAJA ALIAS 1, NEGERI SEMBILAN IN JUNE 2013

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ABSTRACT

Introduction: Good knowledge, attitude and practice toward secondary smoke which are given by burning end of cigarette or smoke exhaled by smokers can prevent secondary smokers from many harmful effects toward their health.

Objective: The purpose of this study is to determine the level of knowledge, attitude and practice avoidance of secondary smoke and its association with socio-demographic factors.

Materials and Methods: This is a cross-sectional study by using self-administered questionnaire that comprised questions related to socio-demographic factors of respondents, question that assess respondent's knowledge and attitude on secondary smoking and their practice to avoid it. The questionnaires were self-administered to 235 respondents who were residents of Felda Raja Alias 1, Negeri Sembilan.

Result: The response rate was 81.6%. The majority (68.9%) of the respondents were female. The age group of 50-59 years old has the highest number of respondents (38.7%, N=91). All the respondents were Malay and Muslims. Most of the respondents were secondary school educational level which consist of 52.3% (N=123).There were only 5.5% (N=13) respondent who receive no formal education. Most of the respondents work as settler which is consists of 37.9% (N=89) respondents. This yielded the result that 65.5% of the respondent have good knowledge on secondary smoke. Whereas 49.4% have positive attitude level toward secondary smoke and 44.7% of respondent have positive practice on avoidance of secondary smoke. We found that there was a significant association between educational level and practice on secondary smoke ($p = 0.034$). There was also significant association between occupational status and attitude on secondary smoke ($p = 0.008$).

Conclusion: Secondary smokers from Felda Raja Alias 1, Negeri Sembilan have high level of knowledge but low level of attitude and practice toward secondary smoke. We found that educational level does influence the practice while occupational status do influences attitude toward secondary smoke.

Keywords: Secondary smoke, KAP, secondary smoker

PENGETAHUAN, SIKAP DAN AMALAN TERHADAP AKTIVITI MEROKOK SECARA PASIF DALAM KALANGAN PEROKOK PASIF DI FELDA GUGUSAN RAJA ALIAS 1, NEGERI SEMBILAN PADA JUN 2013.

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ABSTRAK

Pengenalan: Pengetahuan, sikap dan amalan yang baik terhadap asap rokok pasif yang terhasil daripada pembakaran rokok ataupun daripada nafas perokok dapat mengelakkan perokok pasif daripada pelbagai kesan yang berbahaya kepada kesihatan tubuh badan mereka.

Objektif: Tujuan kajian ini diadakan adalah untuk mengkaji tahap pengetahuan, sikap dan amalan terhadap asap rokok pasif dan hubungannya dengan faktor-faktor sosio-demografi.

Kaedah: Ini adalah kajian keratan lintang dengan menggunakan borang kaji selidik yang siedarkan terus kepada reponden yang mengandungi soalan berkaitan latar belakang responden, soalan-soalan yang menilai pengetahuan dan sikap responden terhadap asap rokok pasif, serta soalan-soalan yang menilai amalan responden dalam mengelak asap rokok pasif. Borang kaji selidik telah diberikan kepada 235 responden yang merupakan penduduk Felda Raja Alias 1, Negeri Sembilan.

Keputusan: Respon yang diberikan daripada responden adalan 81.6%. Majoriti respoden adalah terdiri daripada wanita (68.9%). Lingkaran umur yang paling major dalam kalangan responden ialah daripada umur 50 hingga 59 tahun iaitu mewakili 38.7% (N=91). Kesemua responden adalah Melayu dan beragama Islam. Kebanyakan responden adalah mereka yang menerima pendidikan di sekolah menengah iaitu 52.3% (N = 123) dan hanya 5.5% (N = 13) sahaja responden yang tidak menerima pendidikan formal. Majoriti responden adalah peneroka felda (37.9%, N = 89). Kajian ini menemui bahawa 65.5% reponden mempunyai pengetahuan dan 49.4% responden mempunyai sikap yang baik terhadap asap rokok pasif dan 44.7% responden mempunyai amalan yang baik dalam menghindari asap rokok pasif. Kajian ini juga menemukan bahawa terdapat hubungkait yang signifikan antara tahap pendidikan dengan tahap amalan untuk menghindari asap rokok pasif ($p = 0.034$). Selain itu, terdapat juga hubungkait yang signifikan antara status pekerjaan dengan sikap mereka terhadap asap rokok pasif ($p = 0.008$).

Kesimpulan: Perokok pasif di Felda Raja Alias 1, Negeri Sembilan mempunyai pengetahuan yang baik terhadap asap rokok pasif namun kebanyakan daripada mereka mempunyai sikap yang buruk terhadap asap rokok pasif dan amalan untuk menghindarinya. Kami mendapati bahawa tahap pendidikan boleh memberi kesan kepada amalan mereka untuk menghindari asap rokok pasif dan status perkerjaan memberi kesan terhadap sikap mereka terhadap asap rokok pasif.

Kata Kunci: Asap rokok pasif, pengetahuan, amalan dan sikap, perokok pasif

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LISTS OF ABBREVIATIONS

ETS – Environmental tobacco smoke

WHO – World Health Organization

SHS – Second-hand smoke

MOH – Ministry of Health

GATS – Global Adult Tobacco Survey

COPD – Chronic obstructive pulmonary disease

CDC – Center for Disease Control and Prevention

IARC – International Agency for Research on Cancer

EPA – Environmental Protection Agency

SIDS – Sudden infant death syndrome

CHAPTER 1

INTRODUCTION

1.1 Background

Nowadays, smoking has become major public health problem as it will cause many serious health conditions. Diseases caused by tobacco smoke not only affect the smoker, but also affect secondary smoker. Smoker is defined as someone who has smoked more than 100 cigarettes in a lifetime and has smoked within past months (Oxford, 2013). While secondary smoker is defined as someone who are exposed to secondhand smoke or also known as environmental tobacco smoke (ETS) which contained a mixture of the side stream smoke given off by burning end of cigarette, pipe or cigar and mainstream smoke, the smoke exhale from the lung of smokers. (Al- Batanony et al., 2008)

According to statistics provided by World Health Organization, every year, tobacco kills six million people with five million are users and ex-users and it kills more than 600, 000 per year non-smokers who were exposed to second-hand smoke (SHS). More importantly, women and children are group of people who are exposed the most, to secondary tobacco smoke. It's stated that, from 600, 000 people who died, 165, 000 of them are children (WHO, 2011).

Exposure to second-hand smoke causes worldwide burden of disease. The most common diseases caused by second-hand smoke are ischemic heart diseases, lower respiratory tract infection, asthmas and lung cancer. WHO stated that the highest death rates from secondary smoking is causes by ischemic heart disease with 379, 000 deaths. It followed by lower respiratory tract infection with 165, 000 deaths. Tobacco smoke which contains 4,000 chemicals, with at least 250 are known to be harmful and more than 50 to cause cancer, also cause hundred thousand premature death every year (WHO, 2011).

In Malaysia, the survey done by Ministry of Health (MOH) through Global Adult Tobacco Survey (GATS) found that, 2.3 millions of Malaysians adult exposed to second-hand smoke at work while 7.6 millions of them exposed to second-hand smoke at home. Compared to other countries, the prevalence of maternal smoking in Malaysia is relatively low thus exposure of children in Malaysia to secondary smoke may be lower compared to other countries (Abidin et al., 2011) .

1.1 Problem Statement

Tobacco smoke contains dangerous chemicals and toxics and it's carcinogenic. The content including formaldehyde, benzene, benzo [a] pyrene, vinyl chloride, arsenic, ammonia, and hydrogen cyanide. These chemical can cause many diseases and conditions such as respiratory diseases, cardiovascular diseases and cancer. The side effect became worse especially to fetus such as premature birth and death. (*The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General,* 2006)

Through the survey that was done before, smoking has brings many harmful effects as stated above and if it's not treated, it could lead to serious consequence such as death. But the facts that many of us didn't realize is smoking also bring harmful effect toward other people who exposed and inhaled the smoke. This group of people we called secondary smoker. Secondary smoker have same chances to get disease as smoker get and in some extend the chances for them to get tobacco smoke related disease even greater compare to smoker (*The Health Consequences of Smoking: A Report of the Surgeon General,* 2004).

People may have heard or known about secondary smoking but their level of knowledge, attitude and practice might be different. Hence, this study is conducted to determine the knowledge, attitude and practice regarding secondary smoking. This study also aims to find out the factors that influence the level of knowledge, attitude and practice towards secondary smoke.

1.2 Objectives

1.2.1 General Objective

a) To determine the knowledge, attitude and practice on secondary smoke among secondary smokers.

1.2.2Specific Objectives

a) To determine socio-demographic characteristic of respondents in Felda Gugusan Raja Alias 1.

b) To determine the level of knowledge on secondary smoke among secondary smoker.

c) To determine the level of attitude on secondary smoke among secondary smoker.

d) To determine the level of practice on secondary smoke among secondary smoker.

e) To identify the association between demographic factors and knowledge, attitude and practice on secondary smoke.

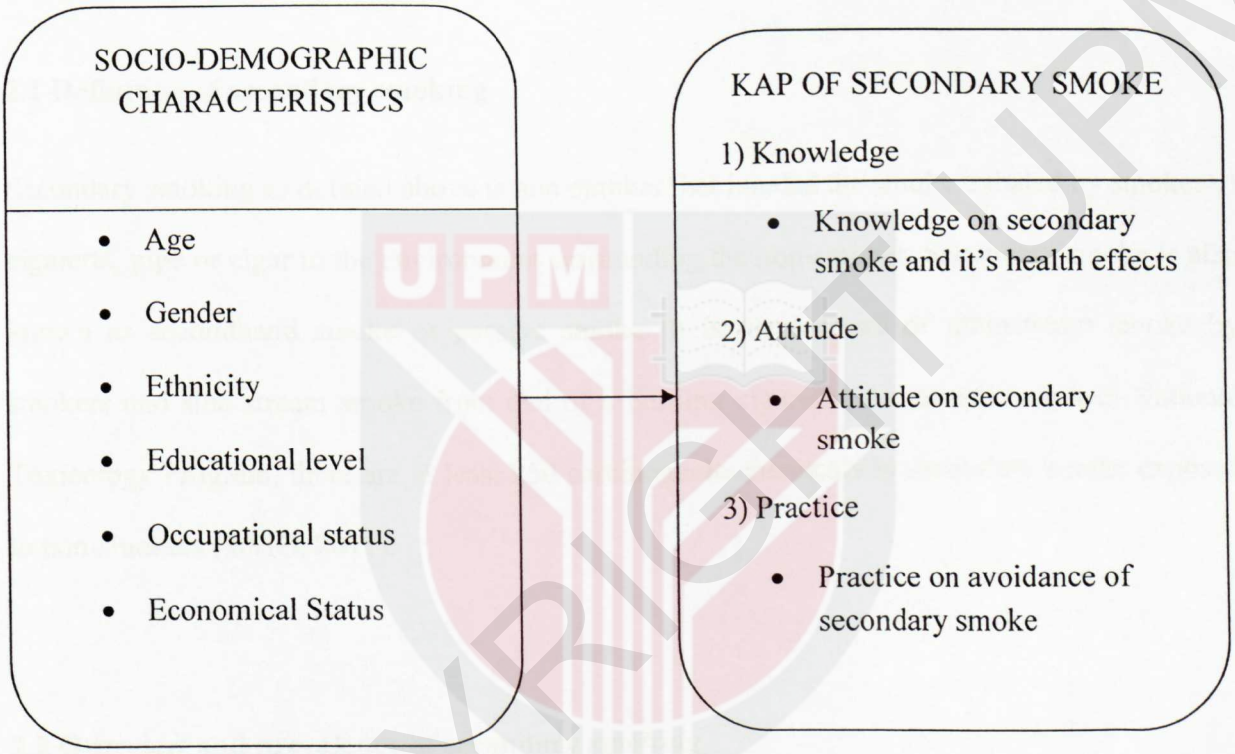
1.2.3 Research hypothesis

a) There are significant association between socio-demographic factors and level of knowledge on secondary smoke among secondary smoker.

b) There are significant association between socio-demographic factors and level of attitude on secondary smoke among secondary smoker.

c) There are significant association between socio-demographic factors and level of practice on secondary smoke among secondary smoker.

1.4 Conceptual Framework



CHAPTER 2

Literature Review

2.1 Definition of secondary smoking

Secondary smoking as defined above is non-smoker that inhaled the smoke exhaled by smoker of cigarette, pipe or cigar to the environment surrounding the non-smoker. Secondary smoke is also known as secondhand smoke or passive smoke. It is the mixture of mainstream smoke by smokers and side stream smoke from end of a burning cigarette. As an estimation in National Toxicology Program, there are at least 250 carcinogenic chemicals in secondary smoke exposed to non-smokers (WHO, 2011).

2.2 Overview and prevalence of secondary smoking

2.2.1 Worldwide prevalence and exposure of secondary smoke

A study in England show that the exposure of children to secondary smoking decreases since late 1980s due to introduced policies and reduced parental smoking. Parental smoking plays the main role in exposing their children to secondary smoke compared to outdoor exposures (Jarvis, Goddard, Higgins, Feyerabend, Bryant, & Cook, 2000). A study in United Kingdom reveals that maternal smoking has stronger association with secondary smoke compared to paternal smoking (Whitrow, Harding & Maynard, 2010). In the United State, 25.1% of children were found to be exposed to secondary smoke in 2000 whereas in Taiwan, 44.9% of children were found exposed

to secondary smoke in 2004. Prevalence of secondary smoke in women is higher in Asia than American in 2010 (Lin et al., 2010).

Another study shows that after the implementation of Taiwan Tobacco Hazards Prevention Act, there are still a significant number of children living with family members who are smokers thus exposed to secondary smoke. The results show the prevalence of exposure of secondary smoke at home is high. There are approximately 35% of the children exposed to secondary smoke for 4 and more days weekly. This figure is much higher compared to the US national study which shows 25% of secondary smoke exposure rate (Huang H.L. et al., 2012)

There is high exposure rate towards secondary smoke among current smokers, especially in public places. In the study, the exposure rate (81.1%) to secondary smoke is higher compared to results found in China national survey (67.0%) in 2002 and another Chinese study which shows 72.7% exposure rate. All these results indicate that public places are the worst places for exposure of secondary smoke in rural southwest China. Moreover, the study shows that exposure to secondary smoke at home among current smokers mostly have children and pregnant women as the secondary smokers (Cai L. et al., 2012)

2.2.2 Prevalence and exposure to secondary smoker in Malaysia

The prevalence of adult smokers in Malaysia in 2011 is estimated at 25%. The statistic was referred to a cross-sectional study in 2004 which involved 17,000 and above Malaysian respondents. The respondents involved are 56% of Malays, 21% of Chinese and 11% of Indians. Compared to other countries, the prevalence of maternal smoking in Malaysia is relatively low thus exposure of children in Malaysia to secondary smoke may be lower compared to other countries (Abidin et al., 2011).

For the results, the salivary conitine concentrations are in range of from less than LOD to 12 ng/ml with cut-off point of 15 ng/ml as evidence of active smoking. The mean GM of salivary cotinine of over 1000 school children is 0.46 ng/ml with median of 0.72 ng/ml and this is comparable to other international study such as study by Delpisheh et al. and Willers et al. In this study, it shows higher percentage (52.9%) of the children exposed to secondary smoke in the home compared to those in UK. In previous study in Negeri Sembilan, it was found that 40% of adolescents exposed to parental smoking at homes and another study in Kuala Lumpur involve young female at a private institution of education, the paternal smoking estimated at 50.9%, similar to the result of this study (Abidin et al., 2011).

2.3 Socio-demographic characteristics and secondary smoking

2.3.1 Age

In a study by Cai et al. in 2012, it found that individuals aged between 35 to 44 years old shows the highest smoking rates of current smokers, exposure rate of secondary smoke, and nicotine dependence level (Cai L. et al., 2012).

A cross-sectional in 2012 study carried in Korea which involved college students showed that 25.1% of the participants aged 17-19 years old, 22.6% aged 20-21 and 22.0% aged 22 and above exposed to secondhand smoke at home (Kim E. et al., 2012).

A study in California showed that adults aged more than 18 years old had the highest percentage (6.0%) of exposure to secondary smoke, followed by adolescents aged 12-17 years old (4.7%) and lastly children (3.4%) (Max W. et al., 2012).

2.3.2 Gender

Since the women in Taiwan in 2012 show relatively low prevalence of smoking as compared to the men, the main risk factor of secondary smoke exposure among non-smokers is the high prevalence of smoking among men (Huang H.L. et al., 2012).

Generally, men show higher smoking rates and nicotine dependence levels than the women. On the other hand, women show higher secondary smoke exposure rate (more than 75%) than the men. This suggests that women are facing a serious health hazards caused by secondary smoke exposure (Cai et al., 2012).

A cross-sectional study carried in Korea in 2011 which involved college students showed higher percentage (25.1%) of the female exposed to secondary smoke at home compared to male (18.6%). (Kim E. et al., 2012). A study in Missouri workplaces showed that male (63.4%) have higher exposure rate than female (36.6%) (Harris J. K. et al., 2011).

Among all the age groups, male showed a higher exposure rate to secondary smoke than female. For the children aged 0-11 years old, 3.6% of male children and 3.2% of female exposed to secondary smoke. For the adolescents aged 12-17 years old, 4.9% of male and 4.5% of female exposed to secondary smoke while for the adults aged 18 and above, 6.4% of male and 5.6% of female exposed to secondary smoke (Max W. et al., 2012).

2.3.3 Ethnic

The ethnic of minority group had a lower nicotine dependence and exposure to secondary smoke. The factors causing the differences between the different ethnic groups are their genetic heritability and influences of living environmental (Cai et al., 2012).

A study in Missouri workplaces showed different exposure rate among different races in which 84.4% of white, non-Hispanic, 11.7% of black, non-Hispanic, 2.3% of Hispanic and 1.5% of other races were exposed to secondary smoke (Harris J.K. et al., 2011).

A study in California showed that among the adults aged 18 and above, non-Hispanic Black had highest percentage (11.3%) of exposure to secondary smoke while the Hispanic had the lowest percentage (4.0%). Among all the age groups, Hispanic had the lowest exposure rate in which 1.9% in children, 3.3% in adolescents and 4.0% in adults. Among the children and adolescents, non-Hispanic American Indian/Alaska Native showed the highest exposure rate to secondary smoke in which 12.5% among children and 14.9% among adolescents. (Max W. et al., 2012)

2.3.4 Educational level

In Taiwan, children with higher grades showed the lowest confidence levels of secondary smoke exposure avoidance. This may be due to their better understandings about the decision power and authorities at home are their parents', so they had reduced confidence level in avoiding secondary smoke and would accepted the parental smoking (Huang H.L. et al., 2012).

In another study in China in 2012 by Cai et al., it shows that people with higher education level were associated with lower rates of current smoking, lower exposure rate to secondary smoke, and also lower nicotine dependence. In contrary, in both developing and developed countries and individuals with lower education levels were found to have higher rate of smoking, exposure rate of secondary smoke and nicotine dependence besides having lower chance of

quitting smoking. The researchers found that efforts of community-based smoking control will help to increase the knowledge score regarding the harmful effects of tobacco among less educated individuals (Cai et al., 2012).

A cross-sectional study carried in Korea which involved college students showed 24.8% of freshman, 23.4% of sophomores, 20.4% of juniors and 15.7% of seniors exposed to secondary smoke at home (Kim E. et al., 2012).

A study in Missouri workplaces showed participants graduated from high school or with General Educational Development certificate had the highest percentage (38.9%) exposed to secondary smoke compared from those graduated from college (20.9%). (Harris J.K. et al., 2011)

A study in California showed that among all age groups, individuals with high school or General Educational Development educational level had the highest exposure rate in which 5.0% in children, 6.6% in adolescents and 7.1% in adults. Among the adolescents and adults, individuals with educational level of college showed the lowest exposure rate to secondary smoke, in which 2.7% in adolescents and 5.1% in adults (Max W. et al., 2012).

2.3.5 Occupation

A study found that tobacco farmers who cultivated tobacco showed higher rates of prevalence of current smoking, rates of exposure to secondary smoke, and also higher nicotine dependence than individuals who do not cultivate tobacco. This may be due to the higher chance

of getting products of tobacco. Children with father who worked at armed forces were associated positively with GM cotinine concentrations compared to those with father who worked as Managers/Professionals (0.77 ng/ml v 0.35 ng/ml, $p < 0.0001$) (Cai et al., 2012).

2.3.6 Economical status

Children living in urban areas show higher GM cotinine concentration (0.54 ng/ml) significantly compared to children from rural areas (0.36 ng/ml). This finding suggests that there are more outdoor exposures of secondary smoke among children in urban areas which might be due to the exposure during transportations to school or at cafes or restaurant in urban areas. Children from low income group had GM cotinine concentration of 0.46 ng/ml, from middle income group had cotinine concentration of 0.49 ng/ml while those from high income group had cotinine concentration of 0.39 ng/ml. The usage of air-conditioner and mechanical ventilation were also associated significantly with the level of GM cotinine concentration. The usage of air-conditioner in children's sleeping rooms associated significantly with lower GM cotinine concentration than those without using any air-conditioners (0.32 ng/ml v 0.51 ng/ml, $p = 0.010$). Those who use mechanical ventilation like exhaust fans at home shows lower level of cotinine concentrations compared to those without exhaust fan (0.36 ng/ml v 0.50 ng/ml, $p = 0.007$) (Abidin et al., 2011).

A study in Missouri workplaces showed participants with annual income more than $75,000 had the highest percentage (23.9%) exposed to secondary smoke compared to those with annual income less than $15,000 (6.9%) (Harris J. K. et al., 2011).

Another study carried out in California showed that among the adults, individuals with low income had highest percentage (7.3%) of exposure rate to secondary smoke while individuals with high income had the lowest percentage (5.1%) (Max W. et al., 2012).

2.3.7 Family influences

According to a study carried out in university in Malaysia, from the 947 children involved, about 52.9% of them come from home environments with one or two smokers. Children who live with paternal smokers at home have higher GM cotinine concentrations (0.65 ng/ml) than children who live in smoke-free home environments (0.32 ng/ml). The result shows a higher cotinine concentrations when there are more than one adult smokers at home. The highest cotinine concentrations (1.12 ng/ml) shown in three children with both paternal and maternal smoking. The GM cotinine concentrations of children who live in smoke-free home were around 5 times higher compared to Scottish children which show cotinine concentration of 0.07 ng/ml). This suggests that the smoking restrictions in Malaysia were only done partially as compared to those being practiced in Scottish (Abidin et al., 2011).

A cross-sectional study carried in Korea which involved college students showed higher percentage (42.0%) of participants lived with family members who smoke exposed to secondary smoke at home compared to those lived with family members who do not smoke, 7.3% (Kim E. et al., 2012).

2.4 Knowledge, attitude and practice on secondary smoking

2.4.1 Knowledge

In article of Knowledge, Attitudes, and Behavior in Avoiding Secondhand Smoke Exposure Among Non-Smoking Employed Women with Higher Education in Jordan by Huda Gharaibeh et al. 2011, the questionnaire used were based on questionnaire developed by Kurtz et al. which contains 6 item regarding their knowledge toward secondary smoking exposure. The items are such as: smoke from other people's cigarettes will shorten my life; smoke from other people's cigarettes is harmful for me; smoking should be banned in all public places; secondary smoking makes my child's health worse; I let visitors smoke in my home and; I ask people around me to put out their cigarettes. For the results of the study, majority respondents had good knowledge of secondary smoking's negative health impacts on children. In calculating the total score for knowledge, the group mean was 24 (SD = 4.0) with possible range of 6-30 points and higher indicates better knowledge regarding secondary smoking (Gharaibeh et al., 2011).

In another study by Al-Batanony and his colleagues in 2008, respondents who are nurses of Menoufiya University Hospital were asked regarding their knowledge about secondary smoke based on Yes/No questions. The item such as: Is smoking the most prevalent cause of death? ; Is heavy smoker the only one at serious risks? ; Does regular exposure to second hand smoke concern you? ; Health hazard of SHS – lung cancer, coronary heart disease, stroke, aggravate asthma, increase menstrual pain, neonatal deaths, low birth weight. For the results, majority of them (<90%) have good knowledge that the heavy smoker is not the only one at serious health risk. 86% of the respondents show great concerned if regularly exposed to SHS. Majority

(95.9%) of them recognized that SHS could cause lung cancer, aggravate asthma (88.0%) and coronary heart disease (83.9%). More than half knew that SHS causes or contributes to stroke (65.9%), low birth weight (68.2%), neonatal deaths (61.8%) and increases menstrual pain (60.8%) (Al-Batanony et al., 2008).

While, in other study in Missouri workplaces showed 88.9% of the participants think that secondary smoke was harmful to their health while only 11.1% of them think that secondary smoke was not harmful to them and this showed that majority people in Missouri have good knowledge about secondary smoke (Harris J.K. et al., 2011).

2.4.2 Attitude

Based on a study done by Grace et al. in 2005, respondents which among Asian-American in America (Chinese, Korean, Vietnamese, and Cambodia), were asked regarding their knowledge, attitude and behavior on secondary smoking. Basically respondents were asked on exposure to secondary smoke, employer indoor smoking policy in public/common areas, whether smoking is allowed in patronized restaurants, whether they prefer non-smoking restaurant section or not, and secondary smoking belief and behavior in home (such as secondary smoking is harmful, secondary smoking in home affects children's health, ask people to put out their cigarettes, let visitors smoke in their home). For the result Chinese respondents were more likely to acknowledge that secondary smoking has adverse health effects on non-smokers (91%), were more likely to request their visitors to not smoke in their home and were more likely to ask people to put out their cigarettes (71%) compared to other ethnicity (Grace et al., 2005).

Apart from that, a study in Missouri workplaces showed only 38% of the participants support the smoke-free workplace law while 62.0% of them would not support the law (Harris J. K. et al., 2011).

2.4.3 Practice

From the previous study by Gharaibeh et al. 2011, questionnaire on avoidance practice of secondary smoking used the questions that developed by Martineli, which included 19 items that assessed respondents' efforts to avoid secondary smoke exposure. The 19 items included questions such as: when I encounter someone who is smoking, I distance myself to ensure that I will not be exposed to smoke; I allow people to smoke in my home; if I am with a group of people, and someone begins to smoke, I will remain with the group; if I encounter a friend or relative who is smoking, I will sit and talk with him/her while he/she is smoking; when I am in public place such as restaurant or offices or clinic, I will leave if unable to sit in the nonsmoking section; when I make a trip by bus, or any other public transportation I would request a nonsmoking seat; when I make a trip by taxi I will ask the driver not to smoke; I allow people smoking in my car; if my husband, or friends or relatives are gathering in a designated smoking area to smoke, I will join them rather than be alone; if I am with people who are smoking and I cannot leave, I will ask them to refine from smoking; I will sit in the smoking section of an public place or bus station if there are no seats available elsewhere; when an outdoor functions where smoking is present, I will move a way to avoid it; when an outdoor functions where water pipe smoking is present, I will move a way to avoid it; when exposed to secondhand smoke, I wash my clothes solely to remove the smell of smoke from them even if they are otherwise

clean; I find it unpleasant to be around secondhand smoke; I routinely associate with people who smoke; when eating out, I always sit in the nonsmoking section; I frequently ask for places where smoking is prevalent and; I do not find secondhand smoke is offensive.

For the results, it shows that majority of women (74.1%) will try to distance away from smokers to prevent themselves from the negative effects of secondary smoking. Apart from that, majority of the women responded that they would allow people to smoke in their homes (75.1%) and when somebody starts smoking in a group of people, they will not leave the group (79.9%). Even though majority (67.5%) of the respondents would let people smoke in their car and mainly of them (65.6%) would join their family in a smoking areas, but more than half of them (57.9%) report that secondary smoking to be offensive (Gharaibeh et al. 2011).

2.5 Health effects of secondary smoking

2.5.1 Secondary smoking and respiratory disease

Respiratory system is the main pathway for entry of secondary tobacco smoke (Abidin et al., 2011). Because of that, diseases caused by secondary smoking usually occur in these sites and the diseases that commonly occur are asthma, pneumonia and bronchitis. These diseases caused by tobacco smoke and it even worse in secondary smoker as they inhaled more than 4000 chemicals and toxins that may irritate respiratory organs and alter their functions. Unlike smoker, they directly inhale the smoke, but 80% of the smoke will be exhaled back to the environment and produced environmental tobacco smoke (ETS) (Grace X. et al., 2005).

Exposures to secondahand (SHS) smoke also give harmful effects to women especially during pregnancy because it will interrupt development of fetus respiratory system. Interruption in this development process later will increase the risk of getting asthma after birth and having impaired lung functions. According to WHO, asthma is a common chronic disease of bronchial with 235 million people currently suffer from it and it is most common in children (WHO, 2011). Exposure of SHS in adult may trigger many respiratory symptoms such as wheezing, shortness of breath, cough, and lung problems but little effect on impairment lung functions (Janson, 2004). In smokers, smoking has adverse health effects on the entire lung, affecting every aspect of lung structure and functions, including impairing lung defenses against infection and causing the sustained lung injury that leads to chronic obstructive pulmonary disease (COPD) (CDC, 2004).

2.5.2 Secondary smoking and cardiovascular related diseases

Secondary smoking can cause many types of cardiovascular disease. It's usually exaggerated and worsen a person's heart condition and may cause heart attack and many other heart diseases. There are research conducted on human and animal that proved SHS may increase the aggregation of platelet and makes them to become sticky and this condition will induces the formation of thrombus in blood vessel (Abidin E.Z. et al, 2011). Thrombus in blood vessel can cause conditions and diseases such as myocardial infarction, ischemic heart disease, angina pectoris and cause hardening of blood vessel. The hardening of blood vessel will cause lost in ability to control blood. Because of that, secondary smoker usually present with high blood pressure (Glantz et al., 1991). SHS also directly reduce blood supply to myocardium and alter a person's heart rate. (Abidin et al, 2011).

According to the research done by Pope and colleague in 2001, it is stated that the heart rate of secondary smoker was 12% lower compared to non-smoker and it is estimated that secondary smoker has 20% increase in chances to get heart disease compared to other. (Pope et al., 2001). When compared to smokers, they have the same risk of developing atherosclerotic vascular disease, myocardial infarction, unstable angina and ultimately cause sudden death (Winniford, 1990).

2.5.3 Secondary smoking and cancer

Cancer is a major cause of death worldwide, accounting for 7.6 million deaths, represent 13% of total death in 2008 and tobacco use is the most important risk factor for cancer causing 22% of global cancer deaths and 71% of global lung cancer deaths (IARC, 2004). Lung cancer is the most frequent cancer occurred in human with smoking as its major cause in most people. Tobacco smoke contains at least 30 compound that have been classified by IARC to become carcinogenic substances that will induce the development of cancerous cell (Mary et al., 2004). Environmental tobacco smoke has been classified as group A carcinogenic agent by United States Environmental Protection Agency (EPA). The substances in this group are substances with its carcinogenicity proven in human which include the substances in smoking that being proved will cause the lung cancer. The result from many study also conclude that there were 27% excess in risk of lung cancer among non-smoking woman whose spouse is a smoker. This means that, non-smoker who are exposed to environmental tobacco smoke are more likely to develop lung cancer when compare of to someone who are never exposed to it (Richard T. et al, 2007). In smokers, same as non-smokers, it is stated that tobacco smoking will increase the risk for cancer, including cancer of the lung and parts of the upper aero-digestive tract (Sasco A.J. et al, 2004).

2.5.4 Secondary smoking and pregnancy

Passive smoking may bring negative effects toward the pregnancy and the fetus itself. It may cause spontaneous abortion, premature birth, high death rates during birth and lower birth weight. The previous report have concluded that smoking mother or mother who are exposed to environmental tobacco smoke are more likely to cause sudden infant death syndrome (SIDS) (Adgent, 2006). Apart from that, tobacco smoke may also affect fetal vital signs and usually the fetus will present with lower Apgar score. Many women claimed that they usually avoid smoking during pregnancy. But they didn't realize that unintentionally they become passive smoker.

The study done in public maternity hospital in Sao Paolo showed high rates of passive smoking pregnant women with the result reached 35.9%. As the mother is a passive smoker, without we realize, the fetus also become passive smoker. With 4000 chemical and toxin in tobacco smoke, fetus will have high risk to develop many kind of disease and the development of fetus itself is affected. When mother inhaled smoke, the substance within the tobacco smoke will crossed the placenta and will alter oxygen rate as well as placenta metabolism. This alteration will give harmful effect towards fetus as they only rely on placenta to supply them with oxygen and nutrient. Because of that, most baby whose mother smoke passively will present with low birth weight and many other abnormalities (Mary U.N. et al, 2004).

CHAPTER 3

MATERIALS AND METHODS

3.1 Study Location

This study was done at Felda Gugusan Raja Alias, Negeri Sembilan, Malaysia.

3.2 Study Design

A cross-sectional study design was used in this study.

3.3 Sampling

3.3.1 Study Population

Residents of Felda Gugusan Raja Alias.

3.3.2 Sampling Unit

A household in Felda Gugusan Raja Alias.

3.3.3 Sample Size

n – Required sample size

P – Estimated prevalence of secondary smoking (from Global Tobacco Adult Survey,GATS 2011)

Z – Confidence level at 95% (standard value of 1.96)

d – Precision (in proportion of 1)

α – Level of significance

$$n = \frac{Z^2 P(1-P)^{[12]}}{d^2}$$

$$= \frac{1.96^2 \times 0.25\ (1-0.25)}{0.05^2}$$

$$= 288 \approx 300$$

3.3.4 Sampling Method

Simple random sampling

3.4 Inclusion and Exclusion Criteria

3.4.1 Inclusion Criteria

i) Non-smoker

ii) Individual aged 15 to 60 years old

iii) Malaysian

3.4.2 Exclusion Criteria

i) Smoker

ii) Mentally impaired respondents

iii) Non-Malaysian

3.5 Variables

3.5.2 Independent Variable

Socio-demographic factors:

- Age

- Gender

- Race

- Religion

- Educational level

- Occupational status

3.5.2 Dependent variables

i) Level of knowledge regarding secondary smoke

ii) Level of attitude regarding secondary smoke

iii) Level of practice of avoidance on secondary smoke

3.6 Data Collection

Data collection was began on 3rd of June 2013 in a period of 1 weeks duration. A set of questionnaires was given to each respondent personally together with personal consent and respondents was given a period of time to complete the questionnaire.

3.7 Instruments

A set of questionnaire was given to respondents. The questionnaires was divided into 4 sections.

3.7.1 Socio-demographic Information

This will be the first section, Section A. Under this section respondents was asked with the following variables:

- Age
- Gender
- Nationality
- Race
- Religion
- Educational level
- Occupational status
- Economical status

3.7.2 Knowledge on secondary smoke

Section B, contain questions on knowledge of secondary smoke and respondents was asked Yes/No questions.

3.7.3 Attitude on secondary smoke

Section C, which is attitude on secondary smoke was assessed by Likert scale, with scores of Totally disagree (1), Disagree (2), Not sure (3), Agree (4) and Totally Agree (5).

3.7.4 Practice on avoidance of secondary smoke

Section D or the last section, which consists practice on avoidance of secondary smoke was assessed through Likert scale.

3.8 Ethical issues and consent

Approval of this study was obtained from the Ethical Committee of Universiti Putra Malaysia. Personal consents from respondents was obtained together with questionnaire during data collection. Respondents' information was kept as strictly confidential and their identities are kept anonymous.

3.9 Validity and Reliability

Pre-testing of the questionnaire was done to 40 felda settlers in Felda Serting Hilir 1. Using Reliability test, all item of Knowledge, Attitude and Practice on secondary smoke are above 0.7, which is 0.869 for Knowledge, 0.884 for Attitude and 0.739 for Practice of avoidance on secondary smoke. Overall, the Cronbach's Alpha value is 0.711 which concluded reliable.

Translate and re-translating of questionnaires was done to check if there any error in translating the item.

3.10 Data analysis

The data was analyzed using SPSS 21.0 for windows. The data was analyzed by using Chi-square method to find the association between socio-demographic and KAP on secondary smoke.

3.11 Definition of terms

Ever smoke: Refers to those who have smoked 100 and more cigarettes in their lifetime.

Never smoke: Include those who had never smoked and those who smoked less than 100 of cigarettes in their lifetime.

Ex-smoker: Those who did smoked at least 100 of cigarettes in their lifetime but currently they do not smoke in one month.

CHAPTER 4: RESULTS

4.1 Response rate

Data was collected among the residents of Felda Raja Alias 1, Negeri Sembilan. Total respondent that responded for this study is 235 out of 288 with a response rate of 81.6%.

4.2 Distribution of respondent

4.2.1 Distribution of respondents according to socio-demographic factors

Table 1: Socio-demographic characteristic of respondents according to their gender, age, ethnicity, religion educational level and occupational status.

Social demographic characteristic		Frequency	Percentage (%)
Gender	Male	73	31.1
	Female	162	68.9
Age	20-29	67	28.5
	30-39	10	4.3
	40-49	40	17.0
	50-59	91	38.7
	60-69	27	11.5
Ethnicity	Malay	235	100.0
	Chinese	0	0.0
	Indian	0	0.0
	Others	0	0.0

Religion	Islam	235	100.0
	Christian	0	0.0
	Buddha	0	0.0
	Hindu	0	0.0
Educational level	No formal education	13	5.5
	Primary school	63	26.8
	Secondary school	123	52.3
	University	36	15.3
Occupational status	Student	17	7.2
	Settlers	89	37.9
	Businessman	11	4.7
	Government servant	16	6.8
	Private servant	18	7.7
	Others	84	35.7

4.2.1.1 Age

The distribution of respondents by age group is showed in Table 1. The youngest respondent was 20 years and the eldest respondent was 69 years old. The age group of 50-59 years has the highest number of respondents which comprising of 38.7% (n=91).

4.2.1.2 Gender

Table 1 shows the distribution of respondent by their gender. Out of 235 respondents, there were 73 (31.1%) male respondent and 162 (68.9%) female respondent. So, we can conclude most respondent were female.

4.2.1.3 Ethnicity

For ethnicity, all 235 (100%) respondents were Malay.

4.2.1.4 Religion

As showed in Table 1 above, all 235 (100%) respondents were Muslims.

4.2.1.5 Educational level

Table 1 shows the distribution of respondents by their educational level. Most of the respondents 123 (52.3%) received secondary school education. There were only 13 (5.5%) respondents who had receive no formal education.

4.2.1.6 Occupational status

The distribution of respondents by their occupational status in Table 1 shows that most of the respondents work as settlers 89 (37.9%), followed by others 84 (35.7%), private servant 18 (7.7%), student 17 (7.2%), government servant 16 (6.8%) and businessman 11 (4.7%).

4.3 Distribution of scores

4.3.1 Score for knowledge regarding secondary smoke

Table 2: Distribution of answers given by respondent regarding knowledge on secondary smoking.

No.	Questions	Yes (%)	No (%)	Not Sure (%)
K1	Do you know anything about secondary smoke?	48.9	30.6	20.4
K2	Do you know that cigarette's smoke contains many harmful and toxigenic chemicals?	82.1	7.7	10.2
K3	Are you aware that secondary smoke can endanger non-smokers' health?	83.0	6.0	11.1
K4	Do you know that secondary smoke can cause lung/respiratory diseases?	83.0	6.8	10.2
K5	Do you know that secondary smoke can cause heart diseases?	72.8	6.8	20.4
K6	Do you know that secondary smoke can cause cancer?	73.6	7.2	19.1
K7	Do you know that secondary smoke can give health problems to pregnant woman and foetus?	84.3	6.8	8.9
K8	Do you know that secondary smoke can aggravate asthma in children?	82.1	8.9	8.9

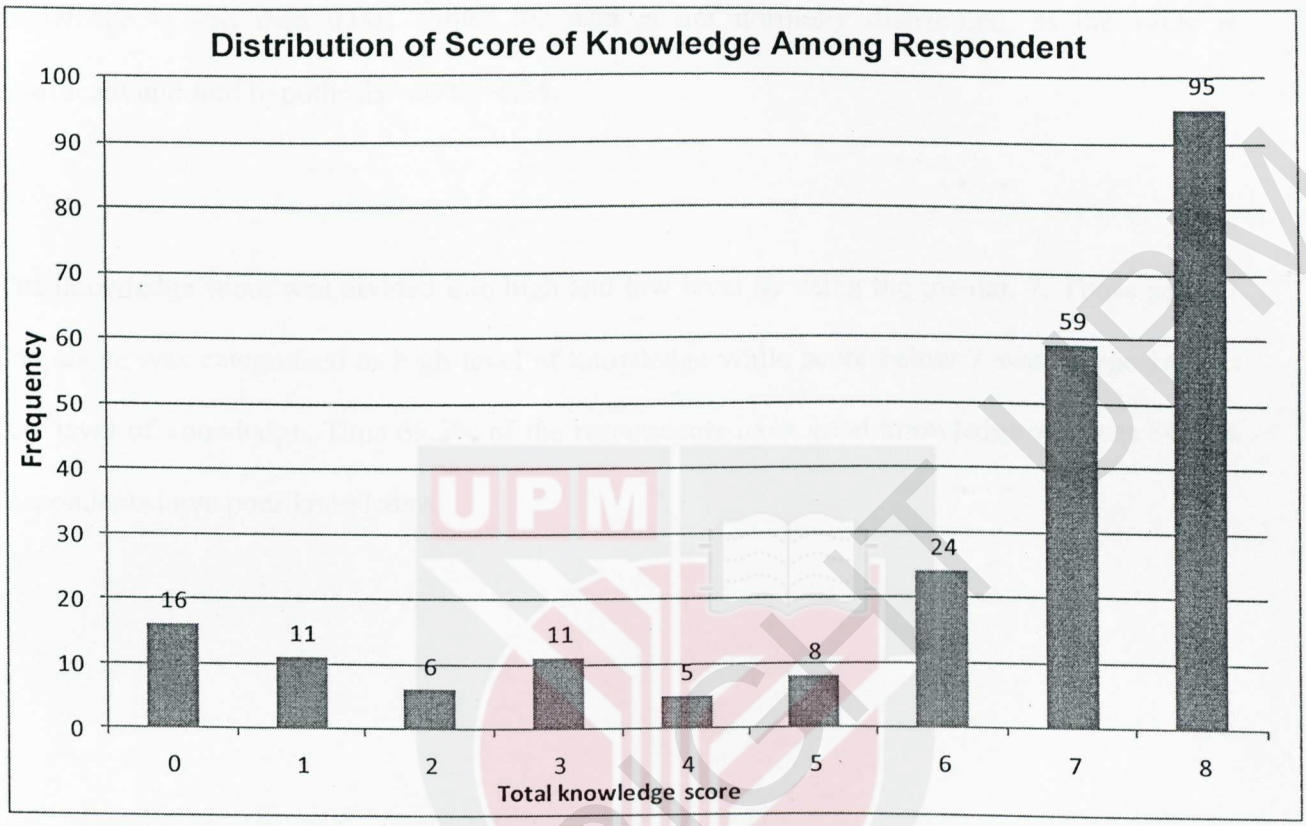


FIGURE 1: Distribution of scores of knowledge among respondent regarding secondary smoke

Figure 1 shows the distribution of scores of knowledge regarding secondary smoke among secondary smokers. The mean score was 6.09. The range of score was 8, with maximum score of 8 and a minimum score of 0. The mode of score was 8 and the median score was 7. The score of knowledge regarding secondary smoke among secondary smokers was not normally distributed.

This is because, the skewness, after the statistic value divide by standard error, the value is -8.57, which is out range ±1.96 and kurtosis, after the statistic value divide by standard error, the value is 1.59 which is in range of ±1.96. Kolmogorov-Smirnov and Sharpio-Wilk value of

knowledge is less than 0.001 shows the data is not normally distributed, as the value is significant and null hypothesis was rejected.

The knowledge score was divided into high and low level by using the median 7. Those score 7 and above was categorized as high level of knowledge while score below 7 was categorized as low level of knowledge. Thus 65.5% of the respondents have good knowledge whereas 34.5 % respondents have poor knowledge.

4.3.2 Score for Attitude on Secondary Smoke

Table 3: Distribution of answers of each questions given by the respondents on the attitude towards secondary smoke.

No	Questions	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
A1	Smoking should not be allowed in public places.	3.0	5.5	14.0	30.2	47.2
A2	People who smoke in public place should be fined.	1.7	3.0	16.6	28.9	49.8
A3	Secondary smoke is dangerous to my health	4.3	1.3	17.0	29.8	47.7
A4	It is unpleasant to be around people who smoke in front of me.	1.3	3.4	17.9	33.6	43.8
A5	People that smoke in front of me is impolite.	1.7	7.7	24.3	27.2	39.2
A6	Smokers who smoke in front of non-smokers knew that secondary smoke is harmful to those non-smokers.	3.0	3.0	25.5	32.3	36.2
A7	Parents should not smoke in front of their children at home.	2.6	3.4	11.9	28.5	53.6
A8	I do not like people who smoke.	2.6	7.2	20.9	25.5	43.8

(1=totally disagree, 2=disagree, 3=not sure, 4=agree, 5=totally agree)

Figure 2 shows the distribution of total score of attitude on secondary smoke among respondents. The mean score was 32.84. The median score was 34.00. The mode was 40.00. The range was 32.00 with the maximum value of 40.00 and minimum value of 8.00. For the skewness, after the statistic value divide by standard error, the value was -6.32 which is out of range of ±1.96. For the Kurtosis, after the statistic value divide by standard error, the value was 3.52 which was out of range of ±1.96. The Kolmogorov-Smirnov value of attitude which was less than 0.001 shows the statistically significant difference between sample mean and population mean. The Shapiro-Wilk value of attitude was less than 0.001 shows significant difference between sample mean and population mean. Therefore, the total score of attitude on secondary smoke was not normally distributed.

The total score of attitude was divided into positive and negative attitude by using median score 34.00. The total attitude score which was 34.00 or above was considered as positive attitude while the total attitude score which was below 34.00 was considered as negative attitude. Therefore, there were 49.4% of respondents with positive attitude while 50.6% of respondents with negative attitude.

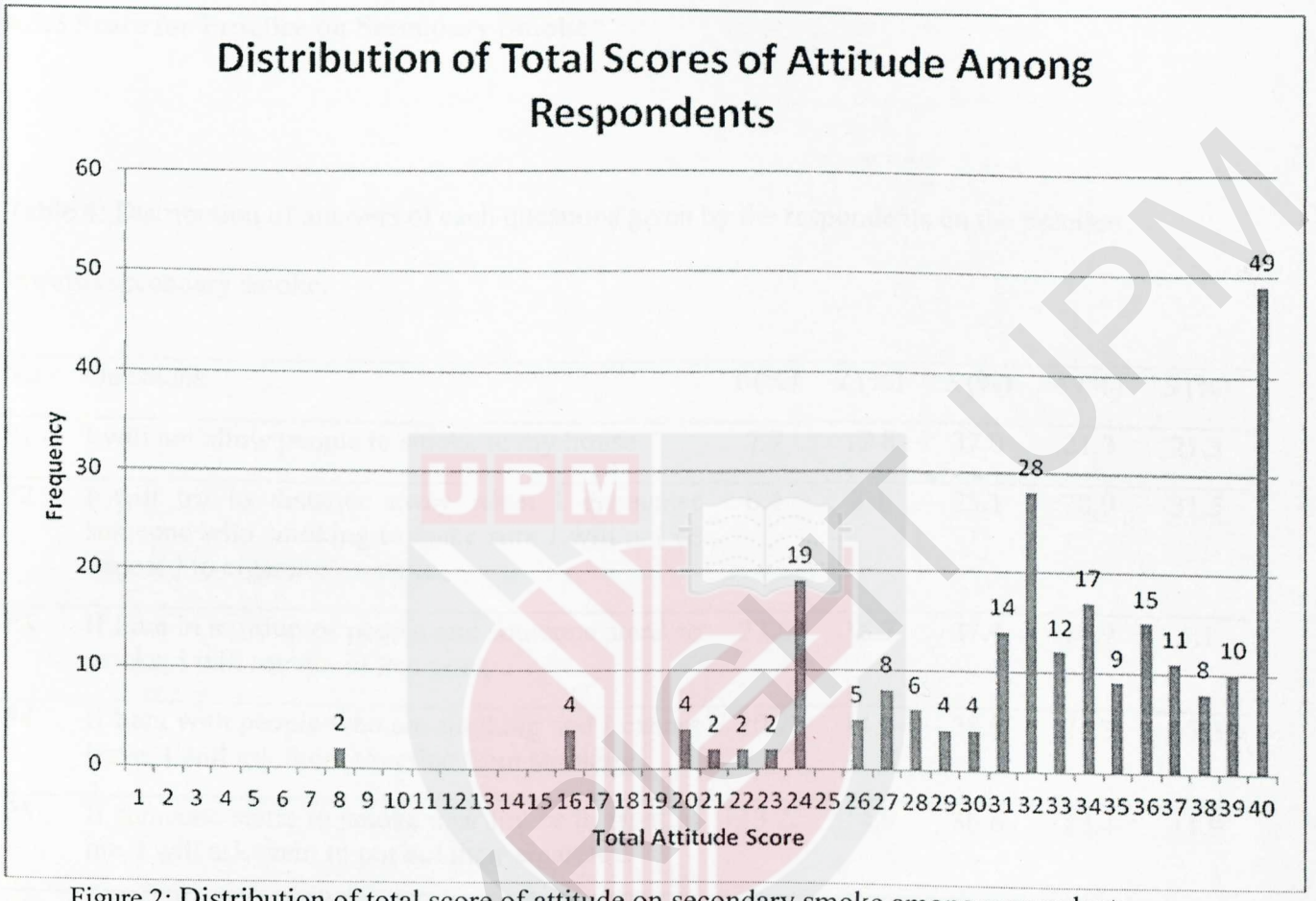


Figure 2: Distribution of total score of attitude on secondary smoke among respondents

4.3.3 Score for Practice on Secondary Smoke

Table 4: Distribution of answers of each questions given by the respondents on the practice towards secondary smoke.

No.	Questions	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)
P1	I will not allow people to smoke in my house	7.7	12.8	37.0	21.3	21.3
P2	I will try to distance away when I encounter someone who smoking to make sure I will not be exposed to cigarette's smoke.	6.4	8.1	25.1	28.9	31.5
P3	If I am in a group of people and someone starts to smoke, I will remain in that group..	23.8	18.7	37.4	14.9	5.1
P4	If I am with people who are smoking and I cannot leave, I will ask them to refine from smoking.	10.2	11.9	38.9	24.3	15.3
P5	If someone starts to smoke near me or in front of me, I will ask them to put out their cigarette..	13.2	14.9	36.6	23.4	11.9
P6	When I make a trip by taxi I will ask the driver not to smoke..	9.8	14.0	33.2	20.9	22.1
P7	When my friends gather and some of them start to smoke in that gathering, I will join them instead of being alone.	32.3	15.7	35.3	10.2	6.4
P8	If I encounter a friend or relative who is smoking, I will be with him/her and chat while he/she is smoking.	21.7	17.0	38.7	15.3	7.2
P9	I will allow people to smoke in my car	28.9	18.7	31.9	10.6	9.8
P10	When I am in public place such as restaurant or office or clinic, I will leave if I unable to sit in non-smoking area.	21.3	16.6	35.3	14.9	11.9

(1=Does Not Reflect Myself At All, 2=Does Not Reflect Myself, 3=Not sure, 4=Reflect Myself, 5=Totally Reflect Myself)

Figure 3 shows the distribution of total score of practice on secondary smoke among the respondents. The mean score of practice was 33. The range of score was 34, with maximum score of 49 and minimum score of 15. The mode of score was 30 and the median was 32. The distribution of total score for practice on secondary smoke was not normally distributed. This is because although skewness, after the statistical value divided by standard error, the value is 1.16 which is in range of ±1.96, and kurtosis value, after the statistical value divided by standard error is -0.177 which is also in range of ±1.96, but the Kolmogorov-Smirnov value of practice is 0.001, and Shapiro-Wilk value of practice is 0.001, which both are less than 0.05, showing the distribution of total scores of practice is not normally distributed.

The total score of practice was divided into positive and negative practice by using median score 32.00. The total practice score which was 32.00 or above was considered positive practice while the total score of practice which was below 34.00 was considered negative practice. Among of the respondent, there were 44.7% of respondents have good practice and 55.3% of respondents have poor practice of secondary smoke.

4.4 Association between socio-demographic factors with knowledge, attitude and practice on secondary smoke

4.4.1 Association between Knowledge, Attitude and Practice score and Age

Table 5: Association between knowledge, attitude and practice on secondary smoke and age.

Variable		Poor	Good	x2	p value
Knowledge	Age				
	20-29	23 (34.3%)	44 (65.7%)	1.845	0.764
	30-39	4 (40.0%)	6 (60.0%)		
	40-49	17 (42.5%)	23 (57.5%)		
	50-59	28 (30.8%)	63 (69.2%)		
	60-69	9 (33.3%)	18 (66.7%)		
Attitude	Age				
	20-29	32 (47.8%)	35 (52.5%)	1.328	0.857
	30-39	6 (60.0%)	4 (40.0%)		
	40-49	22 (55.0%)	18 (45.0%)		
	50-59	44 (48.4%)	47 (51.6%)		
	60-69	12 (44.4%)	15 (55.6%)		
Practice	Age				
	20-29	33 (49.3%)	34 (50.7%)	1.629	0.804
	30-39	6 (60.0%)	4 (40.0%)		

40-49	24 (60.0%)	16 (40.0%)
50-59	51 (56.0%)	40 (44.0%)
60-69	16 (59.3%)	11 (40.7%)

Note: $p<0.05$ = significant

Table 5 shows the association of knowledge, attitude and practice on secondary smoke with age. For the knowledge, p value was 0.764 which is greater than 0.05. The null hypothesis was not rejected. There was no significant association between knowledge on secondary smoke and age. For the attitude, p value was 0.857 which is greater than 0.05. The null hypothesis was not rejected. There was no significant association between attitude on secondary smoke and age. For the practice, p value was 0.804 which is greater than 0.05. The null hypothesis was not rejected. There was no significant association between practice on secondary smoke and age.

4.4.2 Association between Knowledge, Attitude and Practice score and Gender

Table 6: Association between knowledge, attitude and practice on secondary smoke and gender.

Variable		Poor	Good	χ^2	p value
Knowledge	Gender				
	Male	19 (26.0%)	54 (74.0%)	3.340	0.068
	Female	62 (38.3%)	100 (61.7%)		
Attitude	Gender				
	Male	32 (43.8%)	41 (56.2%)	1.294	0.255
	Female	84 (51.9%)	78 (48.1%)		
Practice	Gender				
	Male	43 (58.9%)	30 (41.1%)	0.551	0.458
	Female	87 (53.7%)	75 (46.3%)		

Note: $p<0.05$ = significant

In table 6, it shows the association of knowledge, attitude and practice on secondary smoke with gender. For the knowledge, p value was 0.068 which is greater than 0.05. The null hypothesis was not rejected. There was no significant association between knowledge on secondary smoke and gender. For the attitude, p value was 0.255 which is greater than 0.05. The null hypothesis was not rejected. There was no significant association between attitude on secondary smoke and gender. For the practice, p value was 0.458 which is greater than 0.05. The null hypothesis was not rejected. There was no significant association between practice on secondary smoke and gender.

4.4.3 Association between Knowledge, Attitude and Practice score and Educational level

Table 7: Association between knowledge, attitude and practice on secondary smoke with educational level.

Variable		Poor	Good	x2	p value
Knowledge	Educational level				
	No formal education	5 (38.5%)	8 (61.5%)	6.021	0.111
	Primary school	23 (36.5%)	40 (63.5%)		
	Secondary School	47 (38.2%)	76 (61.8%)		
	University	6 (16.7%)	30 (83.3%)		
Attitude	Educational level				
	No formal education	6 (46.2%)	7 (53.8%)	5.424	0.143
	Primary school	28 (44.4%)	35 (55.6%)		
	Secondary school	69 (56.1%)	54 (43.9%)		
	University	13 (36.1%)	23 (63.9%)		
Practice	Educational level				
	No formal education	7 (53.8%)	6 (46.2%)	8.697	0.034*
	Primary school	28 (44.4%)	35 (55.6%)		
	Secondary school	79 (64.2%)	44 (35.8%)		
	University	16 (44.4%)	20 (55.6%)		

Note: $p<0.05$ = significant

* Significant at

The association of knowledge, attitude and practice on secondary smoke with educational level is showed in table 7 above. For the knowledge, p value was 0.111 which is greater than 0.05. The null hypothesis was not rejected. There was no significant association between knowledge on secondary smoke and educational level. For the attitude, p value was 0.143 which is greater than 0.05. The null hypothesis was accepted. There was no significant association between attitude on secondary smoke and educational level. For the practice, p value was 0.034 which is less than 0.05. The alternative hypothesis was not rejected. There was significant association between practice on secondary smoke and educational level.

4.4.4 Association between Knowledge, Attitude and Practice score and Occupational Status

Table 8: Association between knowledge, attitude and practice on secondary smoke and occupational status.

Variable		Poor	Good	x2	p value
Knowledge	Occupational status				
	Student	4 (23.5%)	13 (76.5%)	3.610	0.607
	Settlers	32 (36.0%)	57 (64.0%)		
	Businessman	4 (36.4%)	7 (63.6%)		
	Government servant	4 (25.0%)	12 (75.0%)		
	Private servant	9 (50.0%)	9 (50.0%)		
	Others	28 (33.3%)	56 (66.7%)		

Attitude	Occupational status				
	Student	2 (11.8%)	15 (88.2%)	15.652	0.008*
	Settlers	49 (55.1%)	40 (44.9%)		
	Businessman	6 (54.5%)	5 (45.5%)		
	Government servant	6 (37.5%)	10 (62.5%)		
	Private servant	13 (72.2%)	5 (27.8%)		
	Others	40 (47.6%)	44 (52.4%)		
Practice	Occupational status				
	Student	7 (41.2%)	10 (58.8%)	5.198	0.392
	Settlers	56 (62.9%)	33 (37.1%)		
	Businessman	6 (54.5%)	5 (45.5%)		
	Government servant	7 (43.8%)	9 (56.2%)		
	Private servant	8 (44.4%)	10 (55.6%)		
	Others	46 (54.8%)	38 (45.2%)		

Note: $p<0.05$ = significant

* Significant at

Table 8 shows the association of knowledge, attitude and practice on secondary smoke with occupational status. For the knowledge, p value was 0.607 which is greater than 0.05. The null hypothesis was not rejected. There was no significant association between knowledge on secondary smoke and occupational status. For the attitude, p value was 0.008 which is less than 0.05. The alternative hypothesis was not rejected. There was significant association between attitude on secondary smoke and occupational status. For the practice, p value was 0.392 which is greater than 0.05. The null hypothesis was not rejected. There was no significant association between practice on secondary smoke and occupational status.

4.5 Summary of data results

Based on the results obtained, there was not significant association between socio-demographic factors and KAP of secondary smoke except: 1) educational level and practice on avoidance of secondary smoke and 2) occupational status and attitude on secondary smoke.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Discussions

5.1.1 Distribution of socio-demographic characteristics

5.1.1.1 Gender

There were 73 (31.1%) male respondents and 162 (68.9%) female respondents. In the study, the respondents only included non-smokers. A study in Taiwan showed that there were higher prevalence of secondary smoke exposure among female (Huang H. L. et al., 2012). Another study in Kyrgyzstan also showed that women were found to have greater risk of exposed to secondary smoke than men. This was because they were more likely to live with at least one smoker at home compared to men of non-smokers (Vinnikov D. et al., 2010)

5.1.1.2 Age

The highest age group of our respondents, 91 (38.7%) was 50-59 years old. However, in another study in Scotland, the highest age group, 236 (20.2%) exposed to secondary smoke was 35-44 years old (Haw S. J. et al., 2007). Another study showed that the highest prevalence, 7854 (17.5%) of exposure to secondary smoke was age group 30-39 years old (Friedman G. D. et al., 1983). There was contrary between this study and the previous studies because the sample size in

this study was small compared to the previous study. Moreover, the respondents in this study only included non-smokers which could also affect the results.

5.1.1.3 Ethnicity

In the Felda Raja Alias 1, all of the residents were Malay. Therefore, all of our respondents were Malay.

5.1.1.4 Religion

For the religion, all of the residents in Raja Alias 1 were Muslims. Therefore, 100% of our respondents were Muslims.

5.1.1.5 Educational level

In the study, majority of the respondents, 123 (52.3%) had educational level of secondary school level or lower educational level. There were only 36 (15.3%) of the respondents had educational level of university level. The result was similar to a study in California which showed that adults with at least a college degree had lower exposure to secondary smoke. In other words, those with educational level lower than college degree had higher exposure to secondary smoke (Max W. et al., 2012).

5.1.1.6 Occupational status

In this study, majority of the respondents worked as settlers 89 (37.9%), followed by others 84 (35.7%). The respondents in the category "others" were mostly stated as housewife. A study in Saudi by Wahabi et al. in 2013 which involved female respondents showed that housewife showed the highest exposure to secondary smoke, 771 (76.4%) compared to students, 104 (10.3%) and employees, 134 (13.3%). More than 80% of the respondents reported that the husbands were the main sources of secondary smoke exposure (Wahabi et al., 2013). Another study in Korea showed that there was significantly higher prevalence of secondary smoke at home among female, especially those with family members who smoked. The results showed that secondary smoke exposure at home was 9.27 times higher for those with smokers in the families than those who did not have. This could be due to a few circumstances such as the spouses smoked, the parents smoked or when smoking was not restricted at home (Kim E. K. et al., 2012)

5.1.2 Distribution of score for knowledge, attitude and practice of secondary smoke among secondary smokers.

5.1.2.1 Knowledge

From the result obtained, the level of knowledge regarding secondary smoke among secondary smokers are relatively high since they could answer well to the question and 65.5% respondents were categorized as having good knowledge regarding secondary smoke. Previous

study by Al-Batanony et al. (2008) also shows the same result in which they conclude that the respondent had general knowledge about secondary smoke (Al-Batanony et al., 2008). Yet, in our research, there are still a small portion of the respondent whom not aware about secondary smoke and their harmful effect as there are 34.5% of them were categorized as having poor knowledge. Moreover, there are 30.6% of the respondents who do not even know what secondary smoke is. But for effect of secondary smoke, generally all respondent have a good knowledge about it as 70% of them admitted that they know what will happen to the person who exposed to tobacco smoke. This result was in agreement with research finding reported by Chan et al. (2007) who stated that their respondent had some general knowledge about smoking and health as well as smoking-related diseases (Chan et al., 2007).

5.1.2.2 Attitude

The attitude of respondents regarding secondary smoke call for a lot of concern because although their have good knowledge, but 50.6% respondents was categorized as having poor attitude toward secondary smoke. Even though generally they were categorized as poor attitude, but more than 70% of respondent agree that smoking should not be allowed in public place and smokers should be fined and about 75% of respondent feel unpleasant when people smoke in front of them and think that it's impolite to smoke in front of other people. About 60% of respondents admitted that they do not like people who smoke. But overall, we can conclude that, although generally respondent have good knowledge but they have poor attitude toward secondary smoke. In contrast with the research done by Chan et al. (2007) which stated that their

respondents having good knowledge as well as positive attitude toward secondary smoke (Chan et al. 2007)

5.1.2.3 Practice

From the data analysis, it is found that the practice on secondary smoke among respondents are not satisfying as 55.3% of them was categorized as having negative practice toward secondary smoke. This result was comparable to the research done by Al-Batanony et al. (2008) that stated although their respondents have good knowledge on secondary smoke, but they have poor practice toward it (Al-Batanony et al., 2008). From the questionnaire, less than 50% respondent will not allow people to smoke in their house and about only 35% of respondent will ask people who smoke in front of them to stop smoking which reflect their poor practice toward secondary smoke. There are only about 60% of respondent who will avoid themselves from people who smoke and most of them will still participated in a discussion even though there are people who are smoking in that group. All the result above conclude that our respondent have poor practice toward secondary smoke.

5.1.3 Association between socio-demographic characteristic and knowledge, attitude and practice on secondary smoke

There were no significant association between the knowledge, attitude and practice on secondary smoke with age as the p value obtained are more than 0.05. For the association between knowledge, attitude and practice on secondary smoke with gender also showed p value above 0.05 which is no significant association between them. Moreover, there were no association between educational level and occupational status with knowledge, attitude and practice on secondary smoke as both p value were over 0.05. Plus, for ethnicity and religion also no association as all of the respondents was Malay and Muslims. This is contrast to the study by Grace et al. (2005) which found that there is association between practice on avoidance of secondary smoke with gender and educational level. It stated that men and people with less-education have higher tolerance to secondary smoke which mean that poorer practice on secondary smoke avoidance. For association of age and knowledge and practice of secondary smoke, it is supported by the same study as the study also found that there is no association between age with knowledge and practice on secondary smoke.

Apart from that, there is a significant association between educational level and practice on secondary smoke avoidance among the respondents as the p value was 0.034. Higher educational level of respondents directly proportional to their practice on avoidance of secondary smoke as they have more knowledge and information about harmful effects of secondary smoke to their

health, make them to avoid from inhaling secondary smoke. Although the knowledge score of respondents shows that 65.5% of them have good knowledge, but this was due to the higher number of respondents from 'other' category in occupational status that majority of them stated that they are housewives. Their practice of avoidance on secondary smoke is lower as they were exposed to their husband/sons cigarette smoke. Another finding was between occupational statuses with attitude on secondary smoke also showed significant association as the p value was 0.008. From the result, it shows those student groups have highest percentage of good attitude on secondary smoke (88.2%). This is because students are exposed to health education, information, and knowledge of harmful effects of secondary smoke in their colleges or universities. This will build up their positive attitude on secondary smoke. A study from Kalbi (2005) found that health education was effective in increasing knowledge and attitude among of the respondent.

5.2 Limitations

This study was questionnaire-based study. So, there is a possibility that the respondents misunderstood the question or answered the questionnaire in a particular way that does not truly reflect their attitudes or practices toward secondary smoke. Moreover, some of respondents refused to give consent and participated in the study that affect the results.

Furthermore, due to a small sample size of the study subjects and also the research were conducted in only one FELDA area, it is controversial in determining the significance of association between two or more factors. Hence, it is neither convenient nor supportive enough to draw conclusion from the data collected and analyzed. The data that was collected in FELDA area also make us difficult to find multi-races respondents since all the FELDA settlers was Malay and Muslim.

Also, since cross-sectional study method is used, we are unable to determine temporal relationship among the variables. In our research, we only do sampling from one FELDA area, so our sample size relatively small and lack of variability to draw persuasive conclusion

5.3 Conclusions

In this study, majority of our respondents are in their late adulthood, most of them are females, and all of them are Malay and Muslims. Most of the respondents (52.3%) have secondary school level of education and most of them (37.9%) are work as settlers.

Among the respondents, (65.5%) of them have good knowledge regarding secondary smoke, (49.4%) of them have good attitude on secondary smoke and (44.7%) of them have good practice on avoidance of secondary smoke.

There is a significant association between educational levels of respondents with practice on avoidance of secondary smoke, and there is significant association between occupational statuses of respondents with attitude on secondary smoke. Other results show no significant association

5.4 Recommendations

We recommend that for the future studies, a residential area with a larger population may be chosen to provide more reliable and more accurate results. Moreover, a residential area with multiracial can be chosen to find out the prevalence of non-smokers exposed to secondary smoke among different ethnics.

Moreover, we recommend health education program regarding the harmful effects of secondary smoke especially to non-smokers to be held in all FELDAs in Malaysia to increase their knowledge, attitude and practice on secondary smoke. This also to give awareness to parents especially father and other family members in a house that smoking in house can exposed their family members to environmental tobacco smoke which is harmful to human's health especially pregnant women and children.

Lastly we recommend that government should strengthen the policies regarding no smoking places in workplaces and public places for example restaurants, hospitals, shopping malls, and others to decrease the exposure rate of secondary smoke in our country.

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QUESTIONNAIRE ON SECONDARY SMOKE AMONG SECONDARY SMOKER IN FELDA GUGUSAN RAJA ALIAS, NEGERI SEMBILAN, MALAYSIA.

KERTAS SOALAN MENGENAI ASAP ROKOK PASIF DALAM KALANGAN PEROKOK PASIF DI FELDA GUGUSAN RAJA ALIAS, NEGERI SEMBILAN, MALAYSIA.

Instruction: Please tick (√) which best describes your answers to the questions/statements below. Select only ONE answer for each item. Respondent must answer all items sincerely. All respondents' data will be kept confidential.

Arahan: Sila tandakan (√) pada setiap soalan yang disediakan. Pilih hanya SATU jawapan dan jawapan yang terbaik bagi mengambarkan diri anda pada setiap soalan yang dikemukan.

SECTION A/ *BAHAGIAN A*

SOCIO-DEMOGRAPHIC/ *SOSIO-DEMOGRAFI*

1. Age/*Umur:* _____years old/*tahun*

2. Gender/*Jantina*: ☐ a) Male/*Lelaki* ☐ b) Female/*Perempuan*

3. Nationality/*Warganegara*: ☐ a) Malaysian/*Warganegara*
   ☐ b) Non-Malaysian/*Bukan warganegara*

4. Race/*Bangsa*: ☐ a) Malay/*Melayu* ☐ b) Chinese/*Cina* ☐ c) Indian/*India*
   ☐ d) Others/*Lain-lain*:_____

5. Religion/*Agama*: ☐ a) Islam ☐ b) Christian ☐ c) Hindu ☐ d) Budhha
   ☐ e) Others/*Lain-lain*:_____

6. Marital status/*Status Perkahwinan:* ☐ a) Married/*Berkahwin* ☐ b) Single/*Bujang*

7. Educational Level/*Tahap Pendidikan*

- ☐ No formal education/*Tanpa pendidikan formal*
- ☐ b) Primary school/*Sekolah rendah*
- ☐ e) Secondary school/*Sekolah menengah*
- ☐ f) University/ College/*Universiti/Kolej*

8. Occupational Status/*Status Pekerjaan*:

- ☐ a) Student/*Pelajar*
- ☐ b) Settler/*Peneroka*
- ☐ c) Government servant/*Pekerja kerajaan*
- ☐ d) Private sector/*Pekerja swasta*
- ☐ c) Businessman/*Peniaga*
- ☐ d) Others/*Lain-lain*:_____

9. Monthly Income/*Pendapatan Bulanan*:

- ☐ a) RM500-RM999
- ☐ b) RM1000-RM1999
- ☐ c) RM2000-RM3999
- ☐ d) RM4000 and above/*dan ke atas*

SECTION B/*BAHAGIAN B*

KNOWLEDGE ON SECONDARY SMOKE/*PENGETAHUAN TENTANG ROKOK PASIF*

Instruction: Please tick (√) which best describes your answers to the questions/statements below. Select only ONE answer for each item.

Arahan: Sila tandakan (√) pada setiap soalan yang disediakan. Pilih hanya SATU jawapan dan yang terbaik bagi mengambarkan diri anda pada setiap soalan yang dikemukan.

No.	Questions/Soalan	Yes/ Ya	No/ Tidak	Not Sure/ Tidak Pasti
K1	Do you know anthing about secondary smoke? *Adakah anda tahu mengenai asap rokok pasif?*			
K2	Do you know that cigarrette's smoke contains many harmful and toxigenic chemicals? *Adakah anda tahu asap rokok mempunyai kandungan bahan kimia yang bertoksik dan berbahaya?*			
K3	Do you aware that secondary smoke can endanger non-smokers' health? *Adakah anda sedar bahawa asap rokok pasif dapat membahayakan kesihatan orang yang tidak merokok?*			
K4	Do you know that secondary smoke can cause lung/respiratory diseases? *Adakah anda tahu bahawa asap rokok pasif dapat mengakibatkan pelbagai penyakit paru-paru/pernafasan?*			
K5	Do you know that secondary smoke can cause heart diseases? *Adakah anda tahu bahawa asap rokok pasif dapat mengakibatkan pelbagai penyakit jantung?*			
K6	Do you know that secondary smoke can cause cancer? *Adakah anda tahu bahawa asap rokok pasif dapat mengakibatkan kanser?*			
K7	Do you know that secondary smoke can give health problems to pregnant woman and fetus? *Adakah anda tahu bahawa asap rokok pasif dapat memberi masalah kesihatan kepada perempuan yang mengandung dan pada kandungannya?*			

K8	Do you know that secondary smoke can aggravate asthma in children? *Adakah anda tahu asap rokok pasif dapat memberi kesan yang lebih buruk kepada kanak-kanak yang menghidapi asma?*			

SECTION C/*BAHAGIAN C*

ATTITUDE ON SECONDARY SMOKE/*SIKAP TERHADAP ASAP ROKOK PASIF*

Instructions: Please tick (√) for your answer for each question/statement below either you are Totally disagree(1), Disagree(2), Not sure(3), Agree(4) or Totally Agree(5).

Arahan: Sila tandakan (√) untuk jawapan anda bagi setiap soalan/penyataan di bawah sama ada anda Sangat Tidak Setuju(1), Tidak Setuju(2), Tidak Pasti(3), Setuju(4) atau Sangat Setuju(5).

No	Questions/Soalan	1	2	3	4	5
A1	Smoking should not be allowed in public places. *Merokok tidak sepatutnya dibenarkan di tempat-tempat awam.*					
A2	People who smoke in public place should be fined. *Orang yang merokok di tempat awam hendaklah didenda.*					
A3	Secondary smoke is dangerous to my health *Asap rokok pasif berbahaya kepada kesihatan saya.*					
A4	It is unpleasant to be around people who smoke in front of me. *Ianya adalah sesuatu yang tidak senang untuk berada dekat dengan orang yang merokok di hadapan saya.*					
A5	People that smoke in front of me is impolite. *Orang yang merokok di hadapan saya adalah tidak beradab.*					
A6	Smokers who smoke in front of non-smokers knew that secondary smoke is harmful to those non-smokers. *Perokok yang merokok di hadapan orang yang tidak merokok tahu bahawa asap rokok itu berbahaya kepada mereka yang tidak merokok.*					
A7	Parents should not smoke in front of their children at home. *Ibu bapa tidak sepatutnya merokok di hadapan anak-anak mereka di rumah.*					
A8	I do not like people who smoke. *Saya tidak suka kepada orang yang merokok.*					

SECTION D: PRACTICE OF AVOIDANCE ON SECONDARY SMOKE

Instructions: Please tick (√) for your answer for each question/statement below whether it is: Does Not Reflect Myself At All(1), Does Not Reflect Myself(2), Not sure(3), Reflect Myself(4) or Totally Reflect Myself(5).

Arahan: Sila tandakan (√) untuk jawapan anda bagi setiap soalan/penyataan di bawah sama ada ia: Langsung Tidak Menggambarkan Diri Saya(1), Tidak Menggambarkan Diri Saya(2), Tidak Pasti(3), Menggambarkan Diri Saya(4) atau Amat Menggambarkan Diri Saya(5).

No.	Questions/Soalan	1	2	3	4	5
P1	I will not allow people to smoke in my house *Saya tidak akan membenarkan orang untuk merokok di dalam rumah saya.*					
P2	I will try to distance away when I encounter someone who smoking to make sure I will not exposed to cigarette's smoke. *Saya akan cuba untuk menjauhkan diri saya apabila terjumpa orang yang sedang merokok bagi memastikan saya tidak terdedah kepada asap rokok tersebut.*					
P3	If I am in a group of people and someone starts to smoke, I will remain in that group. *Jika saya berada dalam kumpulan dan seseorang mula untuk merokok, saya akan tetap berada dalam kumpulan tersebut.*					
P4	If I am with people who are smoking and I cannot leave, I will ask them to refine from smoking. *Jika saya berada bersama orang yang merokok dan saya tidak dapat meninggalkan mereka, saya akan minta agar mereka tidak merokok.*					
P5	If someone starts to smoke near me or in front of me, I will ask them to put out their cigarette. *Jika seseorang mula untuk merokok di hadapan saya atau berdekatan dengan saya, saya akan meminta dia untuk memadamkan rokok tersebut.*					
P6	When I trip by taxi I will ask the driver not to smoke. *Bila saya menaiki teksi saya akan meminta kepada pemandu teksi tersebut untuk tidak merokok.*					
P7	When my friends gather and some of them start to smoke in that gathering, I will join them instead of					

	being alone. *Bila rakan-rakan saya berkumpul dan sesetengah daripada mereka mula untuk merokok dalam kumpulan tersebut, saya akan menyertai mereka daripada duduk berseorangan.*					
P8	If I encounter a friend or relative who is smoking, I will be with him/her and chat while he/she is smoking. *Jika saya terjumpa kawan atau saudara yang merokok, saya akan bersama dan berbual dengannya ketika dia sedang merokok.*					
P9	I will allow people to smoke in my car. *Saya akan membenarkan orang untuk merokok di dalam kereta saya.*					
P10	When I am in public place such as restaurant or office or clinic, I will leave if I unable to sit in non-smoking area. *Bila saya berada di tempat awam seperti di restoran atau di ofis atau di klinik, saya akan meninggalkan tempat itu jika saya tidak dapat duduk di tempat yang tidak dibenarkan merokok.*					

JAWATANKUASA ETIKA UNIVERSITI UNTUK
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RESPONDENT'S INFORMATION SHEET

Please read the following information carefully and do not hesitate to discuss any questions you may have with the researcher.

STUDY TITLE

Knowledge, attitude and practice of secondary smoke among secondary smokers in Felda Gugusan Raja Alias, Negeri Sembilan.

INTRODUCTION

Tobacco smoke contains many dangerous chemicals and toxics and it is carcinogenic. This can lead to many diseases and conditions such as respiratory diseases, cardiovascular diseases and cancer. It's important to have the knowledge, good attitude and practice toward secondary smoke even if the person is non-smoker in order to avoid its harmful effect. People may have heard or known about secondary smoke but their level of knowledge, attitude and practice might be different. Hence, this study is conducted to determine the level of knowledge, attitude and practice regarding secondary smoke among secondary smokers. This study also conducted in other to find out the factors influence the knowledge, attitude and practice towards secondary smoke.

WHAT WILL YOU HAVE TO DO?

This research is questionaire-based research that required participant to answer questionaire given.The questionaire consist of 4 section which is participant is required to answer.Section 1 is question regarding sosiodemographic information and followed by section 2,3 and 4 which the question regarding knowledge, attitude and practice toward secondary smoke.

WHO SHOULD NOT ENTER THE STUDY?

Children and Adult who have the medical history of neurological diseases, illnesses that affecting brain function, do not understand the instruction given and also vision and hearing problem as well and adult who smokers.

WHAT WILL BE THE BENEFITS OF THE STUDY:

(a) TO YOU AS THE SUBJECT?

Know and increase your level of knowledge, attitude and practice toward secondary smoke.

b) TO THE INVESTIGATOR?

Participation will help in the gathering data for the research regarding level of knowledge, attitude and practice on secondary smoke.

WHAT ARE THE POSSIBLE RISKS?
None

WILL THE INFORMATION THAT YOU PROVIDE AND YOUR IDENTITY REMAIN CONFIDENTIAL?
Yes. All the informations provided are strictly confidential. Information will only be presented in a collective manner without the mentioning of any individual identity.

WHO SHOULD YOU CONTACT IF YOU HAVE ADDITIONAL QUESTIONS DURING THE COURSE OF THE RESEARCH?

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HELAIAN PENERANGAN RESPONDEN

Sila baca maklumat berikut dengan teliti. Sekiranya anda mempunyai sebarang pertanyaan, sila kemukakan kepada penyelidik.

TAJUK KAJIAN

Pengetahuan, sikap dan amalan terhadap terhadap aktiviti merokok secara pasif dalam kalangan perokok pasif di Felda Gugusan Raja Alias, Negeri Sembilan pada jun 2013.

PENGENALAN

Asap rokok mengandungi pelbagai bahan kimia dan toksik yang membahayakan kesihatan dan juga karsinogenik kepada badan. Bahan-bahan ini mampu menyebabkan pelbagai penyakit seperti penyakit respiratori, penyakit kardiovaskular dan kanser. Oleh itu, pengetahuan, sikap dan amalan yang baik terhadap aktiviti merokok secara pasif adalah penting untuk mengelakkan diri dari kesan-kesan buruk asap rokok pasif. Sesetengah masyarakat mungkin pernah mendengar atau mengetahui masalah berkaitan asap rokok pasif ini. Namun, tahap pengetahuan, sikap dan amalan mereka adalah berbeza antara setiap individu. Oleh itu, tujuan kajian ini dijalankan adalah untuk mengetahui tahap pengetahuan, sikap dan amalan terhadap aktiviti merokok secara pasif. Kajian ini juga bertujuan untuk mencari hubungkait antara faktor sosiodemografik dan pengetahuan, sikap dan amalan terhadap aktiviti merokok secara pasif.

APAKAH YANG PERLU ANDA LAKUKAN?

Kajian ini adalah kajian yang berasaskan borang soal soal selidik yang akan diedarkan kepada responden.Responden perlu menjawab borang soal selidik ini dimana borang ini mengandungi empat bahagian.Bahagian pertama adalah berkaitan maklumat sosiodemografik responden dan diikuti dengan bahagian 2,3 dan 4, iaitu bahagian pengetahuan, sikap dan amalan terhadap asap rokok pasif.

SIAPA YANG TIDAK BOLEH MENYERTAI KAJIAN INI?

Kanak-kanak dan orang dewasa yang mempunyai rekod perubatan penyakit neurologi, penyakit yang memudaratkan otak, gangguan emosi, tidak memahami arahan yang diberikan, mempunyai masalah penglihatan dan pendengaran dan juga orang dewasa yang merokok.

APAKAH FAEDAH MENYERTAI KAJIAN INI?

a) KEPADA ANDA SEBAGAI PENYERTA?

Responden dapat mengetahui dan meningkatkan pengetahuan terhadap aktiviti merokok secara pasif

b) KEPADA PENYELIDIK?

Penyertaan anda dalam ujian ini akan membantu dalam pengumpulan data untuk digunakan dalam kajian terhadap pengetahuan, sikap dan amalan perokok pasif terhadap asap rokok pasif.

ADAKAH IA BERISIKO?
Tidak

ADAKAH MAKLUMAT DAN IDENTITI SAYA KEKAL RAHSIA?

Ya. Setiap maklumat yang diberikan kepada kami akan dirahsiakan dan tidak akan didedahkan kepada orang lain.

SIAPA YANG SAYA PERLU HUBUNGI SEKIRANYA SAYA MEMPUNYAI SOALAN TAMBAHAN SEMASA MENGIKUTI PENYELIDIKAN INI?

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JAWATANKUASA ETIKA UNIVERSITI UNTUK PENYELIDIKAN MELIBATKAN MANUSIA (JKEUPM)
UNIVERSITI PUTRA MALAYSIA, 43400 UPM SERDANG, SELANGOR, MALAYSIA

BORANG PERSETUJUAN RESPONDEN

TAJUK PENYELIDIKAN :

Pengetahuan, sikap dan amalan terhadap terhadap aktiviti merokok secara pasif dalam kalangan perokok pasif di Felda Gugusan Raja Alias, Negeri Sembilan pada jun 2013.

PENYELIDIK : MUHAMMAD ZULHILMI BIN AHMAD NAWAWI
NGU SIAO TIING
NUR IDAYU BINTI ABDULLAH

Saya..... No Kad Pengenalan. .....
beralamat.....
.....dengan ini bersetuju untuk mengambil bahagian secara sukarela dalam menyertai pengajian soal selidik seperti yang disebut di atas.

Saya telah diberi penjelasan secara menyeluruh mengenai dasar penyelidikan klinikal dari segi metodologi, risiko dan komplikasi (seperti tertulis pada Helaian Penerangan Responden). Saya memahami bahawa saya berhak menarik diri dari penyelidikan ini pada bila-bila masa tanpa memberi sebarang alasan.Saya juga memahami bahawa sebarang maklumat yang berkaitan identiti saya akan dirahsiakan.

Saya* berminat / tidak berminat untuk mengetahui keputusan kajian yang dijalankan ke atas sampel yang diambil dari saya.

*potong yang tidak berkenaan

Tandatangan .....
(*Responden*)

Tarikh :.....

Tandatangan .....
(*Saksi*)

Nama :.....

No. K/P: .....

Saya mengesahkan bahawa saya telah menerangkan kepada responden sifat dan tujuan penyelidikan klinikal tersebut di atas.

Tarikh .....

Tandatangan .....
(*Penyelidik*)

JAWATANKUASA ETIKA UNIVERSITI UNTUK
PENYELIDIKAN MELIBATKAN MANUSIA (JKEUPM)
UNIVERSITI PUTRA MALAYSIA, 43400 UPM SERDANG,
SELANGOR, MALAYSIA

CONSENT FORM (RESPONDENT)

RESEARCH TITLE :

Knowledge, attitude and practice of secondary smoke among secondary smokers in Felda Gugusan Raja Alias, Negeri Sembilan.

PENYELIDIK : MUHAMMAD ZULHILMI BIN AHMAD NAWAWI
NGU SIAO TIING
NUR IDAYU BINTI ABDULLAH

I ..... Identity Card No. .....
address.....
.....hereby voluntarily agree to take part in the clinical research questionnaire study specified above.

I have been informed about the nature of the clinical research in terms of methodology, possible adverse effects and complications (as written in the Respondent Information Sheet). I understand that I have the right to withdraw from this clinical research at any time without assigning any reason whatsoever. I also understand that this study is confidential and all information provided with regards to my identity will remain private and confidential.

I* wish / do not wish to know the results of the tests performed on any samples taken from me.

* delete where necessary

Signature ..... (*Respondent*)

Signature ..... (*Witness*)

Date :.....

Name :.....

I/C No.
:.....

I confirm that I have explained to the respondent the nature and purpose of the above –mentioned clinical research.

Date .....

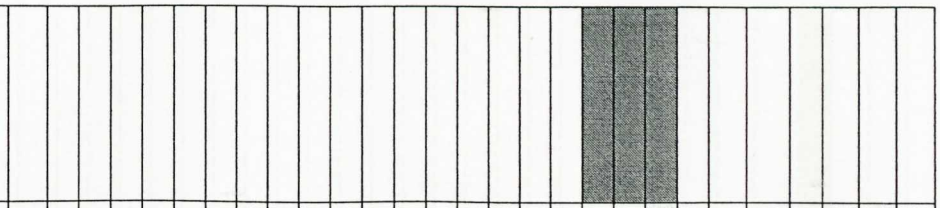
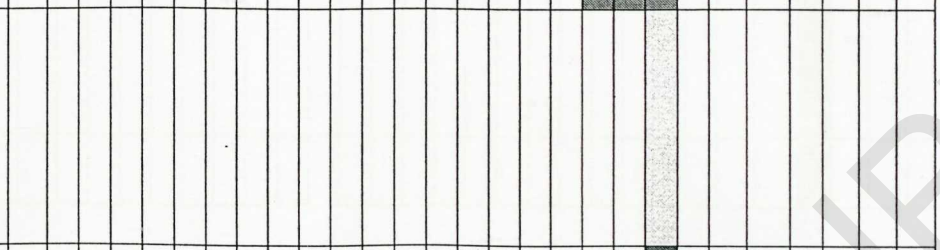
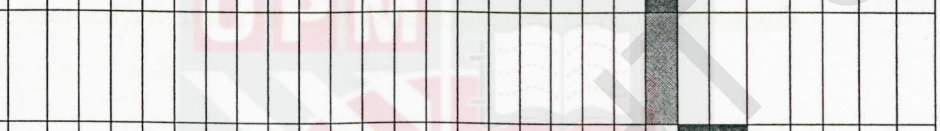
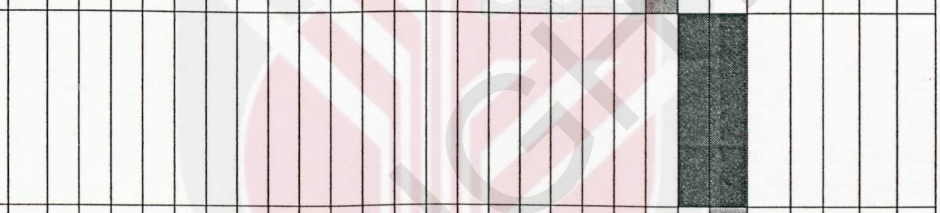
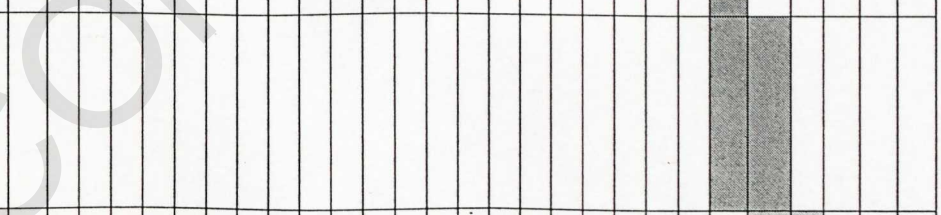
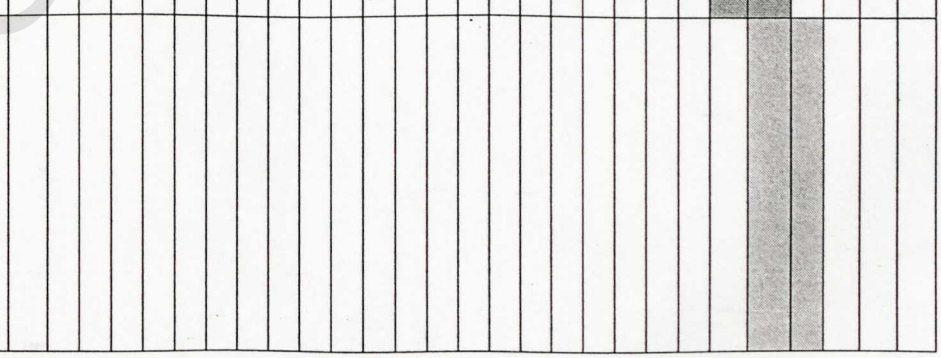
Signature ..... (Researcher)

APPENDIX 1

TABLE 1.0 GANTT CHART FOR RESEARCH ACTIVITIES

TITLE : Knowledge, Attitude and practice of secondary smoking among secondary smoker of Felda community in Negeri Sembilan.

No	Activities	2013						
		Mar 2013	April 2013	May 2013	June 2013	July 2013	Aug 2013	Sep 2013
1	Proposal preparation and meeting with supervisors							
2	Submission of proposal to the module coordinator							
3	Proposal presentation preparation							
4	Proposal presentation, preparation of ethical approval and letters to respective organizations							
5	Send all ethical forms and letters to module coordinator							

6	Data collection and data analysis	
7	Submission of data analysis to the package coordinator	
8	Data analysis presentation	
9	Correction of data analysis	
10	Report writing and meeting with supervisors	
11	Submission of project report and scientific article to module coordinator	
12	Preparation and rehearsal for final presentation	
13	Correction of final report and scientific article	

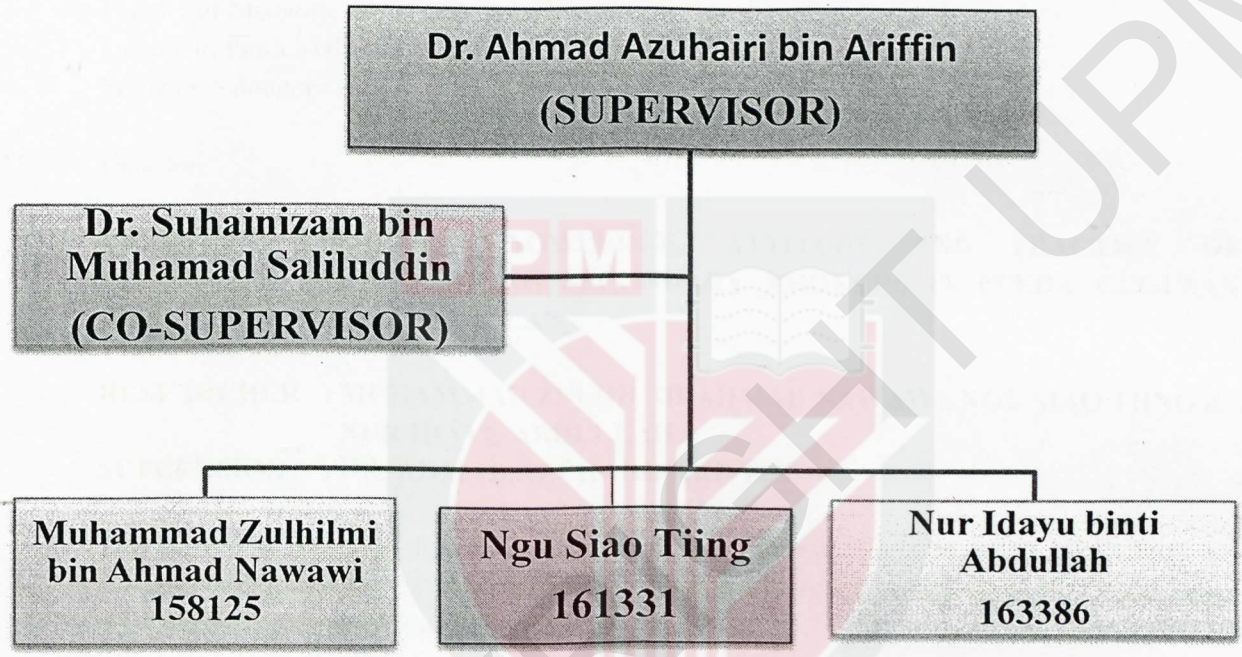
14	Submission of log book and final report (hard cover) to module coordinator																												
15	Result																												

Note :

1) Each column under each month represents the respective week of the month

APPENDIX 2

RESEARCH TEAM



Attachment 2

JKEUPM Ref No. : FPSK_Mei (13)23

Members of the JKEUPM who reviewed the documents:

Prof. Dr. Tengku Aizan Abd Hamid

Date of approval: 2/9/2013

Endorsed at JKEUPM Meeting on **6/9/2013**, attended by:

NAME	DESIGNATION	GENDER	TICK IF PRESENT
Prof. Dr. Norlijah Othman	Paediatrics& Dean, Faculty of Medicine and Health Sciences	Female	√
Prof. Dr Zamberi Sekawi	Medical Microbiologist & Deputy Dean of Research and Internationalization, Faculty of Medicine and Health Sciences	Male	√
Prof. Dato' Dr. Lye Munn Sann	Medical Statistician, Dept of Community Health, Faculty of Medicine and Health Sciences	Male	
Prof. Dr. Tengku AizanAbd Hamid	Gerontologist & Director, Institute of Gerontology	Female	√
Prof. Dr. Lekhraj Rampal	Medical Statistician, Dept of Community Health, Faculty of Medicine and Health Sciences	Male	√
Prof. Dr. Elizabeth George	Pathologist, Dept of Pathology, Faculty of Medicine and Health Sciences	Female	√
Prof. Dr. Lim ThiamAun	Anesthesiologist, Dept of Surgery, Faculty of Medicine and Health Sciences	Male	√
Prof. Dr. Wan Omar Abdullah	Medical Parasitologist, Dept of Medical Microbiology and Parasitology, Faculty of Medicine and Health Sciences	Male	
Prof. Dr. Patimah Ismail	Professor of Biomedicine, Dept of Biomedical Sciences, Faculty of Medicine and Health Sciences	Female	√
Assoc. Prof. Dr. Johnson Stanslas	Pharmacologist, Dept of Medicine, Faculty of Medicine and Health Sciences	Male	√
Assoc. Prof Dr. Mansor Abu Talib	Assoc. Professor of Guidance and Counselling, Dept of Human Development and Family Studies, Faculty of Human Ecology	Male	
Assoc. Prof. Dr. Noritah Omar (Lay Person)	Assoc. Professor of English Language, Dept of English Language, Faculty of Communication and Modern Languages	Female	
Dr. RojanahKahar (Lay Person)	Lecturer of Dept of Human Development and Family Studies, Faculty of Human Ecology	Female	√
Tan Sri Dato' Napsiah Omar (Lay Person)	Chairman, National Population and Family Development Board	Female	