

ORIGINAL ARTICLE

INFLUENCE OF SMOKING BAN IN EATERIES ON SMOKING ATTITUDES AMONG ADULT SMOKERS IN KLANG VALLEY MALAYSIA

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ABSTRACT

The objective of this study was to determine the effect of smoking ban in eateries on smoking behaviors and intention to quit smoking among adult smokers in Klang Valley. A validated questionnaire was utilized for this study whereby three variables of the study (socio-demographic characteristics, smokers attitude, and intention to quit smoking) were measured. The structured questionnaire contained closed ended questions where present of dichotomous(yes/no), multiple choice questions and 7-point likert scale questions. 600 questionnaires were distributed to target respondents in eateries of Klang Valley. The inclusion criteria were local citizen of Malaysia, those who gave consent to take part in the study, literate in English, smokers aged 18 years old and above. The data were analyzed utilizing SPSS software version 21.0. There were 504 completed and usable responses received, which represented an 84% response rate. Majority of smokers in Klang Valley were male which constituted around 78.2% of the respondents. Manufactured cigarette, 75.2% was the most preferred type of nicotine among smokers. Smokers attitude and social support with a smoking ban in restaurants and eateries was significantly associated with intention to quit smoking. 73.8% of smokers agree that the smoking ban in eateries and restaurants have reduced their daily smoking frequency and 58.3% of smokers agreed that the nationwide smoking ban at eateries and public places inspire them to quit smoking. Smoking ban is beneficial to help reduce prevalence of smoking among smokers that in turn helps to reduce secondary smoking and burden of non-communicable diseases in the long run. Though only a little over half of the respondents claimed that the ban inspires them to quit smoking, this is a positive start as the ban was just introduced. When effectively implemented, they are seen as an important element of policy to support behavior change in favor of a healthy lifestyle. The Ministry of Health should push forward with the ban on public smoking as soon as possible. The ban should be in tandem with efforts to help smokers quit. Implementing this scheme nationwide would be a remunerative move to help strive for a better health and cleaner environment for this country.

Keywords: Smoking ban, Smoking attitudes, Klang Valley

INTRODUCTION

Exposure to second-hand smoke (SHS) have shown to increases the risk of developing lung disease, (1) pulmonary cancer, (2,3) acute coronary syndromes (2,4) and stroke (2,5) Global Adult Tobacco Survey, Malaysia (GATS-M) publicized that 39.8% and 38.4% of adults were exposed to secondhand smoke in indoor workplaces and at home in 2011. Amidst of those who visited public areas such as healthcare facilities, bistros, bars and nightclubs, restaurants, cafes, coffee shops, indoor shopping complexes in the last 30 days, 84.9% of them reported exposure to secondhand smoke in cafes/coffee shops/bistros, 78.7% in bar/nightclubs, 71% in restaurants, 28.2% in government buildings, 13.6% in indoor shopping complexes and 8.7% in healthcare facilities. Such secondhand smoke exposure rates warrant due attention as higher rates of SHS exposure could lead to higher incidences of tobacco related-diseases which will ultimately increase the burden of secondhand smoke-related disease (6) among the Malaysian population.

Apprehending the risks of secondhand smoke exposure as well as the effectiveness of restraining smoking in public areas to reduce

exposure to secondhand smoke, (7-11) the Malaysian government, through the Ministry of Health, has adopted a number of measures pertaining to smoking bans. For instance, the Control of Tobacco Products Regulation (CTPR) was introduced in 1993 to prohibit smoking in seven types of public areas (12) and is periodically amended to include more public areas. By 2015, a total of 38 types of public areas have been gazetted as smoke-free areas (13) This regulation is in line with the provisions of article 8 of the Framework Convention on Tobacco Control (FCTC) which was ratified by the Malaysian government in December 2005. The FCTC encourages signatory countries to provide universal measures to protect non-smokers from SHS exposure and to ensure at least 90% of their population are protected from SHS exposure through smoke-free policies or laws (14).

However, public and smokers view is an important prerequisite element in securing and enforcing effective smoking ban (15). In a democratic nation like Malaysia, public and smokers view is particularly important in facilitating the process of ratifying smoke-free legislations and regulations as well as favoring the acceptance and compliance to such legislations or regulations.

Furthermore, the support for smoking ban regulation could conceivably favor the enactment of other tobacco control measures such as raising of tobacco taxes, tightening of restrictions on tobacco marketing and expanding smoke-free policy to more controversial domains such as in restaurant and eateries (16). Studies in the Western and Asian regions found that public support for smoke-free policies increased after implementation of smoking ban (17-19). In addition, Borland et al, who investigated the level of support in smoking bans in four countries (UK, USA, Canada and Australia), reported that existence of laws banning smoking, low cigarette consumption and older age (20) was associated with support for smoke-free policy.

In Malaysia, there have been only a few studies on the level of support for smoke-free policies since 2000, and these studies were subject to some limitations. Yong and his co-workers (21) who analyzed baseline data from the International Tobacco Control Southeast Asia Survey in 2005, reported that 82% of adult smokers in Malaysia supported the implementation of legally mandated smoke-free areas in air-conditioned venues such as restaurants, coffee houses, karaoke centers and bars. In a longitudinal study that evaluated the efficacy of the smoke-free policy in Malacca, a state located in the southern region of Malaysia, 70% of the respondents were satisfied with the enactment of the smoke-free policy (22). Support was even higher in Penang, a state located in the northern region of Malaysia, where 90.9% of the public supported the gazettement of the Georgetown World Heritage Site in Penang as a smoke-free zone (23). However, the investigators found that respondents of older age, Chinese descent and had poor health consciousness regarding smoking and passive smoking were less likely to support smoke-free policies (23). In contrast, Yassin et al had also revealed that non-smokers, those having SHS-related symptoms such as coughing and headache were more likely to support a smoke-free campus (24).

These previous findings could not be specified to intention to quit smoking since the respondents were the general public and not specifically smokers. Therefore, the aim of this study is to investigate the intention to quit smoking among smokers with respect to the smoking ban regulation in restaurant and eateries. This study helps to explore the prevalence of support for smoking ban in restaurants and to determine its associated factors which are smokers behavior and social support among a representative sample of Malaysian adults aged 18 years and above whom are literate in English language. The elucidation of the level of support for smoking ban and its associated factors among the Malaysian population could enable the formulation of appropriate measures to establish better smoke-free policies, thereby reducing SHS exposure and

ultimately reducing the morbidity and mortality attributable to smoking related diseases.

METHODS

Study Design & Context

This study was conducted via a cross-sectional survey design. It was carried out among the smokers at eateries in Klang Valley. Sample was calculated using the prevalence of smokers in Malaysia which is estimated to be 5 million (25). With this prevalence, a sample size of 384 was deemed adequate by the Krejcie and Morgan 1970 sampling guide (26). To account for response rates, a target of 600 respondents was decided for this project. A self-administered questionnaire was given to each individual that gives consent to participate in this study. A stratified random sampling was done dividing the entire population of Klang Valley into homogeneous groups called strata. The strata comprise of six locations which are; Federal Territory of Kuala Lumpur, Federal Territory of Putrajaya, Selangor District of Petaling, Selangor District of Klang, Selangor District of Gombak and Selangor District of Hulu Langat. Four restaurants are then randomly selected from each stratum. The study subjects were hand-picked using purposive sampling method in eateries and public places in Klang Valley in accordance to the stratum. The questionnaires were close ended. Answered questionnaires were scrutinized for and incomplete surveys were excluded from the study.

Participant identification and recruitment

Self-administrated questionnaire surveys were distributed to participants fulfilling inclusion criteria in Klang Valley. The inclusion criteria were local citizen of Malaysia, those who gave consent to take part in the study, literate in English, smokers aged 18 years old and above. A sample size of 400 participants was deemed adequate to obtain significant findings based on Krejcie and Morgan population table. To account for a good response rate, study population was targeted at 600 respondents.

Instrumentation and Data Collection

The questionnaire consisted of 18 items and was divided into 3 separate sections. The first section containing 7 question investigates the socio demographic characteristics. The second section containing 9 items evaluated the smoker's attitude and finally the last part contained 2 item that explored smokers' intention to quit smoking. The structured questionnaire contained closed ended questions where present of dichotomous (yes/no), multiple choice questions and 7-point likert scale questions. Content validity was assessed by a panel of general practitioners and academics in public health to

select the best questions in terms of clarity, accuracy of the items used for health information features and patient attitudes. A pilot study completed by 30 respondents gave an average Cronbach alpha of 0.7 confirming adequate reliability. The finalized version was used for data collection in the general sample. Out of the 600 questionnaires distributed to smokers in eateries, 504 questionnaires were returned completed, yielding a response rate of 84%.

Statistical Analysis

Data analysis was done using 'Statistical Package for Social Sciences' (SPSS) Version 22.0. Descriptive and inferential analytical tests were computed using this software.

Ethical Consideration

Written consent was obtained from participants prior to participating in this study. Further approval was also obtained the relevant ethics committee. Ethics approval number was PU-IRB259.

RESULTS

Based on the social demographic analysis in the table above, it can be concluded that there was a higher prevalence of male smokers as compared to female. Male respondents comprised of 78.2% while female respondents were very much lower at 21.8% bridging a Looking into races, the Malay ethnicity had the highest level of involvement in this survey of 44.2% followed by Indians 33.7%, Chinese 16.9% and the least whom took part in this survey were other races 5.2%. Marital status were also taken into account in this study whereby the highest prevalence of smokers were married at 67.3% followed by single 22.6% and finally the least numbered were divorced accounting to 10.1%. Additionally, there were four age groups that took part in this survey ranging from 21-year-old up till above 55 year old or older. The highest participation belonged to the youngest age group of which were 43.8% followed by the 25-34 year old age group at 29.2%, 34-41 at 18.1%, 45-54 at 6.0% and the least belongs to 55 years old or older at 3% Looking into employment status, a vast majority of the respondents are employed which accounts for 68.5%. Finally, education level was also valued in this survey. Based on the analyzed data, it can be presumed that the majority of smokers that took part in the survey has at least completed secondary school education and more.

More than half of the respondents agreed on the first four statements given to them that shows positive smokers attitude towards the smoking ban. However, a high percentage of smokers (79%) stated that they did not receive any advice from the doctor or healthcare provider that advised them to quit smoking in the past 12 months. Almost half of the respondents (49.5%) admitted

that they did not notice the information about dangers of smoking or that encourage smoking cessation on newspaper or magazine. More than half of the respondents (57.15%) acknowledged that they did not notice the information about dangers of smoking or that encourages smoking cessation on television. 76.8% of smokers agreed that they started to notice health warning on cigarette packages post ban. 85.5% of smokers agree that smoking should not be permitted in eateries.

DISCUSSION

Smoking bans and restrictions have the potential to affect large number of individuals in a population at minimal cost and to create a supportive environment aiding in quitting measure, reducing tobacco consumption and prevalence of exposure of public towards second hand smoking. 71.6% of the respondents showed positive attitude with regards to the smoking ban agreeing that they stopped searching for new places to smoke due to the ban enforcement.

This shows that smoking bans are important measures to reduce smoking. Smoker feel that the effort needed to find alternative venues for smoking an unnecessary hassle. Thus, this aids in helping them reduce their smoking frequency. Studies conducted in United States over a period of 25 years found that smokers who did not pursue alternative venue for smoking resulted in quitting smoking (25). So this is an important positive achievement for smoking ban. 93.6% of the respondents agreed that smoking should not be permitted in eateries. This could be due to the respondent recognition of the dangers of secondary smoking. Smokers would agree that eateries are frequented by both adults and children and they would not want exposure of smoke towards children. Studies have shown that smokers living in urban area of Vietnam have increased concern towards harmful effect of secondary smoking. They understood the harmful effect of secondary smoking in public with respect to various non-communicable diseases (26). Tobacco smoke is known to cause harm in many ways to the smokers and their family. Not only can smoking lead to variety of disease for the smoker, exposure towards environment tobacco smoke (ETS) could also jeopardize the health of others. It can stay in the air for several hours post exposure increasing the likelihood of lung cancers, heart diseases and breathing problems. Based on the results, 70.5% of smokers agree that the smoking ban is good for themselves while 75.7% agree that the smoking ban is good for their family. This indicates that most of the smokers are knowledgeable about the importance and need to adopt smoking bans even outside restaurants. Smokers are keen to abide the smoking ban to protect themselves and their loved ones from health hazards and not merely to abide the law.

Table 1: Socio-demographic characteristics of the respondents

| Categories | Frequency | Percentage (%) |
|--------------------------|-----------|----------------|
| Gender | | |
| Male | 394 | 78.2 |
| Female | 110 | 21.8 |
| Ethnicity | | |
| Malays | 223 | 44.2 |
| Indians | 170 | 33.7 |
| Chinese | 85 | 16.9 |
| Others | 26 | 5.2 |
| Marital Status | | |
| Single | 47 | 22.6 |
| Married | 140 | 67.3 |
| Divorced | 21 | 10.1 |
| Age | | |
| 18-24 | 221 | 43.8 |
| 25-34 | 147 | 29.2 |
| 35-44 | 91 | 18.1 |
| 45-54 | 30 | 6.0 |
| 55 years old or older | 15 | 3.0 |
| Education Level | | |
| Primary schooling | 60 | 11.9 |
| Secondary Schooling | 115 | 22.8 |
| University/College | 329 | 65.3 |
| Employment Status | | |
| Unemployed | 159 | 31.5 |
| Employed | 345 | 68.5 |

This could create a long term compliance to the ban and also initiate quitting behaviors. A study conducted in four Europe countries reported presence of smoking bans in public places was associated with a no-smoking policy in the home (27). Physician plays an important role in aiding smoking cessation. Health professionals are one of the main mediator of the health ministry with the public, to help to disseminate information and advice concerning smoking cessation (28) This survey show that most adult smokers, 79%, have never been told to stop smoking by a physician. Reports conveyed in 2018 from Greece have indicated that these professionals have relatively low intentions of taking actions to help patients stop smoking (29). This statistic shows a major concern as preventing disease should be the ultimate aim of medical practitioners. The role of health care providers specially lies in motivating patients to stop practicing ill habits, in this case smoking cessation and not merely to treat diseases. Doctors should be more attentive towards patient care and perform their duty as unit member that people trust to help aid smoking cessation.

Health warning labels have been implemented in an effort to enhance the public's awareness of the harmful effects of smoking. Health warning labels on tobacco products have been used since January 2009 in Malaysia (30) to convey risks to users and non-users and have been shown to increase quitting attempts (31). 76.8% of respondents said that they started noticing health warning on cigarette packages after the smoking ban. This aligns with a previous study that showcased health warning labels could indirectly educate consumers about dangers of smoking and hammer home its health risks, including lung cancer, coronary disease and pulmonary disease that in turn aids in quitting attempts (32).

In this digitalized era, almost everyone has access to the internet. With telecommunication services providing affordable rates to surf the internet, the vast majority of the public, especially those living in the city no longer depend on television and magazine to keep them entertained or to receive information (33). This could probably explain why only 36.6% and 30.8 respondents respectively agree that they noticed anti-smoking advertisements in publications and television.

Table 2: Smokers attitude

| | Strongly disagree | Disagree | Disagree somewhat | Neither agree or disagree | Agree somewhat | Agree | Strongly agree |
|--|-------------------|----------|-------------------|---------------------------|----------------|-------|----------------|
| Did you stop seeking for new places to smoke due to the smoking ban enforcement? | 1.6% | 4.8% | 7.1% | 14.9% | 35.7% | 33.1% | 2.8% |
| Do you think that the smoking ban is good for yourself? | 0.2% | 4.2% | 7.3% | 17.9% | 30.0% | 35.1% | 5.4% |
| Do you think that the smoking ban is good for your family? | 0.2% | 2.8% | 7.1% | 14.1% | 31.3% | 35.1% | 9.3% |
| Did you try to quit smoking due to the smoking ban enforcement? | 1.4% | 4.0% | 8.7% | 11.5% | 31.5% | 31.9% | 10.9% |
| During any visit to the doctor or health care provider in the past 12 months, were you advised to quit smoking? | 15.1% | 35.9% | 28.0% | 6.3% | 8.3% | 5.0% | 1.4% |
| After the smoking ban, have you noticed the information about dangers of smoking or that encourages quitting in newspaper or magazine? | 13.9% | 18.5% | 17.1% | 14.1% | 17.9% | 15.9% | 2.8% |
| After the smoking ban, have you noticed the information about dangers of smoking or that encourages quitting on television? | 12.3% | 32.3% | 12.5% | 12.1% | 17.1% | 10.1% | 3.6% |
| After the smoking ban, did you start noticing health warning on cigarette packages? | 1.6% | 2.4% | 7.3% | 11.9% | 35.1% | 30.4% | 11.3% |

Advertising exposure have changed the media environment since the internet era. The pervasive use of digital media technologies, such as streaming media divert people (34) especially youths from watching television or viewing publications which may precede such results. Government and local authorities must find ways to keep up with the changes to gain meaningful impact from advertising.

CONCLUSION

Smoking ban in eateries was accepted and supported by Malaysian adult smokers. Most of the smokers agree that the smoking ban in eateries and restaurants have reduced their daily smoking frequency and more than half of the smokers agreed that the nationwide smoking ban at eateries and public places inspire them to quit smoking. The smokers attitude and social support was positively associated with intention to quit smoking with respect to the smoking ban. More interventional and health educational programmes with a special emphasis on smokers should be conducted on a regular basis to advocate the health hazards of smoking and encourage attitude changes and increase compliance. The support in smoking ban legislation indicated promising outcomes in expanding smoke-free zones and gazetted more smoke-free public domains.

Conflict of interest

The authors declare no potential conflict of interest.

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