Perceived risks, barriers and stages of change on smoking cessation among The Malay security guards in a public university in Kuala Lumpur.

Moy FM[a], Atiya AS [a] and Wong ML [b]

[a] Department of Social and Preventive Medicine, University of Malaya
[b] Department of Community, Occupational and Family Medicine, National University of Singapore

ABSTRACT

Introduction: *The objective was to evaluate the perceived risks, barriers and stages of change on smoking cessation among the Malay male security guards.* **Materials and Methods:** *In the year 2004, a cross sectional survey was conducted on a group of security guards working in the campus and the hospital of a public university in Kuala Lumpur. Universal sampling (n=210) was conducted with a response rate of 88.6%. A self-administered questionnaire was used to survey the participants on their smoking status, stages of change, perceived risks and barriers to smoking cessation.* **Results:** *There were 37% current smokers and 23.7% ex-smokers. The mean year of smoking was 19.2 + 8.1 and the number of cigarettes smoked was 16.4 + 8.0 per day among the current smokers. About two-third of the smokers perceived the amount smoked currently was bad for health. However, only 23.3% and 30.9% of the smokers perceived themselves to be at higher risk for lung cancer and heart disease respectively. The three main reasons to quit smoking were health reasons, doctors' advice and cost. The main barriers were addiction (53.3%) and stress (28.3%). Most of the smokers (42%) were in the pre-contemplation stage with half of them not having thoughts of quitting.* **Conclusion:** *The smokers had misperception on smoking and majority was at the pre-contemplation stage of change in smoking cessation. The findings of this survey add on to the existing literature about the perception of risks, barriers and stages of change to smoking cessation. This will provide valuable information on the planning and delivering of smoking cessation programmes in the local context.*

KEYWORDS: Barriers, Stages of change, Smoking cessation

INTRODUCTION

Smoking is one of the most important risk factors for cardiovascular diseases.[1] Smoking cessation had been reported to give beneficial effects such as reduction in blood pressure, high-density lipoprotein cholesterol (HDL-C), body weight, and waist-to-hip ratio (WHR).[2] Smoking cessation that is sustained significantly reduce mortality.[3-5] Therefore smoking cessation has been strongly recommended as the primary prevention of cardiovascular diseases. However, smoking cessation is difficult and relapses are observed frequently. Meta-analysis showed that only about 20% of smokers were able to quit smoking successfully.[6] In the NHMS II survey, the national prevalence of current smoking among the adults aged 18 years and above was 24.8% while the prevalence among males was 49.2%.[7] The anti-smoking campaigns that have been running over the years in Malaysia have primarily targeted smokers urging them to reduce or give it up entirely. However the programme seems not to be effective and a new crop of smokers are springing up as more youths and women took up the habit.[8] Besides taking further planning and implementing programmes which are more comprehensive, it is also important to understand the smokers' perception on risks of smoking, barriers to smoking cessation as well as their readiness to change or quit smoking.

The readiness to change can be assessed by the Stages of Change Model. It attempts to explain when and how individuals change their behaviour, as well as which factors influence these changes.[9] There are five stages in the Stages of Change where this model postulates the individuals will progress during the process of changing their behaviour.[10] The stages of change are pre-contemplation, contemplation, preparation, action and maintenance.[10] These changes allow a better understanding of changes occurring in an individual's intention for engaging in a particular behaviour and in actual performance of that behaviour.[9] Behaviour change is viewed as a process, rather

Corresponding author
FM Moy
Department of Social & Preventive Medicine,
Faculty of Medicine, University of Malaya
Email: moyfm@um.edu.my

than as static stages in which a person either engages or fails to engage in a particular behaviour.[11]

With a better understanding of changes occurring in an individual's readiness for change or in actual performance of change, appropriate health promotion programme can be planned accordingly. By knowing the individual's current stage, realistic programme goals could be set. Messages, strategies and programmes could be tailored base on the appropriate stage of individuals. For example, smokers in the pre-contemplation stage should be exposed to programmes that aim to increase awareness and knowledge, while those in the preparation stage should be exposed to activities that aim to help to identify triggers and reduce barriers of a positive behavior. Other studies showed that stage-based intervention could produce relatively high impacts on behavior risks such as smoking.[12,13]

Therefore a survey was conducted in a worksite wellness programme among the security guards. The results may help reflect the Malaysian context since there is a lack of similar studies in the local scenario although this has been well studied in the West.[14,15] Furthermore, this study will enable comparison of results and the planning of an effective health promotion programme in smoking cessation.

The objectives of our study aimed to describe the perceived risks and barriers of smoking cessation, as well as the stages of change among the Malay security guards who are smokers at the worksite.

MATERIALS AND METHODS

This was a cross sectional survey on security guards working in the campus and the hospital of a public university in Kuala Lumpur conducted in 2004. Approval was obtained from the Medical Ethics Committee of the university as well as the management of both units. All security guards were invited to participate. Informed consent was obtained from all respondents.

A pre-tested questionnaire enquiring on socio-demographic information, smoking status, number of cigarettes smoked per day, duration of smoking was used. The participants were categorized into non-smokers and ever smokers.[16] Non-smokers were those who had never smoked before while ever smokers were those who had ever smoked in their lifetime. Ever smokers were further broken down into current and ex-smokers.[16] Perceived risks and barriers to smoking cessation; as well as their stages of change to smoking cessation were also enquired. The questionnaire was prepared in Malay language and self-administered by the participants.

Persons in the pre-contemplation stage are those who have no intention of changing their behaviour in the near future, which is usually defined as within the next six months.[11] Pre-contemplators are often unaware their current behaviour poses a problem, while contemplators are aware of their problem behaviour and are considering changing their behaviour in the near future (e.g. within the next six months).[11] Those in the preparation stage intend to change their behaviour in the very near future (usually within the next month).[11] Persons in the action stage are actively changing their behaviour which means they have stopped smoking in the short term (or less than six months as used in this study).[10] To be considered in the maintenance stage, a person has to have a sustained behaviour change for a period of time, usually operationally defined as six months or longer.[9] Ever smokers who quitted smoking for less than six months were categorized in the action stage (as described above) while those who quitted for six months or more were categorized in the maintenance stage.

All data was entered and analysed using the SPSS for Windows version 11.0. Data was cleaned and checked for discrepancies before data analysis. Appropriate statistical tests were conducted where applicable. The significant level was preset at 0.05.

RESULTS

There were a total of 210 security guards from both security units- the campus and hospital of the university. The response rate was 88.6% (n=186). All participants were Malay males. Majority of them were married and had had secondary education. Their mean age was 47.5 + 6.6 years. Among the 186 respondents, there were 73 non-smokers (39.2%) and 113 ever smokers (61.8%) with 69 current smokers (37.1%) and 44 ex-smokers (23.7%). The mean number of cigarettes smoked per day among the current smokers and the mean year of smoking among both the current and ex-smokers were as shown in Table I. The mean year of smoking among the current smokers were significantly higher than the ex-smokers ($p<0.001$).

Table I. Socio-demographic characteristics and history of smoking among the participants

Socio-demographic characteristics		n (%)
Sex	Male	186 (100)
Race	Malay	186 (100)
Marital status	Married	178 (95.7)
	Single/widowed	8 (4.3)
Education level	Primary	23 (12.4)
	Secondary	161 (86.6)/ `
	Tertiary	2 (1.1)
Mean age (mean + s. d.)	47.5 ± 6.6 years	
Smoking history		
Smoking status	Non smokers	73 (39.2)
	Ever smokers	113 (61.8)
Ever smokers	Current smokers	69 (37.1)
	Ex-smokers	44 (23.7)
	Current smokers	Ex-smokers
Mean cigarettes smoked per day:	16.4 ± 8.0	Not available
	Range: 4 – 50	
Mean year of smoking*	19.2 ± 8.1	11.3 ± 8.4 years
	Range: 1 – 35	Range: 1 – 31

Majority of the current smokers (92.8%) reported to have attempted quitting with health reasons being the main reason as shown in Figure 1. Other reasons were doctors' advice, family members' influence especially their spouses, financial problems and others such as ban smoking rule at workplace or tired of smoking. Failure or barriers to smoking cessation was due to addiction (53.3%), stress (28.3%) and other reasons such as feeling unhealthy (7.8%), no motivation (7.8%) to quit and boredom (3.1%).

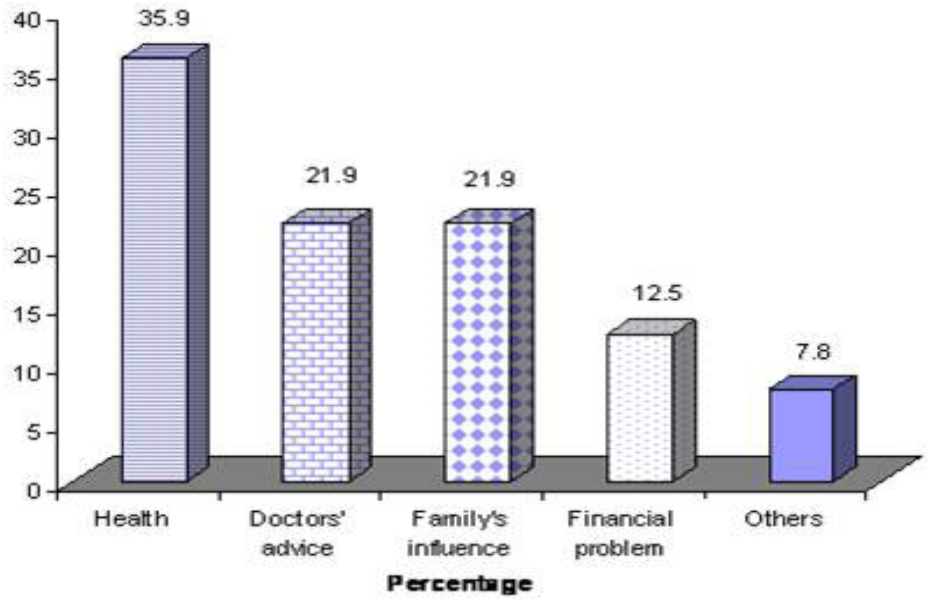

Figure 1. Reasons for attempted smoking cessation

When enquired about their perceived risks on their current smoking habits, about 64.7% of the smokers perceived that the amount of cigarettes smoked currently was bad for health. However, their perceived risks for tobacco related diseases such as heart diseases and lung cancer was relatively low which were only 30.9% and 23.3% respectively.

The stages of change on smoking cessation among the ever smokers are shown in Figure 2. Majority of the current smokers were in the pre-contemplation stage of change, meaning they had no intention to quit smoking in the next six months.

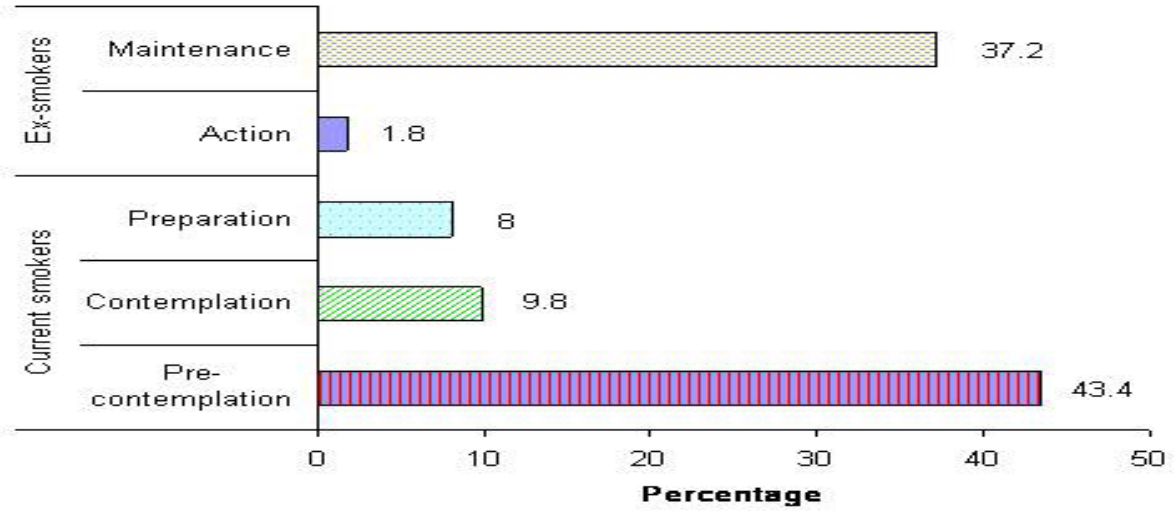

Figure 2. Stages of change on smoking cessation among ever smokers

DISCUSSION

Most smokers quoted health reasons as the main reason for quitting which was similarly found in other studies.[17,18] In the latest review on motivation to quit smoking, health concern was found to be the primary motive for quit attempts.[19] People were more likely to quit smoking when they perceived their health to be at risk.[20] Doctors' advice and influence of family members were also important reasons for the participants to try to quit smoking. However, many smokers from this study failed in their quit attempts and continued smoking.

Addiction was reported to be the main barrier for quitting. Therefore, smoking is an addictive behaviour which might need more than health education efforts. This probably would include change in the national fiscal policy, advice from health professionals especially the physicians, individual and group counseling based on stages of readiness as well as pharmacological treatment using nicotine therapy.[21] Family members especially their spouses should also be included in the above programs.

It is interesting to note that most smokers were in the pre-contemplation stage for smoking cessation meaning that they had no intention of quitting in the near future (in the coming six months), even though they had attempted quitting before. They also had contradicting perception on health where they perceived the amount of cigarettes smoked was bad but the risks for tobacco related diseases were low.

The above study showed that the smokers were aware of the hazardous effect of smoking but they were in denial or distortion of threatening information about smoking. This distortion or denial of threatening information is labelled as disengagement.[22] Studies have shown that disengagement beliefs were negatively related to motivation to quit smoking.[23,24] Therefore it is essential to make the risks of smoking more salient to smokers, individualize their risks of smoking, emphasize the immediate or short term effects of smoking and equip them with the necessary skills to quit smoking when they are in the preparation or ready for action stage. More information should be departed to increase their knowledge, sharing quitting experiences of people from similar socio-cultural backgrounds, and using facts or personal experiences of salient others which are more credible to reduce or challenge these beliefs to motivate them to stop smoking.

CONCLUSION

The Malay smokers who were the security guards had misperception on smoking and majorities were at the pre-contemplation stage of change in smoking cessation. This problem might be overcome by increasing their perceived susceptibility to risk of smoking and plan stage-based health education programme with pharmacotherapy support.

The findings of this survey add on to the existing literature about the perception of risks, barriers and stag-

es of change to smoking cessation. This will provide valuable information on the planning and delivering of smoking cessation program in the above setting. The misperception and disengagement found in this survey should be addressed in the programme planned.

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