UNIVERSITI PUTRA MALAYSIA

ACCEPTANCE OF SMOKING CESSATION AID AND ITS ASSOCIATED FACTORS AMONG SMOKERS OF POSTGRADUATE INTERNATIONAL STUDENTS IN UPM 2017

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By

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Dissertation Submitted to the Department of Community Health , Faculty of Medicine and Health Sciences, Universiti Putra Malaysia in Fulfillment of the Requirements for the Degree of Master of Public Health

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August 2017

Chairman   : **Dr. Suhainizam Muhamad Saliluddin**
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Introduction: Smoking cessation aids have been shown to be effective in increasing the quitting rate in those who smoke cigarette within the community because it offers guidance and counseling along with proper pharmacological intervention to the relevant subjects.

Objective: The aim of this study was to determine knowledge and acceptance of smoking cessation aids and its associated factors among smoker postgraduate international students in Universiti Putra Malaysia.

Methods: A cross-sectional study was carried out among 367 smoker postgraduate international students in Universiti Putra Malaysia. The sampling method in this study was simple random sampling. The data was collected using a pretested self-administerated questionnaire, consisting of 5 sections: socio-demography, behavioral factors, knowledge, residency factors and acceptance of smoking cessation aids. Data was analyzed using SPSS version 22. Descriptive statistics for the distribution, median, interquartile range and analytical studies using chi-square for associations of categorical data were used. The associations were considered significant at P <0.05.

Result: There were a total of 367 international smoker postgraduate students with 80% response rate. Majority of the students were males (88%), single (68.7%), master (71.9%) and Arabs (48.2%) with median age of 28 (IQR=6). Many of the students, 209 (56.9%) has a good level of knowledge on smoking cessation aid. Most of the smoker students had intentions (79.8%) and tried (63.5%) to quit smoking previously. The respondents have fair level of acceptance towards smoking cessation aids, in

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particular 210 (57.2%) of them had high level of acceptance. Gender and marital status were significantly ($\chi^2 = 6.270$, $df = 1$, $P = 0.012$) and ($\chi^2 = 13.072$, $df = 1$, $P < 0.001$) associated with acceptance of smoking aids respectively. Regarding behaviors, the intention to quit smoking and ever tried to quit smoking in the past were significantly associated with acceptance of smoking cessation ($\chi^2 = 9.232$, $df = 1$, $P = 0.002$) and ($\chi^2 = 12.376$, $df = 1$, $P < 0.001$) respectively. Knowledge on different types of smoking cessation aids was also significantly associated to the acceptance of smoking cessation aids ($\chi^2 = 16.140$, $df = 1$, $P < 0.001$). Concerning residential factors, respondent living with their family members or those having a friend / hostel mates who smoke cigarette and used any type of smoking cessation aid were significantly associated with acceptance of smoking cessation aid ($\chi^2 = 10.883$, $df = 1$, $P = 0.001$) and ($\chi^2 = 27.785$, $df = 1$, $P < 0.001$) respectively.

Conclusion: This study gives an insight of some components associated with acceptance of the methods. There is the need for health education knowledge regarding SCA and specifically for males, those who live with smoking families, friends or hostel mates in UPM and the overall population.

Keywords: knowledge, Acceptance, cessation aids, postgraduate students, UPM

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Abstrak disertasi yang dikemukakan kepada Jabatan Kesihatan Komuniti,
Universiti Putra Malaysia sebagai memenuhi keperluan untuk
Ijazah Sarjana Kesihatan Awam

PENGETAHUAN DAN PENERIMAAN PEMBERHENTIAN MEROKOK DALAM KALANGAN PEROKOK PELAJAR SISWAZAH ANTARABANGSA DAN FAKTOR BERKAITAN DI UPM 2017

Oleh

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Pengenalan: Bantuan pemberhentian merokok didapati adalah efektif dalam meningkatkan kadar berhenti dalam kalangan perokok dalam komuniti kerana bantuan tersebut menawarkan bimbingan dan kaunseling berserta intervensi farmakologikal sempurna terhadap subjek yang relevan.

Objektif: Tujuan kajian ini adalah untuk menentukan distribusi dan perkaitan pengetahuan dan penerimaan bantuan pemberhentian merokok dalam kalangan perokok pelajar siswazah antarabangsa di Universiti Putra Malaysia.

Kaedah: Kajian keratan rentas telah dijalankan dalam kalangan 367 perokok pelajar pascasiswazah antarabangsa Universiti Putra Malaysia. Kaedah persampelan dalam kajian ini ialah persampelan rawak mudah. Data telah dikumpul menggunakan soal selidik swatadbir praujian, mengandungi 5 bahagian: Sosiodemografik, faktor tingkah laku, pengetahuan, faktor residensi dan penerimaan pemberhentian merokok. Data telah dianalisis menggunakan SPSS versi 22. Statistik deskriptif untuk distribusi, median, julat antara kuartil dan kajian analitikal menggunakan khi kuasa dua bagi asosiasi data kategorikal telah digunakan. Asosiasi dianggap signifikan pada P <0.0

Dapatan: Sejumlah 367 perokok pelajar pascasiswazah antarabangsa dengan 80% kadar respons. Majoriti pelajar ialah lelaki (88%), bujang (68.7%), master (71.9%) dan Arab (48.2%) dengan umur median 28 (IQR=6). Majoriti pelajar, iaitu 209 (56.9%) mempunyai tahap pengetahuan yang baik mengenai bantuan pemberhentian merokok. Kebanyakan perokok pelajar mempunyai niat (79.8%) dan cuba (63.5%)

untuk berhenti merokok sebelumnya. Responden mempunyai tahap yang agak baik mengenai penerimaan terhadap bantuan pemberhentian merokok, iaitu sebanyak 210 (57.2%) daripada mereka mempunyai tahap yang tinggi mengenai penerimaan. Gender dan status perkahwinan secara signifikan berasosiasi dalam kajian ini, masing-masing ($\chi^2 = 6.270$, $df= 1$, $P = 0.012$) dan ($\chi^2 = 13.072$, $df= 1$, $P< 0.001$) . Berkenaan tingkah laku, niat untuk berhenti merokok dan cuba berhenti merokok pada masa dahulu secara significan berasosiasi dengan pemberhentian merokok, masing-masing ($\chi^2 = 9.232$, $df= 1$, $P = 0.002$) dan ($\chi^2 = 12.376$, $df= 1$, $P< 0.001$). Pengetahuan mengenai jenis bantuan pemberhentian merokok yang berbeza juga secara signifikan berasosiasi dengan penerimaan terhadap bantuan pemberhentian merokok ($\chi^2 = 16.140$, $df= 1$, $P< 0.001$). Berkenaan faktor residensi, tinggal dengan ahli keluarga dan mempunyai rakan/ rakan hostel yang merokok menggunakan sebarang jenis bantuan pemberhentian merokok adalah secara signifikan berasosiasi dengan penerimaan bantuan pemberhentian merokok, masing-masing ($\chi^2 = 10.883$, $df= 1$, $P = 0.001$) dan ($\chi^2 = 27.785$, $df= 1$, $P < 0.001$).

Kesimpulan: Merokok merupakan bebanan global disebabkan akibatnya yang menyebabkan penyakit terminal dan krisis kewangan. Isu tersebut harus ditangani menggunakan kaedah bantuan pemberhentian merokok yang terbaik. Pengetahuan dan penerimaan bantuan pemberhentian merokok adalah penting. Kajian ini memberikan tanggapan mengenai beberapa komponen berkaitan dengan penerimaan ke atas kaedah tersebut. Terdapat keperluan untuk pendidikan kesihatan, terutama dalam kalangan lelaki, dan mereka yang tinggal dengan keluarga perokok dan rakan atau rakan hostel dalam kalangan pelajar antarabangsa dan secara keseluruhannya dalam kalangan populasi umum.

Kata kunci: Penerimaan, bantuan pemberhentian, pelajar pascasiswazah, UPM

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I certify that a dissertation Examination Committee has met on 1st August 2017 to conduct the final examination of Fatehelrahman El-Mahadi Mohammed Mohammed Ahmed on his dissertation entitled "Acceptance of Smoking Cessation Aid and its Associated Factors among Smokers of Postgraduate International Students in UPM 2017" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Public Health.

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Declaration by Members of Supervisory Committee

This is to confirm that:
- the research conducted and the writing of this dissertation was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) are adhered to.

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LIST OF ABREVIATIONS

AOR	Adjusted Odds Ratio
CI	Confidence Interval
DALY	Disability Adjusted Life Year
Df	Degree of Freedom
FCTC	Framework Convention on Tobacco Control
GATS	Global Adult Tobacco Survey
IPH	Institute of Public Health
IQR	Interquartile Range
MOH	Ministry of Health
NRT	Nicotine Replacement Therapy
OR	Odds Ratio
SPSS	Statistical Pachage Fore The Social Science
UPM	Universiti Putra Malaysia
SCA	Smoking Cessation Aids
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

1.1 Introduction

According to the Center for Disease Control there are 6 million deaths worldwide from tobacco use and 480,000 deaths per year in the United States from smoking cigarettes (CDC, 2016). Health effects associated with tobacco use includes heart disease, many types of cancer, pulmonary disease, adverse reproductive outcomes, and the exacerbation of multiple chronic health conditions (Tynan et al, 2014). The Institute of Public Health records over 6.3 million of death worldwide every year from tobacco smoking (Institute of Public Health, 2012). The health consequences of smoking are substantial and 480,000 deaths are caused from smoking related illnesses each year. Indeed, smokers are more likely than nonsmokers to develop heart disease, stroke, and lung cancer. Cancer risks can be increased in several areas of the body due to smoking. There are financial consequence of smoking related to health care cost and lost of productivity. The CDC reported that the financial costs of smoking is nearly $170 billion a year, the cost in lost of productivity is nearly $150 billion a year, and $5.6 billion lost of productivity for second hand smoking (Bishop, 2015).

Based on global tobacco survey smoking is counted as a major public health problem that needs effective intervention (King, 2012). It is still the leading cause of preventable non communicable disease (NCD) death (Naghavi, 2015). Tobacco smoke is a combination of many materials - a mixture of more than 5,000 chemicals, including nicotine, cyanide, benzene, formaldehyde, methanol, acetylene, and ammonia most of which are carcinogenic (Talhout et al., 2011). In addition one of the active ingredients, nicotine can cause 'tobacco dependence'. Tobacco dependenc is recognized by international classification of disease and by diagnostic and statistical manual as a medical condition. These recognition and classification can help to determine those smoker at risk and require certain type of intervention to quit tobacco smoking.

WHO FCTC (framework convention on tobacco control) encourage to adopt price and tax as an important means to control tobacco consumption especially among young people (Mitis, 2013). They defined promotion of smoking cessation as a population wide measure and approach that contribute to stopping tobacco use, including tobacco dependence treatment. While smoking cessation is the process of stopping the use of any tobacco product with or without assistance. Smoking cessation not only has positive effect on clinical or health but also has economic benefit in term of productivity. Moreover, there are positive effect for the passive smoker (US Department of health and human services2014). The duration of smoking cessation period is important as an indicator for public health to evaluate and choose an intervention program of cessation. There is an association between duration of abstinence and decrease risk of certain cancer (Leufkens 2011).

There are several approaches for smoking cessation aids used globally. Among the most common types are counselling and pharmacological approach. The entire quit-smoking clinics and hospitals in Malaysia provide smoking cessation services that include counselling and pharmacotherapy (Mohd Yusoff et al. 2011). In this study, we attemted to determine the prevalence of smoking, knowledge and acceptability of smoking cessation aid among UPM international students, providing better recommendations that will aid in the smoking cessation programme.

1.2 Problem Statement

Accordingly, prevalence of smoking among students was 20.9% according to the global school based student health survey 2012. In University of Putra Malaysia study conducted in 2005 among student and staff prevalence of ever and current smokers among male was 30% and 21.8%; and for the female was 2.8% and 2%. The prevalence of ever and current smokers among students was 12.1% and 8.9%; and staff was 26% and 17.7%, respectively. These findings further necessitate the need for this study on smoking cessation aid.

There was wide variation regarding knowledge on smoking cessation aids, and these difference in the level of knowledge may affect the smoker in quitting or in accepting smoking cessation intervention. (Bryant, Bonevski, Paul, O'Brien, & Oakes, 2011)

Inspite of evidence for effectiveness of SCA to cessasion of smoking, few smokers use SCA when trying to stop smoking. There are also insuffecent studies investigating the utilisation of SCA (Gross et al. 2008). Prevalence of smoking among students was 20.9%, according to the global school based student health survey in 2012. There is however, no study on smoking cessation aid and prevalence of smoking conducted among UPM international postgraduate student.

1.3 Significance of the study

This study will provide information on the knowledge and acceptance of SCA, particularly in UPM postgraduate international student. This will give idea about factors associated with utilization of SCA among students, in order to achieve successful smoking cessation. The information will be important in tobacco control policy and programs in Malaysia and will assist in identifying effective measures needed to promote tobacco cessation.

1.4 Research Questions

1. What are the socio-demographic characteristic of the respondent?
2. What is the knowledge and acceptance levels of smoking cessation aids among respondent?
3. What are the factors associated with acceptance of smoking cessation aids?

1.5 Objective of Study

1.5.1 General Objectives

The aim of this study is to determine the level of knowledge and acceptance of smoking cessation aids and their associated factors among post graduate international students smokers in Universiti Putra Malaysia.

1.5.2 Spesific Objectives

  i. To describe the socio-demographic characteristics of the respondents (gender, age, ethnicity, level of educationand marital status), behavioral factors knowledge, and residential factors
  ii. To determine the acceptance of smoking cessation aids among respondents
  iii. To determine the association between socio-demographic, behavioural factors, knowledge and residential factors and acceptance of smoking cessation aids.

1.6 Null Hypotheses

The null hypotheses of the study are as follows:

H_1: There is significant association between socio-demographic characteristic and acceptance of SCA.

H_1: There is significance association between behavioral factors and acceptance of SCA

H_1: There is significant association between knowledge and acceptance of SCA

H_1: There is significance association between residential factors and acceptance of SCA.

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