



**UNIVERSITI PUTRA MALAYSIA**

**KNOWLEDGE, ATTITUDE AND PRACTICE ON SMOKING AMONG  
STUDENTS AND STAFF IN UNIVERSITI PUTRA MALAYSIA**

**SHARKER MD. NUMAN**

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**KNOWLEDGE, ATTITUDE AND PRACTICE ON  
SMOKING AMONG STUDENTS AND STAFF IN  
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**MASTER OF SCIENCE  
UNIVERSITI PUTRA MALAYSIA**

**2005**



**KNOWLEDGE, ATTITUDE AND PRACTICE ON SMOKING AMONG  
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**By**

**SHARKER MD. NUMAN**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,  
in Fulfilment of the Requirements for the Degree of Master of Science**

**May 2005**



**Dedicated**

**To**

**Dedicated especially to my parents Late Nazir Uddin Ahmed and Samsun Nahar Begum, parents in law Abdul Latif and Rokeya Begum, wife Kamrunnaher, beloved son Nafi Ahmed, brothers and sisters and all those individuals behind the scenes who make me possible to complete my study successfully.**



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirements for the degree of Master of Science

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By

**SHARKER MD. NUMAN**

**May 2005**

**Chairman: Associate Professor Lekhraj Rampal, MBBS, MPH, PhD**

**Faculty: Medicine and Health Sciences**

The aim of this study was to determine the prevalence of smoking and factors associated with smoking and to determine the knowledge, attitudes, practices on anti-smoking measures related to smoking among students and staff of Universiti Putra Malaysia (UPM), Serdang, Selangor, Malaysia.

A cross-sectional study design was used. A multistage stratified proportionate to size sampling technique was used to select the sample. The list of students and staff of UPM served as sampling frame. The total population for this study was 28053. Sample size was 2364 and was computed using EPI\_INFO. Data was collected from 5<sup>th</sup> July to 27<sup>th</sup> August 2004 using a structured pre-tested questionnaire. The response rate was 85%. Out of the 2008 respondents, 60% were female, 62.8% Malay and 67.2% were Muslims.

The overall prevalence of ever and current smokers amongst students and staff was 13.7% and 9.9%, respectively. The 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. The mean initiation age of smoking was  $16.7 \pm \text{SD } 3.7$  years and it was lowest among Malays (16.3 years) and diploma level students (15 years). Prevalence of current smokers was high among Indians (12.7%) and Malays (11.6%) ethnic groups; and, Hindus (13%) and Muslim (11.9%) religious groups. Technicians had the highest (31.8%) current smoking prevalence at the UPM. Just for fun (54.2%) was the main reason for starting smoking and residence (45.1%) was the favourite place for smoking. Amongst current smokers, 63.9% had low level of addiction to nicotine. The prevalence of smoking was associated with age, economic status, race, religious, family and peer groups smoking habits. Most students and staff had good knowledge on the health risk of smoking. Never smokers had better knowledge on hazards of smoking and more positive attitudes.

In conclusion, UPM smoking prevalence is low as compared to the national prevalence. However, it still constitutes a problem among university students and staff in UPM, in spite of their knowledge of its hazards, attitude and practices. There is a need to implement an anti-smoking program for university students and staff.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**PENGETAHUN, SIKAP DAN AMALAN YANG BERKAITAN DENGAN  
MEROKOK DI KALANGAN PELAJAR DAN KAKITANGAN UNIVESITI  
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Tujuan kajian ini dijalankan adalah untuk mengenalpasti prevalens merokok dan faktor yang berkaitan seperti merokok pengetahuan, sikap, dan amalan terhadap kempen anti merokok di kalangan pelajar dan kakitangan Universiti Putra Malaysia (UPM), Serdang, Selangor, Malaysia.

Kajian keratan rentas telah dijalankan di kalangan pelajar dan kakitangan UPM dan pemilihan sampel adalah berdasarkan teknik “multistage stratified”. Satu senarai nama pelajar dan kakitangan UPM diperolehi untuk kajian ini dan populasi kajian adalah 28053.. Saiz sampel adalah 2364. Data dikimpu dengan menggunakan borang soal selidik yang telah diuji. Pergumpulan data telah berlangsung dari 5 Julia hingga 27 Ogos 2004 dengan menggunakan Soal Selidik yang telah diprauji. Lapan puluh lima peratus pelajar dan kakitangan telah mengambil balangan dan 60% wanita, 62.8% Melayue dan 67.2% beragama Islam.

Secara keseluruhan prevalens bagi responden yang pernah merokok dan masih lagi merokok ialah 13.7% dan 9.9%. Prevalens bagi responden yang pernah merokok dan masih lagi merokok di kalangan responden lelaki ialah 30% dan 21.8% manakala bagi responden wanita pula 2.8% dan 2%. Kajian ini juga mendapati prevalens bagi responden yang pernah merokok dan masih lagi merokok di kalangan pelajar adalah 12.1% dan 8.9%, manakak bagi responden daripada kakitangan UPM masing-masing adalah 26% dan 17.7%. Min bagi umur mula merokok ialah 16.7 tahun  $\pm$  SD 3.7 dan umur mula merokok yang paling rendah adalah di kalangan orang Melayu (16.3 tahun) dan pelajar diploma (15 tahun). Keseluruhannya prevalens responden yang masih merokok adalah paling tinggi di kalangan kaum India (12.7%) dan Melayu (11.6%), penganut agama Hindu (13%) dan muslim (11.9%). Prevalens tertinggi juga didapati di kalangan responden yang bekerja sebagai juruteknik (31.8%) di UPM. Alasan ‘hanya untuk seronok’ adalah jawapan yang paling banyak diberikan oleh responden sewaktu mula merokok (43%), 33.8% daripada jumlah responden memilih kediaman sebagai tempat kegemaran untuk merokok. Di kalangan perokok yang masih lagi merokok, 63.9% mempunyai tahap ketagihan yang rendah terhadap nicotina. Prevalens merokok didapati berkaitan dengan faktor umur, status ekonomi, bangsa, agama tabiat merokok keluarga dan rokas sebaya. Kebanyakan pelajar dan kakitangan UPM mempunyai pengetahuan tentang risiko kesihatan akibat merokok. Responden yang tidak merokok mempunyai sikap lebih positif dan pengetahuan yang lebih baik mengenai risiko kesihatan akibat merokok.

Kesimpulannya, prevalens merokok adalah rendah jika dibandingkan dengan prevalens pada peringkat kebangsaan/nasional. Walau bagaimanapun masih terdapat masalah besar di kalangan pelajar dan kakitangan UPM berkaitan dengan



pengetahuan tentang kemudaran, sikap dan amalan merokok. Oleh itu, pelaksanaan program anti merokok perlu diadakan khususya untuk pelajar dan kakitangan universiti.



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*Sharker Md. Numan*



I certify that an Examination Committee met on 19<sup>th</sup> May 2005 to conduct the final examination of Shaker Md. Numan on his Master of Science thesis entitled “Knowledge, Attitude and Practice on Smoking among Students and Staff in Universiti Putra Malaysia” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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## DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.



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SHARKER MD. NUMAN

Date: 30 MAY 2005

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## LIST OF ABBREVIATION

AIDS	Acquired Immune Deficiency Syndrome
ARM	Age Related Macular Degeneration
CAMH	Center for Addiction and Mental Health
CDC	Centers for Disease Control and Prevention
CHD	Coronary Heart Disease
COPD	Chronic Obstructive Pulmonary Diseases
CTUMS	Canadian Tobacco Use Monitoring Survey
CVD	Cardio Vascular Diseases
ETS	Environmental Tobacco Smoke
HIV	Human Immune deficiency Virus
IgE	Immunoglobulin E
IMU	International Medical University
LBW	Low Birth Weight
NCDs	Non Communicable Diseases
NHMS	National Health and Morbidity Survey, 1996
NIDDM	Non Insuline Dépendent Diabètes Mellites
OSDUS	Ontario Student Drug Use Survey
PRAM	Pregnancy Risk Assessment Monitoring System
PROM	Premature Rupture of Membranes
SEARO	South East Asia Regional Office
SGR	Surgeons General Report
SIDS	Sudden Infant Death Syndrome
UK	United Kingdom
UM	Universiti Malaya
UN	United Nations
UNICEF	United Nations Children's Emergency Fund
UPM	Universiti Putra Malaysia
US	United States of America
WHO	The World Health Organization





# CHAPTER 1

## INTRODUCTION

### 1.1 Background

Smoking has become a complex global public health problem and a major health-risk factor linked with the development of cancer, heart disease, chronic respiratory diseases and diabetes (World Bank, 1999). It is responsible for the largest preventable cause of death in the world. Each day more than 13,000 people die prematurely because of tobacco use (CDC, 2000). This figure is expected to almost double by the year 2020. Countries at all levels of development are victims of the tobacco epidemic (WHO, 2003a).

According to the World Bank Reports in 2003 there were about 1.3 billion people smoking cigarettes or other products, and out of them, almost one billion were men and 250 million were women. About 80 percent of these people lived in low and middle-income countries (Guindon & Boisclair, 2003). Cigarette smoking has become not only a national social problem, but a global one also. Smoking is expected to kill 4 million people in the next 12 months, and by 2030, it will kill 10 million people a year, which is more than any other single cause of death. Seven million of these deaths will occur in low-income and middle-income countries (World Bank, 1999; CDC, 2000).

Numerous studies reveal that smoking prevalence has remained stable in the United States of America (USA) at 23% since 1993 (Etter, 2004; Fiore, 2003; Giovino, 1994). In fact, smoking prevalence rates is increasing in low-income, less educated,

