

**PREDICTORS OF SMOKING CESSATION  
AMONG STAFF IN PUBLIC UNIVERSITIES  
IN KLANG VALLEY, MALAYSIA**



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**DECEMBER 2011**

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### **3. Acknowledgements**

I would like to express my sincere gratitude to my supervisors cum lecturers, Associate Professor Dr Retneswari Masilamani and Dr Moy Foong Ming who gave me encouragement, guidance and support throughout this learning process. I deeply appreciate their valuable time in contributing ideas, reading, checking and supporting this research throughout. Thank you both for being patience and giving me this opportunity to learn. I would also like to extend my gratitude to our visiting Professor, Professor David Koh from National University of Singapore for his generous advises in the planning of this research and its implementation stage. His expertise in providing consrtructive comments in many of the articles generated from the main content of this dissertation is deeply appreciated. Without their continuous advice, help and guidance, I would never have completed my dissertation.

I would also like to acknowledge Dr Salehuddin, Dr Murniaty, Dr Zakira and Staff Nurse Swinder from Jabatan Kesihatan Wilayah Persekutuan for allowing me to be attached to their Quit Smoking Clinic Tanglin in November 2009. From there I have learned how to handle quit smoking clinics and smoking cessation techniques that was being employed in this research. Special thanks go to the top management and supportive staff of University A and University B for their kindness in allowing this study to be conducted in their work premises.

During the entire course of my dissertation, my colleagues offered tremendous encouragement and support to pursue my education goal. I especially would like to thank and acknowledge Dr Rafdzah Ahmad Zaki for her help in the first part of data collection in University A. Thanks to my other colleagues for lending their ears, sharing their ideas and making my journey more enjoyable during the happy and hard times. Hope that all of us succeed with flying colours in our doctoral degree and our future career development. Last but not least, I would like to devote my special gratitude and appreciation to my understanding and wonderful husband, Khairul Mizan, for his love, belief, help and continuous support.

This report is a section of my doctoral thesis. It had produced one ISI cited publication and an international conference proceeding.



## 4. Report

### 4.1 Executive Summary

Smoking cessation studies are often performed in clinic based settings. This study aims to find predictors of success among staff in worksites smoking cessation programmes. We conducted this study in a non-clinic site setting in two major public universities in the Klang Valley, Malaysia. All staff from both universities received an open invitation via staff e-mail and letters to participate in this study. At the start of treatment, participants administered Rhode Island Stress and Coping Questionnaire; and Family Support Redding's Questionnaire. A behaviour therapy with free Nicotine Replacement Therapy (NRT) were given as treatment. After two months, they were contacted to determine their smoking status. 185 staff from University A (n=138) and University B (n=47), responded and voluntarily showed interest to quit. There was no significant difference in respondents of both universities with respect to socio demographic characteristics and smoking history. After two months of treatment, quit rates were 24% in University A vs. 38 % in University B ( $p>0.05$ ). Univariate predictors of cessation were adherence to NRT ( $p<0.001$ ), smoking fewer cigarettes per day ( $p<0.05$ ) and the amount of behaviour therapy sessions attended ( $p<0.001$ ). Logistic regression identified 3 significant predictors of smoking cessation. Participants attending more than one session (OR= 27.00; 95% CI : 6.50; 111.57), and having higher pre-treatment general stress (OR= 2.15; 95% CI: 1.14; 4.05) were more likely to quit, while a higher number of cigarettes smoked (OR= 0.19: 95% CI: 0.06; 0.59) reduced the likelihood of quitting. Increasing age, ability to cope with stress and family support were not significant predictors. We conclude that factors such as the number of counseling sessions, the amount of cigarettes smoked at baseline, adherence to NRT and pretreatment stress are important considerations for success in a worksite smoking cessation programme.

Keywords: Smoking cessation; predictors; university; worksite; staff

## 4.2 Introduction

The problem of tobacco smoking is not new in this country. It has started since 1963, when it first became commercialized in Malaysia and the government has started its effort to control the problem of smoking since 1970s. However, as up to now, according to NHMS 3 (2006), the prevalence of smoking among adults over the age of 18 years is very high totaling up to 21.5%, of which constitute 46.4% of the overall male general population. Despite various efforts have been implemented to reduce the number of smokers in the country including smoking cessation services/clinics, there was only a mere reduction of 2% (prevalence of 23.5%) from what was reported in a similar survey 10 years ago (NHMS 2-1996). This has showed that all the efforts by the government in combating tobacco has not been very successful (Health, 2006).

The burden of smoking is far too great for to the government to bear. Study in Malaysia recently showed that the estimation of annual health care cost of smoking is equivalent to 0.1 to 1.1% of the GDP, 16.5% of healthcare expenditure and 26.1% of MOH (Ministry of Health) Budget (Aljunid, 2004-2006). A study in the UK in 1997 showed that health care cost for smokers at a given age is 40% higher than those of non-smokers (Jan J Barendregt, Luc Bonneux, & Paul J. Van Der Maas, 1997). The smoking cessation clinics existing in this country have been using pharmacological therapy with recommended counselling sessions as the mainstay of treatment, which have consumed considerable amount of government's budget. According to Aljunid (2006) also, about RM 4200.53 needs to be spent, per person, for a successful quit smoking programme, which includes relapse cases.

In relation to work, smoking leads to increased absenteeism and reduced productivity and increased occupational injuries (Halpern, Shikiar, Rentz, & Khan, 2001; Lana, Leon, Garcia, & Jaime, 2003). Workplace may also be considered as a significance source of ETS (Environmental tobacco smoke), thus putting innocent people at risk. Economic costs associated with exposure to ETS at workplace can also be very high (Parrott, Godfrey, & Raw, 2000). Hence, over recent years, concern has grown over the need to protect employees at the workplace. The responsibility of this, as with other types of health and safety at work, not only lies with the employers but also the employees.