



**ORAL HEALTH KNOWLEDGE, ATTITUDE AND PRACTICES AMONG
UNIVERSITY STAFF AND RELATIONS TO SOCIO-DEMOGRAPHIC AND
EMPLOYMENT CHARACTERISTICS IN 2020**

By

KIROUANI OMAYMA

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

October 2021

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DEDICATION

To my dear parents, who endured my absent. Their continuous and unparalleled love, help and support.

To my beloved husband, who supported me in my years of study.

To all my teachers and mentors who have credit for my learning.

My sisters and brother, for your everlasting love and warm encouragement throughout my research.

To all my friends and family for their unconditional love and support.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

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October 2021

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Oral health is a look of well-being that needs to be considered, and its absence predisposes oral diseases, which cause tooth damage, pain, reduced work productivity, and thus a reduced quality of life. Staff's knowledge, attitudes, and practices are essential for good oral health. The aim of this study is to evaluate oral health-related knowledge, attitude, and practices and determine their association with socio-demographic factors and employment factors among Universiti Putra Malaysia (UPM) staff.

A descriptive cross-sectional study involving 207 staff (academic and non-academic) was used. Stratified random sampling was used to select a representative sample with selected faculties (Faculty of Environmental Studies, Engineering, Agriculture, Medicine and Health Sciences, Modern Language, and Communication). Oral health knowledge, attitude, and practices were assessed with a validated and pretested questionnaire. Data collected via online e-mail were analyzed using the Statistical Package of Social Sciences (SPSS) version 25. Data analysis was conducted in three stages: univariate, bivariate, and multivariate analysis.

The total respondents were 162 from 207 subjects (sample size of the study), giving a response rate of 78.3%. In this study, more than half of the participants have satisfactory knowledge (56.2%), a positive attitude (66%), and correct practices (53.7%). Despite this remains a significant proportion of staff, who have insufficient knowledge and incorrect practices. The Chi-square tests show a significant association between oral health knowledge and level of education, monthly income, faculty, type of staff, and smoking. Besides that, oral health practice is associated with monthly income and years of experience. This suggests initiating of oral health awareness program for the staff members to promote their knowledge, attitude, and practices in oral health.

Keywords: Oral health, knowledge, attitude, practice, university staff.



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

**PENGETAHUAN, SIKAP DAN AMALAN KESIHATAN MULUT DI
KALANGAN STAF UNIVERSITI DAN HUBUNGANNYA DENGAN SOSIO-
DEMOGRAFI DAN CIRI CIRI PEKERJAAN TAHUN 2020**

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Kesihatan mulut ialah kesejahteraan hidup secara keseluruhan yang perlu ditekankan dan ketiadaannya menimbulkan predisposisi penyakit mulut yang menyebabkan kerosakan gigi, kesakitan, produktiviti kerja yang berkurang, dan dengan itu kualiti hidup yang berkurang. Pengetahuan, sikap dan amalan kakitangan adalah penting untuk kesihatan mulut yang baik. Matlamat kajian ini adalah untuk menilai pengetahuan, sikap, dan amalan yang berkaitan dengan kesihatan mulut dan menentukan perkaitannya dengan faktor sosio-demografi dan faktor pekerjaan di kalangan kakitangan Universiti Putra Malaysia (UPM).

Kaedah kajian keratan rentas deskriptif digunakan yang melibatkan 207 kakitangan (akademik dan bukan akademik). Persampelan rawak berstrata digunakan untuk memilih sampel dengan fakulti terpilih (Fakulti Pengajian Alam Sekitar, Kejuruteraan, Pertanian, Perubatan dan Sains Kesihatan, Bahasa Moden, dan Komunikasi). Pengetahuan, sikap, dan amalan kesihatan mulut dinilai dengan kuesioner yang disahkan dan diuji. Data yang dikumpulkan melalui dalam talian e-mel dan dianalisis dengan menggunakan Statistical Package of Social Sciences (SPSS) versi 25. Analisis data dilakukan pada tiga peringkat: analisis univariate, bivariate dan multivariate.

Jumlah responden yang ditemuramah adalah 162 dari 207 subjek (ukuran sampel kajian), memberikan kadar tindak balas sebanyak 78.3%. Dalam kajian ini lebih daripada separuh peserta mempunyai pengetahuan yang memuaskan (56.2%), sikap positif (66%), dan latihan yang betul (53.7%). Walaupun begitu, sebilangan besar mempunyai pengetahuan yang tidak memuaskan dan amalan yang salah. Chi-square menunjukkan hubungan yang signifikan antara pengetahuan kesihatan mulut dan tahap pendidikan, pendapatan bulanan, fakulti, jenis kakitangan, dan merokok. Selain daripada itu, amalan kesihatan mulut dikaitkan dengan pendapatan bulanan dan pengalaman bertahun-tahun.

Ini menunjukkan permulaan program kesedaran kesihatan mulut untuk anggota staf untuk meningkatkan mempromosikan pengetahuan, sikap, dan latihan dalam kesihatan mulut.

Kata kunci: Kesihatan mulut, pengetahuan, sikap, amalan, kakitangan universiti.



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LIST OF ABBREVIATIONS

NOHP	The National Oral Health Plan
MOH	The Ministry of Health
WHO	World Health Organisation
UPM	Universiti Putra Malaysia
OH	Oral health
FDI	World Dental Federation
NCDs	Non-communicable disease
ORCA	European Organisation for Caries Research
IADR	International Association for Dental Research
CAL	Clinical Attachment Level
PD	Periodontal diseases
US	United States
KSA	The Kingdom of Saudi Arabia

CHAPTER 1

INTRODUCTION

1.1 Background of study

The National Oral Health Plan for Malaysia 2011-2020 (NOHP 2011-2020) announced, "A nation working together for better health." The ministry of health (MOH) understands that promoting Malaysians' well-being can be reached by operating collectively at each level. There are extraordinary goals that working mutually can accomplish to control and prevent illnesses and support good health (Ministry of Health Malaysia, 2011).

Oral health is a look of well-being that needs to be considered and indicates more than good teeth. The World Health Organization has defined oral health as a condition without permanent oral cavity and facial ache, oral and throat cancer, oral inflammation and ulcers, birth malformations like cleft lip and palate, gum disease, tooth decay, and tooth damage, and other illnesses and trouble that affect the oral cavity and person's functions like speaking, biting and smiling (WHO, 2009). Oral disease is a significant public health problem owing to its higher predominance and important social effect. Bad oral health results can be severe to influence the quality of life. These include oro-facial and dental distress, eating problems, reduced communication, and limited social participation. Several of these situations are preventable by simple and efficient means.

Improvement in oral health-related knowledge is a requirement for promoting oral health in a population (Mehta & Kaur, 2012). Poor knowledge is one of the causes of nonadherence to oral hygiene practices. To promote the communities' oral health, the WHO has set the improvement of self-care as one of the aims for 2020 (Hobdell et al., 2003). The person who understands the knowledge and sense of individual check over their oral health is likelier to take on self-care practices.

The prevalence of Malaysian caries has decreased over the years based on numerous national oral health surveys. In comparison, periodontal disease is rising, and another critical oral health agenda has become (Ministry of Health, 2020). Oral health surveys of adults aged 15 years and above are conducted once every ten years in Malaysia. Four large-scale surveys were performed in 1974, 1990, 2000, and 2010. The proportion of participants with healthy periodontium was generally low for all three surveys. Periodontal disease declined slightly (gingivitis and periodontitis) between 1990 (92.8%) and 2000 (90.2%), but it increased in the 2010 survey (94%). Over the years, Malaysia's caries prevalence decreased to 88.9 % in 2010. Studies determine that awareness and proper attitude toward dental illness are not yet adequately instilled among the Malaysian people (Nettemu et al., 2017).

Knowledge is essential as it helps towards wellness improvement and illness prevention. It is necessary to get information about the knowledge levels associated with oral health among the Malaysian population. This study is taken up to evaluate oral health-related

knowledge, attitude, and practices among Universiti Putra Malaysia (UPM) staff.

1.2 Problem statement

Oral diseases are a global public health problem, and everyone is susceptible to tooth caries throughout their lifetime. Oral diseases have an impact on not only physical but also social and psychological well-being; these effects include a tendency to avoid interaction with people. Furthermore, because the mouth and teeth are so important in verbal and nonverbal communication, diseases that disrupt their functions are more likely to harm one's self-image, the manner in which a person appears, and sounds. When a person's appearance and speech are harmed by dental disease, they may feel anxiety, depression, and low self-esteem, which can affect their employment and social relationships.

In Malaysia, tooth decay is the most common chronic childhood disease, and its prevalence among adults is equally troubling. A national oral health survey of adults in Malaysia conducted in 2010 shows that 88.9% of adults in Malaysia suffer from dental decay, and 94% have Periodontal disease (Ministry of Health Malaysia, 2020).

The non-communicable diseases and oral diseases share common risk factors such as tobacco, excessive alcohol use, and unhealthy diets high in salt and sugar (World Dental Federation, 2015). Various studies have indicated that a considerable percentage of non-communicable diseases affect the academic sector, such as respiratory problems (Claudio et al., 2016), gastroesophageal disease (Altwigry et al., 2017), hypertension, and diabetes. For instance, the overall prevalence of hypertension among UPM staff was 34.4% (Rampal et al., 2011), and the prevalence of type 2 diabetes mellitus was 12.8 (Kumar et al., 2014). However, there is a lack of studies investigating oral health problems among university staff.

Even though oral health knowledge is essential and has been studied worldwide over the years, there is a lack of systematic study on assessing oral health knowledge, attitude, and practices, and literature is still limited to certain segments of the population. Most of the studies available concentrate on the infant', adolescents' and elderly people's oral health, being the university population workers are poorly studied.

1.3 Significance of study

Our teeth are also necessary to give our face structure and to help express our emotions. Oral health is, therefore, absolutely key when it comes to our confidence and self-esteem when (social interaction, work, appearance, and smiling). These aforementioned parameters become even more critical in the academic sector when the educators play a pivotal role in ensuring that their learners achieve the expected learning outcomes corresponding to the level of education and educational policy.

Oral diseases have enormous negative effects, such as causing pain, reduced quality of life, and reduced work productivity (Peres et al., 2019). That's why early intervention, which includes dental disease treatment and age-appropriate prevention counseling, necessitates a better understanding of community and individual oral health perspectives. Knowledge of people's self-perceptions of their oral health is a tool that helps us understand their behavior in the context of daily life, as well as their experiences. Such knowledge can help with treatment planning, as well as contribute to the success of healthcare professionals' interventions.

Studies on oral health knowledge, attitudes, and practices have been conducted in different countries. In 2014, Peltzer and Pengpid investigated oral health behavior and associated factors among undergraduate university students from various disciplines in 26 low, middle-, and high-income countries. This study confirmed low rates of tooth brushing and dental attendance among university students in different cultures across Africa, Asia, and the Americas. Limited studies were documented in Malaysia on OH among different occupational groups.

This study's significance is to produce documented information on the level of university staff's oral health knowledge and practices. This could also be a baseline study to expand further and develop adequate oral health education material and programs to improve oral health and practice awareness further and provide education on the population's oral health needs.

1.4 Research questions

1. What is the level of oral health knowledge among the Universiti Putra Malaysia (UPM) staff?
2. What is the staff's attitude at UPM university towards their oral health?
3. What are the oral hygiene practices prevalent among the staff?
4. Is there an association between oral health knowledge, attitude, practices, and socio-demographic factors (age, gender, ethnicity, level of education.)?
5. Is there an association between oral health knowledge, attitude, practices, and employment factors (the type of work, years of experience, faculty)?
6. Is there an association between oral health knowledge, attitude, practices, and source of getting the information on oral health?
7. What are the predictors associated with oral health knowledge, attitude, and practices among UPM staff?

1.5 Objectives

1.5.1 Main objective

To determine the level of oral health knowledge, attitudes, and practices among Universiti Putra Malaysia (UPM) staff.

1.5.2 Specific objectives

1. To assess the level of knowledge, attitude, and practices among (UPM) staff.
2. To determine the association between oral health knowledge and socio-demographic factors (age, gender, ethnicity, and education).
3. To study the association with employment factors and the source of the information.
4. To define predictors of oral health knowledge, attitude, and practices among UPM staff.

1.6 Hypothesis

1. There is a significant association between oral health knowledge, attitude, practices, and socio-demographic factors.
2. There is no significant association between oral health knowledge, attitude, practices, and employment factors.
3. There is no association between oral health knowledge, attitude, practices, and information source.

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