

UNIVERSITI TEKNOLOGI MARA

**THE AVOIDANCE PRACTICE AND ITS
ASSOCIATION WITH SELF-EFFICACY,
KNOWLEDGE AND ATTITUDE AMONG
MOTHERS WITH CHILDREN UNDER 6 YEARS
OLD ON ENVIRONMENTAL TOBACCO SMOKE
EXPOSURE TO THEIR CHILDREN, SELANGOR,
MALAYSIA**

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Thesis submitted in fulfilment
of the requirements for the degree of
**Master of Medicine
(Family Medicine)**

Faculty of Medicine

November 2024

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious, the Most Merciful.

First and foremost, I humbly express my heartfelt gratitude to my supervisor, Dr. Mazapuspavina Md Yasin, for her unwavering guidance, patience, and wisdom throughout this journey and beyond. I am deeply thankful for her encouragement and for consistently steering me in the right direction whenever I needed support. My sincere appreciation also extends to my co-supervisor, Dr. Hayatul Najaa Miptah, for her invaluable input, dedication, and time invested in shaping this thesis. Her unwavering support and insightful guidance have been instrumental in refining my work and broadening my academic perspectives. I am also deeply grateful to

for their constructive comments and invaluable feedback throughout this journey. Their expertise, encouragement, and thoughtful suggestions have significantly enhanced the quality of this thesis.

I am profoundly thankful to all the lecturers and staffs of the Primary Care Medicine Department, Universiti Teknologi MARA (UiTM), whose support and encouragement have greatly enriched my experience during my Master's program. My deepest gratitude also goes to my clinic's Family Medicine Specialists -

as well as the medical officers and Family Medicine Specialists from the Hulu Langat District Health Office (PKDHL) health clinics. Their cooperation and assistance made my data collection journey much smoother.

Lastly, I am eternally grateful to my beloved husband, my parents, my five children

and my parents in-law, Their unwavering support, prayers, and encouragement have been my source of strength and hope. Words cannot fully capture how much I appreciate everyone who stood by me, believed in me, and lifted me up, even in moments of doubt. May Allah bless all of you abundantly.

ABSTRACT

Background: Environmental tobacco smoke (ETS) poses significant health risks, contributing to many deaths and disability-adjusted life-years (DALYs) lost annually. A study in Malaysia reported, 52.8% of children under six were exposed to ETS, which aligns with WHO's findings that more than half of children worldwide are exposed to ETS, mainly at home.

Objectives: This research aimed to determine levels of self-efficacy, knowledge, attitude and avoidance practice regarding ETS exposure among mothers with children under six, and its association on the mothers' avoidance practices.

Methods: This was a multi-health facilities cross-sectional study using the validated Malay SE-KAP-ETS questionnaire. The higher scores indicate better self-efficacy, knowledge, attitude, and avoidance practices.

Results: A total of 321 mothers participated, with a mean age of 33.4 (± 5.57). Most were Malay (89.1%), had tertiary education (67.9%), were private employees (30.5%), and were in the B40 socioeconomic group (61.1%). Nearly all were non-smokers (98.8%), husband was a smoker (43.3%), had no smokers at home (48.4%), and had total house smoking restrictions (64.8%). Mean scores: self-efficacy 36.41/50 (± 9.7), knowledge 38.26/40 (± 3.76), attitude 48.58/50 (± 3.75) and avoidance practice 28.33/30 (± 3.27). MLR showed no smokers at home [$B=0.700$, 95%CI: 0.304,1.462; ($p=0.003$)], higher self-efficacy [$B=0.058$, 95%CI: 0.028,0.088; ($p<0.001$)], and positive attitudes [$B=0.414$, 95%CI: 0.336,0.491; ($p<0.001$)] towards avoiding ETS exposure were associated to higher avoidance practices. However, mothers with only primary school education [$B=-4.718$, 95%CI: -7.518,-1.917; ($p<0.001$)] and self-employed mothers [$B=-1.517$; 95%CI: -2.584,-0.450; ($p=0.005$)] were less likely to engage in avoidance practices.

Conclusion: The study highlights the need for targeted interventions like educational programs and health promotion to address the identified gaps and improve avoidance practices.

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CHAPTER I

INTRODUCTION

Environmental tobacco smoke or ETS, is a byproduct of smoking cigarettes comprising both the smoke exhaled by smokers and the smoke from burning tobacco (WHO, 2000). ETS also known as passive smoke, second hand smoke or involuntary smoke (WHO, 2000). It is the mixture of mainstream smoke (MS) which exhaled by smokers and side stream smoke (SS) which released by the burning tobacco in between puffs (WHO, 2020). About 4,000 hazardous compounds, including oxidizing agents, heavy metals, cyanide, and at least 50 carcinogens, can be found in tobacco smoke (WHO, 2020). Although the chemical compositions of ETS, SS, and MS are fundamentally identical, the absolute and relative quantities of the constituents can vary greatly. There is no safe level of exposure to ETS (Hwang et al., 2012, WHO, 2020) and there are no standardized exposure cut off hours used to identify secondhand smoking (Law and Hackshaw, 1996). A study found that nonsmokers living with smokers are exposed to about 1% of the smoke a person would get from smoking 20 cigarettes a day (based on plasma cotinine). It also showed that secondhand smoke increases the risk of acute respiratory disease in children by 50-100% (Law and Hackshaw, 1996). Therefore, smoking cessation is the most effective way to protect children from exposure to these hazardous chemicals (Dai et al., 2021).

Tobacco use kills about 8 million people globally each year, with 7 million deaths from direct use and 1.2 million from ETS exposure (WHO, 2020). Globally, around 40% of children are affected by ETS, with high prevalence in Southeast Asia, the Western Pacific, and Europe (Öberg et al., 2011). According to a study by Öberg M. et al, the number of deaths and disability-adjusted life-years (DALYs) lost as a result exposure to ETS in 2004 was 109 million, or approximately 0.7% of the total global burden of diseases reported in DALYs. Children made up 61% of DALYs, and the majority of disease burdens were caused by lower respiratory infections in children under 5 years old (Öberg et al., 2011). In Malaysia, over 10,000 deaths annually are linked to smoking-related illnesses, with 8.09 million people aged 15 and older exposed to ETS at home (Mohammed Nawi et al., 2021). Studies have shown significant ETS exposure among school-going adolescents: 56.4% in Peninsular Malaysia (Lim et al.,