

**UNIVERSITI TEKNOLOGI MARA**

**FOOD HANDLERS' LEVEL OF  
KNOWLEDGE, ATTITUDE  
AND PRACTICE (KAP)  
TOWARDS  
REPEATEDLY HEATED  
COOKING OIL (RHCO)  
IN SHAH ALAM**

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## ABSTRACT

Repeated Heated Cooking Oil (RHCO) associated with critical diseases include cancer due to its carcinogenic effect. However, despite the bad health impact, the usage of RHCO are found to be a common practice among food handlers for several reason. Hence, this study was initiated to investigate the level of knowledge, attitude and practice of food handlers on the usage of RHCO. A total of 130 food court's food handlers in Shah Alam area participated in this quantitative survey. A set of questionnaire that consist of Section A (demographic profile), B (knowledge), C (attitude) and D (practice) of RHCO were distributed between March - June 2021. The data collected undergone frequency, descriptive and correlational analysis using SPSS version 28. In addition, in-use cooking oil are collected to be tested so that the qualities of the cooking oil were identified cooking oil samples were simultaneously collected from 50 selected food premises to identify their qualities based on total polar compound (TPC) and acid value (AV) using rapid kits, Testo 270 and LRSM respectively. Through the questionnaire on KAP, the research results showed that the majority (60.8%) of food court food handlers had moderate level of knowledge, 53.8% had poor levels of attitude and 49.2% had moderate level of practice of RHCO usage. This study also found no significant relationship between the KAP variables. The results from 50 selected in-use cooking oil samples collected tested using TPC and AV tests found that all the cooking oils were 9.0% to 22.5% and  $1.33 \pm 0$  to  $2.73 \pm 0$ , respectively. Which shows that fried food of food courts were found to be generally safe to be consumed. To conclude, better monitoring and enforcement of clearer RHCO guidelines needs to be implemented by the governmental food authorities to address the issue on RHCO and to ensure fried foods sold at food.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

This chapter covers an overview of this study and discusses the foundation of this chosen topic. It consists of the research background, problem statements, research objectives, research questions and the significance of the study. It also briefly touches on the scope of this study, as well as, the operational definition of words used in this study in order to provide clarification on the research topic.

### 1.2 Background of Research

Malaysia is a developing nation, growing in population. As rural migration, expansion of urban boundaries and new townships rise, Malaysians' eating behaviour changes along with their lifestyles (OECD Economic Survey Malaysia, 2019). In Malaysia today, food varieties offered are plentiful and easily accessible. This motivates the urban population to opt for takeaways and home deliveries. Factors, such as dual income parents in urban households, also contribute to this trend due to the time reduction for preparing meals at home. Rapid economic growth in the urban areas has enabled the urban populations to spend more on food thus stimulating a rise in the need for instant meals (Ali & Abdullah, 2012; Alimi, 2016). Data collected by Poulain, Laporte, Smith and Tibere (2015) showed 47.7% of Malaysian meals are from eating out, with 61.6% Malaysians having at least one meal purchased daily. Yet, Ali and Abdullah (2012) stated that this habit of relying on purchased meals can lead to many health risks.

One of the many aspects of food health risk involved in purchased meals is the danger of consuming food prepared using harmful ingredients. An essential cooking ingredient in almost any Malaysian food is the cooking oil. However, when cooking oil is repeatedly heated, the cooking oil goes through several chemical reactions that cause it to breakdown and form harmful compounds (Perumalla & Subramanyam, 2016). These compounds accumulate during cooking and are eventually absorbed into the fried