

UNIVERSITI TEKNOLOGI MARA

**KNOWLEDGE, ATTITUDE AND PRACTICE ON TYPE 2
DIABETES MELLITUS AND PERCEPTION ON DIABETES
AMONG STUDENTS IN POLITEKNIK SULTAN SALAHUDDIN
ABDUL AZIZ SHAH**

NUR ANISA SOFEA BINTI MOHD IDRIS

Bachelor of Dietetics (Hons)

Faculty of Health Sciences

JULY 2025

ACKNOWLEDGEMENT

To begin with, I would like to express my thanks to Allah S.W.T. for His blessing in the journey of completing this thesis.

Sincerely, I would like to thank my supervisor, Encik Nazrul Hadi bin Ismail, and my co-supervisor, Madam Mazuin Binti Kamarul Zaman, for their guidance, advice, constructive criticism, support, and encouragement throughout the completion of this thesis. Your commitment, patience, and feedback have helped me grow in my weaknesses and help to improve my thesis.

Aside from that, I am deeply thankful to my fellow friends in the same journey for their encouragement, guidance, and support from day one until now. Also, to my parents and family, a heartfelt thanks for your endless prayers and encouragement for me in completing this thesis, and also in life. I am also grateful to PSA and their students for allowing us to collect data from their students as part of the study.

Last but not least, I would like to, directly or indirectly, thank everyone for being part of the individuals who helped in completing this thesis. Biggest gratitude to all of you.

ABSTRACT

Diabetes is a leading non-communicable disease, often developing with age. To prevent T2DM, young people should avoid unhealthy lifestyles. This study aims to assess the level of knowledge, attitude, and practice regarding Type 2 Diabetes Mellitus (T2DM) and its association with perceptions of diabetes among students at Politeknik Sultan Salahuddin Abdul Aziz Shah (PSA). This study was a cross-sectional study with sample size of 147 PSA students (aged 18–29) using convenience sampling. Nutritional status and questionnaire of KAP on T2DM and Perception on Diabetes were used. Data from 121 respondents were analyzed using SPSS Version 29.0, with results presented as median (IQR) and analyzed using non-parametric tests. Most participants were male (56.2%), under 20 (60.3%), and overweight/obese (58.7%). The majority had moderate knowledge (47.9%) and attitude (47.1%) with median (IQR) scores of 20 (8) and 56 (16), respectively. A high level of practice was observed in 71.1% with a median of 7 (3). Females showed higher knowledge and attitude than males. Students had low perceived susceptibility to T2DM (median = 2). Significant associations included: attitude with perceived severity ($p = 0.448$, $p < 0.001$), knowledge with perceived benefit ($p = 0.185$, $p = 0.042$), and attitude with perceived benefit ($p = 0.342$, $p < 0.001$). Overall, most students showed good KAP on T2DM but had low perceived susceptibility despite risk factors like being overweight or obese, highlighting the need to improve risk awareness and weight management.

Keywords: diabetes, T2DM, knowledge, attitude, practice, perception.

TABLE OF CONTENTS

AUTHOR’S DECLARATION	ii
ACKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
LIST OF ABBREVIATIONS	ix
ABSTRACT	x
CHAPTER 1: INTRODUCTION	1
1.1 Background	1
1.2 Problem Statement	2
1.3 Research Justification	3
1.4 Research Question	4
1.5 Objectives of Study	5
1.6 Hypothesis	5
1.6.1 Null hypothesis	5
1.6.2 Alternative hypothesis	5
1.7 Research Framework	6
CHAPTER 2: LITERATURE REVIEW	7
2.1 Diabetes in Global	7
2.2 Overview of T2DM	9
2.3 Knowledge, Attitude, and Practice on T2DM	9
2.3.1 KAP of T2DM among Diabetic Patient	10
2.3.2 KAP on T2DM among Healthy Adult	13

CHAPTER 1: INTRODUCTION

1.1 Background

Diabetes is one of the top non-communicable diseases (NCDs) that causes mortality in Malaysia. It also comes with hypertension, high cholesterol, and obesity, which pose a risk of developing other non-communicable diseases such as heart disease and stroke. Aside from that, diabetes can affect kidney function and lead to chronic kidney disease. It can further decrease the quality of life of diabetic patients when they need to tackle all the diseases and complications that have developed. Globally, the rate of diabetes is still increasing, and it is predicted that in 2030, the prevalence will be around 643 million people living with diabetes.

Based on the National Health and Morbidity Survey (NHMS) in 2023, diabetes is one of the causes that can lead to mortality, where 1 in 6 adults has diabetes. The prevalence of diabetes is higher in people in the age group of more than 60 years. However, the more alarming issue is that 84% of young adults aged 18 to 29 do not know they have diabetes. It can be due to a lack of knowledge regarding the symptoms, risk, and definition of diabetes. Aside from diabetes, overweight and obesity have also increased by 54.4% among Malaysian adults. It is often related to each other as being overweight or obese, especially with high abdominal fat, has caused insulin resistance in the body (ElSayed et al., 2023) and leads to Type 2 Diabetes Mellitus (T2DM).

Politeknik Sultan Salahuddin Abdul Aziz Shah (PSA) is located in Shah Alam, a city with an urban setting. This area is more exposed to many unhealthy food sources, such as fast food, which can lead to both T2DM and obesity. Students from PSA should possess a good understanding of T2DM to ensure they can develop a healthy attitude and lifestyle that helps prevent diabetes. However, as students, several factors