UNIVERSITI TEKNOLOGI MARA (UITM)

KNOWLEDGE AND AWARENESS ABOUT THALASSEMIA AMONG UNDERGRADUATE STUDENTS IN UITM PUNCAK ALAM

NURUL MAHFUZAH BINTI BAHARUDDIN

Dissertation submitted in partial fulfillment
of the requirements for the degree of
Bachelor of Pharmacy (Hons.)

Faculty of Pharmacy

2014

ACKNOWLEDGEMENTS

Bismillahirrahmanirrahim.

First and foremost, I praised to Allah, the most gracious and the most merciful for having me successfully completed this dissertation. I would like to thank my supervisor , Mr. Yogheswaran Gopalan for his patience, motivation, and guidance upon completion of this study.

Besides that, I would like to thank my family and parents, Mr. Baharuddin bin Ahmad and for their encouragement, advice, and supporting me spiritually throughout my life. Other than that, a sincere gratitude to the lecturers and staffs of Faculty of Pharmacy, my friends, my course mates, and everyone who helped and supported me directly or indirectly during this study.

TABLE OF CONTENTS

ABSTRACT

Thalassemia is the common inherited blood disorders throughout the world. It causes body to synthesis low level of red blood cells and haemoglobin. There are higher prevalence of thalassemia mainly among Mediterranean people, Middle East countries, and Asia including Malaysia. It was estimated that approximately 2.1 per 1000 infants in Malaysia will be affected with thalassemia every year while 4.5% of Malaysian population were the carriers of beta thalassemia. There were studies that investigated the level of awareness and knowledge among Malaysian public but there is no data that focus specifically on Malaysian students. Thus, this study was conducted to determine the level of awareness and knowledge about thalassemia among undergraduate students in UiTM Puncak Alam based on their year of study and faculty's. A questionnaire based survey was done randomly on 367 undergraduate students in UiTM Puncak Alam from Faculty of Pharmacy, Health Sciences, and Business Management by using stratified random sampling. A Modified version of Thalassemia Awareness Questionnaire (TAQ) was used to determine the level of awareness and knowledge about thalassemia among undergraduate students in UiTM Puncak Alam. Non-parametric Chi-square Test was used to investigate the significant differences between respondent's faculty and their year of study with the level of awareness and knowledge about thalssemia. Results showed that the level of awareness among undergraduate students was high with 93.6% of them were aware about thalassemia. There were also significant differences between respondent's faculty and their year of study with the level of awareness and knowledge about thalassemia ($p < 0.05$). It showed that students from Health Sciences were more knowledgeable about thalassemia compared to Pharmacy and Business Management students.

CHAPTER 1

INTRODUCTION

1.1 Introduction

Thalassemia is an inherited blood disorders that caused body to synthesis low number of healthy red blood cell (erythrocyte) and haemoglobin (Nienhuis, Anagnou, & Ley, 1984). 'Inherited' means this disorder will be passed down from parents to the children via genes. Thalassemia occurs when there is defect to the protein chains of haemoglobin which are alpha globin and beta globin (D. J. Weatherall, 2010). There are two types of thalassemia, alpha thalassemia and beta thalassemia with different kind of severity. The severity for both types of thalassemia depends on what type of haemoglobin genes are being passed down from parents to their children (D. J. Weatherall, 2010).

Thalassemia is one of the common inherited blood disorder worldwide (Cao, Saba, Galanello, & Rosatelli, 1997; D. J. Weatherall, 2010). It was estimated that there are 240 million of people around the world were heterozygous for beta thalassemia or also called as carriers and approximately 200 000 infants born yearly