UNIVERSITI TEKNOLOGI MARA

PREVALENCE OF REFRACTIVE ERROR AMONG PATIENT POPULATION ATTENDING UITM VISION CARE OPTOMETRY CLINIC

NURYASMIN BT NORDIN

BACHELOR OF OPTOMETRY (HONS) FACULTY OF HEALTH SCIENCES

JULY 2016

AUTHOR'S DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This topic has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

In the event that my dissertation be found to violate the conditions mentioned above, I voluntarily waive the right of conferment of my degree and agree be subjected to the disciplinary rules and regulations of Universiti Teknologi MARA.

Name of Candidate		:	Nuryasmin Bt Nordin
Candidate I.D.No.		:	2012422704
Programme		:	Bachelor of Optometry (Hons.)
Faculty		:	Faculty of Health Sciences
Thesis Tittle	:		Prevalence of Refractive Error among Patient Population Attending UiTM Optometry Clinic
Signature of Candidate		:	Rosennit
Date		:	18 JULY 2016

PREVALENCE OF REFRACTIVE ERROR AMONG PATIENT POPULATION ATTENDING UITM VISION CARE OPTOMETRY CLINIC

ABSTRACT

Purpose: The study purposes were to identify the distribution of patient population attending UiTM Vision Care Optometry Clinic by their demographic data and to explore the distribution pattern of refractive status and the prevalence of refractive error among them. *Methods:* A retrospective study was done and patient record files were retrieved among patient population who attending in this clinic since year 2011 until 2015 by simple random method. Data was analysed and presented in percentage, frequency, mean and standard deviation by using the descriptive analysis. *Results*: Almost third quarter of the patient population who presenting in this clinic were students and majority of them were female students. Myopia (49.6%) has the higher prevalence of refractive error among them. Meanwhile, the hyperopic and presbyopic patients were rarely seen and were uncommon refractive error in this clinic since the percentage both of it showed the lowest. Adolescents ranging from age 10 to 19 years of age presented the highest prevalence of myopia. The prevalence rates of myopia in female population were observed to be not much different from males. Myopic patients had with-the-rule astigmatism showed the highest frequency among astigmatism groups. The overall mean spherical equivalent was -1.22±2.33 *Conclusion*: In this study, it showed that myopia was the commonest refractive error among patient population who presenting in this clinic.

Keyword : Refractive error, myopia, presbyopia, astigmatism

TABLE OF CONTENTS

AUTHOR'S DECLARATION	ii
SUPERVISOR'S SIGNATURE	iii
ACKNOWLEDGMENT	iv
ABSTRACT	V
ABSTRAK	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	X
LIST OF FIGURES	xi
LIST OF ABBREVIATION	xii
LIST OF SYMBOLS	xiii

CHAPTER 1	
INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	2
1.3 Research Objectives	2
1.4 Significance of The Study	3

CHAPTER 2 LITERATURE REVIEW	
2.2 Refractive Error Based on Age, Sex and Ethnicity Distribution	7
2.2.1 Age	7
2.2.2 Gender	7
2.3 Prevalence of Refractive Error	7

CHAPTER 3	9	
MATERIAL AND METHODS	9	
3.1 Research Design	9	
3.2 Research Criteria	9	
3.3 Research Sampling		
3.4 Research Procedure	11	
3.5 Refractive Error Criteria	12	
3.6 Age Criteria	12	
3.7 Data Analysis	13	
CHAPTER 4	14	
RESULTS	14	
4.1 Demographic Distribution	14	
4.1.1 Age and Gender Distribution	14	
	15	
4.1.2 Occupation Distribution	-	
4.2 Type of Refractive Error	18	
CHAPTER 5	25	
DISCUSSION	25	
5.1 Demographic Distribution	25	
5.1.1 Age and Gender Distribution	25	
5.1.2 Occupation distribution	26	
5.1.3 The Main Reason of Visiting to the UiTM Vision Care Optometry Clinic	26	
5.2 Distribution Pattern of Refractive Error	27	
5.3 Prevalence of Refractive Error Based on Age and Gender		
5.4 The Distribution Type of Astigmatism According to Their Orientation		
Among Patient Population	31	
5.5 Limitations	32	