UNIVERSITI TEKNOLOGI MARA

REFRACTIVE ERROR AND VISUAL STATUS OF CHILDREN WITH DISABILITY

WAN NORAFIKAH BINTI WAN ABDULLAH

BACHELOR OF OPTOMETRY (HONS)
FACULTY OF HEALTH SCIENCE

JULY 2016

AUTHOR'S DECLARATION

I declare that the work in this proposal is considerable my own, and to the extent that any part of this work is not my own, I have indicated that it is not mine by fully acknowledgment in accordance with the standard referring practices of the discipline.

I, hereby, acknowledge that has been supplied with the Academic Rules and Regulations for Under graduates, University Teknologi MARA (UiTM) regulating the conduct of my study and research.

Name of student : Wan Norafikah binti Wan Abdullah

Student I.D.No. : 2012258596

Program : Bachelor of Optometry

Faculty : Health Science

Thesis : Refractive Error and Visual Status of Children With

Disability.

Signature of student :......

Date : 18 Julai 20 76

ABSTRACT

Refractive Error And Visual Status Of Children With Disability

Purpose: The objective of this study was to determine the visual acuity and refractive error status among children with disability. **Methods:** The eye examination data were reviewed from Low Vision and Rehabilitation Clinic. Data of children with disability age from birth to 18 years old were selected. The age, gender, types of disability and eye examination which includes visual acuity, colour vision test, cover test, refraction, anterior segment and posterior segment were extracted and analyzed. **Results:** A total of 27 data of children with disability were reviewed. Among them, 55.5% had VA 6/18 or better, whereas 26% had VA 6/24 or worse. The percentage of children with disability having refractive error was 85.19%. Hyperopia was the common refractive error occurred among children with disability. Approximately 41.6% of children with disability had strabismus in which most of them had esotropia (25.9%). Majority of the children with disability that had strabismus were among Down syndrome children. **Conclusion:** Children with disability are prone to have vision disorder. Early eye examination and visual abnormality detection are needed among those children for better intervention prognosis.

Keywords: Children with disability, Refractive error, Ocular status

TABLE OF CONTENT

AUTH	OR'S DECLARATION	ii
SUPER	RVISOR SIGNATURE	iii
ACKN	iv	
TABLE	v	
LIST O	OF FIGURES	vii
LIST OF TABLES LIST OF ABBREVATIONS		
ABSTR	RAK	xiii
CHAP	TER 1: INTRODUCTION	1
1.1.	Background.	1
1.2.	Problem Statement.	3
1.3.	Rationale Of Study.	4
1.4	Objective.	5
1.5	Research Question.	5
СНАР	ΓER 2 : LITERATURE REVIEW	6
2.1	Children With Disability In Malaysia.	6
2.2	Refractive Error And Visual Status Among Normal Children	en In Malaysia. 6
2.3	Visual Acuity Among Children With Disability.	9
2.4	Refractive Error Among Children With Disability.	10
2.5	Ocular Status Among Children With Disability.	11
CHAP	ΓER 3 : MATERIAL AND METHODS	13
3.1	Study Design And Setting	13
3.2	Inclusion Criteria	13
3.3	Research Procedure	13
3.4	Data Analysis	16

CHAP	ΓER 4 :	RESULTS	17	
4.1	Demographic Data			
4.2	Distribution Of Visual Acuity And Refractive Error Among			
	Children With Disability			
	4.2.1	Visual acuity based on age group and types of disability	19	
	4.2.2	Magnitude and distribution of refractive error among children	en	
		with disability.	21	
	4.2.3	Types of refractive error among children with disability	22	
4.3	Ocular Characteristics And Optometric Assessment Among Children			
	With	Disability	24	
	4.3.1	Anterior and posterior eye characteristics	24	
	4.3.2	Optometric assessment finding	24	
СНАР	ΓER 5 :	DISCUSSION	26	
5.1	Visua	l Acuity Among Children With Disability.	26	
5.2	Refractive Error Among Normal Children And Children With Disability 28			
5.3	Ocula	r Characteristics And Optometric Assessment Among Childre	en With	
	Disab	pility	31	
СНАР	ΓER 6 :	CONCLUSION AND RECOMMENDATION	33	
6.1	Conclusion			
6.2	Limita	ation and Recommendation	33	
REFER	RENCES	S	35	
APPENDIX A			39	