
ORIGINAL ARTICLE

Perception and knowledge , Attitude and practice of Amblyopia among medical and dentistry students at Hail university

Hend Alkawi ¹, Fahmida Khatoon ², Madiha Mahmood ³Renad Rasheed ⁴, Amani Hamoud Alrasheedy⁵, Rinad Lafy Alrasheedy ⁶

¹⁻⁶ College of Medicine , University of Hail, KSA

Corresponding author's Email: drfahmida1@gmail.com, f.khatoon@uoh.edu.sa

ABSTRACT

The purpose of this Research is to investigate the to which extent amblyopia affect educational, health, and social outcomes on individual life and perception and prevalence of Amblyopia among medical and dentistry students. The survey was completed in two months, from Jan 2020 to Feb 2020, at Hail University, KSA. The data was collected using standard Questionnaire, with some modifications which was distributed electronically. Random sampling technique will be used by a questionnaire explaining the research idea to be filled by medical and dentistry students at Hail university. The data was analyzed by using Statistical Package for Social Science (SPSS-22). The unrealistic fears about illnesses recorded in this study among medical students were higher than their peers studying majorly, one non-medical.

KEY WORDS : Anxiety ,Amblyopia Hypochondriasis , International Classification of Diseases

Received 01.12.2019

Revised 20.12.2019

Accepted 17.01.2020

How to cite this article:

H Alkawi, F Khatoon, M Mahmood, R Rasheed, A Hamoud Alrasheedy , R Lafy Alrasheedy. Perception and knowledge , Attitude and practice of Amblyopia among medical and dentistry students at Hail university. Adv. Biores., Vol 11 [1] January 2020.72-76.

Introduction

Amblyopia is most common cause of Vision loss in children Amblyopia (lazy eye) is a form of cortical visual impairment, defined clinically as a unilateral or bilateral decrease of visual acuity (VA) that cannot be attributed to structural abnormalities of the eye or visual pathway. Amblyopia is the main cause of preventable child blindness, with a prevalence of 1–5% and is still considered as one of the most common causes of persistent unilateral visual impairment in adulthood [1]. Amblyopia is more common in premature children who were small for gestational age, who have history of having a first-degree relative with amblyopia, or who have developmental delay. Environmental risk factors for amblyopia include maternal smoking and drug or alcohol use during pregnancy [2 ,3]. Additionally, amblyopia carries an raised lifetime risk (at least three times that of the general population) of serious vision loss of the fellow eye, which was estimated at least 1.2% [4,5]. Unilateral amblyopia has two main causes: (i) a difference in refractive error between the two eyes, resulting in lack of clear visual input to one eye (anisometropic amblyopia) and (ii) strabismus (misalignment of the optical axes) resulting in abnormal binocular interaction (strabismic amblyopia). Some children have both anisometric and strabismus amblyopia. [6,7].

We start this study to give an overview of the prevalence rate of Amblyopia among medical students at Hail University because it's differ from region to region. To assess the level of knowledge, attitude & practices among parents towards children suffering from Amblyopia in Hail The aim of our study was to assess the prevalence of Amblyopia among medical and dentistry students at Hail University and compare treatment option to find the best one for the subjects suffering from Amblyopia in Hail.

MATERIAL AND METHODS

The Study will be conducted through Cross-sectional study design The study will be carried out among medical and dentistry students at Hail University, KSA. The data collection will be through a questionnaire . Random sampling technique will be used by a questionnaire explaining the research idea

to be filled by medical and dentistry students at Hail university. Data will be entered and analyzed by (SPSS, version 22) statistical program and the significance at P-value < 0.05.

Ethical Consent: Research committee approval will be taken from Hail university ethical committee.

Results : The total of 200 participants are demographic and inferential analyse by this study.

Table 1; Demographic Data of Study group

No =200		
Gender	Male	57
	Female	143
Education	Non medical Students Pharmacy	43
	Medical Students	82
	MBA students	36
	Unknown	40

Figure 1 : Show distribution of Age among the study group

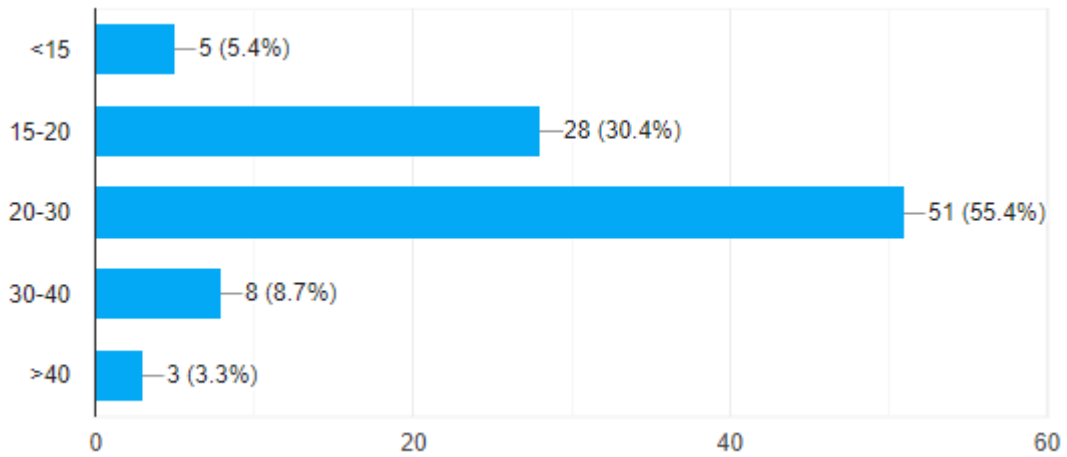
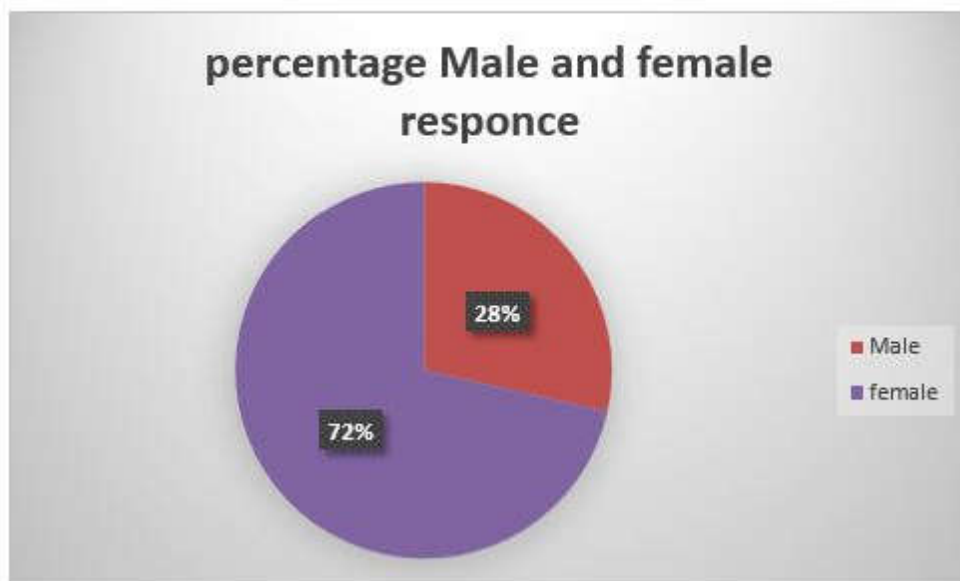


Figure 2 showing percentage of male and female respondent of study group



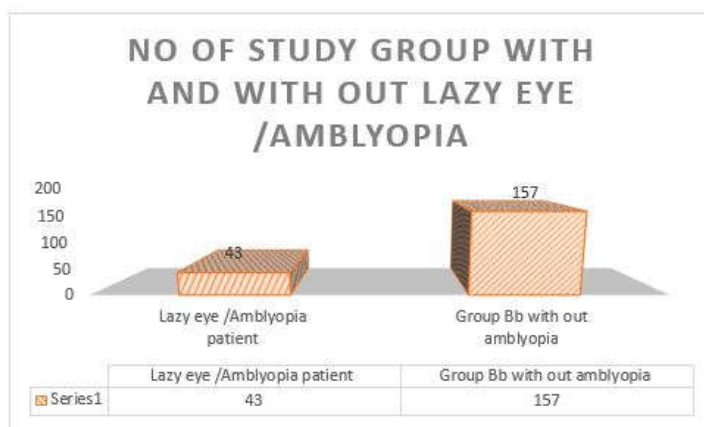


Figure 3; showing study group showing 157 cases without (Lazy Eyes) Amblyopia and 43 cases with Amblyopia

Table 2 Awareness on Amblyopia complications among Medical and others student

Variable	Categories	Sub category / Yes or no		%
		Yes	No	
What is the Amblyopia	students give Correct definition and knows its detail	135		67.5
	Students not able to define and give the detail of Amblyopia	75		37.5
What are the most common symptoms of Amblyopia ?	Reduction of visual acuity in unilateral eye =yes /no	Yes	172	86%
		No	28	14
	Vision in the amblyopic eye may continue to decrease if left untreated yes /no	Yes	110	55
		No	35	17.5
Do not Know	55	27.5		
Is Amblyopia genetic?	Yes	65		32.5
	No	70		35
Can dietary modification prevent Amblyopia complication?	Don't know	111		55.5
	no	29		14.5
	Don't know	70		35
How can I improve my amblyopia?	Eye patches or eye occlusion	Yes	178	89
		No	22	11
	Vision exercises	Yes	137	68.5
		no	23	11.5
	Atropine eye drops.	Do not know	40	2
		Yes	124	62
no		36	18	
Don't know	40	2		
Are you/amblyopia patient born with amblyopia?	Yes	90		45
	No	110		55
Can glasses fix a lazy eye?	By Shortsightedness /long sidedness	Yes	193	96.5
		No	7	.03

RESULTS

The study was carried out on 200 subjects which included 157 are the healthy Subject and no sign and symptoms of Amblyopia and 43 have amblyopia and 36.7 ± 6.03 and mean BMI 26.7 ± 4.3 and 24.3 ± 3.7 respectively. Study sample were collected from Hail university from different students enrolled in various

courses , Among the study groups 82 students are enrolled in medical subjects and 36 were MBA students and 40 are nursing 43 are Students of Pharmacy . Statistical analyses were performed using the Statistical Package for the Social Sciences version 22. Mean values were reported together with +/- standard deviation (SD).All categorical variables were presented by frequencies and percentages. Mean differences between groups were tested statistically using the two sample independent t test. A p- value< 0.05 was considered statistically significant. Table 1 shows descriptive characteristic of studies subjects which include ,education level and gender. Their age are discussed in Fig 1, showing the age group between 20- 30 years and 5% are less than 15 and 30 percent are the students between age 15 to 20 and 51 % Study group having age between 20 to 30 years old and 12 percent are above 30 years old.Fig 2 show that 43 have symptoms of Amblyopia and 143 were having normal vision or without amblyopia .

DISCUSSIONS

Amblyopia is thought to result from inadequate or abnormal stimulation of the visual system during a critical early period of visual development. The developing visual system has been shown to be highly sensitive to deprivation ,and this led to the concept of a visual sensitive period, ending at approximately 11 years [8.9.10].In our study The study analysis revealed correspondingly low prevalence of during preclinical years than clinical years but overall most of the subject have understanding about sign and symptoms of Amblyopia as shown I fig 2 . Possibly during the pre-clinical years, students have an improved sense of body awareness illustrated by [11].

It has been suggested that after certain age, the neuronal circuits have stabilized and there is no plasticity of the brain. Hence, timely screening for and intervention in amblyopic children is clearly required to prevent permanent visual loss of the affected eye. Undoubtedly, the potential for successful treatment of amblyopia diminishes with increasing age, and if it is untreated or incompletely treated in early childhood, it results in lifelong visual impairment. However, recent studies suggest that treatment can improve VA of amblyopic children upto15 years of age, because there is plasticity even after the traditionally defined closure of the critical period [12,13] in our study the quality of life is suffered and student are using glasses to reduce their symptoms . The mainstay of treatment for amblyopia is based on increasing visual stimulation of the amblyopic eye by temporarily covering of the dominant eye, either y means of patching (occlusion therapy) or atropine and optical penalization. Conventional amblyopia treatment requires long-term effort by the child and family, and even after several years of treatment, many amblyopia fail to reach successful outcomes. Moreover ,successfully treated amblyopic children experience a recurrence in approximately one fourth of the cases [14,15]. The response to amblyopia therapy depends on many factors, including the age at commencement of therapy, the initial VA, the cause and severity of amblyopia (anisometropia, strabismus, or deprivation), the duration of abnormal visual experience, the method of amblyopia therapy, the duration of therapy, the level of compliance ,and the speed of tapering of treatment and concomitant conditions[16] . In our study group the subjects having amblyopia are aware about the complication and management of the disease and try to get the healthy diet and want to improve the quality of life

CONCLUSION

Amblyopia is one the common Complain in the north region of Hail, KSA. Students are very curious to know about the Complication and managing of its severity by diet and glasses and want to have some awareness program and continuous education seminar to get knowlegee and update data about it.

Recommendation

Parent are needed to get education about the disease long term complication and we recommend them to attend the education program to seek awareness.

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