

Attitudes and Beliefs of Students to spectacles wear for the correction of refractive errors in Dijlah University College

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ABSTRACT

Background: Refractive error is the main cause of visual impairment in the world. Spectacles are the most frequently used options for correcting refractive errors. In addition, they can be used for protection and fashion.

The aim of this study was to provide knowledge to bridge this important gap.

Objective: To Changing beliefs and attitudes about wearing spectacles to correct refractive errors (RE) among students in Dijlah University College

Study Design: Cross sectional study.

Place and Duration of Study: It was in Dijlah University College, between November 2017 and December 2017.

Methodology: The study population consisted of first, second- and third-year students from each department. Subjects in Dijlah University College had refractive error diagnosed previously and wear an eye spectacles.

RESULTS:

Over (73%) of students suffered from refractive error; they were (54.2%) males and (45.8%) females. More than half of them (51%) see people who wear spectacles as being visually handicapped. A (61.0%) of the total students agreed that spectacles were affecting on external looking in different ways. From the total (52 %) disagree to that the spectacles will worsen existing problem vision. A (40 %) of the respondents agreed that spectacles push the eyes in. A (30%) of the female agreed that eyes spectacles protects the eyes from dust in the air and (30 %) of the Males disagreed that eye spectacles protects the eyes from dust in the air.

Conclusion: The results of our study demonstrate major deficiencies in knowledge of Students to spectacles wear for the correction of refractive errors in Dijlah University.

Key words: refractive errors, spectacles, attitudes, and beliefs.

INTRODUCTION

Refractive error is the main cause of visual impairment in the world. Spectacles are the most frequently used options for correcting refractive errors. In addition, they can be used for protection and fashion.[1]

It is the simplest and cheapest method used in developing countries like Iraq.

Patients with RE must exhibit good compliance to spectacles wear. Patients' attitude and perception of spectacles and eye health could affect compliance to spectacles wear. [2]

Despite the increasing popularity of contact lenses and refractive surgery, the use of eye spectacles still remains the most popular method of correcting refractive errors. [3]

Uncorrected refractive error is a common cause of avoidable visual impairment that can be corrected with eye spectacles. Patients must wear their eye spectacles to correct such refractive errors [4]. Due to impaired vision like RE, people may not be able to complete their education, find it difficult to obtain employment, and may not be able to lead a full life. [5]

The World Health Organization has made refractive error correction a priority in the global initiative to eliminate avoidable blindness: Vision 2020—the Right to Sight [6]

It is widely believed that young people should not have eye problems and as such should have no need to wear spectacles. This therefore imposes some kind of stigma on anyone who wears spectacles [7]. Others believe that spectacles damage and weaken the eyes [8]

Eye spectacles or Spectacles are frames bearing lenses worn in front of the eyes, usually to enhance vision. Other reasons for spectacles wear include eye protection, to conceal eyes defects and as a fashion accessory. Despite the increasing popularity of contact lenses and refractive surgery, the use of spectacles still remains the most popular method of correcting refractive errors.

Despite inherent merits such as control over their use, spectacles do pose some significant challenges. For example, spectacles are not readily affordable, by many who require them and can be a source of ocular discomfort especially when incorrectly prescribed. Refractive errors are a major cause of visual impairment globally (43%). There has been abuse of spectacles dispensing due to a lack of standardization, superfluous prescriptions and distribution by individuals who have no professional experience in eye care or dispensing.

Although many studies had been conducted on refractive errors there are comparatively few studies on attitudes and practices among spectacles wearers. The findings in this study are important and will assist stakeholders in the eye care industry to enhance eye care. [20]

This study focused on undergraduates; because they are more mature and better informed to make educated decisions for themselves. This study seeks to find out the attitude and beliefs of Dijlah University College, undergraduates to spectacles wear. This is in order to improve acceptance of spectacles when prescribed thus reducing blindness and visual impairment due to uncorrected refractive errors.

Refractive errors arise from the eye's inability to clearly focus light rays from optical infinity onto the retinal plane. This culminates in a perception of blur images when the light rays are focused anterior to the retina (myopia), posterior to the retina (hyperopia) or when the light rays from the different meridians are brought to different foci (astigmatism). Relief from refractive error associated blurred or distorted vision is attainable with the use of prescribed spectacles, and more recently, refractive surgery. Despite the foregoing options, the predominance of refractive errors coupled with the cost of refractive correction, has made refractive errors a global public health concern and an economic challenge.

The most prevalent form of eye disorders that brought about poor vision and presented grave social and economic implications were refractive errors. In 2012, global estimates revealed that over 2.3 billion people were suffering from refractive error related poor vision. However, it is interesting to note that a refractive error can simply be detected, diagnosed, measured and consequently, corrected using optical corrective approaches and devices such as spectacles and contact lenses or by surgical procedures. According to global research, a greater

majority of people with uncorrected refractive errors are situated in rural and low-income countries, most of which are in Africa.

Regardless of age, sex, and ethnicity, refractive errors, if uncorrected, resulted in an impaired or decreased quality of life for millions of people worldwide. A number of studies had asserted that uncorrected refractive errors had become a dominant issue in society as a result of socioeconomic factors. Likewise, uncorrected refractive errors, which have eaten into the public health fiber of many low and middle-income countries, may to a large extent, influence the learning abilities of children.

The mainstay treatment modality for refractive error is spectacles correction because spectacles remain the commonest and relatively cheapest form of refractive error correction. Spectacles are optical appliances consisting of a pair of ophthalmic lenses mounted in a frame, resting on the nose and held in place by sides extending towards or over the ears and positioned approximately 12 mm from the eyes.

Contact lenses have evolved from spectacles lenses to plastic scleral contact lenses and then to Polymethyl methacrylate (PMMA) lenses. Contact lenses are considered more expensive and intricate to use relative to spectacles but the use of contact lenses has quite an avalanche of benefits that spectacles usage fails to provide.

Most studies had shown that there is a relatively high awareness but low willingness to use alternatives to corrective spectacles seen among spectacles wearers. Education on the various alternatives to corrective spectacles, allaying fears on their complications, and making them more affordable could enhance awareness and create a more positive attitude towards these alternatives to corrective spectacles. A study reported a high prevalence of contact lens use by female university students and cosmetic purposes was largely the neces-

sitating factor for contact lens usage among this group of students.

In considering the prescription of any medication or medical device for everyone and for that matter minors, it was important to take into account its safety. This finding indicated that contact lens was a safe medical device which could be used as means of correcting refractive error for different age groups but required supervision just as with any other medical device when prescribed. [15]

Uncorrected refractive error is the leading cause of visual disability the proportion of students who could benefit from spectacles correction and do not yet own or wear spectacles has been found to be high in many settings. The high prevalence of uncorrected refractive error is of particular concern given recent evidence that provision of spectacles improves vision related quality of life in adults Despite the importance of uncorrected refractive error as a cause of visual disability, little published research has focused on barriers and strategies to improve spectacles acceptance among students., Attitudes and behavior of adults with regard to spectacles acceptance have been somewhat better characterized. The problem of uncorrected refractive error appears to be particularly severe in rural area. [16]

Individuals having refractive errors especially many spectacle wearers are potential beneficiaries of contact lenses and refractive eye surgeries. However, spectacle wearers rarely request for alternatives to eye spectacles in correcting refractive errors in resource limited setting. This study was conducted to determine awareness, attitude and reasons for the poor interest among spectacle wearers to contact lens and refractive eye surgery in a resource limited economy. [17]

Current worldwide estimates indicate that more than 90% of people with uncorrected

refractive errors live in developing countries. The Centre for Eye Research in Australia reported that the prevalence of eye.

THE AIM OF STUDY:

Studying this subject will help in decreasing the impact of refractive error on society. A very few in Iraq studies about attitude and beliefs of students to spectacles wear for the correction of refractive errors.

OBJECTIVE

1-To determine the attitude and beliefs of Students to spectacles wear for the correction of refractive errors in Dijlah University College.

2-To assess determinants of spectacles acceptance and use among Students.

Methods: A cross sectional study was conducted, 600 undergraduate students. The study was conducted from November 2017 to December 2017 by Simple random sampling. Subjects consisted of the first, second- and third-year students from each department. In Dijlah University College. Data collectors (five optometrists, 4th year optometry students) introduced themselves and explained the purpose of the study, informed consent was obtained from each participant student; the questionnaire was translated from English to Arabic. Face to face interview was employed using questionnaires to collect data from the students. The questionnaires were given to the students and they were instructed to make sure their attitudes and beliefs toward spectacles wear were best presented by ticking their answers among the questions. The questionnaires were taken back the same day they were given as soon as the participants answered them. Data were checked for completeness, clarity and before analysis by the supervisor.

DATA ANALYSIS

Data were analyzed using simple statistical method, was used to compute the proportion of knowledge and attitude towards spectacles use.

RESULTS

A total of 600 students, comprising 325 (54.2%) males and 275 (45.8%) females' participants (Fig. 1).

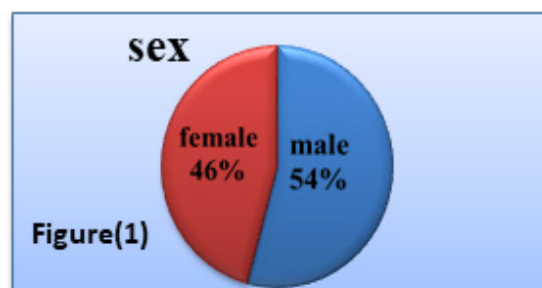


Figure (1): The distributions of Sex

Males showed a higher prevalence (22.8%) who thought spectacles were harmful to the eyes than Females (14.7%), equal percentage for male and female (31%) thought spectacles were not harmful to the eyes table (1).

Table (1): who thought spectacles were harmful to the eyes

who thought spectacles were harmful	yes		no	
	(N)	(%)	(N)	(%)
Male	137	22.8	188	31.4
Female	88	14.7	187	31.1
%total		37.5		62.5

This study found a relatively high level of awareness among participants on alternatives to eyespectacles in correcting refractive errors

Over 70% of students suffered from refractive error (Table 2)

Table (2): students have refractive errors

Do you have refractive errors	yes		no	
	(N)	(%)	(N)	(%)
Male	244	40.7	81	13.5
	193	32.2	82	13.6
Female				

Only (12%) of the total study students, female agree to that they would be mocked for wearing spectacles by others, table (3)
Table (3): students who wear spectacles being mocked by others

spectacles being mocked by others	yes	no		
	(N)	(%)	(N)	(%)
Male	106	17.7	219	36.5
	74	12.3	201	33.5
Female				

A (37%) think spectacles are meant for only old people (table 4)

Table (4): spectacles are meant for only old people

spectacles are meant for only old people	yes		no	
	(N)	(%)	(N)	(%)
Male	131	21.8	194	32.4
	92	15.3	183	30.5
Female				

More than half of them (51 %) see people who wear spectacles as being visually handicapped (table5).

Table (5): people wearing spectacles as visually handicapped

wearing spectacles as visually handicapped	yes		no	
	(N)	(%)	(N)	(%)
Male	159	26.5	166	27.6
	145	24.2	130	21.6
Female				

A (51%) of the total population felt that spectacles are an inconvenience, like headache, tearing and burning sensation (table 6)

Table (6): spectacles are an inconvenience

spectacles cause discomfort like headache, tearing and burning sensation	yes		no	
	(N)	(%)	(N)	(%)
Male	137	22.8	188	31.4
	172	28.6	103	17.2
Female				

A (61.0%) of the total students agreed that spectacles were affecting on looking in different ways (table 7).

Table (7): spectacles were affecting on looking

spectacles affecting on your looking	yes		no	
	(N)	(%)	(N)	(%)
Male	219	36.5	106	17.7
	144	24	131	21.8
Female				

Among the total participants (27%) (Female) students also think people who wear spectacles appear intelligent (table 8).

Table(8): wearing spectacles appear intelligent

wearing spectacles appear intelligent/ smart	yes		no	
	(N)	(%)	(N)	(%)
Male	117	19.5	208	34.7
Female	160	26.7	115	19.1

From the total (52 %) disagree to that the spectacles will worsen existing problem vision (table 9).

Table (9): spectacles will worsen your vision

spectacles will worsen your vision	yes		no	
	(N)	(%)	(N)	(%)
Male	113	18.8	212	35.4
Female	122	20.3	153	25.5

A (60%) of the respondents disagreed that spectacles push the eyes in and (40 %) of the respondents agreed that spectacles push the eyes in (table 10).

Table (10): spectacles push the eyes in

Spectacles pushes the eyes in	yes	no		
	(N)	(%)	(N)	(%)
Male	105	17.5	220	36.6
Female	140	23.3	135	22.5

DISCUSSION

In this study, about (63%) of the students had adequate knowledge about safety of spectacles they believed spectacles were not harmful while other study showed that (64%) spectacles can harm the eyes [9]. The fear of spectacles damaging the eyes should be directly addressed and the concerns should be alleviated during consultations at eye care clinics.

This study found a relatively high level (73%) of students suffered from refractive error (fig.2), good awareness and the rest for eyes impairments.

In this study only (12%) of the total students, female agreed to that they would be mocked for wearing spectacles by others, this is similar to a previous study. Females (11.8%) believed that they will be laughed at for wearing spectacles [8]. Another study revealed that a large percentage of female respondents (35%) were agreed to that they would be mocked for wearing spectacles by others the main reason is cosmetic factor.[8].

A (37%) think spectacles are meant for only old people, another study revealed that a low percentage (14%) [11], this result might be correlated with the individual's educational status.

We note that a (51%) see people who wear spectacles as being visually handicapped (table 5). same result (54%) [11]. Abbelief like this could result in serious problems like, anxiety, depression, loneliness, lowered self-esteem and behavioral problems.

In our study half (50%) of the total students felt that spectacles are an inconvenience, like headache, while the study showed only a few (2.6%) stated a headache [10]. This indicates the need to change their perspective towards the use of spectacles through the dissemination of knowledge and information. An attitude like this has poor adherence to spectacles. Another study revealed that that (17%) of participants believed that eye spectacles were helpful in treating headaches [5]

A greater proportion of the study population (61.0%) of the total students agreed that spec-

tacles were affecting on looking in different ways (table 7). this against other study in which students strongly disagreed wearing spectacles affecting on looking. [13]

Our study showed (46%) students agreed wearing spectacles appear intelligent, while another study result only (7.6%) agreed. [11] And 27% felt that only intelligent people used spectacles [8].

From the total (49 %) agreed to that the spectacles will worsen existing problem vision, this agrees with the other result result[14].A belief like this could cause their vision to deteriorate and lead to avoid the spectacles wear. In our study a (60%) of the students disagreed that spectacles push the eyes in, this is disagreement with previous studies they belief that spectacles could cause the eyes to be sunken /pushed in [9], [12]. The differences in attitude as regards spectacles use could be due to difference in culture.

In this (50%) of student's belief wear eye spectacles protect the eyes, same result done in Ethiopia [13]this might be due dusty as well as sunny environment in these areas.

CONCLUSION

The results of our study demonstrate major deficiencies in knowledge Students to Glasses wear for the correction of refractive errors in Dijlah University.

Health education by eye care providers should be providing proper information in detail to patients.

about their refractive error condition.

RECOMMENDATIONS

1- Education to change the wrong belief, toward wearing glasses.

2- Raise awareness about importance of glasses among students.

3-To improve people education concerning eyeglasses.

4-There is need for further studies to better document the challenges Students with refractive errors are facing and to develop adherence support services for students with refractive errors.

5- mass media role of and school health pro-

gram for ophthalmic health about refractive errors to change misconceptions and the distorted facts about glasses wear in RE.

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