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ROLE OF SOCIOCULTURAL BELIEFS IN SEEKING REFRACTIVE ERROR CORRECTION AMONG PATIENTS

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Abstract

BACKGROUND: Cultural beliefs and values play a significant role in shaping individuals' decisions to seek refractive error correction, such as glasses, contact lenses, or surgery. OBJECTIVE: To assess the Role of Cultural Beliefs in Seeking Refractive Error Correction. METHODOLOGY: It was a Cross-Sectional study. The research was conducted at The Superior University Lahore from Feb 2024 to May 2024. 80 patients were involved in this study. 22 were female and 58 were male. RESULTS: In this study, the average age was 28.65±4.52 years with an age range (of 20-45 years). In this study 22(27.50%) were female participants, and 58(72.50%) were male participants. Eleven distinct careers for culture believers. There were fifteen teachers, fourteen housewives, six tailors, three sweepers, six security guards, nine electricians, eight peons, six carpenters, three train conductors, six accountants, and four butchers. CONCLUSION: This study found a stronger correlation between cultural beliefs and refractive error correction. The majority of participants from various cultural backgrounds preferred glasses for correction. Stronger cultural beliefs were associated with myopia and presbyopia while weaker beliefs were linked to astigmatism and hyperopia. These findings highlight the importance of considering cultural beliefs in seeking refractive error correction.

INTRODUCTION

Any action performed in recognition of symptoms or in prevention of eye problems by the individuals and by those around them" is the definition of behavior that seeks out eye care. Parents are a child's primary caregiver and make decisions about their need for eye care on their behalf. As a result, parents' perceptions and understanding of refractive error and other ocular problems are crucial to ensuring that their children receive care on time. (1)

The primary means of vision correction in both developed and developing nations is the use of spectacles. Even though wearing spectacles is the most convenient way to correct vision, there are a number of variables that affect compliance with prescription glasses, and they are not used as much because of financial concerns, misinformation, taboos, stigmas, and cultural attitudes. (2)

An optical system malfunction in the non-accommodating eye that results in parallel light rays not focusing properly on the retina is known as refractive error. This produces a visual blur that may be severe enough to impede eyesight. (3)

The extent to which uncorrected refractive errors contribute to vision impairment is increasing on a global scale. The most common cause of vision impairments and blindness in young adults worldwide after cataract surgery is refractive errors. (4)

The development of remedies and the mitigation of blinding problems and the socio- economic burden associated with myopia may be facilitated by an understanding of the causative causes behind the rising prevalence of myopia. (5)

Globally, one of the main causes of mild to severe visual impairment is uncorrected refractive error. The most common refractive error is myopia, which is becoming more common in the US, Israel, Eastern Asian nations, and other non-Asian nations. There are forecasts indicating that by 2050, almost 50% of the global population will be myopic due to the rising frequency of extreme myopia. (6)

People are more likely to seek treatment for eye issues when they are aware of and knowledgeable about prevalent eye ailments. One According to estimates from throughout the globe, refractive error causes impaired eyesight in over 2.3 billion people worldwide. (7) According to recent research, providing glasses enhances children's self-reported visual function and adults' vision-related quality of life. Wearing spectacles is still the most common way to correct refractive error, despite the growing popularity of contact lenses and refractive surgery. It is appropriate to purchase and wear spectacles as directed in order to enhance one's vision. (8)

A person's myopia usually gets worse during their teens and the school years, then it starts to stabilize in their early twenties. A common childhood optical problem that runs in the family is myopia. When light is refracted behind the retina instead of onto it, hyperopia results. This may occur if the cornea has even less curvature or if the eyeball is too short. (9)

In low-resource settings, less than one-third of children who require spectacles have them, despite the fact that they can effectively correct refractive problems. Research has indicated that ocular morbidities and vision impairment are associated with higher rates of anxiety, dyslexia, antisocial behavior, poor quality of life, and low self-esteem. (10)

There are currently 39 million blind persons and 2.2 billion people with visual impairment; estimates indicate that by 2050, there will be 115 million blind people worldwide. Myopia, hyperopia, and astigmatism are the three primary forms of refractive defects, however presbyopia is also significant. Over 150 million individuals wear contact lenses worldwide, with 47 million of those users being in the US and roughly 4.2 million in the UK. (11) According to research, opinions regarding the adoption of contact lenses are a key component that could influence the use of these lenses to correct refractive errors. Patients who have favorable (positive) attitudes are more likely to be motivated to wear contact lenses to correct refractive problems. (12)

Uncorrected refractive error is the leading cause of visual impairment in children, the prevalence of which in India ranges from 2.7 to 6.4%. The World Health Organization has prioritized Uncorrected refractive error in its Vision 2020 Right to Sight Programmes. (13)

METHODOLOGY

A cross-Sectional Study was performed from February 2023 to May 2023, conducted at DHQ Dera Ghazi Khan. RAOSOFT online calculator calculated a sample size of 80 cultural believers regarding refractive error correction. Non-Probability Convenient Sampling Technique was used. The study included Adults aged from 20 to 45 years. Participants with diagnosed refractive errors (myopia, hyperopia, astigmatism) who either wearing spectacles, contact lenses or nothing. Participants from diverse cultural backgrounds to capture a broad range of cultural beliefs Both gender (Male, Female) was included. Participants who have undergone refractive surgery to avoid confounding factors. Participants with medical conditions (other than visual impairments e.g. uncontrolled epilepsy, severe cognitive impairment, known neurological disorders). Participants with severe cognitive impairment that may hinder their ability to comprehend and respond to study-related information. Patients with any other disease and patients who do not want to participate were not eligible for the study. A Self Designed Questionare was used for data collection. Data from 80 patients was collected, by attending the Hospital. By choosing the participants who meet the inclusion requirements, the required data was gathered. They were asked to give their informed consent to take part in the study. A self- made questionnaire was used to asses' cultural belief of persons who are using glasses or contact lens by visiting hospitals and public places. Visual acuity charts were used to measure visual acuity. Vision of Refractive errors patients (myopic, Hyperopic and Astigmatic) was assessed. After vision assessment the participants was asked questions about cultural beliefs regarding refractive error correction. All collected data was verified manually and then entered to personal computer and analyzed by using the statistical package for social sciences (SPSS) version 26.0. The descriptive statistics (means, SD, and frequencies) and Chi Square test were used in the data analysis.

RESULTS

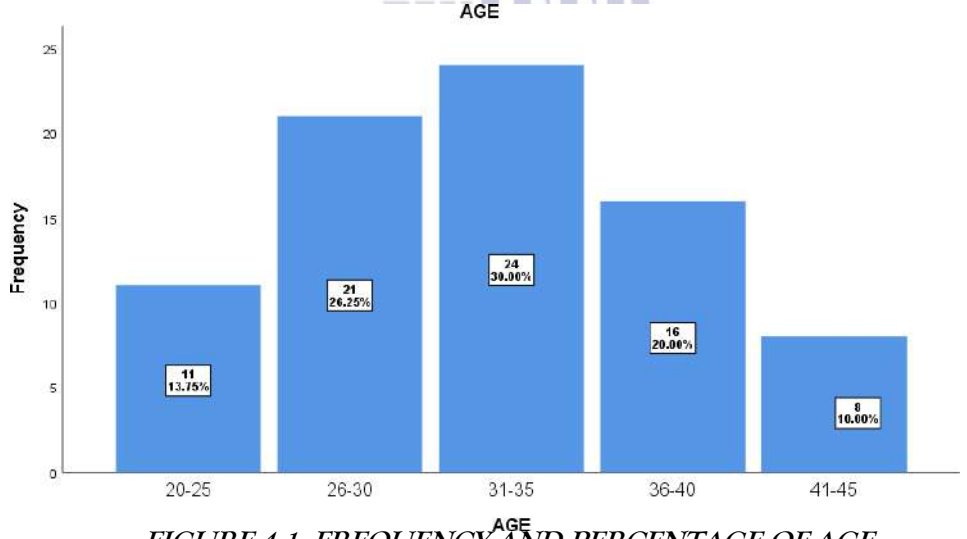

FIGURE 4.1: FREQUENCY AND PERCENTAGE OF AGE

Figure 4.1 shows that there are five age groups in figure 4.1: 20–25, 26–30, 31–35, 36–40, and 41–45 years old. The graph indicates that there are more culture believers in the age groups of 31–35 and 26–30 than in the other three. Male and female numbers in the 20–25 age range total 11 with a percentage of 13.75%. The age group of 26 to 30 years old is 21 in numbers, with a proportion of 26.25%. 30% of 24 people in the age range of 31 to 35 years old. Twenty percent of people in the 36–40 age range are 16. Eight people in the age range of 41 to 45 make up 10% of the total.

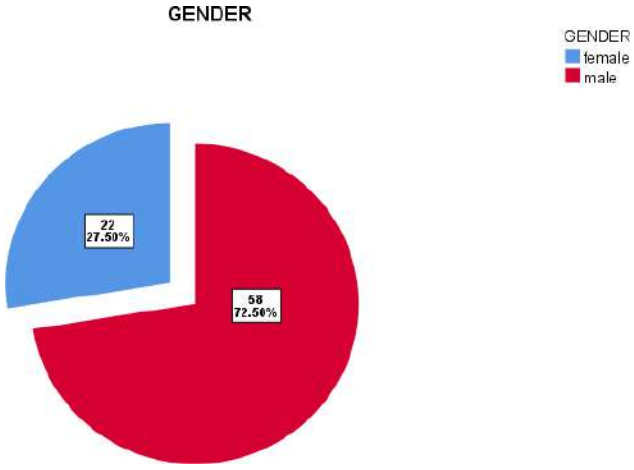

FIGURE 4.2: FREQUENCY AND PERCENTAGE OF GENDER

Figure 4.2 shows that of the 80 participants, N = 58 (72.50%) were male and N = 22 (27.50%) were female.

TABLE 4.1: *FREQUENCY AND PERCENTAGE OF OCCUPATION*

	Frequency	Percent	Valid Percent
Tailor	6	7.5	7.5
Sweeper	3	3.8	3.8
Security guard	6	7.5	7.5
Electrician	9	11.3	11.3
Peon	8	10.0	10.0
Carpenter	6	7.5	7.5
Train Conductor	3	3.8	3.8
Accountant	6	7.5	7.5
Butcher	4	5.0	5.0
Teacher	15	18.8	18.8
Housewife	14	17.5	17.5
Total	80	100.0	100.0

Table 4.1 lists eleven distinct careers for culture believers. There were fifteen teachers, fourteen housewives, six tailors, three sweepers, six security guards, nine electricians, eight peons, six carpenters, three train conductors, six accountants, and four butchers.

TABLE 4.2: *CORRECTION METHODS BY CULTURAL BELIEFS*

Cultural Group	Glasses % (N)	C.L % (N)	LASIK % (N)	Traditional Healing % (N)	N
Punjabi	53.85 (7)	23.07 (3)	7.70 (1)	15.38 (2)	13
Sindhi	80 (4)	0 (0)	0 (0)	20 (1)	5
Pashtun	54.54 (6)	9.09 (1)	9.09 (1)	27.27 (3)	11
Saraiki	70.58 (12)	5.88 (1)	11.76 (2)	11.76 (2)	17
Urdu Speaking	61.54 (16)	15.38 (4)	11.53 (3)	11.53 (3)	26
Balochi	37.5 (3)	0 (0)	12.5 (1)	50 (4)	8
Total					80

Table 4.2 shows the cultural groups Punjabi, Sindhi, Pashtun, Saraiki, Urdu speaking and Balochi were 13, 5, 11, 17, 26 and 8. Table shows the correction methods by cultural believers.

TABLE 4.3: ***PREVALENCE OF REFRACTIVE ERRORS BY CULTURAL GROUP***

Cultural Group	Myopia % (N)	Hyperopia % (N)	Astigmatism % (N)	Presbyopia % (N)	N
Punjabi	53.85 (7)	15.38 (2)	7.70 (1)	23.07 (3)	13
Sindhi	60 (3)	20 (1)	0 (0)	20 (1)	5
Pashtun	54.54 (6)	18.18 (2)	18.18 (2)	9.09 (1)	11
Saraiki	64.70 (11)	11.76 (2)	5.88 (1)	17.64 (3)	17
Urdu Speaking	69.23 (18)	11.53 (3)	3.85 (1)	15.38 (4)	26
Balochi	62.5 (5)	0 (0)	12.5 (1)	25 (2)	8
Total					80

Table 4.3 shows the prevalence of refractive errors by cultural group.

TABLE 4.4: ***FREQUENCY AND PERCENTAGE OF CULTURE BELIVERS RESPONSES***

Sr.No.	Questions	Responses	Frequency	Percentage	N
1.	Are you aware of different methods to correct refractive errors, such as eyeglasses, contact lenses, or surgery?	Yes	50	62.5	80
		No	30	37.5	
2.	Have you personally used any form of vision correction?	Yes	38	47.5	80
		No	42	52.5	
3.	Are there any cultural beliefs or stigmas associated with wearing glasses or seeking vision correction?	Yes	48	60.0	80
		No	32	40.0	
4.	Did you feel good by using eyeglasses or contact lenses?	Yes	45	56.3	80
		No	35	43.8	
5.	Are these traditional methods coexisting or competing with modern vision correction techniques?	Yes	38	47.5	80
		No	42	52.5	
6.	Does your family members or peers appreciate the use of corrective lenses?	Yes	33	41.3	80
		No	47	58.8	
7.	Are their attitudes influenced your decision regarding vision correction?	Yes	41	51.2	80
		No	39	48.8	
8.	Are vision correction methods easily accessible in your community?	Yes	68	85.0	80
		No	12	15.0	
9.	Are financial considerations playing a role in your decision to seek vision correction?	Yes	46	57.5	80
		No	34	42.5	
10.	Are you noticing any changes in cultural attitudes toward vision correction over the years?	Yes	39	48.8	80
		No	41	51.2	
11.	Do younger generations approach refractive errors differently than older ones?	Yes	49	61.3	80
		No	31	38.8	
12.	Did you get advice from healthcare providers regarding vision correction?	Yes	55	68.8	80
		No	25	31.3	
13.	Do you believe that glasses had limiting effects on your daily life?	Yes	26	32.5	80
		No	54	67.5	
14.	Are there any cultural factors that influence your decision to seek vision correction?	1. Social norms	19	23.8	80
		2. Perception of beauty	33	41.3	

		3. Religious Beliefs	3	3.8	
		4. Education & Awareness	25	31.3	
15.	Are there any traditional or cultural remedies in your community for addressing vision problems?	1. Herbal Treatment	14	17.5	80
		2. Nutritional Remedies	35	43.8	
		3. Spiritual Practices	8	10.0	
		4. None	23	28.7	

Table 4.4 shows that Thirty-one respondents said they were unaware that there are other techniques for correcting refractive problems, while fifty others said they were. Regarding the usage of vision correction for personal use, 38 respondents said "yes," and 42 said "no." When asked if there were any cultural stigmas or attitudes around wearing glasses or getting vision correction, 48 people said "yes," and 32 said "no." Regarding whether wearing contacts or spectacles makes you feel happy, 45 people said "yes," and 38 said "no." Regarding the topic of whether old methods and contemporary vision correction treatments coexist or compete, 38 respondents said yes and 42 said no. Thirty-three respondents said they were appreciated by their family members' and classmates' usage of corrective lenses, while 47 said they didn't. Regarding the issue of whether attitudes affected your choice to have your vision corrected, 41 respondents said "yes," and 39 said "no." When asked if there were any readily available vision correction techniques in your town, 68 people said "yes," while 12 said "no." When asked if money was a factor in your decision to get your vision corrected, 46 people said "yes," and 34 said "no." Regarding whether or whether there have been any changes in societal perceptions about vision correction over time, 39 respondents said yes and 41 said no. Thirty-one respondents disagreed with the statement that younger generations treat refractive problems differently from older ones, with 49 saying yes. Out of 80 replies, 55 said they would seek guidance on vision correction from medical professionals, and 25 said they would not. When asked if they thought wearing glasses limited their daily activities, 26 people said they did, and 54 said they did not. "Are there any cultural factors that influence your decision to seek vision correction?" is the question posed. The answers pertaining to education and awareness, religious beliefs, social norms, and beauty perception were 19, 33, 3, and 25. "Are there any traditional or cultural remedies for addressing vision problems in your community?" is the query. The replies pertaining to Spiritual Practices, Nutritional Remedies, Herbal Treatment, and None were 8, 23, 35, and 14.

DISCUSSION

Refractive error is a major cause of visual impairment, hence its prominent part in VISION 2020-the right to sight campaign. (14) This study's goal was to assess the Role of Cultural Beliefs in Seeking Refractive Error Correction. The present study investigated 80 subjects of refractive error. The average age was 28.65±4.52 years with an age range (of 20-45 years). In this study 22(27.50%) were female participants, and 58(72.50%) were male participants. Five age group 20–25, 26–30, 31–35, 36–40, and 41–45 years old. There are more culture believers in the age groups of 31–35 and 26–30 than in the other three. Male and female numbers in the 20–25 age range total 11 with a percentage of 13.75%. The age group of 26 to 30 years old is 21 in numbers, with a proportion of 26.25%. 30% of 24 people in the age range of 31 to 35 years old. Twenty percent of people in the 36–40 age range are 16. Eight people in the age

range of 41 to 45 make up 10% of the total.

There were fifteen teachers, fourteen housewives, six tailors, three sweepers, six security guards, nine electricians, eight peons, six carpenters, three train conductors, six accountants, and four butchers.

A vast majority of persons 50 responded that glasses could be used to correct refractive error. This is in agreement with a previous study. (15) Regarding the usage of vision correction for personal use, 38 respondents said "yes," and 42 said "no." When asked if there were any cultural stigmas or attitudes around wearing glasses or getting vision correction, 48 people said "yes," and 32 said "no." One common reason given by people for not wearing glasses is the belief that glasses could cause the eyes to be sunken /pushed in. This makes them abhor the use of spectacle lenses even when prescribed for by a doctor. (16) but in this study 45 people were happy wearing contacts or spectacles and 38 were not.

Regarding the topic of whether old methods and contemporary vision correction treatments coexist or compete, 38 respondents said yes and 42 said no. A study done by Liping Li, in 2010 thought that glasses were harmful to the eyes (17) But in our study Thirty-three respondents said they were appreciated by their family members' and classmates' usage of corrective lenses, while 47 said they didn't. Regarding the issue of whether attitudes affected your choice to have your vision corrected, 41 respondents said "yes," and 39 said "no." When asked if there were any readily available vision correction techniques in your town, 68 people said "yes," while 12 said "no." When asked if money was a factor in your decision to get your vision corrected, 46 people said "yes," and 34 said "no." Regarding whether or whether there have been any changes in societal perceptions about vision correction over time, 39 respondents said yes and 41 said no. Thirty-one respondents disagreed with the statement that younger generations treat refractive problems differently from older ones, with 49 saying yes. But a study conducted by Walline JJ said that 50% males wearing glasses made them look like bookworms, the females responded that wearing glasses made them look 'too serious' and uninteresting. (18) Out of 80 replies, 55 said they would seek guidance on vision correction from medical professionals, and 25 said they would not. When asked if they thought wearing glasses limited their daily activities, 26 people said they did, and 54 said they did not.

It was reported that a large percentage of respondents (35%) were teased for wearing eyeglasses. Generally, youths who had negative attitude to glasses wear, victimize other youths who wear glasses. (19) But in our study "Are there any cultural factors that influence your decision to seek vision correction?" is the question posed. The answers pertaining to education and awareness, religious beliefs, social norms, and beauty perception were 19, 33, 3, and 25. "Are there any traditional or cultural remedies for addressing vision problems in your community?" is the query. The replies pertaining to Spiritual Practices, Nutritional Remedies, Herbal Treatment, and None were 8, 23, 35, and 14.

CONCLUSION

We have concluded that patients' decisions to correct refractive errors were influenced by cultural beliefs. The majority (33% and 35%) were deterred by beliefs related to beauty and nutritional remedies, respectively. In contrast, a smaller percentage (3% and 8%) cited religious or spiritual beliefs as a reason for not correcting their refractive errors. This study found a stronger correlation between cultural beliefs and refractive error correction. The majority of participants from various cultural backgrounds preferred glasses for correction.

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