

Strabismus as a Psychosocial Disease in Pakistani Cultural Context

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ABSTRACT

Purpose: To find out the relationship between psychosocial issues, self-concept, and interpersonal difficulties in patients with strabismus.

Study Design: Descriptive observational study.

Place and Duration of Study: This study is conducted in university of Management and Technology from September 2019 to January 2020.

Method: This study included 100 participants (male to female ratio of 1:1), recruited from one government and two semi-government eye hospitals of Lahore, through purposive sampling technique. A demographic sheet including the information about the participant's age, gender, marital status, family system, reason of strabismus, and duration of strabismus were included in the study. The measures of the study included the indigenous Psychosocial Issues Scale, Self-concept scale, and Interpersonal difficulties scale.

Results: The mean age of the patients was 24.5 ± 2.17 . Among 100 patients, 41% were married and 64% were living in a nuclear family system. There were 21% with matriculation, 24% had intermediate and 55% had graduation or masters level of education. The cause of strabismus was genetic (20%), congenital (16%), and due to different health issues such as diabetes (63%). The analysis was carried out by using Pearson product-moment correlation analysis which showed that Psychosocial Problems (PSP) had a significant positive relation with Interpersonal Difficulty (ID) ($r = .51, p < 0.001$) and negative Self-Concept (NSC) ($r = .55, p < 0.001$), and a non-significant relationship with positive SC ($r = .08 = p > 0.05$). The most frequently reported psychosocial verbatim were crying behavior (72%), difficulty in finding a job (72%) and feeling worthless (69%).

Conclusion: The results of the study revealed that negative self-concept contributes to causing interpersonal difficulties in persons with strabismus.

Keywords: Strabismus, Pakistan, Interpersonal difficulties, Psychosocial Issues, self-concept.

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INTRODUCTION

Eyes are highly developed sensory organs, through which one perceives almost 80% of the information.¹ Eyes can capture and interpret beyond one million pulse signals per millisecond and communicate to the brain. Healthy eyesight plays a vital role in learning

multiple skills and contributing towards growth and development. Any defect in the eyes can lead towards multiple eye diseases. Strabismus is one of the most challenging subspecialties encountered in the field of ophthalmology. Worldwide prevalence of strabismus is 2 to 6%.² There are chances to get it developed at any age but it commonly develops during childhood. During adulthood, it frequently occurs secondary to either systemic disease or mechanical damage such as trauma or brain tumor.³

Strabismus is not only a biological disease causing visual disruption but also a psycho-social problem. It has been observed that individuals with strabismus

may develop appearance concerns in their physiognomy, troubling their self-esteem, self-concept and ultimately, they suffer from high levels of anxiety and depression.⁴

In an attempt to belong to the society, get accepted, and fitting in, in terms of social roles and developments, extreme attention is rewarded to the body image, perceived by others. The misaligned eyes directly impact the way one views himself because they do not look normal and they are more prone to get rejected and discriminated.⁵ A study has revealed that individuals with strabismus stated lower self-identity as compared to non-strabismus persons. Statistically significant differences were found in subjectivity, initiative, self-acceptance, and familiarity.⁶ Specifically, this decline in self-identity on the initiative and familiarity sub-sections is found consistent with a general decline in self-esteem and difficulties in interpersonal relationships and social activity.

Individuals start to make fun of or taunting a child suffering from strabismus, result in the separation or aggression of children with strabismus. Difficulty in finding a partner is a most common complaint in strabismus adults. They have difficulties in making and maintaining relationships, more specifically with the opposite gender ultimately shattering their self-confidence.^{7,8}

The adverse effects of strabismus are not limited to psychological aspects but prevail over too many debilitating consequences: education, quality of life, mental health, possibly affecting all. They also struggle hard in gaining employment. Their cross-eyes mean to be so detrimental in achieving the employment milestones such as promotion and developing their careers to the next level.⁷ The people with strabismus, experiencing communication difficulties and problems in interaction with others, may experience impairments in social functioning, experiencing social anxiety, social phobia, negatively affecting their mental health.⁹

There is a scarcity of literature on psychological issues of persons with strabismus in the Pakistani cultural context. Therefore, the present study aimed to find out the relationship between psychosocial issues, self-concept, and interpersonal difficulties. It is hypothesized that psychosocial problems in individuals with strabismus will positively correlate

with negative self-concept and interpersonal difficulties.

METHODS

This cross-sectional study was carried out from September 2019 to January 2020. The institutional ethical committee approved the project. Written consent was taken from the hospital authorities and verbal consent was taken from the participants before administering the research protocol. Participants were informed about the aim and objectives of the study and they were given the right to withdraw at any time.

A demographic sheet including the information about the participant's age, gender, marital status, family system, reason of strabismus, and duration of strabismus were included in the study. Strabismus Psychosocial problem scale (SPS) was used to find and assess the psycho-social problems of individuals with strabismus.¹⁰ It was designed to assess the psychosocial problems of individuals with strabismus. It consisted of twenty-five items, each pointing to the psycho-social problems, frequency, and distress level associated with daily functioning. The reliability of the scale was found to be .92. It consisted of two factors namely *Self-related* and *daily difficulties*.

Self-Concept Scale was developed by Hussain and Rizvi (SSC; 2016).¹¹ The scale consists of 38 items with 5 points; never, sometimes, donot know, to some extent, and very much. The scale was based on two factors in which the first factor was named positive self-concept and the second-factor was negative self-concept. The reliability of the scale was found to be .90.

Interpersonal Difficulty Scale (IDS) was developed by Saleem and Mahmood.¹² It was used in the current study to find out the interpersonal difficulties of the individuals with strabismus during daily life activities. The scale consists of 31 items with 5 response points; never, sometimes, donot know, to some extent, and very much. The scale was based on six factors; (dominated by others, low self-confidence, Mistrust, Lack of assertiveness, Lack of boundaries, and Unstable relationships). The IDS begins with brief instructions. This scale examines different questions like exactly how the individual faces interpersonal difficulties in their daily life.

The data was collected from one government and two semi-government eye hospitals of the city of

Lahore. The inclusion criteria were (i) individuals with strabismus (ii) both married and unmarried (iii) patients who were treated in standard outpatient and inpatient eye units. Participants with any other medical condition such as diabetes, hypertension and patients who belonged to rural areas were excluded from the study. The protocol was administered in a one-to-one session after building a rapport with the patient. They were also debriefed about the implications of the study.

RESULTS

The sample of the study consisted of 100 men and women with an equal percentage. The age ranged between 18 to 30 years (mean = 24.5 ± 2.17). Forty one percent were married and 59% were unmarried with 64% living in a nuclear family system. Participants with education upto matric was 21%, 24% were educated upto intermediate level and 55% had done graduation or masters. The cause of strabismus was reported to be genetic (20%), by birth (16%), and due to different health issues such as diabetes (63%). 86% of the participates reported to have “no other disease”.

The analysis was carried out by use Pearson product-moment correlation analysis which showed that Psychosocial Problems (PSP) had a significant

positive relation with Interpersonal Difficulty (ID) ($r = .51, p < 0.001$) and negative Self-Concept (NSC) ($r = .55, p < 0.001$), and a non-significant relationship with positive SC ($r.08 = p > 0.05$).

Mediation analysis was carried out using process macro 3.5 with a 95% Confidence interval. Psychosocial problems were taken as an independent variable, Negative self-concept was taken as a mediator and Interpersonal difficulties were taken as a dependent variable. Results have shown that the total effect of PSP on ID was significant ($\beta = .55, t = 6.46, p = 0.001$) with the inclusion of mediating variable SC, the impact of PSP on ID remains significant ($\beta = .27, t = 3.05, p = 0.001$). The indirect effect of independent variable on dependent variable through a mediator is partially mediating and is significant.

The results of table 1 have shown that negative self-concept positively mediates the relationship between psychosocial issues and interpersonal difficulties. The higher is the negative self-concept more will be interpersonal difficulties.

Table 2 shows that there is a high percentage of persons with strabismus who experience psychosocial issues. These psychosocial problems depict two dimensions i.e. one that relates to the inner world and another that relates to the outer world.

Table 1: Regression Coefficient, Standard Error and Model Summary Information for Psychosocial Issues and negative self-concept faced by strabismus patients.

Antecedents				Consequents			
	B	SE	M(NSC) p	Y(IDS) β	SE	P	
PSP(X)	.55	3.12	.001***	c'	-.27	.07	.01**
NSC(M)	--	--	--	b ₁	.49	.14	.001***
	R ² =.30			R ² =.55			
	F (1,98) =43.31 p =.001***			F (2,97) =43.12, p =.001***			

Note. PSP = Psychosocial Problems, NSC = Negative self-concept

Table 2: Percentage of Reported Psychosocial Problems Reported By Strabismus Patients (N=100)

Sr#	Behaviors	%
1.	Crying behavior	72
2.	Difficulty in getting job	72
3.	Feel worthless	69
4.	Financial issues	67
5.	Nausea while working	67
6.	Fear of losing eyesight	65
7.	Anger	63
8.	Self-pity	62
9.	Feel incomplete	60
10.	Difficulty in making friends	60
11.	Hesitant to take initiative	60
12.	Feel less beautiful than others	67
13.	Low-self confidence	54
14.	Complaining GOD	57
15.	Irritation	59
16.	Suicidal ideation	58
17.	Difficulty in carrying out house hold chores Feel bad about oneself	57
18.	Percentage of most frequently reported physical complaints by strabismus patients	57
19.	Blurred vision	69
20.	Headache	67
21.	Nausea	65
22.	Pain in eyes	65
23.	Weak eyesight	47

DISCUSSION

The present study aimed to find out the relationship between psychosocial issues, self-concept, and interpersonal difficulties in persons with strabismus. According to the bio-psycho-social model, there is an interplay between the biological and social factors within a person that determine the functionality of the individual.¹³ Living in a “beauty-conscious” society minor physical impairment may bring great challenges for the individuals. Strabismus is an obvious defect that may generate low self-confidence. Such individuals experience distress, loss of self-esteem, and interpersonal issues in their work and social circumstances; due to which they are less likely to take initiative and enjoy their relations.¹⁴

In our study, crying behavior came out to be one of the significant psychosocial complaints by the participants. Crying is a maladaptive coping mechanism and is the characteristic feature of emotional coping strategies. The verbatim feeling worthless, anger, and feeling incomplete also reflected a loss of control over the circumstances resulting in hopelessness. Physical complaints like blurred vision, headache, and nausea are the typical consequences of misalignment caused due to the interference in the

control and functioning of extraocular muscles.¹⁵

Living in a collectivistic culture not only helps in the provision of social support but also puts forth multiple challenges. For many individuals, minor physical defects sometimes become a reason for the proposal rejection during pre-marital life years. Lack of empathy is observed when people use different titles such as “bhenga (cross-eyed)” sarcastically. These experiences become not only the source of low self-confidence but also hinder such individuals to form social interactions with others. The corrective medical procedures not only improve the quality of life but significantly impact the positive self-concept. The results of the current study correlate with the previous literature on self-concept and psychosocial issues of strabismus.¹⁶

In another study, the patients were reported to have non-specific negative feelings (88%), general disability (88%), appearance to others (people notice my eyes; 77%).¹⁷ Due to this reason some patients find that getting a normal appearance is much essential due to social reactions to misaligned eyes.

The prevalence of strabismus in Pakistan is reported to be 5% - 6%.¹⁸ Several studies have been carried out in Pakistan however, their focus remained to determine the rate of strabismus or to find out the efficacy of medical-based management procedures.^{19,20}

This study highlights the implications of strabismus in the health psychology domain in general and contribute specifically towards the psychosocial literature of strabismus in Pakistan. The bio-psycho-social model has emphasized how psychological factors may exacerbate the physical symptoms of a disease and vice versa. Therefore, there is a dire need to develop psychological-based disease-specific assessment and treatment procedures.

The major limitation of the study was that only urban population was included which cannot be generalized to the rural population. A comparative study would have given the differential impact of psychological factors on both samples.

CONCLUSION

It can be concluded that negative self-concept was not only positively correlated with interpersonal difficulties in persons with strabismus but, also positively mediated the relationship between psychosocial stressors and interpersonal difficulties.

The study has also revealed the expression and percentage of problems experienced by persons with strabismus where “crying” and “difficulties in getting a job” were the highest reported problems.

Conflict of Interest: Authors declared no conflict of interest.

Ethical Approval

The study was approved by the Institutional review board/ Ethical review board (ICPY/20/131).

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Authors Designation and Contribution

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Mahnoor Azhar; Clinical Psychologist: *Literature search, Data acquisition, Data analysis.*

Ushna Farrukh; Counselling Coordinator: *Data analysis, Statistical analysis, Manuscript review.*