

Socio-Demographics As Risk And Protective Factors Of Mental Health Among The Adolescents With Vision Loss

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Abstract

The present study explored the roles of demographic characteristics of the adolescents with visual impairment in their mental health. The most common mental health issues are depression and anxiety therefore this study focus on exploring the socio-demographic factors in determining depression and anxiety among the participants. Total 815 (Male, 468; Female= 347) visually impaired adolescents with age ranged from 12 to 18 years (M=15.50, SD= 2.65) were selected from the special education schools located in the four cities of Pakistan. Patient Health Questionnaire-9 and Generalized Anxiety Disorder-7 were administered to assess depression and anxiety. The results indicated that medical facilities, access to counseling, higher education of father and mother, higher monthly income and presence of any other family member with vision loss were protective factors whereas severity level of disability emerged as a risk factor of depression and anxiety among the adolescents with vision loss. It is concluded on the findings of the present study that not only the disability itself but the other socio-demographic characteristics play important role in determining anxiety and depression among the adolescents with visual impairment therefore these variables must be considered while designing and introducing mental health programs at prevention and treatment levels.

Keywords: Visual Impairment, Depression, Anxiety, Determinants, Special Education

Introduction

One may experience feelings of sadness or low mood on several different occasions such as the death of a loved one or financial loss. Feeling sad for such events is a normal feeling. If such feeling of sadness, loss of interest and concentration along with major changes in sleep and appetite are prolonged for two weeks or more, they result into one of the most disturbing and common medical illness, Major Depressive Disorder (or depression in a common man's language). Sadness or grief may accompany depression and in such case it is more severe. Main symptoms of depression include feelings of sadness or down mood, losing interest in activities that were once pleasurable, change in appetite associated with changes in weight, change in sleeping pattern, low energy, excessive guilt, loss of concentration effecting decision making capability along with suicidal ideation. It is quite different from sadness even though it may not be apparent as it lasts for two weeks or more, it causes self-esteem to shatter while self-esteem remains intact in occasional sadness. Feeling worried or being anxious under unusual circumstances is a natural reaction that most of the people perform in their daily lives. However feelings of excessive tension, distressed thoughts and physiological arousal such as increased blood pressure, accelerated heartbeat and heavy breathing are called as anxiety (Schacter, et al 2020).

Eye is a vital organ to collect information and knowledge from the outer world. Any defect in vision bring significant difficulties and hurdles in performing daily life activities. The loss of vision is an important cause of poor cognitive and social emotional functioning. Visual impairment limits the abilities of independent mobility and adjustment in the community. Consequently these difficulties and limitations make the lives of persons with visual impairment different from their regular counterparts. The hardships they face in their daily life may be the causes of psychological problems among them. They exhibited poor cognitive and reasoning abilities which limit their abilities to conceptualize the world around them. However the personal characteristics and temperament of blind individuals may assist them in their adaptive functioning. (Mahalakshmi & Velusamy, 2017). Horowitz, Reinhardt and Kennedy (2005) reported anxiety and depression as the most common psychological disorders among visual impaired individuals. On the other hand, Chauhan and Aeri, (2020) argued that in general mental health illnesses have become major part of disorders in the world.

The findings of recent studies also showed that the individuals with visual impairment face a few major issues like independent mobility, poor access to mental health services and discriminatory attitude of other people to them. The studies also reported link of mental health problems with visual impairment and other socio-demographic variables (Mahalakshmi & Velusamy, 2017; Demmin & Silverstein, 2020); Maaswinkel et al., 2020); Akram & Batool, 2018; Akhtar-Danesh & Landeen, 2007). Kohda et al. (2019) described that mental health of visually impaired students differs on the basis of the level of their disability such as individuals with low vision problems showed better mental health as compared to blind people. Literature indicated that individuals with loss of vision showed poor self-control, low self-esteem and increased dependency on others for almost every task of daily life (Maaswinkel et.al., 2020).

Adolescence is the most critical stage throughout individual's life and the occurrence of psychiatric illnesses i.e., anxiety, depression and stress at period of adolescence raises concerns. These illnesses might be cause of poor performance at school, substance abuse, violent ideation, and feelings of worthlessness, disturbed relationships with peers and family as well as poor social emotional adjustment. Thus adolescence is the period in which the regular individuals face challenges. This period is far more difficult for the adolescents with visual impairment. Deficiency of sight restricts to perceive the real world in an appropriate manner. As the result the adolescents with visual impairment may have the feelings of helplessness and dependency while coping with the stressors of this period. Nadagaddi, Patil and Honnamude, (2020) described that visually impaired people have difficulties in performing daily tasks that are necessary for everyday life such as co-ordination with others, interpersonal affairs, learning difficulties and increased energy need in daily demands of life. Thus they cannot participate in the community like their regular counterparts. Society treats them in a different way, i.e., over-protection or severe neglect. This different treatment may cause depression, anxiety, and other psychological disorders in visually impaired individual. People who are socially excluded express more aggressive and violent behavior as compared to socially accepted people. Panday et al., (2015) described that visual complications might affect individual's life in various aspects such as mental, physical, vocational, social, and educational. Dillon et al., (2020) indicated the existence of mental health issues among the participants with visual impairment. Moreover distress and grief was found to be associated with vision loss or damage. The major factors of poor mental health were absence of insight, lack of awareness and poor access to get psychological services. However the recent studies revealed association of perceived difficulties and troubles in performing everyday tasks with the severity of vision loss. Further the difference of seeking medical care on the basis of gender has been documented. Females have been reported to pursue less eye care facilities as compared to males (Barmen, 2020).

Nollett et al., (2019) reported significant association of depression with age. Results indicated some significant risk factors for depressive symptoms for visually impaired population such as eye condition, ethnicity (non-white), younger age, visual function and bad self-rated health. Choi et al., (2019) reported the high levels of depression and anxiety among the group who acquired the vision loss compared to congenital group. Kızılaslan and Kızılaslan (2018) explored the level of anxiety while planning the future goals and profession among the students with visual impairment. Results indicated that students with visual impairment were eager to become part of a society but perceived barriers were reasons of anxiety among the participants. This anxiety distressed them and lowers the motivation level which badly effects their educational performance. Choi, Lee and Lee (2018) found Visual impairment increased the risk of depression after adjusting for age, sex, income, region of residence, hypertension, diabetes, and dyslipidemia

Significance of the study

The significance of the study is evident in the following scenario. It is estimated that almost 338 million people around the globe are suffering from vision loss and by the year 2050 this number

is expected to increase to 535 million people. Above mentioned studies reported vision loss to be associated with limited daily life functioning thus leading to mental health problems like depression and anxiety. Further, the literature showed that there is a dire need of exploring the factors that are leading towards mental health problems among the individuals with vision loss so that effective prevention and treatment program may be designed (Demmin & Silverstein, 2020; Akram & Batool, 2018).

Objective of the Study

The main objective of this study is to explore the roles of socio- demographic variables such as gender, age, household income, medical facilities, access to counseling, parental education, severity of vision loss and presence of any other family member with vision loss in determining depression and anxiety among the adolescents with vision loss.

Methods

Cross sectional, Correlational survey design was used. Multistage Stratified Random sampling was employed. At first stage only those schools were accessed in which visually impaired girls are studying. At the second stage N (815) visually impaired adolescents (Boys= 468; Girls= 347) with age ranged from 12 to 18 years (Mean=14.50, SD= 2.65) were recruited from the institutions located in the cities of Lahore N (Boys=84, Girls=66) Rawalpindi (Boys=91, Girls= 9), Gujrat (Boys=58, Girls=42) and Gujranwala (Boys=42, Girls=26).

Materials /Tools

Demographic form

The demographic form was attached for obtaining the socio-demographic information of the participants.

Patient Health Questionnaire 9

The Urdu translated version (Saleem & Akram, 2019) of Patient Health Questionnaire 9 (PHQ 9) was used for checking the vulnerability of depression among the participants. PHQ 9 originally developed by (Kroenke, Spitzer & Williams, 2001) is a 9 items scale. PHQ 9 has wide application in clinical field. Other than the items covering 9 symptoms, there is an additional item that serves as a tool to measure the rate of functional impairment. PHQ 9 has promising validity and reliability measures.

GAD -7

The Urdu version (Saleem & Akram, 2019) of Generalized Anxiety Disorder 7-Item (GAD-7) Scale was used to assess the symptoms of anxiety. GAD-7 was originally developed by Spitzer et al., in 2006.

Ethical Consideration

The ethical standards have been fulfilled to conduct this study. Department review board passed this study. The translated versions of the scales have been used after adopting appropriate procedures. Informed consent has been taken from the participants and confidentiality of the data was ensured. The nature and purpose of the study was explained to the participants and they were allowed to quit from the research any time without any penalty.

Results

Descriptive statistics were applied to tabulate the Socio- Demographic variables of the participants (Table 1)

Table-I: Socio-Demographic characteristics of the participants (N= 815)

Socio–Demographic characteristics		Frequency	%
Access to Counseling	Yes	315	39
	No	500	61
Medical Facilities	Yes	295	36
	No	520	64
Visual Impairment in any other member of the family	Yes	300	37
	No	515	63
Mother’s Qualification	Below Matric	450	55
	Intermediate	265	33
	Graduate and above	100	12
Father’s Qualification	Below Matric	200	24
	Intermediate	365	45
	Graduate and above	250	31

Table 2 Standard Linear Regression Analysis on Socio-demographic variables of participants N(815)

Socio- Demographics	Depression		Anxiety	
	B	B	B	B
Constant	35.38**		29.98**	
	*			
Age	2.11**	0.19	0.15	0.04
Access to Medical Services	-0.31*	-0.09	-0.11*	-0.01

Access to counselling	-0.41**	-0.14	-0.75***	-0.10
Severity level of Disability	0.22**	0.11	1.31***	0.27
Visual Impairment in any other member of the family	-0.28**	-0.12	-0.19	-0.04
Qualification of Mother	-0.75**	-0.15	-0.41*	-0.17
Qualification of Father	-0.85**	-0.13	-0.48*	-0.16
Gender	-0.39*	-0.16	-0.22	-0.04
Monthly income of family	-0.36*	-0.05	-0.43**	-0.07
F	39.5***		31.86**	
			*	
R ²	0.62		0.58	
RΔ	0.60		0.56	

Standard linear regression was administered on the data sets of depression and anxiety of the respondents (see Table 2). Categorical variables access to counselling, access to medical services, gender and visual impairment in any other family member were turned into dummy variables.

The model summary showed that demographic variables account for 62% of the variance in R² 0.62, F(39.50), p < .0001 whereas play 58% of the role in anxiety among the adolescents with visual impairment R² 0.58, F(31.86), p < .0001. Findings revealed that girls are at higher risk of depression B (-0.39, P<0.5) as compared to boys. However the statistic difference has not been seen for anxiety on the basis of gender and visual impairment in any other member of the family. The participants who have counselling and medical facilities showed lower risk level to have depression and anxiety as compared to the participants who have not these facilities.

The values in table 4 indicate that age and severity of disability are positive whereas qualification of mother B (-0.75; -0.41, P<.05) and father B (-0.85**; -0.48**, P<.05) are negative predictors of depression and anxiety among the participants with vision loss.

Discussion

The main aim of this study was to determine the socio-demographic as risk and protective factors of depression and anxiety among the adolescents with visual impairment.

The results of the study showed that access to medical care, availability of counseling services, higher monthly income, the presence of any family member with vision loss, educated parents are negative predictors of depression and anxiety among the adolescents with vision loss. In other words these are protective factors that may prevent or reduce the depression and anxiety among the participants and increase the chances of psychological well-being. The results are consistent with the findings of the previous researches (Demmin & Silverstein, 2020; Zhang., Wang, & Xu., 2021; Maaswintel, et.al,2020; Akram & Batool, 2018; Akhtar-Danesh,& Landeen, 2007). The results also indicated that girls showed more depression as compared to their boys counter parts.

The previous studies reported that females with vision loss may be at higher risk for developing mental health issues (Demmin & Silverstein, 2020).

It is well established phenomena that the availability of proper medical care and counseling decrease the risk of mortality as well as poor physical and psychological health among the individuals with and without disabilities. Appropriate eye care is utmost to increase the functionality of residual vision (Maaswintel, et.al.2020; Schakel et al, 2019; Akram & Batool, 2018). Similarly the results of previous researches showed that lower socio economic status, poor education and lack of awareness are associated with severity of disability and poor physical and mental health (Zhang, Wang, & Xu., 2021). The parents with low educational levels cannot guide their children with vision loss in a proper way. They have lack of information about the medical, educational, social and psychological services that their children need. On the other hand well educated parents can get the appropriate services for their children with vision loss in time and they may handle with their disability in a far better manner. Further any other blind family member with the personal experience to deal with vision loss may also guide the child or adolescent with visual impairment to handle their disability in a proper manner so that their productivity and functionality may be increased. Zhang, Wang, and Xu (2021) reported the higher probability of showing depressive symptoms among the female participants. They further narrated the link of depression with low income, and experience of disability

On the other hand age and severity level of vision loss emerged as positive predictors of depression and anxiety among the participants. The results are consistent with the results of previous researches (Akram, Tariq & Rafi, 2017; Choi, Lee & Lee, 2018; Osaba et al., 2019; Maaswintel et.al.. 2020). It makes sense that with increase in age the individuals with visual impairment may learn to deal with their disabilities but it is also true that the other allied psycho-social problems like poverty, the reactions of people towards their disability and lack of proper medical care may worsen their adjustment in the community. This poor social emotional adjustment and relationship with others may lead them towards depression and anxiety. On the other side the awareness of the progressive loss of vision may lead to anxiety, loss of independence, feelings of insecurity and depression (Osaba, et al., 2019).

According to the individuals with vision loss cannot perceive their facial expression and body language while interacting with others which are the significant elements of developing and maintaining relationships. They may develop the feelings of mistrust which further prevent to establish positive relationships. Consequently they become isolated and this condition may lead towards depression and anxiety. Moreover the individuals with vision loss may show dependency needs because of their poor mobility. This dependency may put additional responsibility on the shoulders of their families and friends. In this situation the other people may show avoidant behavior towards the individuals with vision loss. This avoidant behavior may lead to the social exclusion which can create the feelings of rejection, burden and worthlessness among the blind individuals. In the result they may have mental health problems like depression and anxiety. The individuals with vision loss face many barriers to recognize, understand and talk about their mental health issues with others (Van Munster et al., 2021; Maaswintel, et.al., 2020; Schakel et al., 2019).

There is a severe shortage of trained healthcare providers and social support system especially in the developing countries like Pakistan (Akram & Batool, 2018) whereas strong formal (Maaswintel et.al., 2020) and informal emotional support is associated with help-seeking in mental health issues (Polacsek et al., 2019). This situation may become worst when their unique needs on the basis of their disability left unmet due to any factor like poverty and lack of knowledge at the part of their significant others and health professionals to manage the needs of their disability (Nollett et.al., 2019). In the result the individuals with vision loss may suffer from anxiety, depression and other mental health issues.

Conclusions

It is concluded that the socio-demographic variables play important roles in determining depression and anxiety among the adolescents with vision loss. Educated parents, higher monthly income, access to medical care and counseling services appeared to be protective factors whereas severity of vision loss emerged as risk factor of depression and anxiety among the participants. Further in-depth studies are recommended to explore the socio-demographic determinants of mental health problems among the population with vision loss. Further, systematic measures should be taken to design programs for prevention and treatment of mental health problems of individuals with vision loss. The trained health professionals for detection and treatment of early symptoms of anxiety and depression must be also recruited in the public and private clinics.

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