



Research Article

A Comparative Study to Assess the Psychosocial Health of the Blind and General Students in the Selected Blind and General Schools, Kolkata

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A B S T R A C T

Introduction: Blindness is an impairment of a vital sense organ of the body that causes difficulties in the daily living activities of a person. In the majority, it may affect the mental, emotional, social and spiritual health of the people suffering from blindness.

Methodology: A descriptive survey approach with a comparative research design was selected to carry out this study. Total enumeration and random sampling technique were used for 51 blind and 51 general students, respectively. Data were collected using a self-structured proforma along with the sociodemographic profile and psychosocial health scale with 10 and 34 items, respectively, through an interview schedule.

Result: The study revealed that no general students were more than 17 years of age, as against 31% of blind students. 90% of blind participants had blindness since birth, and 10% since childhood. 37% and 2% of blind, whereas, none and 69% of general students showed below and above-average levels of psychosocial health respectively. Domain-wise correlation (mental, emotional, social, spiritual health) of blind and general students were 0.82/0.39; 0.6/0.45; 0.59/0.47; 0.57/0.53; 0.57/0.55; 0.49/0.57, respectively with evidence of t values: 10.05/2.98; 5.26/3.53; 5.16/3.71; 4.85/4.41; 4.83/4.62; 3.92/4.91, respectively, i.e. positively correlated homogenous groups. Domain-wise mean (16.39, 14.18, 16.31, 7.09) of general were higher than blind i.e. 7.84, 7.31, 12.33, 3.71; which indicated significant differences as evidenced by t values - 13.19, 11.54, 6.17, 7.88. Psychosocial health had no association with sociodemographic variables.

Conclusion: The study concluded that most of the blind students experience lower levels of psychosocial health than the general students. It is recommended that special care needs to be taken of every aspect of health for this group of people from their childhood or the starting period of blindness by family, and institutional and societal caregivers to maintain the best level of psychosocial health.

Keywords: Psychosocial Health, Assess, Blind Students, General Students, Comparative Study



Introduction

“The best and beautiful things in the world cannot be seen or even touched. They must be felt within the heart.” – Helen Keller.¹

There are 10 million people who are suffering from blindness in India. The worldwide number of blind people is approximately 37 million. The Centre has launched a campaign to educate the population and provide opportunities for blind people by establishing various institutions. Prevention of Blindness Week 2024 is celebrated by the Centre from April 1 to 7 to make people aware of their eyes.²

Life is a blissful state of innocence and joy, but this is often not for the blind, who are disabled. They feel isolated when they laugh, play and at the time of other activities as no one is beside them to hear or bear, and every day in their life is a big struggle. Disability is proven to be a big hindrance in normal day-to-day life that increases negligence, despair and isolation. Blindness is a devastating physical condition which has a deep effect on emotions and the economy. Various problems that visually impaired persons face are problems in orientation and mobility, social contact, conversation, personality development, psychological problems, etc. There are certain coping strategies a visually impaired person adopts, which include acceptance, trust, positive avoidance, minimisation, independence, control etc. A child is either born visually impaired or develops visual impairment in the early years of life. A major portion of India's visually impaired children are found in villages in the lower strata of society. The causes of their visual impairment vary from malnutrition to lack of medical care, superstition, poverty and negligence.³

Wadegaonkar and Uplane conducted a comparative study of social skills in sighted and visually impaired adolescents, aiming to analyze the differences in social skills of sighted and visually impaired adolescents, both boys and girls of 13–15 years of age using a descriptive research design. The result shows mean scores of 4.8 and 6.07, 6.67 and 8.42, 6.15 and 6.96, 4.65 and 5.97, 4.81 and 6.13, 5.2 and 6.38, 4.92 and 5.95, 4.14 and 4.81, and 7.09 and 8.44 on social skills namely expressing feeling, appropriate body language, taking initiative, coordinating, persuading, participating, managing emotion, accepting differences, being confident of the blind and general students, respectively. After comparing their social skills, it was found that the visually impaired students have deficits in social skills.⁴

Panday et al. in their study of congenitally blind and postnatal blind found that at least 55% of the children had adjustment problems.⁵

Salleh et al. investigated social skills among visually impaired students from the aspects of basic social behaviour, interpersonal relationships and cognitive social behaviours. The findings showed that students with visual impairment

have skills of basic social behaviour lower than that of sighted students at the four levels. Skills of body language showed the lowest mean value (mean = 3.41), followed by communication skills (mean = 3.76) and cooperative skills (mean = 3.79), while sighted students showed the highest level of body language skills (mean = 4.53), communication skills (mean = 4.45), and cooperative skills (mean = 4.45). Sighted students had a higher mean level of interpersonal relationship skills compared to students with visual impairment. The results showed similar mean values for the interaction skills (mean = 3.83) and sustaining relationships (mean = 3.85) for students with visual impairment, which is at an adequate level compared to sighted students at good levels for both skills, interaction skill (mean = 4.44) and sustaining relationship skills (mean = 4.39). They also studied the cognitive social behaviour in visually impaired students' self-identity (mean = 3.86), interpreting social situations (mean = 3.61), performance of social skills (mean = 3.78), self-evaluation (mean = 3.88), wherein sighted students self-identity (mean = 4.47), interpreting social situations (mean = 4.31), performance of social skills (mean = 4.43), and self-evaluation (mean = 4.45).⁶

Ishtiaq et al. conducted a study in Pakistan in 2016 which shows among 40 children with blindness, 24 experienced difficulties in their lives; 22 children were found to be depressed when assessed with DSM IV, and 20 had difficulty making new contacts.⁷ Vision is one of the most actively used senses by man among all the senses. Cognition depends upon one's visual experiences to a great extent. Impairment imposed basic limitations on the individual. Visually impaired children are deprived in terms of range and variety of experiences. They are unable to control their own environment and themselves in relation to it. Although social attitudes are changing towards the visually impaired, there are certain stereotyped individual activities of common people which are reflected in terms of their attitudes and responses. People still mostly believe that a visually challenged person is nothing, and can do nothing. Among various disabilities, visual impairment is perhaps one of the oldest categories identified for special education, because visual impairment is apparent and provokes strong emotions. Visual impairment makes a barrier to appropriate psychosocial development.⁸ So the proposed study aims at finding out the psychosocial health of blind students along with an assessment of the psychosocial health of general students and compare between those, which will help to make plan, develop and evaluate the services (special and additional) to meet up the gap in ensuring the best possible psychosocial health in visually impaired persons as general persons.

Objectives of the Study

1. To assess the psychosocial health of blind and general students

2. To compare the domain-wise relationship among the mental, emotional, social and spiritual health of the blind and general students
3. To compare the psychosocial health of blind and general students
4. To find the association between the level of psychosocial health of the blind and general students with their selected demographic variables

Methodology

A descriptive comparative survey approach with a comparative research design was selected to carry out this study. Permission was obtained from the concerned authorities of the Institute of Psychiatry – Centre of Excellence, College of Nursing, Kolkata, West Bengal to conduct the final study. Ethical clearance was obtained from the Institutional Ethics Committee, IPGME&R Research Oversight Committee, SSKM Hospital, Kolkata. Permission was also obtained from the concerned authorities of the selected blind and general schools in Kolkata. To conduct the study, total enumeration sampling technique on selected 51 blind students and simple random sampling technique on selected general students were used. Permission was also obtained from respective institutional authorities and parents of the participants through informed written consent. After getting permission, data was collected from selected 51 blind and 51 general students of selected blind and general students in Kolkata, who were less than 18 years of age. Privacy, confidentiality, and anonymity were being guarded. Data were collected from December 26, 2019 to January 15, 2020 and from January 30, 2020 to February 8, 2020 using a self-structured sociodemographic proforma with 10 items for blind and 7 items for general students and a self-structured psychosocial health rating scale, an interview schedule. The structured demographic proforma consisted of 10 items – age in complete years, gender, studying in, monthly family income, number of siblings, types of family, number of family members, duration of blindness, causes of blindness, and blindness in the family.

The Psychosocial Health Rating Scale was developed to assess the psychosocial health of the selected blind and general students. Tools related to psychosocial health were generated through the 3-point rating scale which consists of 34 items, 8 items (1.4, 1.5, 1.6, 2.5, 3.2, 3.9, 3.10 and 4.3) were negative and 26 items were positive. This structured rating scale was divided into four domains which are Mental health, Emotional health, Social health, and Spiritual health - consisting of 10, 9, 10, and 5 questions, respectively. Every item is followed by three alternative answers which are 'Never', 'Sometimes', and 'Always' and scored sequentially as 0, 1, 2. The maximum obtainable score of the whole rating scale was 68 and the minimum was 0. The level of psychosocial health was calculated according

to the arbitrary classification of levels of psychosocial health score, prepared by the researcher based on the possible minimum and maximum scores obtained by the participants. The levels were expressed as 'below average level' i.e. (0–26), 'average level' (27–50), and 'above average level' (51–68). Negative items were subscribed with 'n' beside their serial numbers and scored reversely.

To determine the content validity, both the tools along with objectives of the study were submitted to 11 experts and clinicians specialised in the concern field. Suggestions and necessary changes were made to modify the tools. The reliability of the self-structured sociodemographic tools was determined by the 'test-retest' method and the self-structured psychosocial rating scale by the Cronbach alpha method. In the case of reliability computed assessing sociodemographic variables, the value of "r" was 0.99 and for the psychosocial health rating scale, it was 0.89.

Result

Table 1 shows that most of the study subjects among the general student category, i.e. 63%, belonged to the age group of 12–14 years, whereas maximum blind students (45%) belonged to the age group of 15–17 years. As regards gender, 51% and 47% were male among blind and general students, respectively. Maximum participants among the blind students (35%) and general students (47%) had more than two and no siblings, respectively. The majority of participants among the blind students (63%) and general students (39%) belonged to families with 4–6 members. Maximum blind (53%) and general students (33%) belonged to the family with a family income of 5,000 INR or less and more than INR 20,000, respectively. The majority of the blind students (90%) were suffering from blindness since birth and 76% had no family history of blindness.

The mean and median scores of the psychosocial health of general students were 53.98 and 52, respectively, which were higher than the mean and median scores of the blind students (31.20 and 34, respectively). This indicates that the blind students were experiencing lower levels of psychosocial health as compared to the general students. The standard deviation of psychosocial health of the blind and general students were 11.28 and 7.47, respectively which indicates a wide dispersion of psychosocial health in both groups (but more among the blind students than the general students) (Table 2).

37% of blind students and none of the general students had a below-average level of psychosocial health. The majority of the blind students (61%) and most of the general students (69%) had average and above-average levels of psychosocial health, respectively (Table 3).

The correlation coefficient between mental and emotional health, mental and social health, mental and spiritual

health, emotional and social health, emotional and spiritual health and social and spiritual health of the blind and general students were 0.82 and 0.39; 0.6 and 0.45; 0.59 and 0.46; 0.56 and 0.53; 0.56 and 0.55; 0.48 and 0.57, respectively with the evidence as t values of 10.05 and 2.98; 5.26 and 3.53; 5.16 and 3.70; 4.85 and 4.41; 4.83 and 4.62; 3.92 and 4.91, respectively, i.e. positively correlated and also significant. The findings revealed that the two groups were homogenous and in maximum findings, the correlation between the two domains of psychosocial health of the blind students was strong to moderately positive, whereas in the general students, it was moderate to weakly positive (Table 4).

Domain-wise comparison of the level of psychosocial health between the blind and general students, i.e. mental, emotional, social, and spiritual health revealed that the calculated t values between the domain-wise obtained psychosocial health score of the blind and general students

were 13.19, 11.54, 6.17, and 7.88, respectively. The domain-wise mean scores, i.e. 16.39, 14.18, 16.31, 7.09 of the psychosocial health of the general students were higher than those of the blind students, i.e. 7.84, 7.31, 12.33, 3.71, which indicated significant differences as evident from the already stated t values at df 100 at $p < 0.05$ in Table 5.

For both the groups of study subjects (blind and general students), there was no significant association between psychosocial health and their sociodemographic variables, i.e. age ($\chi^2 = 0.2263$ – for blind students), gender ($\chi^2 = 0.1668$ and 0.9193 , respectively), studying classes ($\chi^2 = 0.0048$ and 0.0763 , respectively), monthly family income ($\chi^2 = 0.0007$ and 0.9808 , respectively), number of siblings ($\chi^2 = 0.0048$ and 0.0192 , respectively), type of family ($\chi^2 = 2.0027$ and 0.8704 , respectively), number of family members ($\chi^2 = 0.0746$ and 2.3519 , respectively), causes of blindness ($\chi^2 = 0.0538$), and duration of blindness ($\chi^2 = 0.0538$) at df (1) $p < 0.05$ level of significance (Tables 6 and 7).^{6,7}

Table I. Frequency and Percentage-Wise Distribution of Blind and General Students according to Their Sociodemographic Variables

$N_1 = 51, N_2 = 51$

Sample Characteristics	For Blind Students		For General Students	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Age (years)				
12–14	12	24	32	63
15–17	23	45	19	37
> 17	16	31	Nil	-
Gender				
Male	26	51	24	47
Female	25	49	27	53
Others	Nil	-	Nil	-
Standard				
VIII	18	35	18	35
IX	13	26	13	26
X	20	39	20	39
Number of sibling(s)				
0	8	16	24	47
1	15	29	15	29
2	10	20	7	14
> 2	18	35	5	10
Type of family				
Nuclear	32	63	29	57
Joint	15	29	18	35
Extended joint	4	8	4	8
Number of family members				
≤ 3	7	14	18	35
4–6	32	63	20	39
> 6	12	23	13	26

Monthly family income (INR)				
≤ 5,000	27	53	9	18
5,001–10,000	13	26	16	31
10,001–20,000	7	14	9	18
> 20,000	4	7	17	33
Duration of blindness				
Since birth	46	90	-	-
From childhood	5	10	-	-
Causes of blindness				
Congenital	46	90	-	-
Trauma	1	2	-	-
Disease	4	8	-	-
Family history of blindness				
Yes	12	24	-	-
No	39	76	-	-

Table 2. Distribution of Both Groups of Blind and General Students as per Their Obtained Scores' Range on Psychosocial Health and its Mean, Median and Standard Deviation

$N_1 = 51, N_2 = 51$

Subjects	Range of Obtained Score on Psychosocial Health	Mean	Median	Standard Deviation
Blind students	9–53	31.20	34	11.28
General students	35–68	53.98	52	7.47

Score range: 0–68

Table 3. Frequency and Percentage of the Blind and General Students in the Three Levels of Psychosocial Health

$N_1 = 51, N_2 = 51$

Level of Psychosocial Health as per Obtained Scores	Blind Students		General Students	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Below average level (0–26)	19	37	Nil	-
Average level (27–50)	31	61	16	31
Above average level (51–68)	1	2	35	69

Table 4. Correlation Coefficient and t Test Value Distribution between the Mental and Emotional, Mental and Social, Mental and Spiritual, Emotional and Social, Emotional and Spiritual, Social and Spiritual Health of Psychosocial Health of the Blind and General Students

$N_1 = 51, N_2 = 51$

Subject	Domain of Psychosocial Health	Mean	Correlation Coefficient (r Value)	t Test Value	Significant/ Not Significant (S/ NS)
Blind students	Mental health	7.84	0.82	10.05	S
	Emotional health	7.31			
General students	Mental health	16.39	0.39	2.98	S
	Emotional health	14.17			
Blind students	Mental health	7.84	0.60	5.26	S
	Social health	12.33			

General students	Mental health	16.39	0.45	3.53	S
	Social health	16.31			
Blind students	Mental health	7.84	0.59	5.16	S
	Spiritual health	3.71			
General students	Mental health	16.39	0.46	3.70	S
	Spiritual health	7.09			
Blind students	Emotional health	7.31	0.56	4.85	S
	Social health	12.33			
General students	Emotional health	14.17	0.53	4.41	S
	Social health	16.31			
Blind students	Emotional health	7.31	0.56	4.83	S
	Spiritual health	3.71			
General students	Emotional health	14.17	0.55	4.62	S
	Spiritual health	7.09			
Blind students	Social health	12.33	0.48	3.92	S
	Spiritual health	3.71			
General students	Social health	16.31	0.57	4.91	S
	Spiritual health	7.09			

$t(100) = 1.98$ at $p < 0.05$

Table 5. Comparison of the Level of Mental, Emotional, Social, and Spiritual Health between the Blind and General Students in Terms of Difference in Mean Score

$N_1 = 51, N_2 = 51$

Subjects	Mean	MD	SD	SE	t Value
Mental health					
Blind students	7.84	8.55	3.27	0.65	13.19
General students	16.39				
Emotional health					
Blind students	7.31	6.86	3.00	0.59	11.54
General students	14.18				
Social health					
Blind students	12.33	3.98	3.25	0.64	6.17
General students	16.31				
Spiritual health					
Blind students	3.71	3.39	2.18	0.43	7.88
General students	7.09				

Table 6. Association between Psychosocial Health of Blind Students and Their Sociodemographic Variables

$N_1 = 51$

Variables	Psychosocial Health Level		Total No. of Subjects	Chi-Square (χ^2)	Significance (At 0.05 Level)
	Below Median (< 34)	At/ Above Median (≥ 34)			
Age in complete years					
≤ 17	15	20	35	0.2263	NS
> 17	8	8	16		

Gender					
Male	11	15	26	0.1668	NS
Female	12	13	25		
Present class					
VIII	8	10	28	0.0048	NS
IX and X	15	18	33		
Monthly family income (INR)					
≤ 10,000	18	22	40	0.0007	NS
> 10,000	5	6	11		
No. of sibling(s)					
≤ 2	15	18	33	0.0048	NS
> 2	8	10	18		
Type of family					
Nuclear	12	20	32	2.0027	NS
Joint and extended joint	11	8	19		
Number of family members					
≤ 6	18	21	39	0.0746	NS
> 6	5	7	12		
Duration of blindness					
Since birth	20	26	46	0.0538	NS
Since childhood	3	2	5		
Causes of blindness					
Congenital	20	26	46	0.0538	NS
Trauma and disease	3	2	5		
Family history of blindness					
Yes	6	6	12	0.1523	NS
No	17	22	39		

$\chi^2 = 3.84$ at df (1), $p < 0.05$

Table 7. Association between Psychosocial Health of General Students and Their Sociodemographic Variables

$N_2 = 51$

Variables	Psychosocial Health Level		Total No. of Subjects	Chi-square (χ^2)	Significance (At 0.05 Level)
	Below Median (< 52)	At or Above Median (≥ 52)			
Age in complete years					
≤ 17	24	27	51	Not applicable	-
> 17	Nil	Nil	Nil		
Gender					
Male	13	11	24	0.9193	NS
Female	11	16	27		

Present class					
VIII	8	10	10	0.0763	NS
IX and X	16	17	33		
Monthly family income (INR)					
≤ 10,000	10	15	25	0.9808	NS
> 10,000	14	12	26		
No. of sibling(s)					
≤ 2	22	24	46	0.0192	NS
> 2	2	3	5		
Type of family					
Nuclear	12	17	29	0.8704	NS
Joint and extended joint	12	10	22		
Number of family members					
≤ 6	15	23	38	2.3519	NS
> 6	9	4	13		

$\chi^2 = 3.84$ at df (1), $p < 0.05$

Discussion

The researcher found that 60.78% of the blind students had an average level, 19.61% had above average level and 19.61% had a below-average level of psychosocial health consisting of mental, emotional, social and spiritual health which is in line with the study findings of Lepcha where 72% of the total sample, blind students had an average level of mental health, 6% and 7% were having very high and high mental health whereas, 12% and 3% of the total sample were having low and very low levels of mental health, respectively¹ and also partial agreement with the study finding of Jacob and Shetty where the majority of the blind children had mild psychosocial problems and were using effective coping strategies.⁹

The researcher found in the study that 28 out of 51 i.e. 53.90% of blind students showed above the median level of psychosocial health as compared to 27 out of 51 i.e. 52.94% of general students. The results are in partial agreement with the study findings by Pinguart and Pfeiffer where 38.3% of the visually impaired individuals as compared to 61.7% of the unimpaired individuals, showed above median level of psychological well-being.¹⁰

The researcher found in the study that 37% of blind students had below-average levels of psychosocial health, 61% had average levels and 2% had above-average levels of psychosocial health. These results are in partial agreement with the study findings by Nigam where 16% of the visually impaired had maximum psychosocial problems, 48% had moderate psychosocial health problems and 36% had mild psychosocial health problems.³

The researcher found a positive relationship between the emotional and mental health of blind students in the study

which is in agreement with the study findings of Sharma et al. where a positive relationship was found between emotional intelligence and mental health of college students with visual impairment.¹¹

The researcher found in the study that blind students had a lower level of social health as compared with the general students. These findings are in congruence with the study findings of Wadegaonkar and Uplane, where the visually impaired students had deficits in social skills than the sighted students.⁴

In the current study, the researcher found no association between psychosocial health and their selected demographic variables which is partially in agreement with the study findings of Tarannum and Khatoun where out of the demographic variables gender, age, class, family system and area of living; only gender emerged as the significant predictor of emotional stability of visually challenged students.¹²

In this study, the bio-psycho-social health model is modified according to the needs of this nursing research study. Instead of the four domains which were biological, psychological, social, and spiritual of the bio-psycho-social health model; mental, emotional, social and spiritual health these four domains are applied as the whole psychosocial health. Masini published the bio-psychosocial approach in medicine model which opens up a holistic view of the person. The model consists of four biological, social, spiritual, and psychological aspects.¹³

In the current study, the domain of mental health is associated with thoughts and cognitive behaviours of human beings; which include mental stability, feeling comfortable with others, controlling stress by avoiding frustration and

facing adverse situations; following advice of teachers, participating in extracurricular activities, self-confident activities of the blind and general students. Emotions are intensified feelings and complex patterns of love, frustration, anxiety, joy, and forgiveness. The social health of the students consists of feelings of belongingness in the family, the ability to take care of other family members, a helping attitude, enjoying social gatherings, taking social responsibilities, taking help from others, maintaining peer and family relationships and school life. Spiritual health is an inner quest for well-being and a belief in a unifying force that gives purpose or meaning to life. The following characteristics represent the spiritual health of the blind and general students- a feeling of connection to people, nature, God or another higher power, and self-realisation. These are partially matched with the bio-psychosocial health model which consists of genetic disability, ageing, and physical activity. The social aspects are socio-cultural environment, work, school, relationships, and social skills. The psychological domain consists of self-esteem, attitudes, and coping skills, while the spiritual domain consists of self-awareness and the meaning of life.¹⁴

Recommendation

A correlational study can be done to assess the relationship between biological health and the psychosocial health of blind students. Also, in-depth qualitative research studies can be done to explore the life experiences of blind students.

Conclusion

Study findings show that blind students were experiencing lower levels of psychosocial health than the general students. There was a significant correlation among each domain of psychosocial health of the blind and general students. There was also a statistically significant difference between the levels of psychosocial health of the blind and general students and there was no significant association between the level of psychosocial health of both groups.

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