

A Study to Assess the Level of Stress and Coping Skills among Visually Impaired Children in Selected Blind School of Kamrup District, Assam

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Abstract: Background and Objectives: Stress is the most common emotional disturbance that is experienced by people as well as children. It is mostly related with tension, anxiety, worry and pressure. Blind and visual disability is the most attemptable problem all over the world. Method: A quantitative research approach with non-experimental descriptive research design. 50 visually impaired children were selected using non probability purposive sampling technique. The study was conducted in Guwahati Blind High School, Latakata, Basistha, Guwahati, Assam. The tool for the data collection was interview structured questionnaire (socio-demographic variable and clinical profile). Perceived Stress Scale and Pro-active Coping Inventory Scale were to assess the level of stress and coping skills. Results: The majority of visually impaired children had moderate stress and majority of them had good coping skills. The study revealed that there is weak positive correlation between stress and coping skills among visually impaired children. The present study also revealed that there is association between stress and coping skills with socio-demographic variables. Conclusion: The findings of the study are consistent with the literature and have support from the other studies.

Keywords: Visual impairment, Stress, Coping skills

1. Introduction

“Just because you are blind and unable to see my beauty doesn’t mean it does not exist”

-Margaret Cho

Visual Impairment which is also known as vision impairment or vision loss, it is a decreased ability to see to a degree that causes problems and not fixable by usual means like wearing glasses. ^[1] Some also include those who have a decreased ability to see because they do not have access to glasses or contact lenses. ^[2] Visual impairment is often defined as a best corrected visual acuity of worse than either 20/40 or 20/60. The term blindness is used for complete or nearly complete vision loss. ^[3] Visual impairment may cause people difficulties with normal daily activities such as driving, reading, socializing and walking.

Coping is the ongoing cognitive and behavioral efforts to manage specific external and internal demands appraisal as taking or exceeding the resources of the person. Pearlin and Schooler (1978) defined coping as, “Coping refers to behavior that protects individuals from being psychologically harmed by problematic social experience.” ^[4]

2. Background of the study

In the World the most common causes of visual impairment includes uncorrected refractive errors (43%), cataracts (33%), and glaucoma (2%). The most common cause is Cataract all over the world. ^[5]

According to WHO 80% of visual impairment is preventable with treatment. ^[2] Many people are experiencing their healthy life from vision rehabilitation changes in their environment and assisted devices. ^[5] As of 2015 total 940 million people with some degree of vision loss. 246 million had low vision and 39 million were blind. ^[6] The majority of people were from developing area of the World. Rates of visual impairment decreased since 1990s. ^[5]

Childhood blindness is an important cause contributing to the burden of blindness. In the world 314 million people were visually impaired and 45 million of them are blind. ^[6] The number of children who suffer blindness worldwide is approximately 1.4 million. There is 75% of child from Africa and Asia. The child blindness is globally remaining a complicated problem. ^[7]

Beggs, Steffens & Berger (1992) the loss of vision affects cognitive functions, such as learning, memory, information processing, and special representation, so that many everyday activities become difficult to perform. It leads to less special orientation and less control over the environment, which often evoke feelings of anxiety and loss of confidence. ^[8]

Horowitz & Reinhardt (1998) vision loss is a stressful situation, and adjustment to it is a long, dynamic process. The more successful the adaptation to vision loss, the higher a person’s functional ability, self-esteem, and satisfaction with life and the lower a person’s depressive symptoms. The study presented here investigated how people cope with vision loss and what psychological mechanisms and resources enable them to use coping strategies to adapt successfully to this impairment. ^[9]

3. Need of the study

“The only thing worse than being blind is having sight but no vision”

Hellen Keller

Blindness is regarded as the most severe and dramatic physical handicap. It results from any inference with the passage of stimulus, as it travels from the outer surface to the inner surface and to the brain.

Visually handicapped children are a highly heterogeneous group. They face many problems like behavioral problems, problems of social adjustment, problems in learning, poor intelligence, academic difficulties slower speech etc. this is supported by a study conducted on comparison of divergent development of gross motor skills in children who were blind and sighted.^[6]

Shivaprasad Hallemani et. al (2012), blindness is regarded as the most severe and dramatic physical handicap. It results from any inference with the passage of stimulus, as it travels from the outer surface to the inner surface and to the brain.^[6]

Milind Kale et. al (2012), stressful events frequently provoke psychiatric disorders and also provoked the emotional reactions that are disturbing. Coping strategies serve to reduce the impact of stressful events. Thus attenuating emotional and somatic responses making to more possible maintain normal performance at that time. Stress produces physiological and psychological responses inadequate handling of stress can lead to physical or mental illness and it affect the individual's total environment.^[6]

When a person loss vision, the loss may be gradually reduced. A time comes when one can no longer ignore the loss because he or she cannot carry on their usual activities. At this point, the individual may be very depressed. Although depression is normal, it should not go on too long. Adjustment is under way when individual is able to accept vision loss, learn new skills, and go on living a full life despite vision loss.

Mental and emotional disturbances are present when a person has low vision or totally blind. A person experiencing a recent loss of vision impacts on how he feels about himself, and the role that he plays in family and community.

Based on review of literature and from the above discussion, it was found that Indian nursing researchers have done some scientific studies related to stress and coping skills among visually impairment children. But it is observed that in Assam there is limited nursing studies has been done yet related to stress and coping skills among visual impairment children. Hence, the researcher felt that there is a need for study to assess about stress and coping skills among visually impairment children.

4. Review of Literature

Sowdeswari D, et. al (2021) conducted a descriptive research study on psychosocial problems of the children

with visual impairment in Salem district among 63 children with visual impairment children from the age group of 11-18 years. The study revealed that 23.8% of the respondents have mild, 15.9% of the respondents have moderate and 1.6% of the respondents have severe level of depression, 14.3% of the respondents have mild, 6.3% of the respondents have moderate and 3.2% of the respondents have severe level of anxiety, 11.1% of the respondents have mild, 7.9% of the respondents have moderate level of stress. Majority 69.8% of the respondents have medium and 14.3% of the respondents have lower level of emotional adjustment.^[10]

Jayus R, Khan A (2019) conducted an exploratory study on coping strategies and challenges among visual impaired students in Malaysia. The study found that among visually impaired people category approximately 8.9% includes students at the university level. Malaysia government has recognized that lifelong learning of this category of student and focuses on the approaches and strategies to fulfill their needs. They also give importance on coping strategies of students and elaborate based on The Goodness of Fit Model. Effective coping strategies focused on three aspects of their needs living with visual impairments in adaptive behavior on campus, mobility on campus and reading materials and resources.^[11]

Brunes A et. al (2019) conducted a cross sectional study on loneliness among adults with visual impairment: prevalence, associated factors, and relationship to life satisfaction. The study was conducted among 736 adults with visually impaired. The study found that the prevalence of loneliness was 50.7% in females. The prevalence of moderate and severe loneliness in the visual impaired population was 28.7% and 19.7% respectively. The rates were consistently higher across age groups compared to the general population. Loneliness is associated with younger age, blindness, having other impairments, unemployment and a history of bullying or abuse. Higher scores on loneliness were associated with lower levels of life satisfaction.^[12]

Motcharakkini. A, Dr. Gunavathy J. S (2020) conducted a qualitative study on Psycho-Social Problems and coping Strategies of parent-caregivers of visually impaired children. The study found that parent caregivers do face the psychosocial problems. But the supportive networks among them provide space for ventilating their emotions of grief and other problems mentioned in the study. The coping strategies that they follow are acceptance of the child, showing more affection and love towards them, spending their time in school with other parents.^[13]

Rai, Puja et. al (2019) conducted a cross sectional study among 60 visually impaired people with the purpose of coping strategies employed by people with visual disability can influence their quality of life. The aim of the study is to assess coping in people with low vision or blindness. The study found that positive coping strategies are associated with better QoL. People with visual impairment have a poorer quality of life since it affects their ability to perform independent activities of daily living.^[14]

Problem Statement

“A study to assess the level of stress and coping skills among visually impaired children in selected blind school of Kamrup District Assam”

Objectives**General Objectives:**

To assess the level of stress and coping skills among the visually impaired children.

Specific Objectives:

- To assess the level of stress among the visually impaired children in selected blind school.
- To assess the coping skills among the visually impaired children in selected blind school.
- To correlate between the level of stress and coping skills among the visually impaired children.
- To associate the level of stress and coping skills among the visually impaired children with their socio demographic variables.

Operational Definition:**Stress:**

In this study it refers to the worries experienced by children with visual impairment in carrying out daily living activities.

Coping Skills:

In this study it refers to abilities of children with visual impairment in managing activities of daily life.

Visual impairment:

In this study children residing in blind school with 80-100 % of loss of vision which are under severe blindness and very severe blindness.

Children:

In this study it refers to the individuals of both boys and girls between the age group of 10 to 26 years with loss of vision.

Assumptions

The study is assumed on-

- Visually impaired children have stress.
- Visually impaired children might be used some coping mechanism to manage the stress.
- Visually impaired children has experience an amount of distress in their psychological status.

Hypothesis

Hypothesis will be tested at 0.05% level of significance-

- **H₁** – There is significant relationship between level of stress and coping skills among the visually impaired children.
- **H₂**. There is significant association between level of stress with the selected socio demographic variables among visually impaired children.
- **H₃**. There is significant association between coping skills with the selected socio demographic variables among visually impaired children.

Delimitation

The study is delimited to the visually impaired children in Guwahati Blind High School, Latakata, Basistha, Guwahati, Assam.

5. Research Methodology

“Research is an organized method for keeping you reasonably dissatisfied with what you have”

-Charles Kettering

A quantitative research approach is used in this study to assess the level of stress and coping skills among visually impaired children. The study population were the visually impaired children in selected blind school and 50 samples were selected by the non-probability purposive sampling technique. The variables are divided as-

- **Study variables:** Level of stress, coping skills.
- **Demographic variables:** Age, gender, educational qualification of the children, educational qualification of parents, birth order of children in family, family income, place of residence.

6. Analysis and Interpretation

The analyses of data were arranged under the following sections:

Section 1: Findings related to Distribution of demographic variables among visually impaired children.

Section 2: Findings related to Distribution of clinical profile among visually impaired children.

Section 3: Findings related to Assessment of Level of stress among visually impaired children.

Section 4: Findings related to Assessment of Coping skills of visually impaired children

Section 5: Findings related to Analysis of Association between stress and demographic variables of visually impaired children.

Section 6: Findings related to Analysis of Association between coping skills and demographic variables of visually impaired children.

Section 1: Findings related to Distribution of demographic variables among visually impaired children, N=50

Age in years	Frequency	Percentage
a) 10-14 years	22	44
b) 15-19 years	19	38
c) 20-24 years	8	16
d) 25 or above years	1	2
Gender	Frequency	Percentage
a) Male	27	54
b) Female	23	46
Educational Qualification	Frequency	Percentage
a) Illiterate	0	0
b) Primary school	8	16
c) Middle school	9	18
d) High school	25	50
e) Higher secondary	8	16
f) Degree	0	0
g) Post graduate or above	0	0
Family income of parents	Frequency	Percentage
a) Below Rs 10000	23	46
b) Rs 10001-15000	21	42
c) Rs 15001-20000	4	8

d) Above Rs 20000	2	4
Educational qualification of parents	Frequency	Percentage
a) Illiterate	3	6
b) Primary school	26	52
c) Middle school	9	18
d) High school	4	8
e) Higher secondary	5	10
f) Degree	3	6
g) Post graduate or above	0	0
Residential area of parents	Frequency	Percentage
a) Slum area	0	0
b) Town area	5	10
c) Village area	45	90

Section 2: Findings related to Distribution of clinical profile among visually impaired children, N=50

Birth order	Frequency	Percentage
a) First	18	36
b) Second	20	40
c) Third	7	14
d) Fourth and above	5	10
Impaired vision from birth	Frequency	Percentage
a) Yes	31	62
b) No	19	38
Any physical illness leads to impaired vision	Frequency	Percentage
a) Yes	19	38

b) No	31	62
Any treatment taken for illness related to visual impairment	Frequency	Percentage
a) Treatment taken	17	34
b) Not taken	33	66
Any injury in the eye	Frequency	Percentage
a) Yes	1	2
b) No	49	98
Any treatment taken for injury in the eye	Frequency	Percentage
a) Treatment taken	1	2
b) Not taken	49	98
Family members reaction to impaired vision	Frequency	Percentage
a) Sad	33	66
b) Happy	0	0
c) No reaction	17	34
Any treatment for impaired vision	Frequency	Percentage
a) Yes	50	100
b) No	0	0
Any type of treatment for impaired vision	Frequency	Percentage
a) Treatment taken (OT)	49	98
b) Not taken	1	2

Section 3: Assessment of level of stress among visually impaired children, N=50

Level of stress	Frequency		Percentage		Mean		SD	
	From birth	Not from birth	From birth	Not from birth	From birth	Not from birth	From birth	Not from birth
High	3	0	6 %	0 %	8.71	10.74	7.573	8.749
Moderate	22	16	44 %	32 %				
Low	6	3	12 %	6 %				

Section 4: Assessment of coping skills among visually impaired children, N=50

Level of coping	Frequency	Percentage	Mean	SD
Poor coping	2	4	168.84	28.67
Average coping	8	16		
Good coping	40	80		

Section 5: Assessment of correlation between level of stress and coping skills among visually impaired children, N=50

Correlation	Mean	SD	r value	p value
Stress	9.48	8.01	0.143	0.320 ^{NS}
Coping	168.84	28.67		

*p<0.05 level of significance NS=Non significant

Section 6: Analysis of association of level of stress among visually impaired children with their selected demographic variables, N=50

S. No	Demographic variables	Level of stress			χ ^ε Value	df	p value
		Low	Moderate	High			
1	Age in years				10.6	6	0.101 ^{NS}
	a) 10-14	12	7	3			
	b) 15-19	18	1	0			
	c) 20-24	7	1	0			
	d) 25 or above	1	0	0			
2	Gender				4.127	2	0.127 ^{NS}
	a) Male	21	3	3			
	b) Female	17	6	0			
3	Educational qualification				30.78	6	0.001*
	a) Illiterate	--	--	--			
	b) Primary school	2	3	3			
	c) Middle school	5	4	0			
	d) High school	25	0	0			
	e) Higher secondary	6	2	0			
	f) Degree	--	--	--			
g) Post graduation	--	--	--				

4	Family income of parents				5.525	6	0.478 ^{NS}
	a) Below Rs 10000	19	4	0			
	b) Rs 10001-15000	15	4	2			
	c) Rs 15001-20000	2	1	1			
	d) Above Rs 20000	2	0	0			
7	Educational of parents				35.04	10	0.001*
	a) Illiterate	1	2	0			
	b) Primary school	23	3	0			
	c) Middle school	8	1	0			
	d) High school	2	2	1			
	e) Higher secondary	4	0	2			
	f) Degree	0	1	3			
g) Post graduation	--	--	--				
8	Residential area of parents				0.357	2	0.836 ^{NS}
	a) Slum area	--	--	--			
	b) Town area	4	1	0			
	c) Village area	34	8	3			
9	Birth order				5.81	6	0.445 ^{NS}
	a) First	13	5	0			
	b) Second	15	3	2			
	c) Third	6	1	0			
	d) Fourth	4	0	1			

*p<0.05 level of significance NS= Non significant

Section 7: Analysis of association between coping skills and their selected demographic variables, N=50

S. No	Demographic variables	Level of coping			χ^2 ευλαπ	df	p value
		Poor	Average	Good			
1	Age in years				12.64	6	0.049*
	a) 10-14	0	22	0			
	b) 15-19	2	12	5			
	c) 20-24	0	5	3			
	d) 25 or above	0	1	0			
2	Gender				2.597	2	0.273 ^{NS}
	a) Male	2	22	3			
	b) Female	0	18	5			
3	Educational qualification				12.5	6	0.042*
	a) Illiterate	--	--	--			
	b) Primary school	0	8	0			
	c) Middle school	0	9	0			
	d) High school	2	15	8			
	e) Higher secondary	0	8	0			
	f) Degree	--	--	--			
g) Post graduation	--	--	--				
4	Family income of parents				16.34	6	0.012*
	a) Below Rs 10000	1	18	4			
	b) Rs 10001-15000	0	19	2			
	c) Rs 15001-20000	0	2	2			
	d) Above Rs 20000	1	1	0			
5	Educational of parents				7.212	10	0.705 ^{NS}
	a) Illiterate	0	3	0			
	b) Primary school	2	19	5			
	c) Middle school	0	6	3			
	d) High school	0	4	0			
	e) Higher secondary	0	5	0			
	f) Degree	0	3	0			
g) Post graduation	--	--	--				
6	Residential area of parents				8.056	2	0.018*
	a) Slum area	--	--	--			
	b) Town area	0	2	3			
	c) Village area	2	38	5			
7	Birth order				19.61	6	0.003*
	a) First	0	14	4			
	b) Second	0	17	3			
	c) Third	0	6	1			
	d) Fourth	2	3	0			

*p<0.05 level of significance NS= Non significant

7. Discussion

Objective 1: To assess the level of stress among the visually impaired children in selected blind school.

In the present study it was found that majority of visually impaired children (visually impaired from birth) 22 (44%) and 16 (32%) (Visually impaired not from birth) had moderate stress followed by 6 (12%) (Visually impaired from birth) and 3 (6%) (Visually impaired not from birth) had low stress and only 3 (6%) (Visually impaired from birth) and 0% (visually impaired not from birth) had high stress.

In this mean SD value of level of stress among visually impaired children is 8.71 ± 7.573 (visually impaired from birth); 10.74 ± 8.749 (visually impaired not from birth).

The finding of the present study was consistent with the study **Wahl H. W, et. al (2002)** "A study on deteriorating vision in the adolescents: double stress?" The study showed that 43% adolescents having moderate stress, 30% adolescents having mild stress and 27% adolescents having severe stress.^[15]

Objective 2: To assess the coping skills among the visually impaired children in selected blind school.

In the present study coping skills are divided into three category i. e., good coping skill, average coping skills and poor coping skill. The present study was found that majority 40 (80%) children had good coping skills, 8 (16%) had average coping skills and 2 (4%) had poor coping.

In this study the mean SD value of coping skills is 168.84 ± 28.67 .

The present study result is supported by the study **Mrs. Jacob J, et. al (2015)** "A descriptive study to assess the psychosocial problems and coping strategies of blind children." The result of the study revealed that majority (53.33%) of the blind children had efficient coping.^[16]

The result of the present study is consistent with the study conducted by **Matsunaka K, et. al (2001)** on "The effect of sight levels on daily stressors and coping styles". The study found among the visually impaired adolescents 20% of adolescents having inadequate coping level, 60% of adolescents having moderately adequate coping and 20% of adolescents having adequate coping level.^[17]

Objectives 3: To correlate between the level of stress and coping skills among visually impaired children.

In the present study it was found that there was no significant correlation between stress and coping skills of visually impaired children ($r = 0.143$, $p = 0.320$) indicating that there is a weak positive correlation.

The present study finding is contrast with the study conducted by **Hallemani S, et. al (2014)**, on "Level of Stress and Coping Strategies Adopted by Adolescents with Visual Impairment". The correlation coefficient value of the study showed that there is a negative correlation ($r = -0.54$) between level of stress and coping strategies of adolescents with visual impairment in blind schools, that is, if stress

increases, coping decreases and vice-versa, indicating that there is a significant relationship between stress and coping of adolescents with visual impairment in blind school.^[6]

Objective 4: To associate the level of stress and coping skills among visually impaired children with their demographic variables

The present study establishes the significant association between level of stress and socio demographic variables such as educational qualification of children and parents (calculated value for educational qualification of children is x^2 value = 30.78, $df = 6$, p value = 0.01 and for educational qualification of parents is x^2 value = 35.04, $df=10$, p value = 0.01). It also reveals that there is no any significant association between level of stress and socio demographic variables such as age, gender, family income of parents, residential area of parents and birth order of the child (calculated value for age is x^2 value = 10.60, $df = 6$, p value = 0.101; for gender calculated value is $x^2 = 4.127$, $df = 2$, p value = 0.127; for family income of parents calculated value is $x^2 = 5.525$, $df = 6$, p value = 0.478; for residential area of parents calculated value is $x^2 = 0.357$, $df = 2$, p value = 0.836, for birth order of the child calculated value is $x^2 = 5.810$, $df = 6$, p value = 0.445).

The present study found that there is significant association between coping skills and demographic variables such as age, educational qualification of children, family income of parents, residential area of parents and birth order of the child (calculated value for age is $x^2 = 12.64$, $df = 6$, p value = 0.049; for educational of children calculated value is $x^2 = 12.50$, $df = 6$, p value = 0.042; for family income of parents calculated value is $x^2 = 16.34$, $df = 6$, p value = 0.012; for residential area of parents calculated value is $x^2 = 8.056$, $df = 2$, p value = 0.018; for birth order of the child calculated value is $x^2 = 19.61$, $df = 6$, p value = 0.003) The present study reveals that there is no significant association between coping skills and demographic variables such as gender, educational qualification of parents (calculated value for gender is $x^2 = 2.597$, $df = 2$, p value = 0.273 and for educational qualification of parents calculated value is $x^2 = 7.212$, $df = 10$, p value = 0.705).

The result of the study is supported by the study conducted by **Mrs. Jacob J, Dr. Shetty A. P**, "A descriptive study to assess the psychosocial problems and coping strategies of blind children". The study showed that there is significant association between coping strategies and socio demographic variables such as gender of the child (calculated value $x^2 = 8.571$, $df = 1$, p value = 0.0034).^[17]

8. Nursing implication of the study

Nursing education:

In advanced nursing education system it is necessary to know about all aspects of people to provide best care to the population or to the community. Ensure that the nursing students learn about physical disability of the people. The nursing student should know about stress and coping skills and its management through assessing the level. Provide adequate clinical exposure in community along with hospital setting to know about how physically disabled person

(visually impaired) cope with their life. Encourage the students for effective utilization of research based practices.

Nursing administration:

Nurses as administrators should make collaboration with government bodies to provide standard policies and protocols to emphasize nursing care for the visually impaired people in community. Nurse should conduct in-service and continuing education program for stress, management of stress and coping skills and conduct workshop, conference, seminars on non-pharmacological methods to reduce stress and coping skills to improve life style of people.

Nursing practice:

The psychiatric nurses have a vital role in providing safe and effective care to maintain a healthy mental state among people. This can be facilitated by motivating psychiatric nurse to:

Nurse has an in-depth knowledge on psychological changes in living a healthy life. The psychiatric nurse should learn about accurate assessment of mental status of a person. They develop skill in providing efficient nursing care for effective stress management and coping skills. The nurse should understand the importance of nursing interventions and should know it as a non-pharmacological therapy in the field of psychiatry.

Nursing research:

Nurse can promote more research study for visually impaired people. Disseminate the findings of the research through conference, seminars and publishing in nursing journals. Promote effective utilization of research findings on maintain stress and using coping skills to overcome stress.

9. Limitation

- The study was limited to 50 samples due to time bound and specific group of people which cannot be generalized for the whole population.

10. Recommendation

- A similar study can be conducted by increasing the sample size.
- Study can be conducted in large setting.
- A comparative study can be conducted to evaluate the effectiveness of different coping skills in reducing stress.
- A comparative study between different physically handicapped people can be done.
- A comparative study can be conducted to evaluate the effectiveness of nursing interventions with other pharmacological measures in stress management.

11. Conclusion

Visual impairment is not a disability condition of people but also a barrier in living a life with happiness. Low eye sight becomes stressful to children during the growing life period. Coping skills is most important part of mind to make easier

the life with a proper way. The investigator had conducted the study to assess the level of stress and coping skills among visually impaired children in blind school of Guwahati, Assam. After conducting study the investigator get to know about stress and coping skills among visually impaired children. In this study it was found that there is weak positive correlation between stress and coping skills among visually impaired children and also found that there is significant association between socio demographic and stress and coping skills. The findings of the study are consistent with the literature and have support from some of the other studies.

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