DOI: https://doi.org/10.52131/pjhss.2022.1004.0306

Pakistan Journal of Humanities and Social Sciences

Volume 10, Number 4, 2022, Pages 1487–1496
Journal Homepage:
https://journals.internationalrasd.org/index.php/pjhss

Identifying Factors Impacting the Self-Concept and Self-Esteem of Visually Impaired Persons

Iqra Fatima[1], Samina Ashraf[2], Musarrat Jahan[3]

[1] Institute of Special Education, University of the Punjab, Lahore, Pakistan. Email: iqrafatimashahid77@gmail.com
[2] Institute of Special Education, University of the Punjab, Lahore, Pakistan. Email: samina.dse@pu.edu.pk
[3] Assistant Professor, Department of Special Education, The Islamia University of Bahawalpur, Pakistan. Email: musarrat.jahan@iub.edu.pk

ARTICLE INFO

Article History:
Received: August 22, 2022
Revised: December 26, 2022
Accepted: December 27, 2022
Available Online: December 31, 2022

Keywords:
Factors
Self-concept
Self-esteem
Visual Impairment
Adolescents

Funding:
This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

The current study was aimed at identifying the factors impacting the self-concept and self-esteem of persons with visual impairment. A factorial research design was followed to carry out the study. The 75 visually impaired persons were selected as the sample of study from the public and private special schools of Lahore. Robson SCQ and Rosenberg SES were used as assessment tools to measure SC and SE respectively. Data were analyzed through SPSS version 21. From the results of the study, no difference on the basis of gender or type of disability was revealed. However, a statistically significant difference was observed in the SC and SE of visually impaired persons based on age, academic grade, residential area, and support and affection provided by the family. Results of regression analysis showed that all the demographics predict the SC and SE Age, family support, residential area, and academic grade were concluded as the major factors of SC and SE among visually challenged people. The study recommended qualitative research on the study variables to investigate the underlying reasons for the impact of explored factors and to discover more factors impacting the SC and SE of visually impaired persons.

Corresponding Author's Email: musarrat.jahan@iub.edu.pk

1. Introduction

Inclusive education has become a global trend. Disability-specific inclusion has become the center of interest for many researchers around the globe. Many research studies are being conducted internationally on estimating the prevalence of disabilities and determining their impact on different domains of life in order to get a better understanding of the implications of disabilities and to find out appropriate management strategies to help people with disabilities. Visual impairment tends to evoke more discomfiture than any other disability. Visual impairment develops many medical, social, psychological, and economic problems. People with visual impairment are treated differently by other people with normal vision, they may face maladjustment in society which can further lead to confusion about one's self-concept and self-esteem (Augestad, 2017).

Visual impairment is a condition characterized by limited ability to see and it cannot be fixed by ordinary means i.e. using eye glasses or other optical devices. Visual impairment can also be defined as "the impairment of sight that, even after correction, badly impacts an individual's performance in education (Pierangelo & Giuliani, 2007). Globally, about 283 million people have some kind of visual impairment, approximately 36 million have blindness. About 90% of them belong to poor and developing countries. Many educators think that legal definitions of visual impairment are not enough to describe the actual visual ability of persons in academia. Educators also emphasize the functioning of residual vision which can also not be assessed by legislative criteria (Gish et al., 2002).

eISSN: 2415-007X

SC and SE are the most common and influential personality traits which go on parallel roads and play a very significant role in every domain of life of every person regardless of whether being impaired or without any anomaly. The self-concept is very essential for positive existence in society (Halder & Datta, 2012) and closely relates to self-esteem and other personality attributes. Blindness and other visual problems cause psycho-social maladjustment and lead to lower SE. Various studies have revealed that persons who are visually impaired have fewer social activities as compared to their sighted peers and their limited social activities are the reason for their lower self-esteem. Accordingly, lack of mental satisfaction and lower self-esteem can lead to damaged SC and negative self-perception in visually impaired persons (Bowen, 2010).

The period of adolescence is marked for developmental transitions between childhood and adulthood. It is associated with biological, intellectual, social, and emotional changes. These changes influence the vision of self-conception of young people (Lifshitz, Hen, & Weisse, 2007). When adolescence comes with visual impairment, it becomes more challenging. This, lead to damaged self-concept development as they usually perceive themselves negatively (Sebastian, Burnett & Blakemore, 2008). Self-concept is an ironical element of personality and plays a vital role in positive development (Jabeen & Akhter, 2018). Self-concept is an overarching idea about ones' self in the physical social, psychological, emotional and spiritual sense (Bolat, Dogangun, Yavuz, Demir, & Kayaalp, 2011). Self-concept refers to an organized set of attitudes and values that one holds about oneself (Tuttle & Tuttle, 2004).

Self-concept is based on acquired perceptions throughout the lifespan and is greatly influenced by the interplay of their actions, their reactions to other people's actions, their perceived behaviors about their surroundings, and their achievements and outcomes (Pandith, Malik, & Ganai, 2012). Self-esteem is an important aspect of personality and has been addressed by many researchers. The concept of SE can be understood in at least three domains, first, global self-esteem which means an overall perception about one' self, second, self-worth that refers to valuing one' self and last, self-evaluation which means to appraise one' self (Kotb, Gadallah, & Marzouk, 2011). An individual's overall perception of his or her value or worth is termed as SE.SE is a judgment of the attitude toward the self (Fotiadou, Christodoulou, Soulis, Tsimaras, & Mousouli, 2014).SE is also explained as the appraisal component of self-concept (Cmar & Markoski, 2019). Taking its broad coverage into consideration, self-concept has been selected for the current study to find its implication for visual impairment among adolescents. Further, the present study focused on identifying the factors that can influence the development of SC and SE of persons having some visual challenges.

The present study identified the gaps in the previous studies regarding the SC and SE of visually impaired persons and tried to address and bridge those gaps. In addition, the study aimed at identifying other intermediating factors, which can contribute in enhancing or reducing self-esteem in visually impaired persons. The current study is highly significant in its nature as it has addressed the most common and influential personality traits i.e. SC and SE, which are and should be addressed in every domain of life. The study is aimed at identifying the factors affecting the SC and SE which is highly crucial to bridge the gap of literature in the regard. Moreover, the study has been conducted to explore the SC and SE of visually impaired persons in a broader perspective and to reach a unanimous conclusion as needed by the controversial literature on SC and SE of visually impaired persons. The main study objectives were to;

- Find the relationship between SC and SE of visually impaired persons.
- Determine the impact of demographic factors on the SC and SE of visually impaired persons.
- Explore the difference in the SC and SE of visually impaired persons based on gender, age, and academic grade, type of disability, family support and residential area.

The hypotheses of the current study were;

H_1: Self-concept and self-esteem are positively correlated,
H_2: Demographic factors have a significant impact on the self-concept and self-esteem of persons with visual impairment.

H_3: There is a significant difference in the self-concept and self-esteem of persons with visual impairment.

2. Literature Review

Many types of research have been conducted that show the correlation between SC and SE in relation to visual impairment. Recently, a study was conducted by Hosseini, Allahi, and Kahrazahi (2022) on determining the impact of art work on the SE of visually challenged students. It was believed that visually impaired people have low self-esteem which could be enhanced by many factors out of which the artistic skills were used in the mentioned study and a significant increase was found in the SE of visually impaired people. According to Indrayani and Immanuel (2022), SE is an essential trait that is influenced by visual limitations. In their study, they explored and compared the SE of students who were blind or had low vision. The findings of their study revealed that people with blindness had comparatively higher SE and many factors can affect the SE of visually impaired persons including SC, societal support, life satisfaction and motor development.

According to Kapinga and Aloni (2021) people who are visually impaired have varying SE. It was revealed from their study conducted on determining the levels of SE among visually impaired persons that some of the participants had low SE as compared to the average sighted counterparts whereas majority of them had higher SE. Lievense et al. (2021) conducted a study to identify the impact of serious game on the SC of visually impaired persons and found that people who took part in serious games gained high scores on academic SC scale. Another study was conducted by (Ram Gopal, SN, & Karthikeyan, 2020) on exploring the impact of SE enhancing training program among visually challenged people. It was found the SE enrichment programs were more effective for low vision people as compared to the blind people. The study suggested such programs at higher rate to boost the SE of visually impaired people.

Another study was conducted by Sarma (2020) to explore the difference in the SC of visually impaired people on the basis of gender. No gender difference was observed in the findings of the study. According to Michael (2020) persons having low vision had better SC as compared with persons having total blindness. According to Manitsa, Barlow-Brown, and Lyons (2020) SC of visually impaired persons is poor and negative due to many factors including parenting style. A research was conducted by Jabeen and Akhter (2018) to determine the impact of SC on visually impaired persons. The study used two groups, one of blind or low-vision adolescents and other group of sighted adolescents and found no significant difference in general self-concept as well as specialized domains of SC between the two groups. Visual impairment causes people to feel unimportant in society, which results in lower SE and depression. In comparison with the persons with normal vision, persons with visual disabilities have lower SE, limited social activities, and poor academic achievement resulting in a need for being assisted in psychosocial domains (Marsh et al., 2018).

Augestad (2017) conducted a systematic review of the articles published on the SC and SE of visually impaired persons. The aim of the review was to summarize the existing research literature on the SC and SE of visually impaired people. The findings revealed that the SC and SE of visually impaired persons are affected by independence in life, psychological adjustment, socialization, and many other factors. The study recommended further work in the addressed area to draw proper conclusions about the issue. Another study was done by Garaigordobil and Bernarás (2009) on the SC, SE, psychological adjustment and personality attributes of visually challenged and sighted students. The results of the study did not show any variance in the SC and SE of visually impaired persons and persons with normal vision.

Tuttle and Tuttle (2004) described that SC is developed on the basis of psychological condition of any person irrespective of the ability to see i.e. same patterns are followed for both kinds of individuals (visually impaired and unimpaired). Visually impaired persons are usually more emotional and less groomed than their counterparts with average sense of sight and that is why, they cannot observe or imitate their fellow beings. According to Bolat et al. (2011) to maintain a positive self-concept, it is crucial to examine the influence of poor sight in the process of social adjustment according to the needs of the society. In order to facilitate inclusion of visually impaired persons in the society, it is essential to understand the nature of the challenges faced by them.

Mishra and Singh (2012) conducted a research study on the SC of visually impaired persons and he concluded that their SC is poorer and negative as compared to the average sighted peers. Many factors impact the SC and SE of visually impaired persons such as genetics, psychological well-being, personality traits, life standards, age, gender, health, social status, the responses of others, and comparison of one' self with others' selves (Lifshitz et al., 2007). Unstable socio-economic status and disability contribute to lower self-esteem (Bowen, 2010). Personal aspects such as time of acquisition of disability, sense of sight, academic grade, and ability of moving independently can affect self-esteem (Papadopoulos, 2014).

Culture is also a factor that may affect self-esteem. The research found that SE of visually impaired persons living in collective culture is different from those who live in individualistic cultures. Opportunities to express thoughts, share feelings, and use cognitive abilities are also associated with the development of self-esteem (Agran, Hong, & Blankenship, 2007). There is great controversy in the literature about the impact of visual impairment on the SC and SE of young adults. Although many studies reflect the relationship of SC and SE of visually impaired people, the underlying reasons of differentiated SC and SE of visually impaired persons is still unexplored. Moreover, there are fewer studies that shed light on the factors impacting SC and SE of visually impaired persons either positively or negatively.

3. Method

The study was purely quantitative in nature. The factorial research design was used to identify factors impacting the SC and SE of visually impaired persons. The targeted population was all the visually impaired students studying in the educational institutes of Lahore city and the sample was selected from the schools of visual impairment, so, the accessible population was those students who were enrolled in schools only.

Out-of-school (OOS) adolescents with visual impairment were not included in the accessible population. Hence, a sample of 75 adolescents participated in the study (N=75). Both males (n=40) and females (n=35) of the age range 13-19 were included in the present study. The data was gathered by following cluster sampling technique because very fewer number of visually impaired person are enrolled in formal educational institutions.

Table 1: Descriptive Statistics of Demographic variables of (N = 75)

Variables	*F*	%	Variables	*F*	%
Gender			**Residential area**		
Male	40	53.3	Rural	34	45.3
Female	35	46.7	Urban	41	54.7
Age			**Type of disability**		
12-15	42	56	Blindness	39	52
16-19	33	44	Low-vision	36	48
Educational level			**Provision of family support**		
Elementary	44	58.6	Yes	45	60
Secondary	31	41.4	No	30	40

Note: *f*=frequency; %=percentage

Table 1 shows the descriptive statistics of the demographic variables of the sample (N= 75). Large number of participants were between12-15 years of age. The majority of the participants were female. Most of the respondents were students in elementary classes. The majority of the respondents were from urban areas.

3.1 Research Instrument

The following standard scales were used as research tools to collect responses from the participants.

- Robson's self-concept questionnaire (SCQ)
- Rosenberg Self-esteem Scale (RSES)

The validity of both instruments was ensured firstly from the literature as these are very commonly used tools in a number of researches and then, through piloting the questionnaires on the study participants.

3.2 Robson SCQ

Self-concept was measured by using the Robson SCQ which is valid and reliable. The 30-item Robson Self-Concept questionnaire (Robson, 1989)assessed general self-concept. Examples of statements included in the scale are: "I am glad who I am" "I am a reliable person" and "I have control over life". More scores in Robson SCQ indicate positive SC. Several studies have been conducted by using this questionnaire. The Cronbach's alpha is 0.76.

3.3 Rosenberg SES

The participants' SE was explored with the help of Rosenberg SES. Examples of questions contained in the scale include: "I can do things at least on an equal plane to others" "I have much to be proud of" and "I certainly feel useless at times". Higher SE means higher scores on Rosenberg SES. The self-esteem scale is very common among researchers due to its validity and reliability. The Cronbach's alpha is 0.77.

3.4 Reliability Analysis of Scales

The reliability coefficients of the scales are given in Table 2.

Table 2: Reliability Analysis of the scales (N=75)

	K	M	A
Self-concept scale	30	107.3	0.76
Self-esteem scale	10	27.2	0.77

Note. K=No. of items in scale; M =Mean; α= Cronbach's alpha

Table 2 shows the good reliability of assessment measures.

3.5 Data Collection Procedure

Data was collected from different special schools by simply visiting the schools. First of all, permission was taken from the administration of the schools and when it was granted, the further procedure was carried out. The nature and aim of the research were described to the respondents, it was ensured that their data will be kept anonymous. The participants were instructed to provide some demographic information and then fill the questionnaires.

The participating students completed the questionnaires and for the participants who were not able to read the questionnaire i.e., either they had blindness or had severe vision loss, the researcher read the questionnaire for them and marked the responses as described by them. Every participant was appreciated after the completion of the questionnaires.

3.6 Data Analysis

The data were analyzed through SPSS. The researcher used parametric statistical analysis i.e. regression and correlation due to the measurement level of study variables. Independent variables were of nominal level whereas dependent variables were of interval level. The data analysis comprised of four major steps. First of all, reliability analysis was carried out for each instrument and Cronbach's alpha was reported.

Secondly, Pearson product correlation was found between SC and SE. After that, multiple linear regression was run to identify how demographics predict the SC and SE of visually impaired persons. Finally, the difference in the SC and SE of visually impaired persons was explored by independent samples t-test on the basis of gender, age, academic grade, type of disability, family support and residential area. P-values for each difference were reported.

3.7 Limitations

The following were the limitations of this research:

- The sample of the study was small as there were fewer numbers of individuals with visual impairment enrolled in schools.
- The data was not collected from out-of-school members of the population so the results of the study could not be generalizable for them.
- The underlying facts of the intermediating factors remained unexplored as the study was completely quantitative.

4. Results

The results of the data analysis are given below;

4.1 Correlation Analysis of the Study Variables

It was hypothesized (H_1) that SC and SE of visually impaired persons are positively correlated. To test this hypothesis, Pearson Moment Correlation analysis was run as shown in Table 3.

Table 3: Pearson Correlation among Study Variables (N=75)

Variables	1	2	P
1. Self-concept		.	
2. Self-esteem	.	.752***	.000

Note: *p <.05 **p<.01 ***p<.001

Table 3 reveals that there is a highly significant correlation between SC and SE of visually impaired persons.

4.2 Regression Analysis

It was hypothesized (H_2) that the demographics predict SC and SE of visually impaired persons. To check this association multiple linear regression analysis, is run as shown in table 3 and 4.

Table 4: Multiple Regression Analysis Predicting the impact of Demographics on self-concept (N=75)

Variable	B	B	SE
Gender	-2.20	-.08*	.276
Age	-4.45	-.15***	.384
Educational level	-1.52	-.05**	.366
Residential Area	7.38	.20***	.394
Type of disability	-2.67	-.09*	.283
Support by family	-8.61	-.24**	.362
R^2	.55		

Note: Dependent variable: Self-concept *p<.05, **p<01, ***p<.001, β =standard coefficient;

Table 3 shows that all the demographics have collectively 55% impact (R^2 =.55) on the SC of visually impaired students.

Table 5: Multiple Regression Analysis Predicting the impact of Demographics on self-esteem (N=75)

Variable	B	B	SE
Gender	-1.28	-.13	.86
Age	-1.87	-.19**	1.43
Educational level	-2.44	-.25*	1.21
Residential Area	.05	.06***	1.45
Type of disability	-1.01	-.11	.90
Support by family	-2.65	-.27*	1.55
R^2	.56		

Note: Dependent variable Self-esteem*p<.05, **p<01, ***p<.001, β =standard coefficient

Table 4 shows that all the demographics have collectively 56% impact (R^2 =.56) on the SE of visually impaired people.

4.3 T-Tests Analysis

A significant difference in the SC and SE of visually impaired persons based on demographic factors was expected as hypothesized (H^3) by the researcher. To determine these differences, independent samples t-test was run for each factor. From the table 6, no significant difference has been revealed in the SC and SE of visually impaired persons based on gender (p> .05).

Table 6: Independent Samples t-test Comparing Study Variable on the basis of gender (N=75)

Variable	Male	Female	Df	P
	Mean	Mean		
Self-concept	109	105	73	0.21
Self-esteem	27	26	73	0.49

Table 7: Independent Samples t-test Comparing Study Variables in Age Group (N=75)

Variable	12-15	16-19	Df	P
	Mean	Mean		
Self-concept	111	100	73	0.04
Self-esteem	27	21	73	0.04

From the above table, statistically significant difference has been revealed in the SC and SE of visually impaired persons based on age group (p> .05).

Table 8: Independent Samples t-test Comparing Study Variables in Level of Education (N=75)

Variable	Elementary	Secondary	Df	P
	Mean	Mean		
Self-concept	118	102	73	0.02
Self-esteem	28	22	73	0.04

From the above table, a significant difference has been revealed in the SC and SE of visually impaired persons based on educational level (p> .05).

Table 9: Independent Samples t-test Comparing Study Variables in Area of Residence (N=75)

Variable	Urban	Rural	Df	P
	Mean	Mean		
Self-concept	111	91	73	0.01
Self-esteem	28	20	73	0.03

From the above table, highly significant difference has been revealed in the SC and SE of visually impaired persons based on residential area (p> .05).

Table 10: Independent Samples t-test Comparing Study Variables in the type of Visual Impairment (N=75)

Variable	Blindness	Low-vision	Df	P
	Mean	Mean		
Self-concept	105	109	73	0.21
Self-esteem	27	25	73	0.39

From the above table, no difference has been revealed in the SC and SE of visually impaired persons based on type of disability (p> .05).

Table 11: Independent Samples t-test Comparing Study Variables in the provision of family support (N=75)

Variable	Yes	No	Df	P
	Mean	M		
Self-concept	110	95	73	0.01
Self-esteem	28	22	73	0.04

From the above table, highly significant difference has been revealed in the SC and SE of visually impaired persons based on support provided by the family (p> .05).

5. Discussion

SC and SE are very common psychological constructs that go on parallel roads and play an important role in healthy personality building. Self-concept is one's perception about one's self (Hattie, 2014) and self-esteem is the worth or value that one gives to one's self (Augestad, 2017). Both constructs develop throughout life and are influenced by every aspect of life. The factors that influence the SC and SE range from age and gender to social support and quality of life. When it comes to visual impairment, self-concept becomes more complex as it gets associated with many other factors such as mobility, independent living skills, and limited physical abilities. As the first object of the study was to find the relationship between SC and SE, so it was found that SC and SE were positively correlated with each other. The second objective was to determine the effect of demographics on the SC and SE of visually impaired persons. This objective was attained through multiple linear regression analysis. The coefficients of regression analysis showed a significant relationship between the demographic factors and SC and SE of visually impaired persons.

In order to test the hypothesis (H_3) and achieve third objective, the difference in SC and SE based on gender, age, education level, residential area, type of disability, and support provided by the family was explored through independent samples t-test. In correspondence with the findings of Datta and Talukdar (2016), no difference was found in the SC and SE of visually impaired persons. Adolescent boys and girls had almost the same SC and SE. Age has an imperative role in developing SC and SE. Adolescence is crucial for this purpose and particularly when it comes with visual impairment so, a significant age difference in the SC and SE of visually challenged adolescents was expected. The findings of the independent sample t-test were according to the expectation of the researcher as a highly significant age difference was observed in the findings of the test. The adolescents belonging to the age group of 12-15 years had more positive self-concepts and higher self-esteem as compared to those belonging to the age group of 16-19 years. Same likely, secondary school students had negative self-concepts and lower self-esteem than those elementary school students.

Our beliefs are highly dependent on our environments. Environment greatly affects the SC and SE of every individual especially who are with visual impairment. The current study found a significant difference in the SC and SE of visually challenged persons based on the residential area i.e. adolescents living in rural areas had low or negative SC and lower SE as compared to those belonging to urban areas. The current study could not explore the underlying reasons for the mentioned phenomenon. In contrast to the findings of Michael (2020), no significant difference in the SC and SE of visually challenged persons has been observed based on the type of disability such as blindness and low vision.

Family also plays a very important role in the development of the SC among visually challenged individuals. Those who get sufficient support from their families had higher self-esteem and positive self-concept but those who do not get enough support from their families, have negative self-concepts and lower self-esteem. As visually impaired adolescents need more support as compared to their sighted siblings, their self-concept is harder to build. The current study revealed highly significant difference in the SC and SE of visually impaired people of Lahore. According to the literature, many factors that can impact the SC and SE of visually challenged people such as supportive environment, psychological well-being, financial status, and societal behaviors couldn't be explored how they affect the SC and SE as these are very broad variables and qualitative research is needed to explore their effect on the SC and SE of visually impaired persons. Moreover, students wanted to give comprehensive answers instead of close-ended responses which prompt the need for qualitative research in this field. In addition to it, the teachers of visually impaired students should be trained to play their roles in developing SC of visually challenged people.

6. Conclusion

There are many factors that can have significant impact on the SC and SE of visually challenged persons. The current study was aimed at identifying the factors impacting the SC and SE of visually impaired persons. For data collection, a sample of 75 adolescents was selected through cluster sampling technique. Data was analyzed through descriptive and inferential statistical procedures. Based on the findings, the study concludes that age, academic grade, residential area and support provided by the family are significant factors of SC and SE whereas gender and type of disability are non-significant factors as they are

observed as less impact in the development of SC and SE among visually impaired persons. Some of the practical implications of the study are given below;

- The study will add to the existing literature on visual impairment in Pakistan.
- The researcher recommends qualitative studies on the study variables to get an in-depth image of the reality.
- This study can help researchers in exploring other factors that contribute to building self-concept of visually challenged people.
- It will help researchers to get more clear ideas about self-esteem.
- It will help parents and teachers to provide better opportunities for building positive self–concepts in adolescents with visual impairment.

References

Agran, M., Hong, S., & Blankenship, K. (2007). Promoting the self-determination of students with visual impairments: Reducing the gap between knowledge and practice. *Journal of Visual Impairment & Blindness, 101*(8), 453-464. doi:https://doi.org/10.1177/0145482X0710100802

Augestad, L. B. (2017). Self-concept and self-esteem among children and young adults with visual impairment: A systematic review. *Cogent Psychology, 4*(1), 1319652. doi:https://doi.org/10.1080/23311908.2017.1319652

Bolat, N., Dogangun, B., Yavuz, M., Demir, T., & Kayaalp, L. (2011). Depression and anxiety levels and self-concept characteristics of adolescents with congenital complete visual impairment. *Turk Psikiyatri Derg, 22*(2), 77-82.

Bowen, J. (2010). Visual impairment and its impact on self-esteem. *British Journal of Visual Impairment, 28*(1), 47-56. doi:https://doi.org/10.1177/0264619609349429

Cmar, J. L., & Markoski, K. (2019). Promoting self-determination for students with visual impairments: A review of the literature. *Journal of Visual Impairment & Blindness, 113*(2), 100-113. doi:https://doi.org/10.1177/0145482X19839796

Datta, P., & Talukdar, J. (2016). The impact of vision impairment on students' self-concept. *International Journal of Inclusive Education, 20*(6), 659-672. doi:https://doi.org/10.1080/13603116.2015.1111441

Fotiadou, E., Christodoulou, P., Soulis, S.-G., Tsimaras, V. K., & Mousouli, M. (2014). Motor development and self-esteem of children and adolescents with visual impairment. *Journal of Education and Practice, 5*(37), 97-106.

Garaigordobil, M., & Bernarás, E. (2009). Self-concept, self-esteem, personality traits and psychopathological symptoms in adolescents with and without visual impairment. *The Spanish journal of psychology, 12*(1), 149-160. doi:https://doi.org/10.1017/S1138741600001566

Gish, R., Leung, N., Wright, T., Trinh, H., Lang, W., Kessler, H., . . . Rigney, A. (2002). Dose range study of pharmacokinetics, safety, and preliminary antiviral activity of emtricitabine in adults with hepatitis B virus infection. *Antimicrobial agents and chemotherapy, 46*(6), 1734-1740. doi:https://doi.org/10.1128/AAC.46.6.1734-1740.2002

Halder, S., & Datta, P. (2012). An exploration into self concept: A comparative analysis between the adolescents who are sighted and blind in India. *British Journal of Visual Impairment, 30*(1), 31-41. doi:https://doi.org/10.1177/0264619611428202

Hattie, J. (2014). *Self-concept*: Psychology Press.

Hosseini, A. A., Allahi, Z., & Kahrazahi, M. (2022). The effect of teaching handicrafts through study methods on self-esteem of visually impaired students. *Research in Teaching, 10*(1), 181-163. doi:HTTPS://WWW.DOI.ORG/10.34785/J012.2022.007

Indrayani, N. P. A. P., & Immanuel, A. S. (2022). Self-Esteem in Total Blindness and Low Vision Individuals: A Narrative Literature Review.

Jabeen, S. M., & Akhter, M. (2018). A Comparison of Students' Self-Concept on the Basis of Visual Impairment and Normal Vision. *Bulletin of Education and Research, 40*(3), 145-156.

Kapinga, O. S., & Aloni, M. (2021). Measuring levels of self-esteem of students with visual impairments in regular schools in Tanzania. *British Journal of Visual Impairment*, 02646196211051685. doi:https://doi.org/10.1177/02646196211051685

Kotb, S. A., Gadallah, M. A., & Marzouk, S. A. (2011). Self-esteem and quality of life among visually impaired children in Assiut City, Egypt. *Journal of American Science, 7*(8), 47-57.

Lievense, P., Vacaru, V. S., Kruithof, Y., Bronzewijker, N., Doeve, M., & Sterkenburg, P. S. (2021). Effectiveness of a serious game on the self-concept of children with visual impairments: A randomized controlled trial. *Disability and Health Journal, 14*(2), 101017. doi:https://doi.org/10.1016/j.dhjo.2020.101017

Lifshitz, H., Hen, I., & Weisse, I. (2007). Self-concept, adjustment to blindness, and quality of friendship among adolescents with visual impairments. *Journal of Visual Impairment & Blindness, 101*(2), 96-107. doi:https://doi.org/10.1177/0145482X0710100204

Manitsa, I., Barlow-Brown, F., & Lyons, E. (2020). Self-concept of adolescents with visual impairments. *British Journal of Visual Impairment, 38*(2), 160-167. doi:https://doi.org/10.1177/0264619619883900

Marsh, H. W., Pekrun, R., Murayama, K., Arens, A. K., Parker, P. D., Guo, J., & Dicke, T. (2018). An integrated model of academic self-concept development: Academic self-concept, grades, test scores, and tracking over 6 years. *Developmental psychology, 54*(2), 263. doi: https://doi.org/10.1037/dev0000393

Michael, W. C. (2020). Differences In Self-Concept Among Low Vision Learners And Those Who Are Totally Blind In Primary Schools, Kenya.

Mishra, V., & Singh, A. (2012). A comparative study of self-concept and self-confidence of sighted and visually impaired children. *EXCEL Internacional Journal of Multidisciplinary Management Studies, 2*(2), 148-157.

Pandith, A., Malik, M., & Ganai, M. (2012). Self-concept and level of aspiration among hearing impaired, visually impaired and crippled secondary school students of district Baramullah, J & K. *International Journal of Current Research, 4*(1), 115-118.

Papadopoulos, K. (2014). The impact of individual characteristics in self-esteem and locus of control of young adults with visual impairments. *Research in developmental disabilities, 35*(3), 671-675. doi:https://doi.org/10.1016/j.ridd.2013.12.009

Pierangelo, R., & Giuliani, G. A. (2007). *EDM: The educator's diagnostic manual of disabilities and disorders*: Recording for the Blind & Dyslexic.

Ram Gopal, C., SN, A., & Karthikeyan, S. (2020). Efficacy of Emotional Enhancement Intervention Along with Cognitive Behaviour Techniques for Children with Autism Spectrum Disorder. *Indian Journal of Public Health Research & Development, 11*(7).

Robson, P. (1989). Development of a new self-report questionnaire to measure self esteem. *Psychological medicine, 19*(2), 513-518.

Sarma, A. M. (2020). GENDER DIFFERENCE IN SELF CONCEPT OF VISUALLY IMPAIRED AND SIGHTED STUDENTS OF BARHAMPUR BLOCK OF NAGAON DISTRICT OF ASSAM-A CASE STUDY. *PalArch's Journal of Archaeology of Egypt/Egyptology, 17*(9), 8648-8666.

Tuttle, D. W., & Tuttle, N. R. (2004). *Self-esteem and adjusting with blindness: The process of responding to life's demands*: Charles C Thomas Publisher.