

## **Demographic Characteristics of Students with Visual Impairment enrolled at Primary Level in Government Special Education Institutions in Punjab**

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### **Abstract**

Learner is the key element of the whole teaching-learning process. All the efforts made by any educational body rotate round the academic betterment of learner in some particular direction. So learning process and learner; both affect each other especially in the case of learners with special needs. This study is an effort to depict the diversities or similarities among demographic characteristics of students with visual impairment enrolled at primary level in Government Special Education Institutions of the Punjab. It is a descriptive quantitative research by nature. Survey method was applied to collect data from 214 randomly selected students with visual impairment (124 males and 90 females) enrolled at primary level in Government Special Education Institutions from randomly selected four districts including Sahiwal, Okara, Lahore and Gujranwala. A self-developed and validated demographic information sheet consisting of 24 items about various characteristics of students with visual impairment was applied for data collection. Instrument was validated by a panel of three experts. At the phase of pilot testing; instrument was applied on 27 students with visual impairment. Chronbach alpha was applied to calculate the reliability index of instrument which was 0.86. Data was analyzed by using SPSS and descriptive statistics including percentages and frequencies were used. The study reflected that most of the students with visual impairment enrolled at primary school level were from urban areas and belonged to lower middle class. Most of them used school transport. They had no extra coaching at home. Most of them were male and most of their siblings were without any disability. Similarly, the condition of their personal hygiene was below average. The study recommended that the individualized family service plans should be organized for counseling and facilitation of the care takers and families of students with visual impairment.

**Key words:** Students with visual impairment, Primary level, demographic characteristics

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## **Introduction**

Individual differences among human beings are the basic source to sustain and maintain the beauty as well as the variety of this world. These differences could be physical, social, economic, cultural and intellectual. A society calls some of these differences as stigma and on the other hand some of them as snobbery. In reality individual differences are not good or bad itself but their negative or positive image depends on the point of view of observer. Sometimes we identify some similar characteristics among a group of people similarly sometimes we find some diversities among them. In fact, every creature made by Supreme Manufacturer is unique. It is an undeniable fact that every human being has significant impact of his or her personal characteristics received from his or her heredity and environment. Some of individual differences arise the need to provide various additional opportunities and arrangements for their sufferers. Disability is a condition which creates a number of physical, social, structural, economic, psychological and legislative hindrances for persons with disabilities. The negative consequences are more serious and severe in the case of children because they are in their growing age and their all areas of development could be negatively affected if necessary measures would not be taken. Vision impairment is a well-known condition considered as a disability all over the world according to WHO. It has been estimated that there are 1.4 million blind children in the world; 1 million of them live in Asia and 300000 in Africa (World Health Organization, 2007).

A lot of efforts for educational, vocational and occupational rehabilitation for children with vision impairments are being made at both universal and local level by different organizations and institutions. Moreover, all professionals and experts are agreed that complete knowledge about the personal characteristics of a child with special needs is an initial and fundamental step to make any rehabilitation program for him or her. In the same way the information about demographic characteristics of a visually impaired child has significant importance for any educational planning. Therefore, present study is being conducted to identify the similarities and differences among demographic characteristics of children with vision impairments enrolled at primary level in Government special education institutions of Punjab Pakistan.

## **Scope and Significance**

Special education is considered as specially designed instructional program to meet the unique needs of learners with special needs. In fact, learner is the central element of teaching learning process. No planning could be succeeded and no rehabilitation program will be executed without proper information about the characteristics of learner. Particularly in the case of special child; the child's strengths, weaknesses, socio-economic status, environmental and heredity related factors as well as type and level of disability are more important to initiate any educational rehabilitation program because in the case of less or unverified information about child desired results could not be occurred. Many rehabilitation programs lose their impact due to wrong estimation and assessment about the needs of children. To bridge this gap, present study is an effort to depict the diversities or similarities among demographic Characteristics of Students with visual impairment enrolled at Primary Level in Government Special Education Institutions of Punjab Pakistan. Study may be beneficial for policy makers and service providers to make better planning after getting comprehensive information about students with visual impairment enrolled at Primary Level in Government Special Education Institutions of Punjab Pakistan.

### **Review of Related Literature**

Vision impairment is a problem that affects millions of the human beings around the world belongs with diverse age groups. In particular, there are several children are facing its consequences around the globe. According to WHO, there are 1.4 million children with blindness worldwide, 1 million of these children belongs to Asia and 300000 of them live in Africa. A large number of children with blindness are blind by birth or turn into blindness before or nears five years of age. It has been seen that the incidence of vision impaired children is 600 per 10 million in prosper countries and 6000 per 10 million in under developed countries. The same study also demonstrated that about 500000 kids fall into blindness every year.

According to WHO, 2007 and Gogate, 2009, in the same way when we explore the facts about prevalence of vision impairment in south Asia, a study shared some important information about various south Asian countries. The situation of Pakistan according to Pakistan 6<sup>th</sup> national population and housing census information obtained from Pakistan Bureau of Statistics illustrated that from the total 207.7 million population of Pakistan in 2017, there is an estimation that 21.78 million people were influenced from blindness and vision impairment. 1.12

million Were vision impaired and 1.09 million individuals had serious vision anomalies. Pakistan with 21.78 million all age incidence of visual deficiency and vision debilitation is positioned third among other South Asian nations after India and Bangladesh. India is positioned first with 765.60 YLDs (years lived with disability) and Maldives having 0.054 million all age incidence had minimal weight of vision disability. The general rate of change of vision problem in Pakistan during 1990 to 2017 was seen as 67% (Awan & Memon, 2011; Hassan, 2019).

Similarly, a different research express that most of the students with visual impairment are getting their education in the institutions of city areas (Prasad, 2017). After discussions about the prevalence of the vision impairment, now I want to throw light on some prominent causes of vision impairment. When we explore the main causes of vision impairment we find an astonishing fact. WHO and some other studies illustrated that about 40% of the reasons of blindness in children are avoidable or it could be cured (World Health Organization, 2009; Adhikari & Shrestha, 2015; Ababa & Ethiopia, 2018; A World report on vision, 2019).

Moreover, some studies introduced many leading causes of vision impairment in these ways; optic atrophy, toxoplasmosis, retinopathy of prematurity, tractional retinal detachment, ocular tumor, congenital glaucoma. In addition, well known reasons of vision impairment particularly in kids are as fellows, uncorrected refractive errors, congenital eye anomalies, retinal disorders, conjunctivitis, and vitamin A deficiency, retinitis pigment's, MP, Nystagmus, amblyopic, Myogenic, myopia. Nystagmus, maculopathies, myopic macular degeneration, oculocutaneous (Awan & Memon, 2011; Krishnaiah, 2012; Lakho, 2012; Khan, 2015; Optom, 2016; Atowa, 2016).

Furthermore some researchers explored the incident of vision impairment on the behalf of gender in this way that there are around 66% of every single vision impaired individuals on the planet are female (Hashemi, 2017; Doyal, & Das-Bhaumik, R. G. ,2018).In the same way multiple disabilities along with vision impairment is another important phenomenon which I have to discuss. Some studies shows the incident of multiple disabilities along with vision impairment that the frequency of vision related challenges in kids with different handicapping conditions is more than two-hundred times that observed in overall population in which around 33% of children with incomplete or limited sight and about 66% of

kids with complete vision loss have other developmental disabilities (Salleh & Ali, 2010; The National Child Count, 2016; Alimovic, 2019).

Moreover, in some other context many studies reflected the social economic status of individual having vision impairment. A study depicted that Cataract related vision impairment is higher in the poverty-stricken community in the Indian province of Andhra Pradesh (Dandona, 2001). Trachoma has been accounted for to be a reason for vision impairment in the Aboriginal inhabitants of Australia, which has a lower financial and social position. Trachoma has consistently been related with poor people, poor sanitation, and low social and financial background (Crossland & Thomas, 2017; khoob, 2018; Jawaid & Khan, 2018).

In addition, some other studies proved on the behalf of their investigation that youngsters and grown-ups with vision disability had prominently lower Quality of Life than other normal or healthy kids (DeCarlo & McGwin, 2013; Amedo & Koomson, et al, 2016; Tadić & Cooper, 2016; Jones & Bartlett, 2018; Mehjabeen & Akhtar, 2018). Moreover, a large number of Vision Impaired and low vision students use optical devices for their vision problem. Some studies revealed that 35.3% children with low vision compensate with their vision deficiency with the use of eyeglasses and 22.6% visually handicapped students overcome their vision difficulty to N-10 with optical magnifiers (Sapkota, Adhikari & Ellwein, 2008).

On the other hand some research studies analyze the nature of relationship between parents and their vision impaired children as Kumar, 2016, narrated the relationship of parents and their children in families with vision impaired that school going child is seen as to be in ordinary level of relationship as well as the sex of the kid is an important feature that has an influence on parent-kid attachment in case of vision impairment (Fathizadeh, Takfallah, 2012; Wang, Chan, & Chi, 2014; Dahlmann & Tailor, 2017).

Some studies reflected the parental attitude towards physical activities of their children with vision impairment. A study found that the parents of vision impaired children felt a wide range of problems and dangers related to physical movement for their vision impaired kids (Stuart, Lieberman, & Hand, 2006; Perkins, Columna, & Bailey, 2013; Scally & Lord, 2019).

On the other side a study reported that the condition of vision impairment in parents brings some modifications in parental caring behavior and mother's association with VI children. The blind mothers involved in a study applied substitute patterns for caring their kids (Conley-Jung, & Olkin, 2001; Moghadam & Ghiyasvandian, 2017).

Another important demographic characteristic associated with children with vision impairment is the use of school, public, or personal transport by them because accessibility is one of the acknowledged fundamental rights of human being. In this regard, a study reported that broods with different handicapping conditions walk on wheelchair or ride a bicycle to go to their educational institutions or desired places received a number of threats about their protection and they faced excessive botheration. Most of the parents are usually not capable to pay for transportation of their kids in personal or private transport. A majority of special education institutions have their free transport facility for their students but in these vehicles children travel without safety belts and there is a severe shortage of trained care take staff is another deficit area. The lack of proper mobility training for students is another obstacle. Similarly, another challenge associated with school transport is that the travelling roots of these vehicles are limited and large numbers of students are deprived from this opportunity (Kiptoo, G. J, 2011; Santos, & Silvestre, 2017; Director General of Special Education, 2020).

In the light of above discussion, it can be concluded that the prevalence vision impairment among children is too high and it is increasing with the passage of time. Common causes of vision impairment among children are uncorrected refracted error, vitamin A deficiency and ocular problems. Above of 40% causes of vision impairment could be corrected but they are still untreated because the majority of vision impaired children are living in under developed countries and they belong to poor social economic status. In addition, a majority of vision impaired children are female and its serious consequences are more damaging due to the gender discrimination in different communities who have stereotype behavior. On the other hand, the risk as well as the incidence of multiple disabilities is too high for children with vision impairment than non-disabled children. In most of situations their parents are worried for them and they want to do something for them but studies revealed that most of the parents have average level relation with their children with vision impairment. Mostly they under estimate their capabilities. Last but not least the access ability related problems of children with vision

impairment are still considered as a serious issue. In spite of free school transport offered by most of the special schools they face a lot of problems, hindrances, negative behaviors and dangers while traveling. So situation should be improved.

### **Objectives**

The study was conducted to achieve the following objectives:

1. To identify the diversities among demographic Characteristics of Students with visual impairment enrolled at Primary Level in Government Special Education Institutions of Punjab.
2. To depict the similarities among demographic Characteristics of Students with visual impairment enrolled at Primary Level in Government Special Education Institutions of Punjab.
3. To find out the most common demographic Characteristics among Students with visual impairment enrolled at Primary Level in Government Special Education Institutions of Punjab.

### **Research Questions**

The study was designed to answer the following questions:

1. What are the diversities present in demographic Characteristics of Students with visual impairment enrolled at Primary Level in Government Special Education Institutions of Punjab?
2. What are the existing similarities among demographic Characteristics of Students with visual impairment enrolled at Primary Level in Government Special Education Institutions of Punjab?
3. What are the most common demographic Characteristics among Students with visual impairment enrolled at Primary Level in Government Special Education Institutions of Punjab?

### **Methodology**

This study was conducted to compare the demographic Characteristics among students with visual impairment enrolled at primary level in Government Special Education Institutions of Punjab Pakistan. The study is descriptive quantitative by nature. Survey method was applied to collect the data from 145 randomly selected students with visual impairment (100 boys & 45 girls) enrolled

at Primary Level in Government Special Education Institutions of randomly selected four districts viz Sahiwal, Okara, Lahore and Gujranwala.

### **Sampling Technique**

Simple random sampling Technique was applied to select the four districts viz. Lahore, Okara, Sahiwal and Gujranwala and special education institutions. Similarly, simple random sampling technique was applied to extract 214 students with visual impairment (124 males and 90 females) enrolled at Primary Level in Government Special Education Institutions of Punjab.

### **Research Instrument**

A self-developed and validated demographic information sheet consisting of 24 items about various characteristics of students with visual impairment was applied for data collection. Instrument was validated by pilot testing and a panel of experts. At the phase of pilot testing; instrument was applied on 27 students with vision impairment. Chronbach alpha was applied to judge the reliability of instrument and its turnout was 0.86.

### **Data Collection**

For the sake of data collection, the demographic information sheet in various Government Special Education Institutions of Sahiwal, Okara, Lahore and Gujranwala was personally administered. Required information was collected with the help of special education teachers from each institution.

### **Data Analysis**

Data was analyzed by using descriptive and inferential statistics. Percentages of obtained responses and frequency distribution were applied.

### **Findings**

The findings of the study are as follows



Study reflected that most of the visually impaired students enrolled at primary level are belonging to urban areas (76.2%) as well as to middle class families (43%).

**Table 1***Residential Locale of Students*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	city	163	76.2	76.2	76.2
	town	25	11.7	11.7	87.9
	village	26	12.1	12.1	100.0
	Total	214	100.0	100.0	

**Table 2***Socio Economic Status of the Family*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	poor	84	39.3	39.3	39.3
	average	92	43.0	43.0	82.2
	good	34	15.9	15.9	98.1
	better	4	1.9	1.9	100.0
	Total	214	100.0	100.0	

Most of them use school transport (57.5%).

**Table 3***Transport*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	own transport	91	42.5	42.5	42.5
	school transport	123	57.5	57.5	100.0
	Total	214	100.0	100.0	

They have no extra coaching at home (43.9%).

**Table 4***Extra Coaching at Home*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	120	56.1	56.1	56.1
	No	94	43.9	43.9	100.0
	Total	214	100.0	100.0	

Most of them are male (57.9%).

**Table 5***Gender of Child*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	124	57.9	57.9	57.9
	female	90	42.1	42.1	100.0
	Total	214	100.0	100.0	

Most of their fathers (30.8%) and mothers (37.9%) are illiterate.

**Table 6***Father's Qualification*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Illiterate	66	30.8	30.8	30.8
	Primary	21	9.8	9.8	40.7
	Middle	22	10.3	10.3	50.9
	Matric	46	21.5	21.5	72.4
	F.A	20	9.3	9.3	81.8
	B.A	23	10.7	10.7	92.5
	M.A	16	7.5	7.5	100.0
	Total	214	100.0	100.0	

**Table 7***Mother's Qualification*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	illiterate	81	37.9	37.9	37.9
	primary	32	15.0	15.0	52.8
	middle	21	9.8	9.8	62.6
	matric	51	23.8	23.8	86.4
	F.A	15	7.0	7.0	93.5

B.A	10	4.7	4.7	98.1
M.A	4	1.9	1.9	100.0
Total	214	100.0	100.0	

Most of the students with vision impairment were having sighted parents. (93%)

**Table 8**

*Condition of Parents*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	both sighted	199	93.0	93.0	93.0
	both visually impaired	3	1.4	1.4	94.4
	father having visual impairment	8	3.7	3.7	98.1
	mother having visual impairment	4	1.9	1.9	100.0
	Total	214	100.0	100.0	

Most of the students with vision impairment are suffering from congenital vision impairment (86.9%).

**Table 9**

*Type of Visual Impairment*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	congenital	186	86.9	86.9	86.9
	Acquired	25	11.7	11.7	98.6
	3	2	.9	.9	99.5
	4	1	.5	.5	100.0
	Total	214	100.0	100.0	

**Discussion**

The discussion is started with the finding of current study about the degree of vision impairment having students with vision impairment enrolled at primary level in government special education institutions in Punjab Pakistan. This finding reveals that the cumulative number of prevalence among low vision and partially sighted children is larger than the incidence of blind children. It proves the results

of (Awan, Maher, & Memon, 2011) they depicted that the prevalence of blindness in 2002 was 0.97% and prevalence of low vision was 2.9% in Pakistan. Furthermore Finding of present study shows that most of the VI students enrolled at primary level are belonging from urban areas endorsed the conclusion drawn by (Bazroy, Madhanraj, 2010) as they narrated that the prevalence of vision impairment in our study population was found to be 6.37% and that most of the students with visual impairment are getting their education in the institutions of city areas(Prasad, 2017). Similarly, this study found that 43% students with vision impairment of sample are belonging from middle class or lower middle class supports the research result of (Dandona, Lalit, 2001) as they reported Cataract related vision impairment is higher in the poverty-stricken community in the Indian province of Andhra Pradesh. In the same side study depicted that the majority of VI students have no personal transport agrees with (Kiptoo, 2011; Santos, Silvestre & Gretel, 2017) as they told that most of the parents are usually not capable to pay for transportation of their kids with vision impairment in personal or private transport. Moreover, most of the special education schools in public sector having free transport facility for their students as DGSE demonstrated that a majority of special education institutions have their free transport facility for their students. On the other hand the finding of present study shows that most of the students with vision impairment (57.9%) enrolled at primary level in government special education institutions are male contradict with the (Doyal & Das-Bhaumik, 2018) as they narrated that around 66% of vision impaired individuals on the planet are female. According to my opinion one of the reasons of such contradiction in the scenario of our society is that a big amount of people live in rural areas there are no special education schools. Similarly, a female child has less chance to access educational institution then a male child due to prejudice attitude towards the education of females in some sectors of society.

But the finding about major cause of vision impairment supports the research result of (Krishnaiah & Rao, 2012) as they described the major cause of vision impairment is congenital anomalies meanwhile the study at your hand demonstrated that the 86.9% children with vision impairment enrolled at primary level in government special education institutions in Punjab have congenital vision impairment .

## **Conclusions**

Study reflected that most of the visually impaired students enrolled at primary level are belonging to urban areas as well as are from middle class families. Most of them use school transport. They have no extra coaching at home. Most of them are male. Most of the students with vision impairment are suffering from congenital vision impairment. Most of the VI students are children of sighted parents. Most of their fathers and mothers are illiterate.

### **Recommendations**

As the present study reflected that most of the VI students belonging from low socio-economic background/poor families therefore the financial support for students with visual impairment may be enhanced. Similarly, The individualized family service plans should be organized for counseling and facilitation of the care takers and families of VI students. IEP and special learning session maybe developed for SWVI to facilitate them in their weak academic areas as study narrated that primary level VI students have no special coaching at their homes. The route of school buses may be expanded so that a number of children who live in rural areas and peripheries could be accommodated.

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