

## Effect Of Braille Informational Booklet On Knowledge In Sex Education Among Students In School For Visually Challenged

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### ABSTRACT

**Background:** Although all of our senses provide us vital information about our surroundings, we rely primarily on vision. Visually challenged means having trouble seeing to the point where it interferes with normal daily activities. Sex education is the study of the physiological, psychological, and sociological aspects of sexual response and reproduction. The Braille method of reading and writing is the most widely used and accepted system among visually challenged people all over the world.

**Objectives:** The objective of the study is to assess the effect of Braille Informational Booklet on knowledge in Sex Education among students in school for visually challenged.

**Materials and method:** Pre- Experimental Research Design (One group Pre- test Post- test). 60 visually challenged students were selected by Purposive Sampling Technique. The data was analyzed by descriptive and inferential statistics.

**Result:** The study shows that the level of knowledge in sex education in pre test was 93.3% of students had inadequate knowledge and after intervention, 96.7% of students had adequate knowledge in post-test. The paired 't' test value is 38.84 and p value = 0.000 indicating differences in pre test and post test level of knowledge in sex education.

**Conclusion:** This study concludes that Braille Informational Booklet in sex education is effective in improving the knowledge in sex education among visually challenged students.

**KEYWORDS:** Visually Challenged Student, Knowledge, Braille, Sex Education, Informational Booklet..

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### INTRODUCTION

Visually challenged refers to the inability to see such an extent that it interferes with normal daily activities such as reading, walking, and socializing. They are unable to meet even their normal ongoing activities, which are critical to leading a normal life, as well as difficulties in face-to-face coordination, some emotional stress and difficulty learning.<sup>(1)</sup> Sex education is the study of the physiological, psychological, and sociological aspects of sexual response and reproduction. It is a comprehensive course of action by the school calculated to produce socially desirable attitudes, practices, and personal conduct on the part of children and adults that will best protect the individual as a human and the family as a social institution. It teaches about all aspects of sexuality, including family planning, reproduction (fertilization, conception, and development of the embryo and fetus through childbirth), and information about one's sexuality, including body image, sexual orientation, pleasure, values of sexuality, decision making, communication, relationships.<sup>(2)</sup> The Braille method of reading and writing is the most widely used and accepted system among visually challenged people all over the world. Braille was first invented by Louis Braille. It is made up of 63 characters, each of which is made up of one to six raised dots arranged in a six position matrix or cell. These Braille characters are embossed in lines on paper and read by passing the fingers over the manuscript.<sup>(3)</sup>

**The World Health Organization (WHO)** estimates that there are approximately 285 million people worldwide who are visually impaired. 39 million of them are blind, and 246 million have low vision. Ninety percent of blind people live in developing

countries. Low vision affects an average of 3.4 people for every blind person worldwide, with country and regional variations ranging from 2.4 to 5.5 people.<sup>(4)</sup> India has the world's highest number of blind people. In 2000, the number of blind people in India was estimated to be 18.7 million. The projected number of blind people is 24.1 million in 2010 and 31.6 million in 2020.<sup>(5)</sup> According to WHO globally about one in three (30%) women worldwide have been subjected to either physical or sexual violence in their lifetime. People with disabilities had twice the risk for sexual assault than normal people.<sup>(6)</sup>

### Objectives of the study

- To assess the Knowledge in Sex Education among visually challenged students.
- To evaluate the effectiveness of Braille Informational Booklet in Sex Education among visually challenged students.
- To associate the Knowledge in Sex Education with their selected socio demographic variables.

### HYPOTHESES

- H<sub>1</sub>- There is a difference in knowledge in sex education before and after Braille informational booklet among visually challenged students.
- H<sub>2</sub>- Association exists between the sex education among visually challenged students with their selected socio demographic variables.

## MATERIALS AND METHODS

Quantitative research approach (Pre experimental - one group pre test and post test design) was adopted in this study. Sample was visually challenged students with visual acuity worse than 6/60 (n = 60) which are selected by Purposive sampling technique based on inclusion and exclusion criteria. Pre test was done using interview schedule to assess the demographic data and assessment of knowledge in sex education was done through structured knowledge questionnaire. The tools were developed based on the extensive literature review and opinion from the experts in the field of psychiatric nursing. The tools contained two parts. Part one structured questionnaires on demographic variables such as age in years, gender, religion, type of the family, monthly income of the family, educational status of the family, residence, knowledge in sex education and source of information. Part two consist of structured knowledge questionnaires on knowledge in sex education. The Institutional Human Ethical Clearance was obtained. The informed consent from the students and principal of students was obtained. After self introduction a pre test was done to assess the level of knowledge in sex education. Intervention of Braille informational Booklet on sex education was given to the samples for 20 minutes daily for 14 days. Post test was done by using the same structured knowledge questionnaire.

## STATISTICAL ANALYSIS

The investigator used descriptive statistics such as frequency, percentage, mean and standard deviation were used to present the descriptive characteristics of visually challenged students. Inferential statistics like paired t test was used to find the effectiveness and chi square test was used to find out the association between the level of knowledge and demographic variables.

**Table 1** depicts the frequency distribution of the demographic variables among visually challenged students. Majority of visually challenged students 32(53.3%) were in the age group 13-15 years, 31(51.7%) were Female, 33(55%) were Hindu, 42(70%) were nuclear family, 28(46.7%) were 10001 to 20,000/ per month, 25(41.7%) Educational status of parents were educated up to high school/ higher secondary, 50(83.3%) were have normal younger or elder sibling, 33(55%) belongs rural area, 32(53.3%) were have not knowledge in sex education and 9(15%) source of information in sex education were Friends or elders and Health care workers respectively.

The first objective of the present study was to assess the level of knowledge in Sex Education among Visually Challenged Students. **Table 2** shows that in pretest, majority of visually challenged students 56(93.3%) had inadequate knowledge, 4(6.7%) had moderate level of knowledge. In post- test, majority of visually challenged students 58(96.7%) had adequate knowledge and 2(3.3%) had moderate level of knowledge respectively.

The second objective was to evaluate the effectiveness of Braille Informational Booklet in Sex Education among Visually Challenged Students. Regarding knowledge **Table 3 and Fig 1** shows that the pre test mean and standard deviation was  $6.27 \pm 2.047$  and the post test mean and standard deviation was  $18.87 \pm 1.228$  and the p value was = 0.000. The calculated *paired 't' test* value of  $t = 38.84$  shows statistically highly significant difference of effect of Braille Informational Booklet in sex education among visually challenged students.

The third objective was to associate the level of knowledge in Sex Education among Visually Challenged Students with their selected demographic variables. The result shows that the demographic variable Gender and the source of information had shown statistically significant association between the pre-test level of knowledge in sex education with selected socio demographic variables among visually challenged students. The other demographic variables had not shown statistically significant association between the pre-test level of knowledge in sex education with selected socio demographic variables among visually challenged students respectively.

## DISCUSSION

**In pretest**, Majority of visually challenged students 56(93.3%) had inadequate knowledge, 4(6.7%) had Moderate level of knowledge. **In post- test**, Majority of visually challenged students 58(96.7%) had adequate knowledge and 2(3.3%) had Moderate level of knowledge respectively.

Regarding knowledge, the pre test mean and standard deviation was  $6.27 \pm 2.047$  and the post test mean and standard deviation was  $18.87 \pm 1.228$  and the p value was = 0.000. The calculated *paired 't' test* value of  $t = 38.84$  shows **statistically highly**

**significant difference** of effect of Braille Informational Booklet in sex education among visually challenged students.

In the present study, the demographic variable **Gender and the source of information** had shown statistically significant association between the pre-test level of knowledge in sex education. In gender, female students had increased knowledge compared with male students and sex education thought by teachers shown increased knowledge than othersd.

## CONCLUSION

The main conclusion of the study was visually challenged students in special school reported inadequate knowledge level before the intervention of Braille informational booklet on sex education. The post test level of knowledge in sex education showed positive result when compared with pre test level of knowledge. Hence, the Braille Informational Booklet is an effective intervention on improves the knowledge in sex education among visually challenged students.

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**Table 1: Frequency and percentage distribution of demographic variables**

Sl. No	Demographic Variables	No. of students (N)	Percentage (%)
<b>1</b>	<b>Age in years</b>		
	a) 10 - 12 years.	10	16.7%
	b) 13 – 15 years.	32	53.3%
	c) 16 – 18 years.	18	30%
<b>2</b>	<b>Gender</b>		
	a) Male.	29	48.3%
	b) Female.	31	51.7%
	c) Other.	0	0%
<b>3</b>	<b>Religion</b>		
	a) Hindu.	33	55%
	b) Christian.	18	30%
	c) Muslim.	9	15%
<b>4</b>	<b>Type of the family.</b>		
	a) Joint.	18	30%
	b) Nuclear.	42	70%
<b>5</b>	<b>Monthly income of the family</b>		

	a) Less than 10000/ per month.	5	8.3%
	b) 10001 to 20,000/ per month.	28	46.7%
	c) 20,001 to 30,000/ per month.	21	35%
	d) More than 30,000/per month.	6	10%
<b>6</b>	<b>Educational status of either of your parents</b>		
	a) Uneducated.	20	33.3%
	b) Educated up to high school/ higher secondary.	25	41.7%
	c) Degree holder.	15	25%
<b>7</b>	<b>Do you have normal younger or elder sibling.</b>		
	a) Yes.	50	83.3%
	b) No.	10	16.7%
<b>8</b>	<b>Area of residence</b>		
	a) Urban.	23	38.3%
	b) Rural.	33	55%
	c) Sub – urban.	4	6.7%
<b>9</b>	<b>Do you have knowledge in sex education</b>		
	a) Yes.	28	46.7%
	b) No.	32	53.3%
<b>10</b>	<b>If yes, what was the source of information</b>		
	a) Parents.	2	3.3%
	b) Teachers.	5	8.3%
	c) Friends or elders.	9	15%
	d) Mass media ( TV, Radio)	3	5.1%
	e) Health care workers	9	15%
	f) No	32	53.3%

**Table 2:- Frequency and percentage wise distribution of pre test and post test of the level of knowledge in Sex Education among Visually Challenged Students.**

S.No.	Level of Knowledge In Sex Education	PRE TEST		POST TEST	
		N	Percentage %	N	Percentage %
	Inadequate Knowledge	56	93.3	0	0
	Moderate Knowledge	4	6.1	2	3.3
	Adequate Knowledge	0	0	58	96.7

	<b>Mean Standard deviation</b>	6.27±2.074	18.8±1.228
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**Table 3: Effect of Braille Informational Booklet in sex education among visually challenged students.**

Visually challenged students	Test	Mean	Standard deviation	Mean difference	Paired -t test	Df	'p' value
<b>LEVEL OF KNOWLEDGE</b>	<b>Pre test</b>	6.27	2.074	12.6	38.84	59	<b>0.000** HS</b>
	<b>Post test</b>	18.87	1.228				

**Fig 1: Effect of Braille Informational Booklet in Sex Education among Visually Challenged Students**