



## TO ASSESS THE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE ON KNOWLEDGE REGARDING HEMOPHILIA IN CHILDREN AMONG SCHOOL TEACHERS

### Nursing

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### ABSTRACT

#### Objectives:

- 1) To assess the existing knowledge regarding Hemophilia among teachers in school.
- 2) To evaluate the effectiveness of Self Instructional Module (SIM) regarding Hemophilia among teachers in school.
- 3) To associate knowledge score with selected demographic variables.

**Methods and Materials:** The study was an evaluative approach conducted among 60 teachers from selected schools in Wardha. Structured knowledge questionnaire were used to collect the data.

**Results:** Pre test knowledge regarding hemophilia in children among school teachers. 11(18.3%) of them had poor level of knowledge score, 43(71.67%) of them had average level of knowledge score, 4(6.67%) of them had good level of knowledge score, 2(3.3%) of them had very good level of knowledge score and none of them had excellent level of knowledge score. The minimum score was 0 and maximum score was 22, the mean score was  $8.52 \pm 4.280$  with a mean percentage value of 28.4%. Assessment of post test knowledge regarding hemophilia in children among school teachers. 2(3.3%) of them had average level of knowledge score, 1(1.6%) of them had good level of knowledge score, 22(36.67%) of them had very good level of knowledge score and 35(58.3%) of them had excellent level of knowledge score.

**Conclusion:** Analysis of data showed that there was significant difference between pre test and post test knowledge scores. Hence it is concluded that the Self Instructional Module significantly brought improvement in the knowledge regarding hemophilia in children among school teachers.

### KEYWORDS

Knowledge, Hemophilia, Children, School teachers.

#### INTRODUCTION

Nowadays, health education has been elevated to a higher standing in healthcare systems in managing chronic illness; yet, this approach has not received sufficient support in developing countries as these societies still tend to the traditional stage of 'treatment after disease'<sup>1</sup>.

Hemophilia is a genetic disorder, which means it is the result of a change in genes that was either inherited (passed on from parent to child) or happened during development in the womb.<sup>2</sup> Hemophilia is a disease that prevents blood from clotting properly. Clotting helps stop bleeding after a cut or injury. If clotting doesn't happen, a wound can bleed too much. Bleeding can be.

- i) **External:** on the outside of the body, where it's visible
- ii) **Internal:** on the inside of the body, where it's not seen. Internal bleeding of the joints (like the knees or hips) is common in kids with hemophilia<sup>2</sup>.

The severity of hemophilia that a person has is determined by the amount of factor in the blood. The lower the amount of the factor, the more likely it is that bleeding will occur which can lead to serious health problems<sup>3</sup>.

Signs and symptoms of hemophilia vary, depending on the individual's level of clotting factors. If the clotting-factor level is mildly reduced, bleeding may occur only after surgery or trauma<sup>4</sup>.

#### STATEMENT OF THE PROBLEM

To assess the effectiveness of Self Instructional Module on knowledge regarding hemophilia in children among school teachers

#### OBJECTIVES OF THE STUDY

1. To assess the existing knowledge regarding Hemophilia among teachers in school.
2. To evaluate the effectiveness of Self Instructional Module (SIM) regarding Hemophilia among teachers in school.
3. To associate knowledge score with selected demographic variables.

#### HYPOTHESIS

- H<sub>1</sub>: There will be significant difference in the pre and post test knowledge score regarding Hemophilia in children among school teachers.
- H<sub>0</sub>: There will be no significant difference in the pre and post test knowledge score regarding Hemophilia in children among school teachers.

#### MATERIALS AND METHODS

60 samples of teachers were selected by Non-Probability convenience sampling technique in selected school of Wardha. The inclusion criteria were: a) Teachers who are willing to participate in the study. b) Teachers who are available at the time of data collection. c) Teachers who can understand and write English. The exclusion criteria were: a) Teachers who have already attended similar type of study. b) Teachers who are health professionals and in this study one group pre test post test design was used. The tool were self instructional module and structured questionnaire. The data gathering process began from 28<sup>th</sup> February to 7<sup>th</sup> March 2019. The investigator visited selected school in advance and obtained the necessary permission from the concerned authorities. Based on the objectives and the hypothesis the data were analyzed by using various statistical tests.

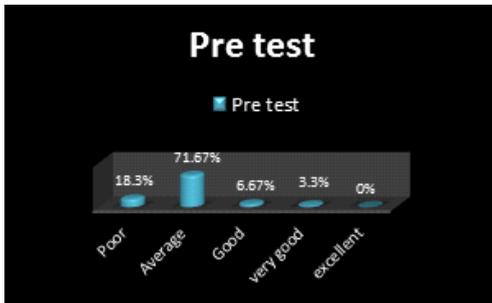
#### RESULTS

The level of knowledge is divided under following headings: poor, average, good, very good and excellent.

**Table 1: Assessment of pre-test knowledge regarding hemophilia in children.**

Level of knowledge score	Score range	Percentage score	Knowledge score	
			Frequency	Percentage
Poor	0 – 6	0-20%	11	18.3%
Average	7 – 12	21-40%	43	71.67%
Good	13 – 18	41-60%	4	6.67%
Very good	19 – 24	61-80%	2	3.3%
Excellent	25 – 30	81-100%	0	0%
Minimum score	0			
Maximum score	22			
Mean score	$8.52 \pm 4.280$			
Mean Percentage	28.4%			

The above table shows that ,11(18.3%) had poor level of knowledge score, 43(71.67%) of them had average level of knowledge score, 4(6.67%) of them had good level of knowledge score, 2(3.3%) of them had very good level of knowledge and none of them had excellent level of knowledge score. The minimum score was 0 and the maximum score was 22, the mean score was  $8.52 \pm 4.280$  with a mean percentage score of 28.4.



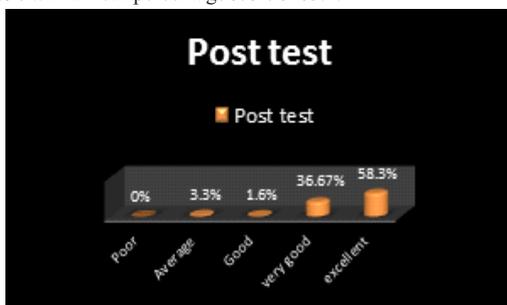
Graph 1: Pre - test knowledge score regarding hemophilia in children among school teachers.

Table: 2 Assessment of post-test knowledge regarding hemophilia in children.

n=60

Level of knowledge score	Score range	Percentage score	Knowledge score	
			Frequency	Percentage
Poor	0 – 6	0-20%	0	0%
Average	7 – 12	21-40%	2	3.3%
Good	13 – 18	41-60%	1	1.6%
Very good	19 – 24	61-80%	22	36.67%
Excellent	25 – 30	81-100%	35	58.3%
Minimum score	10			
Maximum score	30			
Mean score	$24.93 \pm 4.096$			
Mean Percentage	83.1%			

The above table shows that none of them have poor level of knowledge, 2(3.3%) of them were having average level of knowledge, 1(1.6%) of them were having good level of knowledge, 22(36.67%) of them were having very good level of knowledge and 35(58.3%) of them were having excellent level of knowledge score. The minimum score was 10 and the maximum score was 30, the mean score was  $24.93 \pm 4.096$  with a mean percentage score of 83.1.

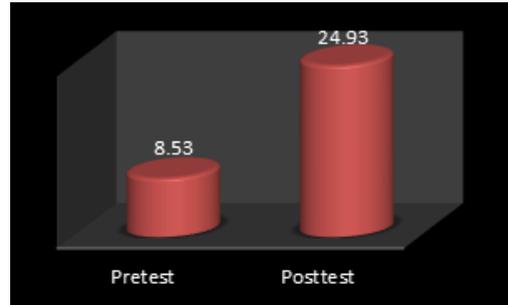


Graph2: Post - test knowledge score regarding hemophilia in children among school teachers.

Table: 3. Percentage wise distribution of Effectiveness of self instructional module on knowledge regarding hemophilia in children among school teachers.

Tests	Mean score	SD	t - value	Degree of freedom	P - value	Significant
Pre Test	8.52	$\pm 4.280$	21.860	59	0.000	S, $p < 0.05$
Post Test	24.93	$\pm 4.096$				

The above table shows that there is a significant difference between pretest and post test knowledge scores. Mean value of pre test is 8.52 and post test is 24.93 and standard deviation values of pre test is 4.280 and post test is 4.096. The calculated t-value is 21.860 and p-value is 0.000. Hence it is statistically interpreted that the Self Instructional Module on knowledge regarding hemophilia in children among school teacher was effective. Thus the  $H_1$  is accepted and  $H_0$  is rejected in this study.



Graph.3 Percentage wise distribution of Effectiveness of Self Instructional Module on knowledge regarding hemophilia in children among school teachers.

DISCUSSION

The present study shows that there was significant enhancement on knowledge levels of school teachers regarding hemophilia in children. After distributing self instructional module regarding hemophilia, the knowledge levels raised from 28.4% in the pre test to 83.1% in the post test. So, it was concluded that educating school teachers remarkably increased their knowledge levels regarding hemophilia, which will enable them in caring and providing first aid management to hemophilic students in case of any emergency occurring at school.

A cross-sectional study on Evaluation of Knowledge of Patients with Hemophilia Regarding Their Diseases and Treatment in Iran was done . 30 patients with hemophilia A and B who were registered at the Hemophilia Center of Shiraz, Fars Province, southern Iran, were investigated between March and October of 2013. The data collection form consisted of two parts including demographic data and 22 specific questions regarding assessment of knowledge of the patients regarding the disease and treatment. In this latter section specific topics included appropriate treatment, disease -transmission, physiotherapy application, management of bleeding, and the most common symptoms of bleeding. The correct answer to questions had a sum of 1 to 4 points. Some of the questions had more than one correct answer. Total knowledge scores were categorized into three grades: scores of 1-14 (poor knowledge), 15-29 (fair knowledge), and 30-41 (good knowledge). The mean knowledge score of the patients was determined as  $14.7 \pm 4.5$  (range: 4-26). Considering the three levels of knowledge classification, all patients fell into the first category of poor knowledge (score of  $< 30$ ). There was no significant correlation between the knowledge of the patients and their ages ( $p=0.094$ ). The results also revealed no significant association between the knowledge of patients and disease severity ( $p=0.446$ ) or educational level ( $p>0.999$ ).<sup>5</sup>

A cross sectional survey Knowledge among mothers' of children and youth with hemophilia-a cross sectional survey at a hemophilia center was conducted at hemophilia center(Manipal, Karnataka). In total, 23 mothers' of children and 27 youth with moderate and severe hemophilia were included. The participants were selected based on purposive sampling. Approval was taken from the ethical committee. Demographic proforma and knowledge questionnaire was used to collect the data. The data was analyzed using SPSS 16.0 version. The mean age of the participants were 13.68 years. Out of 50 participants 42 had moderate and 8 had severe hemophilia. Moderate knowledge was found among 43.5% of mothers' and 66.7% of youth with hemophilia. This study shows that mothers' knowledge on hemophilia is limited and highlights the importance of continual education of parents and youth about their disease.<sup>6</sup>

CONCLUSION

The researcher conducted an intervention research on the topic to assess the effectiveness of Self Instructional Module on knowledge regarding hemophilia in children among school teachers. The researcher aimed to improve the level of knowledge of school teachers regarding hemophilia in children. She predetermined certain objectives, to precede the study. Those objectives were adequate to reach into the findings. A particular time period has been allocated for each step. Investigator had presented her hypothetical views about the study in its beginning. The study had done by separating the topic into 5 chapters. And finally the researcher reached into her findings. The result of this study shows that 2(3.3%) were having average knowledge, 1(1.6%) was having good knowledge, 22(36.67%) were

having very good knowledge and 35(58.3%) had excellent knowledge in post test. Analysis of data showed that there was significant difference between pre test and post test knowledge scores. Hence it is concluded that the Self Instructional Module significantly brought improvement in the knowledge regarding hemophilia in children among school teachers.

#### REFERENCES

1. The official Journal of the world Federation of Hemophilia. <https://onlinelibrary.wiley.com>
2. KidsHealth. <https://Kidshealth.org/en/parents/haemophilia.html>
3. Centers of Disease Control and Prevention, <https://www.cdc.gov/ncbddd/hemophilia/facts.html>
4. Mayo Clinic, <https://www.mayoclinic.org/disease-condition/hemophilia/symptom>
5. Tahereh Zarei, Sezaneh Haghpanah. Turkish journal of hematology, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5204196>
6. Indian Journal of Public Health Research and Development <https://manipal.pure.elsevier.com/en/publications/knowledge-among-mothers-of-children-and-youth-with-hemophilia>.