Effectiveness of Information Booklet Regarding Neurological Disorders in Children

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Abstract: *Every year ten million children die in developing countries before they reach their 5th birthday. 20% to 30% of their deaths are due to neurological disorders, mostly hydrocephalus, meningitis, Spina-bifida, Encephalitis, Anencephaly. The present study was carried out with an objective to evaluate the information booklet regarding neurological disorders in children in terms of knowledge of B.Sc nursing III year student in selected nursing college of Amritsar. Thirty six nursing students of B.Sc. Nursing 3rd year were selected using convenient sampling technique. The experimental research approach with Pre-experimental: One group pre-test post-test research design was adopted. The tool used for data collection was a self administered structured knowledge questionnaire on neurological disorders in children.* ***T****he mean post-test knowledge score of nursing students (30.69) was higher than the mean pre-test knowledge score (21.02). The calculated 't' value of 8.40 was found statistically significant at 0.05 level which present that mean difference between pre-test and post-test knowledge was true difference and not by chance. Therefore, the findings of the study reveal that the information booklet was effective in terms of enhancing the knowledge nursing students regarding the neurological disorders in children.*
Keywords: *Knowledge, Nursing Students, Neurological disorders, Children.*

I. Introduction

Every year ten million children die in developing countries before they reach their 5th birthday. 20% to 30% of their deaths are due to neurological disorders, mostly hydrocephalus, meningitis, Spina-bifida, Encephalitis, Anencephaly.

Neurological diseases do not just affect adults; some babies are born with neurological disorders and others may develop it in childhood or adolescence. Accordingly to the 2001 census report 45% of the Indian population is below the age of 20 years. This figure is higher than that of the world standard population where 34.21% are below 20 year of age. The socio demographic and epidemic logical translation in developing countries has changed the morbidity and mortality pattern among community diseases to the forefront of the health care delivery system within this group, neurological disorders continue significant proportion affecting morbidity, mortality, disability and quality of life.

The prevalence of neurological disorders vary across time by region and both race and ethnicity. It also tends to be more common in girls

II. Statement Of Problem

A study to evaluate the effectiveness of information booklet regarding neurological disorders in children in terms of knowledge of B.Sc nursing III year student in selected nursing college of Amritsar.

III. Objectives

- To develop the information booklet on neurological disorders of children.
- To evaluate the knowledge of B.Sc nursing III year students regarding the neurological disorders before and after the administration of information booklet.

IV. Hypothesis

H_0: There will be no significant difference in mean pre-test knowledge score and mean post -test knowledge score f B.Sc nursing III year students regarding neurological disorders in children.
H_1: There will be significant difference in mean pre-test knowledge score and mean post -test knowledge score f B.Sc nursing III year students regarding neurological disorders in children.

V. Methods And Materials

Research Approach: Experimental research approach

Research Design: Pre-experimental research design: One group pre-test post-test design is adopted for research.

Variables Under Study
  ▪ **Independent variable:** Information Booklet.
  ▪ **Dependent variable:** Knowledge of B. Sc. Nursing 3rd year students.
Sample: B. Sc. nursing 3rd year students of selected college of Nursing, Amritsar
Samping Technique: Convenient sampling technique
SAMPLE SIZE: 36 nursing students
Data Collection Tools And Techniques: Self administered Structured Knowledge Questionnaire
Conceptual Framework: Stufflebeam's CIPP model.

VI.   Results
The data presented in table 1 shows that there were 06 (16.66%) male and 30 (81.33%) female students. Table also reveals that most of students, 23 (63.68%) belong to nuclear family. Based on the place of residence majority i.e. 26 (72.22%) students lived in rural area. The source of Information for majority of the students i.e 31 (86.11%) is books.

TABLE: 1
Frequency and percentage distribution of Nursing Students

N=36

S. No.	Characteristics of Nursing Personnel	Frequency	(%)
1	**Gender:**		
1.1	Male	06	16.66
1.2	Female	30	81.33
2	**Type of family**		
2.1	Joint	12	33.33
2.2	Nuclear	23	63.89
2.3	Extended	01	02.78
3	**Place of residence**		
3.1	Urban	10	27.77
3.2	Rural	26	72.23
4	**Source of information**		
4.1	Books	31	86.11
4.2	Internet	02	05.55
4.3	T.V	01	02.77
4.4	Health Personnel	02	05.55

The data presented in the table 2 reveals that range of Pre-Test and Post-Test knowledge score was (15-33) and (22-41) respectively. The data further presented that mean post- test knowledge score (30.69$\pm$4.98) was higher than mean pre-test knowledge score (21.02$\pm$4.81). The median of pre –test and post-test score were 21 and 31 respectively

TABLE 2
Range, Mean, Median and Standard deviation of Pre-test and Post-test Knowledge Score of Nursing Students

N=36

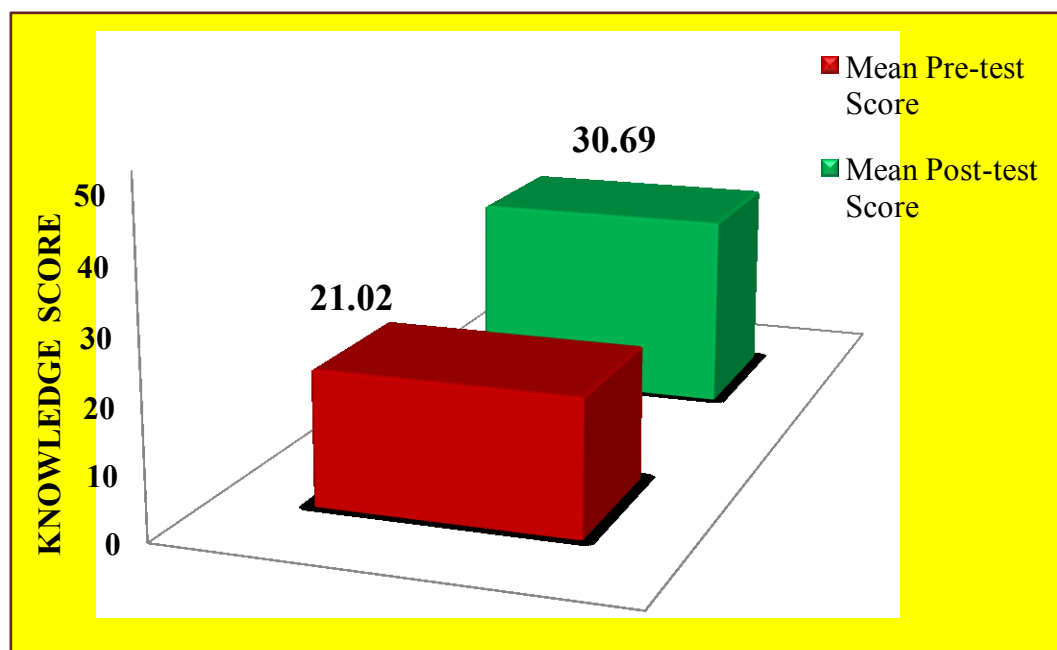| Knowledge score	Range	Mean	Median	Standard deviation
Pre-Test	15-33	21.02	21	4.81
Post-Test	22-41	30.69	31	4.98

Maximum score= 53

Figure 1: Bar Graph showing Mean Pre-test and Post-test Knowledge Score Obtained by B.Sc. Nursing 3rd year Students.

The data presented in table 3 reveals that lowest pre-test mean % knowledge score was in the area of Meningitis (34.72) and highest was in the area of introduction of Neurological Disorders (71.67) . The table further indicates that maximum knowledge deficit in the area of Meningitis and least knowledge deficit was in the area of introduction of Neurological Disorders.

The data further indicate that the post –test mean percentage knowledge score in all area is higher than pre-test mean percentage knowledge score. It suggests effectiveness of Information Booklet. The maximum mean percent gain was in the area of Encephalitis (23.15%) and least mean percentage gain was in the area of Introduction of Neurological Disorders (02.22%).

TABLE 3
Area Wise Mean, Mean Percentage of Pre-Test and Post-Test Knowledge Score Obtained by Nursing Students

N=36

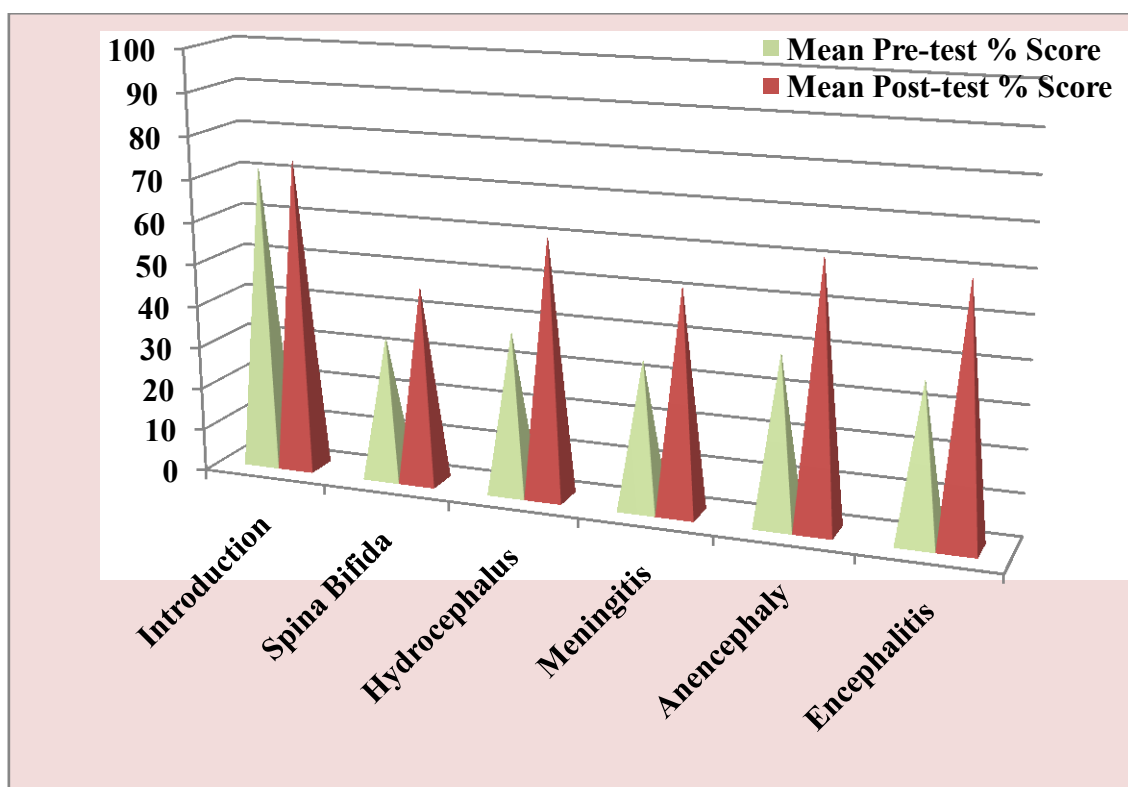| Knowledge score	Max. score	Pre-test		Post-test		Mean % gain score
		Mean score	Mean % score	Mean score	Mean % score	
Introduction of Neurological Disorders	05	3.58	71.67	3.69	73.89	02.22
Spina Bifida	12	4.03	33.56	5.56	46.30	12.74
Hydrocephalus	15	5.69	37.96	9.14	60.93	22.97
Meningitis	08	2.78	34.72	4.17	52.08	17.36
Anencephaly	07	2.75	39.29	4.31	61.51	22.22
Encephalitis	06	2.19	36.57	3.58	59.72	23.15

Figure 2: The Bar Graph Showing the Area Wise Mean Percentage of Pre –Test and Post-Test Knowledge Scores Obtained By B.Sc. Nursing 3rd Year Students.

The data presented in table 4 revealed that mean post-test knowledge score of Nursing Students was 30.69 and mean pre- test score was 21.02 with mean difference of 9.67. The calculated 't' value of 8.40 was found in statistically significant at 0.05 level which present that mean difference between pre-test and post-test knowledge was true difference and not by chance.

TABLE 4
Mean, Mean Difference and Standard Error of Mean Difference and 't' of Pre-test and Post-test Knowledge Score of Nursing Students

N=36

Skills score	Mean	M_D	SE_{MD}	't'
Pre-Test	21.02	9.67	1.15	8.40*
Post-Test	30.69			

't' [35]=2.03
*Significant [p<0.05]

VII. Conclusion And Recommendations

Thus, the research hypothesis H_1 was accepted and the null hypothesis H_0 was rejected. Therefore, it can be inferred that the Information Booklet was effective in enhancing knowledge of B.Sc. Nursing 3rd Students regarding Neurological Disorders. The findings coincide with the findings of the study conducted in Indo American Cancer hospital, Hydrabad, AP, India on effectiveness of information booklet regarding palliative care among nurses working in oncology department.

The study was confined to small group (36) of nursing students. This limits the generalization of the findings. A study can be replied on large sample of nursing students for wider generalisation of findings. A comparative study can be conducted assessing the effectiveness of information booklet in terms of knowledge of nursing students regarding neurological disorder. A similar study can be conducted among staff nurses.

Reference

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[2]. Kobaya H., A Study on improving quality and efficiency of facility based child health care regarding neurological disorders. 2011
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