



“A study to assess the effectiveness of an informative booklet on knowledge regarding nursing care of under-five children with severe dehydration among third year BSc. Nursing students of a Sumandeep Nursing College ,Vadodara”

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KEYWORDS

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BACKGROUND OF THE STUDY: Dehydration is a common concern in under-five children, as they are more vulnerable to fluid and electrolyte imbalances. Untreated dehydration can lead to devastating consequences such as shock, electrolyte imbalance and even death. As nurses are primary care givers it is very crucial for them to have knowledge regarding fluid electrolyte as it can save the complication and save a life.

AIMS AND OBJECTIVES: To assess the level of knowledge regarding nursing management of under-five children with severe dehydration among Third year B.Sc Nursing students and to find the association between knowledge scores of Third year B.Sc Nursing students regarding nursing management of under-five children with severe dehydration with selected socio-demographic variables.

MATERIALS AND METHODS: Pre- experimental one group pre-test-post-test design was selected to assess effectiveness of an informative booklet on nursing care of under five children with severe dehydration among third year BSc Nursing students, Vadodara. A Non-probability convenience sampling technique was adapted to obtain a sample size of 84 respondents. Data was collected through self-structured knowledge and demographic questionnaire and an information booklet was provided to them after the pretest. Post test was conducted after seven days using the same questionnaire to assess the effectiveness of the information booklet. **RESULTS:** Frequency and percentage distribution shown that According to their gender, maximum 57(96.7%) were female students and 27(3.3%) were male students. This study reveals that Third year B.Sc nursing student have 85 (89.47%) moderate knowledge regarding nursing management of under-five children with severe dehydration and association observed between knowledge score with demographic variables .In mean pre-test knowledge score was 17.03 ± 5.6 and in mean post-test knowledge score was 30.6 ± 3.29 , with mean difference of 13.56 and the calculated 't' value is (19.27) that is greater than the table value (1.67) at the 0.05 level of significance. Hence it has been found that the information booklet was effective in providing knowledge regarding nursing management of under-five children with severe dehydration. So the research hypothesis is accepted. And there is no significance association between the pre-test level of scores and the selected demographic variables as the calculated chi-square values were more than the table value at the 0.05 level of significance. This study pre-test result reveals that majority that is 89% students have moderate knowledge regarding nursing management of under-five children with severe dehydration association observed between knowledge score with demographic variables. It was found that the information booklet was effective in providing knowledge regarding nursing management of under-five children with severe dehydration. So the research hypothesis is accepted. There is no significance association between the pre-test level of scores and the selected demographic variables as the calculated chi-square values were more than the table value at the 0.05 level of significance.

CONCLUSION: These results of the study revealed that student knowledge regarding nursing



management of under-five children with severe dehydration has moderate knowledge.

INTRODUCTION

Dehydration in clinical practice, as opposed to a physiological definition, refers to the loss of body water, with or without salt, at a rate greater than the body can replace it. It involves the excess loss of water and other body fluids, decreased intake, increased output, a shift of fluids and capillary leakage of fluids. Dehydration is the result of conditions that cause the body to lose too much water, such as excessive heat, sweating, illness, low humidity, medication side effects, and high elevation, such as in the mountains or it can also be the result of not drinking enough water and fluids. It can be mild, moderate or severe and life threatening. Dehydration can impact proper balance of vital electrolytes, such as sodium and potassium, which are also essential to healthy functioning of the body. It can also result from taking diuretic medications, such as furosemide (Lasix), which cause the body to lose water¹.

Dehydration is classified on the basis of severity i.e. total fluid loss reaches 5% or less is comes under mild dehydration, if fluid loss reaches 5-10% then it is moderate dehydration and fluid loss reaches more than 10% are consider as emergency case and comes under severe dehydration. Contributing factors for the dehydration are diarrhea, vomiting, excessive sweating, diabetes, burns, excessive blood loss due to any trauma which can leads to the symptoms like nursing student extreme thirst, dryness of mouth, skin and mucous membrane, sunken eyes, no tears, anuria, rapid heartbeat with shallow breath, unconsciousness, weight loss of more than 10% of body weight and delay capillary refill for more than 2 seconds².

Oral rehydration therapy as the preferred treatment of fluid and electrolyte losses caused by diarrhea in children with mild to moderate dehydration. It is as effective as intravenous fluid in rehydration of children, it can be administered at home, reducing the need for outpatient and emergency department visits. An accurate assessment of the degree of dehydration in infants and children is important for proper decision making and treatment. The most accurate method of assessing dehydration is to calculate the percentage of weight loss³.

Dehydration is a frequent reason for emergency room visits and affects at least 2 million children annually. Frequently caused by gastroenteritis, dehydration may result in serious morbidity and mortality. Gastroenteritis and dehydration account for 30% of all infants and toddler deaths worldwide and approximately 300 deaths annually in the U.S. Gastroenteritis alone results in 1.9 million pediatric deaths annually or 19% of all deaths under the age of five⁴.

The dehydration associated with acute watery diarrhea. Consequently, the proper management of children with acute diarrhea is important for all practitioners as well as for parents of small children. The development of oral therapy for the rehydration and maintenance of children with dehydrating diarrhea has become the worldwide mainstay of national diarrheal control programs. In the United States, the improved management children with diarrhea could lead to a noticeable decrease in the number of children who are hospitalized or die as a result of diarrheal illness. This report contains recommendations prepared by the in management experts, which are consistent with recommendations endorsed by the American Academy of Pediatrics⁵.

STATEMENT OF THE PROBLEM

“A study to assess the effectiveness of an informative booklet on knowledge regarding nursing care of under five children with severe dehydration among third year BSc. Nursing students of a Sumandeep Nursing College Vadodara”.

OBJECTIVES

1. To assess the Knowledge regarding nursing care of under five children with severe dehydration among third year BSc. Nursing students.
2. To Evaluate the effectiveness of information booklet on knowledge regarding nursing care of under five children with severe dehydration among third year BSc. Nursing students.
3. To find out the association between knowledge score of third year BSc. Nursing students regarding nursing care of under five children with severe dehydration with their selected demographic variables.



HYPOTHESES

H01- There will be significant difference in pretest and post-test knowledge score of Third year BSc. Nursing students regarding Nursing care of under-five children with severe dehydration following the information booklet.

MATERIALS AND METHODS

A quantitative evaluatory research design was used to collect data by nonprobability convenient sampling technique from 84 nursing students of third year B.SC Nursing affiliated with Sumandeep Nursing College, Vadodara. Students who are not present at the time of the study were excluded. Data collection was conducted for a week. Initially a demographic tool and a self-structured questionnaire were utilized to assess the current knowledge level regarding the nursing management of under-five children with severe dehydration. Then after an informative booklet regarding Dehydration was distributed among the third year B.SC Nursing students and after a week again demographic tool and a self-structured questionnaire were distributed among the same students for assessing effectiveness of an informative booklet. The collected data was entered in the coding sheet using SPSS package and analyzed based on the objective of the study using descriptive and inferential statistics. Ethical clearance was obtained from the ethical committee of Sumandeep Vidyapeeth (SVIEC) and consent was also taken from the participants prior to data collection of the study.

RESULTS

The present research includes data from 84 samples of Third year B.SC Nursing studying at Nursing College of Vadodara. The primary objective of this study was to assess the effectiveness of an information booklet regarding nursing management of under-five children with severe dehydration.

SECTION I - Analysis and interpretation of socio-demographic variables.

Result shows the frequency and percentage distribution of socio-demographic variables of Third year B.Sc Nursing students. According to their gender, maximum 57(96.7%) were female students and 27(3.3%) were male students. As per area of living, more than half 66(78.57%) belongs to urban and 18(21.42%) belongs

to rural area with number of children between 1-5 year of age in there house, majority 71(84.52%) had zero, 4(4.76%) had one and 9(10.7%) had two children and there were 8(9.52%) houses with cases of malnourishment and 76(90.47%) of houses with no case of malnourished child among 84 student's.

SECTION-II: Analysis of pre-test-post-test knowledge score

N=84

Knowledge	Mean	S. D	Mean Difference	t-value	P Value
Pre test	17.03	5.6	19.27	19.27	0.001*
Post test	30.69	3.29			

At 0.05, df 83

The table shows the effectiveness of an information booklet on knowledge regarding nursing management of under-five children with severe dehydration among third year B.sc Nursing which was tested by using paired 't' test. Mean pre-test knowledge score was 17.03 ± 5.6 and in post-test mean knowledge score was 30.6 ± 3.29 , with mean difference of 13.56 and obtained (t value=19.27, df=83, p=0.001) was found statistically highly significant at $p < 0.05$. So the H1 is accepted.

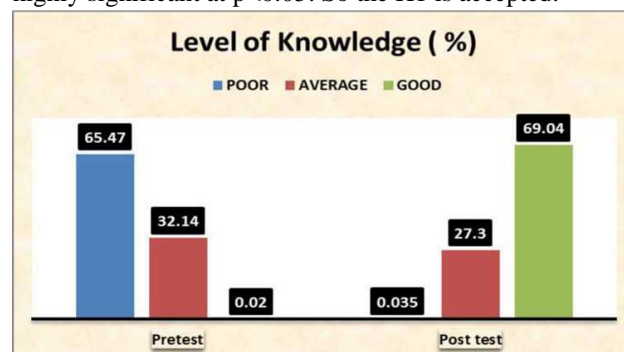


Figure 01:- Graph showing pre-test post-test knowledge score

SECTION-IV: Association between pre-test knowledge regarding nursing management of under- five children with severe dehydration

Result shows the association between pre-test knowledge regarding nursing management of under-five children with severe dehydration among Third year B.Sc Nursing student with their selected demographic



variables which was tested by using chi-square test. Result revealed that demographic variable 'Gender' had significant association at $p < 0.05$ level but other demographic variables such as Area of living, number of children between 1 -5 year of age in house and any malnourish child at home were not found any significant association at $p < 0.05$ level with pre-test knowledge regarding nursing management of under-five children with severe dehydration among Third year B.Sc Nursing students.

Since statistically significant association was not found to exist between knowledge regarding nursing management of under-five children with severe dehydration among Third year B.Sc Nursing student with their selected demographic variables. Hence Research hypothesis H_2 is rejected.

DISCUSSION

Frequency and percentage distribution of socio-demographic variables of Third year B.Sc Nursing students are According to their gender, maximum 57(96.7%) were female students and 27(3.3%) were male students. As per area of living, more than half 66(78.57%) belongs to urban and 18(21.42%) belongs to rural area moderate knowledge regarding nursing management of under-five children with severe dehydration and association observed between knowledge score with demographic variables. Depicts the effectiveness of an information booklet on knowledge regarding nursing management of under-five children with severe dehydration among third year B.sc Nursing which was tested by using paired 't' test. Mean pre-test knowledge score was 17.03 ± 5.6 and in post-test mean knowledge score was 30.6 ± 3.29 , with mean difference of 13.56 and obtained (t value=19.27, df=83, $p=0.001$) was found statistically highly significant at $p < 0.05$. level. Findings indicate that information booklet was effective in improving the knowledge regarding nursing management of under-five children with severe dehydration. **CONCLUSION**

Based on the findings of the present study conducted on the effectiveness of an informative booklet on knowledge regarding nursing management of under-five children with severe dehydration among Third year B.SC Nursing students, it is found that there was a statistically significant difference between the pre-test and posttest level of Knowledge of Third year B.Sc Nursing students regarding nursing management of

under-five children with severe dehydration in experimental group. Statistically significant association was not found to exist between knowledge regarding nursing management of under-five children with severe dehydration among third year B.Sc nursing student with their selected demographic variables.

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