International Journal of Nursing and Health Research
www.nursingjournal.in
Online ISSN: 2664-6420, Print ISSN: 2664-6412
Received: 25-09-2023, Accepted: 13-10-2023, Published: 28-10-2023
Volume 5, Issue 2, 2023, Page No. 46-48

To assess the effectiveness of PTP on knowledge regarding care of child receiving oxygen therapy among interns

Anisha Flavita D Cunha[1*], Alfia Thomas[1], Aleena Jiji[1], Amitha PB[1], Anaklita Dorina Vaz[2]
[1] Department of Child Health Nursing, Athena College of Nursing, Mangalore, Karnataka, India
[2] Lecturer, Department of Child Health Nursing, Athena College of Nursing, Mangalore, Karnataka, India

Abstract
Introduction: A continuous supply of O2 essential for all the cells of body. A deficiency of O2 leads to lowered O2 tension of blood plasma and oxy hemoglobin in the red blood cells.
Objectives: To assess the pre-test level knowledge regarding care of child receiving O2 therapy among interns as measured by student knowledge questionnaire. To evaluate the effectiveness of planned teaching programme regarding care of child receiving O2 therapy among interns in gain of mean post test knowledge score.
Methodology: A random sampling technique was used to select the samples. The sample for the present study consisted of 30 interns studying in a selected School of Nursing at Mangalore. In this study the structured knowledge questionnaire was used for assessing the knowledge regarding care of child receiving O2 therapy among interns.
Result: The results of the study showed that mean post test knowledge score (30.30) was higher than the mean pre test knowledge score (9.53) paired 't' test was used to find out the difference between the mean pre test and post test knowledge score. The calculated t value (7.93) was found to be significant.
Conclusion: Findings of the study showed that the interns were having poor knowledge regarding care of child receiving O2 therapy. This is represented by mean percentage of pre test knowledge score (21.18%). In post test 21.56% had good knowledge score. So the planned teaching programme was effective.

Keywords: Effectiveness, knowledge level, planned teaching programme, importance of O2 therapy among children

Introduction

A continuous supply of oxygen is essential for all the cells of the body. A deficiency of oxygen leads to a lowered oxygen tension of blood plasma and oxyhemoglobin in the red blood cells [1].

The Indications for administering oxygen are to correct hypoxemia (anoxemia) (reduction of oxygen content of the blood below physiologic levels) and hypoxia (anoxia) (absence of adequate tissue oxygenation). Since a considerable amount of oxyhemoglobin desaturation must be present before cyanosis results, cyanosis is an unreliable sign of either hypoxemia or hypoxia [2].

The general purpose of oxygen therapy is to increase the oxygen tension of blood plasma and to restore the oxyhemoglobin in the red blood cells to the normal proportion. To accomplish this goal, oxygen must be given in higher concentration than is present in air. Usually it is given in concentrations of from 40 to 60 per cent, although even 100 per cent may be given through the face mask technique [3].

The method used for giving oxygen frequently de pends on the child's acceptance of the technique, except when the child is seriously ill. Both noninvasive and invasive methods may be used [4].

Regardless of the type of oxygen equipment used, each child's chart should contain a separate oxygen record that should include (1) physician's written order for oxygen and its method of administration, (2) oxygen concentration, (3) duration of administration (intermit tent or continuous), (4) method of humidification and heating, (5) monitoring techniques, and (6) child's response to the concentration. The oxygen concentration within an Oxygen hood, incubator, or tent should be analyzed at 4-hour intervals, or more frequently if necessary, to adjust the rate of flow to the desired level of concentration. The analysis should be made of the oxygen concentration near the child's face. The analyzer should be checked periodically against the concentration of oxygen in the air (20.9 per cent oxygen at sea level) and by sampling pure oxygen. If the analyzer provides a correct reading at these extremes, intermediate readings should be reliable. The oxygen equipment is cleaned or changed at least weekly, if not more often, to prevent the growth of bacteria [5].

Some infants and children require oxygen constantly and must be given it by mask or other means whenever they are removed from the crib or isolette. The extent of time during which these children receive oxygen must be determined accurately [6]. All interruptions in therapy for nursing care must be noted. Other children require oxygen at all times except when procedures are done, and still others require it only at specific times during the day and night. On assessment, if a lack of oxygen occurs, indicated by a change in color, increased respiratory and pulse rates, and restlessness, the child should be returned to the source of oxygen. The response of the child when oxygen is and is not being given should be carefully observed and accurately charted [7].

Objectives

1. To assess the pretest level of knowledge regarding care of child receiving oxygen therapy among interns as measured by structured knowledge questionnaire.
2. To evaluate the effectiveness of planned teaching programme regarding care of child receiving oxygen therapy among interns in term of gain in mean post test knowledge score.

Methodology

An evaluative approach was used to find the effectiveness of planned teaching programme on knowledge regarding care of child receiving oxygen therapy among interns. Pre-experimental one group pre-test-post test design was used for the study. Random sampling technique was used to select the sample. The study was conducted on 30 interns from selected School of Nursing at Mangalore. Prior to the study permission is obtained from Principal, as well as the Class Coordinator to conduct, consents from samples are also taken, convenient sampling technique was used for study by using structured knowledge questionnaire regarding care of O2. Same day planned teaching programme on care of child receiving oxygen among interns in a selected School of Nursing at Mangalore was administered. After 7 days post test was conducted using same structured knowledge questionnaire, the collected data was combined for data analysis.

Result

Section-1: Knowledge level of general and midwifery interns regarding care of child receiving oxygen therapy before and after planned teaching programme.

Section-2: Evaluation of the effectiveness of planned teaching programme on general and midwifery interms of gain in mean post-test knowledge score. Section 1: Knowledge level of general and midwifery interns regarding care of a child receiving oxygen therapy before and after planned teaching programme.

Table 1: Frequency and percentage of pre-test and post- test knowledge level of GNM interns

Grading of knowledge	Score range	Pre-test		Post-test	
		f	%	F	%
Below Average	0-9	16	53.33	0	0
Average	10-19	14	46.66	26	86.66
Good	20-29	0	0	4	13.33

It is evident from table 1, in the pre test, most of the interns did not have good knowledge, 46.6% had average knowledge and 16 % had poor knowledge. In the post test few interns (13.33%) had good knowledge and most of the interns (86.6%) had average knowledge thus the findings show that planned teaching has helped the GNM interns to improve their knowledge regarding care of a child receiving oxygen therapy.

Table 2: range, mean, mean percentage scores, SD, and mean difference of pre and post test knowledge score. n=30

Knowledge Level	Range	Mean ±SD	Mean %
Pre-test	9-19	9.53 ±2.61	21.18
Post-test	13-22	13.30 ±2.91	29.55

Table 3: Paire 't' test to find out the difference in pre and post test knowledge score.

Group	Mean value	Mean difference	SD difference	't' value
Pre-test	9.53	3.77	0.3	7.93
Post-test	13.30			

Data presented in table 3 shows that obtained t value is 7.93. The findings are highly significant and it can be inferred that planned teaching programme regarding care of child receiving oxygen therapy was highly effective in improving the knowledge of interns regarding care of child receiving oxygen therapy.

Discussion

Section 1: Knowledge level of general and midwifery interns regarding care of child receiving oxygen therapy before and after the planned teaching programme.

In the pre- test most of the interns did not have good knowledge, 46.6% had average knowledge and 53.3% had poor knowledge. In the post test most of the interns (86.6%) had average knowledge score.

The finding of the present study are consistent with findings from other study wherein it was found that nurses showed adequate knowledge in matters of oxygen therapy and showed the significant difference of P= 0.005

Section 2: Effectiveness of planned teaching on care of child receiving oxygen therapy interms of gain in post test knowledge score.

Pre-test and post test knowledge score of subjects ranged from 9 to 19 and 13 to 22 respectively.

In the post test 88.6% had average knowledge score in the pre test 53.3%had poor knowledge and 46.6% had average knowledge.

The mean post test knowledge score (13.30) was higher than mean pre test knowledge score (9.53) suggesting that the PTP helped in improving the knowledge of interns regarding care of child receiving oxygen therapy.

The finding are statistically significant that 0.05 level.

The findings of the present study are consistent with the findings from other study which revealed that the difference between pre and post test knowledge score were highly significant.

Conclusion

The present study was conducted to determine the effectiveness of planned teaching programme on Knowledge regarding care of child receiving oxygen therapy among interns of a selected school of nursing at Mangalore. The findings of the present study have implication in the field of Nursing, education, nursing practice and nursing research.

The study findings concluded that student had inadequate knowledge regarding the importance of care of child receiving oxygen therapy. The planned teaching programme heart great potential for accelerating the awareness regarding the importance of care of child receiving oxygen therapy.

References

1. Manivannan C. text book of paediatric Nursing.1st edition. Bangalore: Emmess medical publisher, 2009, 393.
2. Gupta piyush. Essential paediatric Nursing.2nd edition. Banglore: CBS publishers and distributers, 2007, 425.
3. Vishawanathan J. Textbook of paediatric.3rd edition. Hyderabad: orient Longman pvt, 1989, 829.
4. Marlow R, Dorothy Redding A. Barbara. Marlow's text book of paediatric Nursing. Newdelhi: Elsevier- a division of reed Elsevier India pvt, 2013, 213-214.
5. Zipa T, Vine J, Munns A. Home oxygen therapy for infants and young children with acute bronchiolitis and other lower respiratoryinfection. HiTHOX programme,2013:36(4)309-18.
6. Machado A, Bhandari A, George A. Oxygen therapy for children need -based preparation and evaluation of a self -instructional module for staff nurses on care of a child receiving oxygen therapy. Nursing journal of India,1998:89(6):125-7.
7. Bressan S, Balzanu M. High flow nasla canula oxygen for bronchiolitis in paediatric war, 2013.