Original Research Paper

Obstetrics & Gynaecology

AN EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING WARM CHAIN ON PREVENTION OF HYPOTHERMIA IN NEWBORN AMONG 3RD YEAR BASIC B.SC NURSING STUDENTS IN SELECTED NURSING COLLEGES OF THE CITY.

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ABSTRACT **Aims:** The aim of present study were to assess the pre-test knowledge regarding warm chain on prevention of hypothermia in newborn among 3rd year Basic B.Sc nursing students ,to assess the post-test knowledge regarding warm chain on prevention of hypothermia in newborn among 3rd year Basic B.Sc nursing students, to evaluate the effectiveness of planned teaching programme on knowledge regarding warm chain on prevention of hypothermia in newborn among 3rd year Basic B.Sc nursing students. **Material and Methods:** Non probability convenient sampling technique was used to select the sample. Quantitative research approach with pre-experimental one group pre-test post-test design. The data collected during the month of November among 3rd year Basic B.Sc nursing students in selected nursing colleges of the city using socio demographic data sheet, Self structured knowledge questionnaire . **Results:** A total of 60 3rd year Basic B.Sc nursing students participated in the study, 19-20 years of age group n=34, 21-22 years of age group n=25, 23-24 years of age group n =1, in which 3rd year Basic B.Sc nursing students male n =9 and female n = 51. On final scoring of test in pre-test score 41 were average,18 were good,1were poor level of knowledge score. Post-test score 7 were good, 38 were very good,15 were excellent level of knowledge score. **Conclusions:** The study finds that the knowledge of age, type of family was significantly improved after receiving information in the form of planned teaching programme on warm chain on prevention of hypothermia in newborn.

KEYWORDS : effectiveness, planned teaching programme, warm chain, hypothermia.

INTRODUCTION:

Every child born into the world is a new thought of God on ever fresh and radiant possibility .

The protection of newborn is very important warm chain is set of ten interlinked procedures carried out at birth and during the following hours and days which will minimize the like hood of hypothermia in all newborns. The room where the birth occurs must be warm (at least 25^0 c /77^0 F) and free from droughts. At birth, warm delivery room, immediately dried and covered before the cord cut, while it is being dried, it should be warm surface such as the mothers chest or abdomen (skin to skin contact), Skin to skin contact with the mother is the best way of keeping the baby warm. If this is not possible, alternative means of preventing hat loss and providing warmth -such as wrapping the newborn baby and putting it in a warm room or under a radiant heater will be necessary. Breastfeeding should start within one hour of delivery. This will provide the baby with calories to produce body heat. bathing and weighting postponed, appropriate clothing, mother and baby together, warm transportation,warm resuscitation, training and awareness raising.[3]

BACKGROUND OF THE STUDY:

In early 1900s it was realized that a warm environment was essential in the care of low birth weight newborn because they could not maintain their own body heat. Hypothermia (i.e. body temperature below normal) has since been recognised as a significant cause of neonatal illness and death, and been described in low birth weight as well as normal newborn, on every continent, and even in tropical countries.[3]

NEED FOR THE STUDY:

According to global high prevalence of newborn hypothermia ranging from 44% to 69% in Zambia to 53% in Ethiopia, 62% to 68% in Nigeria, and 85% in Zimbabwe.

According to global hospital community-based study shows in India, Haryana 11%, utter Pradesh 14%, new Delhi 25% Cases found on neonatal hypothermia.[8]

OBJECTIVE OF THE STUDY

1. To assess the pre-test knowledge regarding warm chain on prevention of hypothermia in newborn among 3rd year Basic B.Sc nursing students.
2. To assess the post-test knowledge regarding warm chain on prevention of hypothermia in newborn among 3rd year Basic B.Sc nursing students.
3. To evaluate the effectiveness of planned teaching programme on knowledge regarding warm chain on prevention of hypothermia in newborn among 3rd year Basic B.Sc nursing students.
4. To association of knowledge score with selected demographic variables.

HYPOTHESIS

Will be tested at 0.05 level of significance- **H₀:** There will be no significant difference in the pre-test and post -test knowledge score regarding warm chain on prevention of hypothermia in newborn among 3rd year Basic B.Sc. nursing students.

H_1 : There will be significant difference in the pre- test and post- test knowledge score regarding warm chain on prevention of hypothermia in newborn among 3rd year Basic B.Sc. nursing students.

ETHICAL ASPECTS
• Permission was taken from the ethical committee.
• Proper explanation regarding the purpose of the study and nature of questionnaire involved in the study was given to the samples.
• Information about the sample was handled properly so that confidentiality and anonymity are maintained.

CONCEPTUAL FRAMEWORK
The conceptual framework selected for the study was based on Ernestine Wiedenbach's "Prescriptive Theory" (Helping art of clinical nursing).

SAMPLING CRITERIA:
INCLUSIVE CRITERIA
The criteria that specify characteristics that a population does have. In this study, inclusive criteria was,

In this study, inclusive criteria was, nursing students who are;
1. 3rd year Basic.B.sc nursing students
2. Willing to participate in study
3. Available at the time of data collection

EXCLUSIVE CRITERIA
It is the criteria that involves people who does not possess the population characteristics

In In this study the exclusive criteria was, nursing students who are; GNM, Post Basic B.Sc. Nursing , M.Sc. nursing students

METHODOLOGY :
Non probability convenient sampling technique was used to select the sample. Quantitative research approach with pre-experimental one group pre-test post-test research design. The data collected during the month of November 2019 among 3rd year Basic B.Sc nursing students. Total 60 samples were selected. After obtaining consent from the subjects, socio demographic and semi structured knowledge questionnaire were administered and data were collected.

TOOLS:
PREPARATION OF TOOL
Tool or research instrument is a device to measure a concept of interest in a research project that a research use to collect data.

In this study tool consists of semi structure questionnaire for assessing knowledge which includes:

Section I: The investigator constructed this tool to collect the background data of the study and to identify the influence of sample characteristics with the association in them. It included variables like Age (in years), Gender, Religion, Types of family, Area of residence, Monthly family income, Exposure to information, source of information.

Section II: The investigator constructed this tool to identify the influence of participants by questionnaire on knowledge regarding warm chain on prevention of hypothermia in newborn.

It consists of questions on –
• Knowledge regarding introduction
• Knowledge regarding definition
• Knowledge regarding causes
• Knowledge regarding sign and symptoms
• Knowledge regarding complications
• Knowledge regarding concept and steps of warm chain

DESCRIPTION OF TOOLS
Section I – demographic variables
The investigator constructed this tool to collect the background data of the study subjects and to identify the influence of the sample characteristics with their level of knowledge.

It includes total 8 demographic variables such as Age (in years), Gender, Religion, Types of family, Area of residence, Monthly family income, Exposure to information, source of information.

Section II – Semi structured knowledge questionnaire
A semi structured knowledge questionnaire was conducted by reviewing the related literature and consultation with experts. The questionnaire consists of 30 multiple choice question on knowledge regarding warm chain on prevention of hypothermia in newborn.

Total score is 30. Each question carries 1 mark and zero for the wrong answer.

Knowledge score

Excellent	25-30
Very Good	19-24
Good	13-18
Average	7-12
Poor	0-6

RESULT:
In this chapter, different aspects of the study in terms of analysis and interpretation are discussed. The study reveals mean pre test knowledge score 11.58 and the mean post test knowledge score was 22.75. The calculated value 38.46 is greater than tabulated value 2.00 at 0.05 level of significance.

Hence it is statistically interpreted that the planned teaching programme on knowledge regarding warm chain on prevention of hypothermia in newborn among 3rd year Basic B.Sc nursing students was effective. Thus the H_1 is accepted and H_0 is rejected.

Analysis also reveals that there is association of knowledge score with age (in years), Type of family while none of the other demographic variable were associated with knowledge score.

REFERENCES
1. Ms. Viji Prakash ,available from: www.rguhs. ac.in/ cdc/ onlinecdc/ uploads/ 05 N113 33840.doc cited on 9-3-2019 at 5.49pm.
2. Parul Datta " Pediatric Nursing" 3rd edition , Jaypee brothers publication, page no- 83 cited on 9-3-2019 at 6pm.
3. "Thermal protection of the newborn" Available from :(www.google.com)http:// medical.abu-osba.com/published papers/ 2008 1128142418.ppt cited on 9-3-2019 at 8pm.
4. https://www.wisegeek.com/what-is-neonatal-hypothermia.htm ,cited on 9-3-2019 at 8.8pm.
5. Jeffrey Pradeep Raj, Dr.Sathish Kumar T, Dr. Suganthy Kumar K ,Indian Journal of Medical Research and Pharmaceutical Sciences December 2015; 2(12) ISSN: 2349-5340 available from: http://www.ijmrps.com/ Issues% 20 PDF/Vol.2/December-2015/4.pdf cited on 21-3-2019 at 9 am.
6. Fedine Urubuo, Faustine Agaba Jaesok Choi, Raban Dusabimana,Journal of Maternal-Fetal and Neonatal Medicine • October 2019, available from: https://www.researchgate.net/publication/336566368_Prevalence_risk_facto rs_and_outcomes_of_neonatal_hypothermia_at_admission_at_a_tertiar y_n eonatal_unit_Kigali_Rwanda_-_a_cross-sectional_studycited on 3/2/2020 at 9.30 am.
7. Anna Bergström ,Romano Byaruhanga ,Pius Okong,(January 2005) available from: https://onlinelibrary.wiley.com/doi/full/10.1111/j.1651-2227.2005. tb01821. cited on 22-3-2019at 8.27pm.
8. https://bmcmedicine.biomedcentral.com/articles/10.1186/1741-7015-11-24 ,cited on 21-3-2019 at 12.45pm.
9. Geeta G Bellundagi ,Dr. Ninganagouda G Patil ,International Journal of Applied Research 2018; 4(8): 94-9 available from: :http:// www. allresearchjournal.com/archives/2018/vol4issue8/PartB/4-8-6-562.pdf cited on 21-3-2019 at 1pm.
10. Shamba D,Schellenberg J, Hildon ZJ ,et.al, available from: https://www. ncbi.nlm.nih.gov/pubmed/25110173 cited on 21-3-2019 at 2.14pm.

11. Vikram Datta, Arvind Saili, Srishti Goel ,et.al ,Reducing hypothermia in newborn admitted to a neonatal care unit in a large academic hospital in New Delhi, India. BMJ Open Quality-2017-000183 available from: https://bmjopenquality.bmj.com/content/bmjqir/6/2/e000183.full.pdf cited on 21-3-2019 at 12.6pm.

12. F Nayeri, F Nili Vali-e-Asr ,Reproductive Health Research Center, Tehran University of Medical Sciences, Iranian J Publish Health, 2006, Vol. 35, pp.48-52 available from: http://citeseerx.ist.psu.edu/ viewdoc/download?doi=10.1.1.507.5196&rep=rep1&type=pdf cited on 21-3-2019 at 12.8 pm.

13. Null Nuryanti Zulala, Mei Neni Sitaresmi, Sulistyaningsih, August 2017 available from: https://www.researchgate.net/ publication/ 318923755 Vaginal delivery to reduce_the_risk_of_hypothermia_to_newborn cited on 21-3-2019 at 4.44pm.

14. Hawker Sara, "Little oxford English Dictionary", 9th edition, Oxford university press publication, page no. 36, 217, 521, 718, 549.

15. Piyush Gupta, Essential of pediatric nursing ,3rd edition, CBS publication, page no 118.

16. Oxford advanced American Dictionary ,available from: https;// www.oxfordlearnersdictionariess.com cited on 23/1/2020 at 6.46pm.

17. Taber's cyclopaedic medical dictionary, volume 2, 20th edition, page no 1467, 1748.

18. http://currentnursing.com/nursing_theory/Ernestine_Wiedenbac h.html cited on 10/1/2020 at 9pm.

19. Kartsen Lundze, Davis R Marsh Prevention and Management of Neonatal Hypothermia_in_Rural_Zambia available from: https:// www. researchgate.net/ publication/261516644 cited on 21-3-2019at3.4pm.

20. Nimbalkar SM, Patel VK, Patel DV, Nimbalkar AS, Sethi A, Phatak A, available from: https://journals.sagepub.com/doi/pdf/10.1177/20101055452.