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A Study to Assess the Effectiveness of Nurse Led Education on Knowledge of Mother Regarding Care of Neonates with Icterus in Selected Hospitals at Kanpur, U.P.

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ABSTRACT

Having a newborn baby admitted in NICU with Icterus is one of the most stressful experiences a parent can have for care of neonates.It is anunanticipated event and parents frequently differ in coping with this situation.In recent years, partnership with parents is a principle that is valued and promoted across pediatric health care systems internationally.This study aimed to assess the level 0f knowledge of mothers regarding care of neonates with icterus and to evaluate the effectiveness of nurse education on knowledge of mother regarding care of neonates with icterus. An evaluatory approach with one group pre- test, post-test pre- experimental design was adopted for this study. Convenient sampling was used to select the Hospital in Kanpur. 50 subjects were selected by using purposive sampling method. The collected data were analyzed by using descriptive and inferential statistics. There was a significant increase in knowledge of mothers regarding care of neonates with Icterus(t_{49}=30.928,P<0.05).There was a significant improvement in knowledge of motherafter Nurse led education (t49=17.792, p<0.05, t49=13.525, p<0.05). Hence Nurse led education was found to be effective in increasing the knowledge and improving the knowledge of mothers regarding care of neonates with Icterus.

Keywords: *Nurse education, knowledge, Mothers, care of neonates, Icterus.*

INTRODUCTION

A new born's skin and eyesturning yellow is known as infant jaundice. An overabundance of bilirubin (bil-ih-ROObin), a yellow pigment found in red blood cells, causes infant jaundice. Infant jaundice is a common illness, especially in certain breastfed babies and preterm babies delivered before 38 weeks of pregnancy. Usually, infant jaundiceresultsfromababy'slivernot beingdevelopedenoughtoeliminatebilirubinfromtheblood.Infant jaundice may be caused by an underlying condition in certain neonates.[1]

Almostallbabieshavephysiologicaljaundice,whichisamoderateformofunconjugated (indirect-reacting) bilirubinemia. At 72 to 96 hours of age, physiological jaundice levels normally peak at 5 to 6 mg/dL (86 to 103 µmol/L) and fall to 17 to 18 mg/dL (291–308 µmol/L). For Asian babies or babies delivered between 35 and 37 weeks of pregnancy, levels might not reach their peak until seven days of age.[2]

The yellowcoloris dueto thebilirubinthatis producedwhenred bloodscells getold and are broken down by the body. When there is excessive red blood cell breakdown, the bilirubin level in the blood goes up and it also gets deposited in the tissues imparting a yellow color to the skin[2]. Jaundice is the commonest abnormal physical finding during firstweekoflife.Inallnewbornbabiesredbloodcellsarebreakingdownatrelativelyhigh rate. One of the by-products of this process is bilirubin.[3]

Hyperbilirubinemia is a common problem in infants. About 60% of term babies and 80% of preterm babies get jaundice during the first week of life. The serum bilirubin level is influencedbythebody'sinternalenvironment,chronologicalage,gestationalage,andbirth weight. When the level of total serum bilirubin (TSB) surpasses a critical threshold, the blood-brain barrier is breached. Neonatal hyperbilirubinemia (NNH), which is defined as a TSB level morethan 5 mg/dL (86 mol/L), is a prevalent problem. During thefirst weekof life, all newborns have chemical hyperbilirubinemia, which is defined as TSH levels greater than 2 mg/dl.Despite the fact that few term newborns have a serious underlying illness, that with in the first week of life,upto 60% of them sufferfrom clinicaljaundice.[4]

AIMS AND OBJECTIVES

Thewidespreadrecognitionbyboth researchersandcliniciansthat educationiscriticalto parenting an Icterus neonate led to development programs to support parents in this challenging process. These programs have, in general, focused on developing skills for care giving tasks, advocating for the infant, and working in partnership with the infant's clinicians.Nurseleded ucationprogramhasfocusedonenhancingmothers'knowledgeof care of Icterus neonates.[5]

STATEMENT OF THE PROBLEM

"A study to assess the effectiveness of nurse led education on knowledge of mother regarding care of neonates with Icterus in selected hospitals at Kanpur, U.P".

OBJECTIVESOFTHESTUDY

1. To assess the Pretest level of knowledge of mothers regarding care of neonates with icterus.
2. To assess the Posttest level of knowledge of mothers regardingcare ofneonates with icterus.
3. Toevaluate the effectiveness of nurse led education on knowledge of mother regarding care of neonates with icterus.
4. To find out the association between pre-test level of knowledge of mother regarding care of neonates with icterus their selected demographic variables.

METHODOLOGY

RESEARCHAPPROACH

For this study, an evaluative research methodology was adopted . Assessing the efficacy of nurse-led education was the primary objective of the current study.

RESEARCH DESIGN

A research design is a for conducting a study that maximizes control over factors, that couldinterferewiththevalidityofthefindings.[36]Inordertoaccomplishthemainobjectiveof assessing the effectiveness of Nurse led education on care of neonates with Icterus amongmothersofPostnatalmothersadmittedtohospital,pre-experimentalonegrouppre-test and post-test design was adopted.

In one group pretest, post-test design, the group is observed before and after the independent variable is introduced. This research method is used in situations where it is not possible or feasible to have control groups.

O_1-Pre- test

X-NurseledEducationO_2-Post test

VARIABLESUNDERSTUDY

Variables are concepts at different levels of abstraction that are concisely defined to promote their measurement or manipulation within a study.[8]

Thefollowingvariablescanbe identified inthepresentstudy.

Independent variable

A stimulus or action thatthe researchermodifies oralters in orderto affect the dependent variable is known as an independent variable. Another name for the independent variable is a treatment or experimental variable.[48] Nurse-led education is the independent variable in this study

Dependent variable

Thereaction,action,orresultthattheresearcherwishestofore-castorexplainisknownasa dependent variable.[37]

In the present study, the dependent variables are knowledge of mother regarding care of neonates with Icterus.

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RESULT

Table1 :FrequencyandpercentagedistributionofthePreandPosttestscoresofthe subjectsonCareofneonateswithIcterus.

N=50

			Pre-test			Post-test	
Score	**Knowledge**	**No.**		**%**	**No.**		**%**
21-30	Adequate	-		-	13		26
11-20	Moderate	7		14	37		74
1-10	Poor	43		86	-		-

According to the data in Table 1, the majority of subjects (86%) had Poor Knowledgescores on the pre-test, while the majority of subjects (74%) had Moderate Knowledge scores on the post-test, and none of them had Poor Knowledge. This suggests that the mother's knowledge had improved in the post-test.

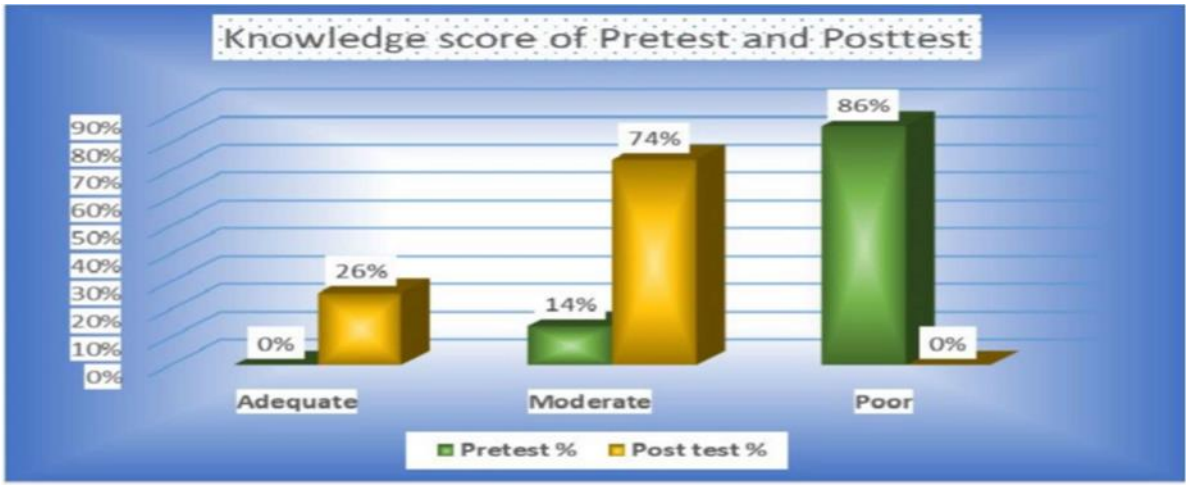

Table2 :Distributionof't'valuebetweenthepreandpostKnowledgescorescareofneonateswithIcterus.

n=50

	Mean±SD	**Meandifference**	**Meanpercentage**	**SED**	**t**	**d.f**	**L.O.S.**
Pre	170.37±20.11		75.72	2.6152		49	P<0.05**S**
Post	89.49±19.80		80.88	39.8		30.928	

t49=2.0092,P<0.05levelS= Significant

The findings presented in Table 2 indicates that mothers' knowledge of how to care for infants with icterus had significantly lower mean post-test scores (89.49) than mean pre- test scores (170.37). The calculated "t" value (30.928) was higher than the table value (2.0092)atthe0.05levelofsignificance.Therefore,itcanbesaidthatwomenadmittedto the postnatal ward were successfully educated by the nurse-led program on the management of newborns with icterus. Consequently, the research hypothesis was accepted and the null hypothesis was rejected.

TheknowledgeofmotheroncareofneonateswithIcterus

Accordingtothedata,43 (86%)ofthe50 subjectshadpoorknowledgeabouthowtocare for neonates with icterus, while the remaining 7 (14%) had moderate knowledge. In contrast, 37 (74%) of the subjects had moderate knowledge, 13 (26%) had adequate knowledge, and none of them had poor knowledge in the post-test, indicating that the mother's knowledge had improved.

SectionIII-EffectivenessofNurselededucationprogramamongmother

The calculated 't' value (30.928) was more than the table value (2.0092) at 0.05 level of significance.So,itcanbeconcludedthattheNurselededucationprogramwasfoundtobe effective among mothers admitted in postnatal ward on care of neonates with icterus. So, the research hypothesis was accepted and null hypothesis was rejected.

Section IV: Association between Pretest knowledge score and selected demographic variables.

Age, education, residential area, dietarypattern, and delivery history did not significantly correlatewith thetestknowledgeresult.thegender,birthorder,and gestationalageofthe infant. Pretest knowledge scores and the mother's occupation and knowledge of the newborn's icterusweresignificantlycorrelated.

Accordingtorelatedstudiesthatcorroboratethestudy'sconclusions,36%ofmotherswere in the25–30 age range. Ofthem, themajority(84%) wereMuslims, 49% weremultipara, and76%werehousewives.Themajorityofthemoms(88%)hadinadequateunderstanding of newborn jaundice, according to another significant study. demonstrate a strongcorrelation between mothers' occupation, education level, and awareness of newborn jaundice. The results of this study showed that mothers' understanding of the causes and warningsymptomsofnewbornjaundicewas inadequate.Mothers'knowledgeofnewborn icterus was significantly influenced by their occupation and degree of education.

Conclusion

There was a significant increase in knowledge of mothers regarding care of neonates with Icterus(t_{49}=30.928,P<0.05).There was a significant improvement in knowledge of mother after Nurse led education (t49=17.792, p<0.05, t49=13.525, p<0.05). Hence Nurse led education was found to be effective in increasing the knowledge and improving the knowledge of mothers regarding care of neonates with Icterus.

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