A study to assess the effectiveness of video assisted teaching programme on neonatal complication among postnatal mothers at SMCH, Thandalam

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Abstract

Background: The birth of a newborn is the most joyful occasion for the mother and the family. The joy continues only if the newborn survives its first few minutes of struggle for existence. The first few minutes after birth make the difference between life and death for a newborn. Although most babies smooth transition from fetal to neonatal life, 4 to 6% of the neonates are likely to face difficulties, dehydration, infections, jaundice, bereavement, the unexpected ill hospitalized infants, fetal distress, delivery by caesarean section, preterm delivery, Apgar score <6 at one minute, required assisted ventilation, delivery by forceps, etc., these are the leading newborn complications in developing countries.

Objectives: The aim of the present study is to assess the effectiveness of video assisted teaching program on knowledge regarding on neonatal complication among postnatal mothers used in pretest and posttest with the help of demographic variable and association.

Materials and methods: Research approach used for the study was quantitative approach. The research design was one group pretest posttest design. Convenient sampling technique was used and statistical method applied for the study. The study was conducted in SMCH, Chennai.

Results: Considering overall knowledge score, in pretest the mean value is 10.48 and in posttest the mean value is 20.88. Through the knowledge on neonatal complications among postnatal mothers showed significant improvement in mean in posttest than pretest. The paired t test value is 23.7220 and is highly significant.

Conclusion: The study indicates need of education knowledge regarding neonatal complication to postnatal and their family members.

Keywords: Video: assisted teaching program (VATP), postnatal mothers, neonatal complication, pretest and posttest

1. Introduction

The birth of a newborn is the most joyful occasion for the mother and the family. The joy continues only if the newborn survives its first few minutes of struggle for existence. The first few minutes after birth make the difference between life and death for a newborn [1]. Although most babies smooth transition from fetal to neonatal life, 4 to 6% of the neonates are likely to face difficulties, dehydration, infections, jaundice, bereavement, the unexpected ill hospitalized infants, fetal distress, delivery by caesarean section, preterm delivery, Apgar score <6 at one minute, required assisted ventilation, delivery by forceps, etc., these are the leading newborn complications in developing countries [2].

The healthy newborn infants refers to an infant in the first 28 days after birth. They establish independent rhythmic respiration quickly and adapts with the extra uterine environment has an average birth weight and no congenital anomalies [3].

According to WHO report, the global birth rate is 27.3 per 1000 populations in Nepal crude birth rate is 34 per 1000 and 13 deaths occurs in 100 live birth. Two third of all deaths in first year occur in the neonatal period. In India is reported that 50 – 60% of all neonatal deaths occur within the first month of life of these, more than half may die during the first week of life. Most of the deaths are due to birth asphyxia, hypothermia, and infections which are preventable if the quality of care is maintained. Worldwide, about eight newborn babies die every minute. Every year more than four millions babies die during first week of life due to inadequate care by mothers /caregivers [4]. Each year in India over one million newborns die before they complete their first month of life, accounting for 30% of the World’s neonatal death.
Almost one in every three babies in the world, who die before they are four weeks old is in India. India’s current neonatal mortality rate of 44 per 1000 live births represents 1.2 million children who die each year. Neonatal mortality is higher in rural areas at 49 per 1000 live births [4].

Appropriate care during labour and childbirth combined with neonatal resuscitation, when needed, can substantially reduce mortality due to birth asphyxia. Newborns with severe asphyxia need post-resuscitation care in hospitals [5]. Early identification of newborn infections with prompt and appropriate antibiotic treatment will substantially reduce mortality due to newborn sepsis and pneumonia. Newborns with serious infections need intramuscular or intravenous antibiotics and supportive care. Intramuscular antibiotics delivered by skilled health care providers will save lives [6].

K. C. Leena et al. (2014) [7] descriptive study was carried out among the mothers of neonates in the Maternity Unit of a Medical College Hospital in Mangalore. A pretested structured knowledge questionnaire was used to collect information from 60 primi mothers, who were admitted for safe confinement for a one-month period. The findings of the study show that the majority, that is, 27 (45%) of the primi mothers had a good knowledge of all the areas such as vomiting, regurgitation, diaper rash, umbilical cord infection, fever, constipation, and diarrhea. About 20 (33.3%) had very good knowledge and about 13 (21.67%) had an average level of knowledge on the common problems of newborns. Knowledge about vomiting was average among 34 (56.67%), poor in 21 (35%), and good in five (8.33%). Knowledge about diaper rash was average among 36 (60%), good among 21 (35%), and poor among three (5%). Knowledge on umbilical cord infection was average in 29 (48.33%), good in 27 (45%), and poor in 4 (6.67%). Knowledge on fever was good in 38 (63.33%), average in 19 (31.66%), and poor in three (5%). Knowledge on constipation and diarrhea were average in 38 (63.34%), good in 11 (18.33%), and poor in 11 (18.33%) [7].

Manjubala Dash (2013) [8], a descriptive study to assess the knowledge and attitude on neonatal jaundice among the 50 mothers in selected villages of Puducherry was conducted with Interview schedule and convenient sampling technique. The objectives of the study are to assess the existing knowledge and attitude of the mothers on neonatal jaundice and management of baby during neonatal jaundice. The findings of the study shows that 21(42%) mothers were in the age group of 21 – 25 years, 48(96%) were Hindus, 24(48%) were educated up to primary level, 40(80%) belong to joint families, 38(76%) were primi, 12(24%) were multi mothers. Regarding the knowledge on neonatal jaundice, only one 1(2%) mother had adequate knowledge. In relation to their attitude it showed that 15(30%) mothers had positive attitude towards the management pattern of the baby on jaundice-that is taking the baby to hospital for treatment, continuing breast feeding etc. conclusion- mother is the first care giver for the baby, so they must identify the color change and seek immediate medical care, by which they can prevent the complications and save the life [9].

2. Materials and methods

A quantitative approach with one group pretest and posttest research design was used to conduct the study. Postnatal mothers had been selected as sample in the total population and there were 100 postnatal mothers. Convenient sampling technique was used to select the subjects from the target population. Criteria of sample selection: Inclusive Criteria are postnatal mothers who are in postnatal mothers to the hospital, who know to read and write Tamil or English, Who are willing to participate, who are above 20 years of age. Exclusive criteria are clients from medical and paramedical professions Selection and development of tools: data collection instrument was “structured questionnaire” and the data collection method done through structured questionnaire. Description of the tool: Socio-demographic Pro forma: which included 10 items such as name, age, sex, educational background, marital status, occupational status, per capita income in rupees, religion, food habits. Structured Knowledge Questionnaire about neonatal complication was used to assess the knowledge of postnatal mothers. It consists of 30 close ended questions to assess the knowledge of postnatal mothers regarding neonatal complication. Postnatal mothers were interviewed and the answers were written in the box provided against each question. Each question have one correct response and the correct answer was awarded a score of “one” and the wrong answer was awarded a score of “zero”. The total score was 35. The knowledge score interpretation is used in the study as follows, when the knowledge score is below 50% it is Inadequate knowledge, when the score is between 51-75% it is Moderate knowledge and when the score is above 76% it is Adequate knowledge. Video Assisted Teaching Programme on neonatal complication: the VATP was developed according to the literature review, objectives and sample size and the content of STP are a) introduction b) definition c) causes d) signs and symptoms e) types f) Complication g) management h) prevention. The procedure as (a) a formal written permission was taken from the hospital administrators of selected hospital (b) consent was taken from the postnatal mothers (c) sample information kept confidential and used for research purpose (d) the investigator collected data from the selected hospitals and (e) investigator had taken pretest first of the sample& then administered VATP and then after seven days the posttest.

3. Results and discussion

Section A: Sample characteristics among of 100 samples 36(36%) samples comes under the age group of 20-25 years, 20(20%) were come under the age group of 26-30 years,32(32%) were under the age group of 31-35, 12(12%) were under the age group of 36-40 years. Regarding sex out of 100samples 100(100%) were female. Regarding education out of 100 samples 12(12%) were none, 32(32%) were finished elementary education, 20(20%) were finished
junior and high school education, 36(36%) were degree holder.

Section B: Assessment level of postnatal mothers in pre-test and post-test level out of 100 samples 76(76%) had inadequate knowledge, 24(24%) had moderate knowledge and none have adequate knowledge in pretest shown in figure 4. It also shows that out of 100 samples 64(64%) had adequate knowledge, 36(36%) had moderate knowledge and none of them had inadequate knowledge in posttest.

Table 1: frequency and percentage of pretest and posttest knowledge level of postnatal mothers

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Pre test</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>Inadequate knowledge</td>
<td>76</td>
<td>76%</td>
</tr>
<tr>
<td>Moderate knowledge</td>
<td>24</td>
<td>24%</td>
</tr>
<tr>
<td>Adequate knowledge</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Section C: Effectiveness of video assisted teaching programme on neonatal complication among postnatal mother.

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Pre Test</th>
<th>SD</th>
<th>Mean difference</th>
<th>Paired T value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td></td>
<td>Paired T value</td>
</tr>
<tr>
<td>Pre Test</td>
<td>10.48</td>
<td>3.6083</td>
<td>10.40</td>
<td>P &lt;0.0001</td>
</tr>
<tr>
<td>Posttest</td>
<td>20.88</td>
<td>2.7461</td>
<td>10.40</td>
<td>T=23.7220 DF=99</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P=0.001</td>
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Shows that the mean, standard deviation, mean difference paired t test value of pre and posttest. In pretest the mean value is 10.48 and standard deviation is 3.6083. And in posttest the mean value is 20.88 and the standard deviation is 2.7461. The mean difference between pre and posttest is 10.40. Through the knowledge on neonatal complication showed significant improvement in mean and standard deviation in posttest than pretest. The paired t test value is 23.7220 and is highly significant.

4. Conclusion
A study conducted on the effectiveness of video assisted teaching programme regarding neonatal complication among postnatal mothers showed a significant improvement in knowledge level of postnatal mothers as well as their family members after the administration of a Video Assisted Teaching Programme.

5. References
6. Soheila Rabiepoor, Shahsanam Gheibi. To study the knowledge and Attitude of Postnatal Mothers on Neonatal Jaundice in Motahari Hospital, Iran. Clinical Medicine Research 2014, 1-5.