A study to assess the skills regarding immediate newborn care and knowledge on identification of danger signs with a view to develop its protocol among B.Sc. nursing final year students in a selected hospitals

Dr. Malti Lodhi
Principal, Regional institute of Nursing, Jabalpur Madhya Pradesh, India

Abstract
A non-experimental descriptive survey approach was undertaken in the present study “a study to assess the skills regarding immediate newborn care and knowledge on identification of danger signs with a view to develop its protocol among B.Sc. nursing final year students in a selected college of nursing”. Findings of the study reveal that there is moderately positive correlation between skills regarding immediate newborn care and knowledge related to identification of danger signs in newborn as calculated coefficient of correlation (0.20) < critical value (0.25). The findings of the present study have implications for nursing practice, nursing administration, nursing education and nursing research.

Keywords: Knowledge, skills, immediate newborn care, danger signs, protocol.

Introduction
Objectives of the Study
• To assess the skills regarding immediate newborn care among B.Sc Nursing final year students.
• To assess the knowledge regarding identification of danger signs in newborn among B.Sc. Nursing final year students.
• To find the correlation between the skills regarding immediate newborn care and knowledge on identification of danger signs in newborn among B.Sc Nursing final year students.
• To find the association between the skills regarding immediate newborn care among B.Sc. Nursing final year students with selected socio demographic variables.

Background of the Study
The birth of a baby is one of life’s most wondrous moments. Newborn babies have amazing abilities, yet they are completely depended on others for feeding, warmth and comfort. Newborn is a continuum of the fetal life and a very important transient time to adopt extra-uterine life. Newborn care is of immense importance for the development and healthy life of a baby. The physical and mental wellbeing of every individual depends on the correct management of events in the perinatal period [1].

The healthy newborn infant born at term, between 38 to 42 weeks, cries immediately after birth, establishes independent rhythmic respiration, quickly adapts with extra uterine environment, having an average birth weight and no congenital anomalies. The period from birth to 28 days of life is called neonatal period and the infant in this period is termed as neonate or newborn baby. The newborn care takes place immediately following birth, in the transition period, and during the postnatal period. This care may be shared with the parents in the maternity unit of a hospital or in an alternative birth centre or assumed by parents in the home. Newborns are a vulnerable group and therefore need more attention and care. The care given immediately after birth is simple but important [2].

Review of Literature
Every year, four million newborn deaths occur in the world out of which nearly one-fourth are contributed by India. Approximately 98% of this neonatal mortality takes place in developing countries of the world. The primary causes of neonatal mortality are believed.
to be complications of prematurity (21%), birth asphyxia and injury (23%), neonatal tetanus (7%), congenital anomalies (7%) and diarrhea (3%) with low birth weight contributing to a large population of deaths. Despite proven cost-effective solutions such as promoting antenatal tetanus toxoid immunization, skilled attendance during delivery, immediate and exclusive breastfeeding and clean cord care, there has been relatively little change in neonatal mortality rate (NMR), especially in developing countries.

Sanjay Shinde (2015) analysed a study to assess the knowledge regarding the newborn care among staff nurses working in Kumareshwar Hospital and Medical Research Centre, Bagalcot, with a view to develop an information booklet. In pre-experimental study, a total of 50 subjects selected through simple random sampling technique. The study employed pre-experimental one group pre-test design while data was collected by structured knowledge questionnaire. It was found that majority 30 (60%) of study subjects had medium knowledge and 20, (40%) of subjects had adequate knowledge regarding newborn care. All the babies require basic care to help their survival and well-being. The proven, low-cost measures to reduce the neonatal mortality include immediate care at birth as well as care during the first 28 days of life, when infants are most vulnerable. Hospital based observation gives painful evidence of poor care, regarding cleanliness, eye care, breast feeding initiation and thermal protection. Policy makers should think about strengthening of hospital care by involving strategies that include concerned quality training, equipment/drugs supply and monitoring the services provided.

Research Design
For the present study non-experimental descriptive survey design was used with objective to assess the knowledge regarding immediate newborn care and identification of danger signs in newborn among B.Sc. Nursing final year students.

Setting of the Study
The present study was conducted in selected college of nurses.

Sample
A sample is the small portion of target population selected to participate in the study. Polit and Hungler defines that sample as the subset of a population selected to participate in a research study. The sample of the present study comprises:

Sample Size
The sample size consists of 60 students of B.Sc. Nursing final year

Sampling Technique
Sampling technique is a process of selecting a group of people, event, behaviour and other element with which to conduct study in this study sample was selected by using convenient sampling.

The data were presented under following sections

Section A: Distribution of study subjects according to socio-demographic variables using frequency and percentage.

Section B: Analysis to assess the skills regarding immediate newborn care.
- Part I: Question wise analysis of skills regarding immediate newborn care using frequency and percentage.
- Part II: Overall analysis of skills regarding immediate newborn care.

Section C: Analysis to assess the knowledge of students on identification of danger signs in newborn.
- Part I: Item wise analysis of knowledge of students on identification of danger signs in newborn using frequency and percentage.
- Part II: Overall analysis of knowledge of students on identification of danger signs in newborn.

Section D: Analysis to find out correlation using Karl Pearson’s correlation coefficient.
- Analysis related to correlation between skills regarding immediate newborn care and knowledge on identification of danger signs in newborn of students of B.Sc Nursing final year.

Section E: Chi-square analysis for association of skills and knowledge with selected socio demographic variables.
- Analysis related association of skill score of students with selected socio demographic variables.
- Analysis related to association of knowledge score of students with selected socio demographic variables.

Major finding of study

Section B: Analysis to assess the skills regarding immediate newborn care.
- Part I: In question wise analysis of skills regarding immediate newborn care 60 (100%) documented birth time, sex, weight, tied tag, kept baby under radiant warmer and initiated breastfeeding within half an hour of birth correctly.
- Part II: In overall analysis of skill score of subjects as per criteria regarding immediate newborn care 22(36.66%) had good skills and 10(16.66%) of them had poor skills.
- Analysis to assess the knowledge related to identification of danger signs in newborn.
- Part I: In item wise analysis of knowledge related to identification of danger signs in newborn 52(86.6%) knew that cyanosis could be identified by bluish discoloration of extremities and 32 (53.3%) knew that abdominal distension could be identified by palpation, percussion and auscultation, common sites of bleeding are from cord and anus and major symptoms of diarrhea are sunken eyes, dry mouth and tongue, depressed fontanelles respectively.
- Part II: In overall analysis of knowledge score of subjects
  - regarding identification of danger signs in newborn as per criteria
  - Shows 20 (33.33%) students had good knowledge and 4 (6.66%) had poor knowledge.

Analysis to find out Correlation using Karl Pearson’s correlation coefficient.
There is a moderately positive correlation between skill and
knowledge of students as calculated correlation (0.20) was
greater than critical value (0.25) at degree of freedom 58
respectively.

**Part I: Chi-square analysis for association of skill regarding immediate newborn care with selected socio-demographic variables.**

- Association of skills regarding immediate newborn care with selected socio-demographic variables reveals that there is no significant association between skills of students with selected socio-demographic variables like age, teachers involved in teaching pediatrics, knowledge regarding immediate newborn care other than classroom teaching as the calculated chi square value (0.38, 0, 0.99) is less than table value (12.59, 21.03, 21.03) at p <0.05 level of significance respectively.

**Part II: Chi-square analysis for association of knowledge related to identification of danger signs in newborn with selected socio-demographic variables.**

Association of knowledge related to identification of danger signs in newborn with selected socio-demographic variables reveals that there is no significant association between knowledge of students with selected socio-demographic variables like age, teachers involved in teaching pediatrics, knowledge regarding immediate newborn care other than classroom teaching as the calculated chi square value(1.11,0,0.94) is less than table value(12.59, 21.03,21.03) at p <0.05 level of significance respectively.

**Table 1:** Overall Analysis of Skills Regarding Immediate Newborn Care

<table>
<thead>
<tr>
<th>Level of skill</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>22</td>
<td>36.66</td>
</tr>
<tr>
<td>Average</td>
<td>28</td>
<td>46.66</td>
</tr>
<tr>
<td>Poor</td>
<td>10</td>
<td>16.66</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

Depicts overall skills of subjects as per criteria regarding immediate newborn care. 22(36.66%) had good skills, 28(46.66%) had average skills and 10(16.66%) of them had poor skills.

<table>
<thead>
<tr>
<th>Study variable</th>
<th>Mean</th>
<th>Mean score %</th>
<th>SD</th>
<th>CV</th>
<th>r*</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills</td>
<td>50.93</td>
<td>72.75</td>
<td>4.44</td>
<td>11.4</td>
<td>0.204</td>
<td>Moderately positive correlation</td>
</tr>
<tr>
<td>Knowledge</td>
<td>7.7</td>
<td>64.16</td>
<td>1.51</td>
<td>5.09</td>
<td>&lt;0.05</td>
<td>Moderate positive correlation</td>
</tr>
</tbody>
</table>

Correlation between skills and knowledge of B.Sc nursing final year students shows that mean, mean score %, SD, CV of skill is 50.93, 72.75, 4.44, 11.4 respectively with the maximum score of 70 whereas mean, mean score %, SD, CV of knowledge is 7.7, 64.16, 1.51, 5.09. This shows that there is a moderately positive correlation between skill and knowledge of students as calculated correlation (0.20) is less than the critical value (0.25) at degree of freedom 58 respectively.

**Conclusion**

Newborn health is the key to child health and survival that is why immediate care at birth which is performed by a nurse is very important so as to reduce neonatal mortality rates and for longterm physical and neurocognitive development. The nurse is in a unique position to aid the neonate in the stressful transition from a warm, dark, fluid filled environment to an outside world filled with light, sound and novel tactile stimuli. The nurse performs an initial assessment to evaluate the neonate, its immediate post birth adaptations, and need for further support. Nurses are in a position to play a major role in public and professional education that leads to the prevention and management of newborn abandonment in this country. Therefore knowledgeable and skillful nurses are the backbone for the birth of a healthy newborn.

**Acknowledgement**

Researcher is thankful to hospital staff and nursing college. And also thankful to Dr. Anoop tiwari & Mr. Sanjeev Agrahari for helping in statistical analysis.

**References**
