

# ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICES OF NURSES ON ESSENTIAL NEWBORN CARE: BASIS FOR ENHANCEMENT OF NURSING CONCEPT AND SKILLS

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## Abstract

**Background:** Philippines' neonatal mortality rate remain to be stagnant for years (i.e., 14 per 1000 live births as per PSA and ICF, 2018), clearly showing that the Sustainable Development Goal 2016 target has not been reached (i.e., 10 per 1000 live births). Seminars and trainings are available for nurses to be familiar with this protocol. However, several factors, mainly the nursing staff shortage, had made it difficult for the hospital administration to allot time for all the necessary trainings for nurses.

**Purpose:** The purpose of this study was to assess the level of knowledge, attitude and practice of nurses on District hospitals on Essential Newborn Care and determine the significant difference between the nurses' profile and level of KAP on Essential Newborn Care for the enhancement of concepts and skills.

**Methods:** A total of 125 district hospital nurses were included in the study. The study utilized descriptive-correlational method to describe significant difference between variables. Online survey forms were distributed, and data were retrieved and analyzed.

**Results:** The obtained data showed that respondents were mostly aged 26-30 years old, without area of specialization (General Unit Nurse), having no Essential Newborn Care Trainings acquired.

**Conclusion:** The level of nurses' Knowledge on Essential Newborn care and some of the vital aspects on it is low due to lack of proper training of the involved nurses. The age and the area of specialization of nurses have significant difference in the knowledge and practice of essential newborn care and therefore can be used as a basis for the scheduling or assigning of nurses' involvement on seminars and trainings, to enhance their concepts and skills on this field.

**Keywords:** Essential Newborn Care, Knowledge, Attitude, Practices.

## Background

The World Health Organization (WHO) 2011 listed that 3.1 million neonates (first 28 days of life) die each year. Half of these remarkably transpire in the first 24 hours of delivery and 75% occur in the early neonatal period. One culprit for this event is when hospitals failed to practice the essential newborn care protocols. Philippine study revealed 3 in 4 birthing Filipino mothers (78%) seek to deliver in health facility, primarily in public sector facilities (PSA and ICF, 2018). So, health facilities need to be well equipped in handling quality maternal and child care.

In reality, nursing shortage is still an existing concern in the Philippine healthcare industry. District Hospitals in Bulacan is not an exemption to this. For example, one district hospital only has 27 nurses, with impending 2 resigning nurses, during the time of data collection. Whereas the proposed plantilla is to have 34 nurses for their 30 bed capacity. This nursing staff shortage had made it difficult for the chief nurses to allot time for all the necessary trainings for nurses. Having a decentralized health care system also became a challenge for Bulacan nurses to be kept updated and included on the programs or trainings of our National government, i.e., the Department Of Health. When asked as to why they have not send nurses for DOH trainings, one supervisor responded that there are shifting schedule conflicts, and it is difficult for them to choose a nurse participant to be trained in ENC. Also, almost all of the ENC trainings are held outside Bulacan. Another chief nurse said that her understanding on the new DOH ENC training is that their district hospital is not part of it since they have no Neonatal Intensive Care Unit, and their Nursery Rooms were removed as per DOH order.

Relative to the previous statements, these factors mentioned above need to be addressed immediately because it poses risk to inadequate implementation of the Essential Newborn Care. Chaghari, et al (2017) believed training exists as an investment in

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reaching productivity and employee retention by giving career development and job satisfaction in the long run.

Thus, this study intended to enumerate the identified gaps on knowledge and practice of ENC based on the DOH protocol AO 2009-0025, in order to give attention to these identified gaps for re-learning or re-training. The study also aimed to contribute to the nursing service division on the ease of decking their staff nurses for training in Essential Newborn Care using the demographic profile of the staff nurses.

**Objective**

The study determined and assessed the knowledge, attitude and practices of nurses and their significant difference on the corresponding demographic profiles included.

**Methods**

**Research Design**

The descriptive correlation study was utilized in the study to determine the assessment on knowledge, attitude and practices of nurses regarding Essential Newborn Care protocol.

**Respondents of the Study**

The main participants of the study were the nurses employed in Bulacan District hospitals whose work involves the performance of ENC. There are five district hospitals around Bulacan. District Hospitals are Level I government hospitals that includes emergency room, operating room, recovery room, maternity facilities, isolation facilities, pharmacy, and clinical laboratory. Currently, there are 233 employed nurses. Using a 95% confidence level with 5% margin of error, with a standard deviation of 0.5. The ideal sample size would be 146 respondents. The researcher selected sample by purposive sampling based on the respondents' availability and willingness to participate. Purposive sampling is a non-probability sampling technique that makes use of samples that are chosen by the judgment of the researcher. Due to the current health situation and strict health protocols imposed, the researcher had only gathered data from available district hospitals that

had allowed the researcher during the time of data collection, hence the total respondents gathered was 125.

**Research Instrument and Data Collection**

The profile characteristics of the nurses were included in the first part of the instruments, such as gender, age, length of service, area of specialization, and acquired number of essential newborn care training.

The study used three (3) instruments, namely the DOH guideline and standardized study tool of Bayisa Bereka Negussie and company (2018), tool adopted from literature by Horiuchi, S., Rattana et al (2018), 48-item standardized questionnaire by the World Health Organization. All tools were found to be granted open access with proper citation and credits to the authors.

The mode of data gathering was the questionnaire method. Each of the respondents was given a well-structured, well-instructed, and standardized set of questions. An online survey form was routed and was made accessible to the respondents. After accomplishing the questionnaires, data were retrieved from the online forms for further processing.

**Statistical Treatment of Data**

Descriptive statistics (frequency and percentage) was used to describe the findings for the demographic profile. The significant difference on the level of nurses' performance according to age, gender, area of specialization and acquired ENC trainings attended were measured through the statistical use of ANOVA.

**Ethical Consideration**

The study followed the ethical guidelines and considerations for the research undertaking. The study protocol was submitted, reviewed, and approved by the La Consolacion University of Philippines (LCUP) Research Ethics Committee with study protocol code 054/202103-DelaCruzA01.

**Results**

**Table 1: Demographic Profile of Respondents**

Age Range	Frequency	Percent
Less than 20 years	-	0
12 to 25 years old	12	9.6

26 to 30 years old	52	41.6
31 to 35 years old	28	22.4
36 to 40 years old	6	4.8
41 to 45 years old	13	10.4
46 to 50 years old	10	8
51 and above	4	3.2

Number of essential new born training	Frequency	Percent
Zero	118	94.4
One	7	5.6
Two	-	0
Three	-	0
Four	-	0
Five	-	0

New Born Care Training	Frequency	Percent
Inside the Hospital	1	0
Outside the hospital	6	4.8
No Training Yet	118	94.4

  

Area of Specialization	Frequency	Percentage
General Unit Nurse	79	63.2
Maternity Ward Nurse	4	3.2
DR/Labor Room Nurse	4	3.2
Emergency Nurse	30	24.0
Operating Room Nurse	-	0
Pediatric Nurse	8	6.4

The obtained data showed that respondents were mostly nurses aged 26-30 years old (41.6%), without area of specialization, or cited as General Unit Nurse (63.2%), having no Essential Newborn

Care Trainings acquired (94.4%). On the side note, those who acquired Essential Newborn Care Training attended the said training outside of hospital (4.8%) where they work.

**Table 2: Significant Difference on The Assessment of The Respondents on The Level of Nurses' Performance When Grouped According to Age Profile Using Analysis of Variance (ANOVA)**

Essential Newborn Care	f-value	Df	Significant value	Decision	Remarks
Knowledge on the essential newborn care	2.638	115	0.027	Significant	Reject the Null Hypothesis
Attitude on the essential newborn care	2.246	115	0.054	Not Significant	Accept the Null Hypothesis
Practice on the essential	4.176	115	0.002	Significant	Reject the Null

newborn care Baby not Breathing	5.353	115	0.000	Significant	Hypothesis Reject the Null Hypothesis
Before discharge	2.223	115	0.057	Not Significant	Accept the Null Hypothesis

The composite table on the significance difference on the assessment of the respondents on the level of nurses' performance and knowledge of essential newborn care when grouped according to age profile clearly manifested that the knowledge of essential newborn care when assessed by different ages have significant difference in terms of knowledge on the essential newborn care having a f-value of 2.638 with df of 115 with p-value of 0.027, practice on the essential newborn care having a f-value of 4.176 with df of 115 with p-value of 0.002 and baby not breathing having a f-

value of 5.353 with df of 115 with p-value of 0.000 that the three variables have less than the alpha value 0.05 which means that the evidences gathered must reject the null hypothesis. This implies that there is a statistical difference between the two variables of the study. Data denotes that knowledge on the essential newborn care, practice on the essential newborn care and baby not breathing have difference assessment when grouped in terms of age which means that age 20 years old have difference assessment with 30, 40 and 50 years old.

**Table 3: Significant Difference on The Assessment of The Respondents on The Level of Nurses' Performance When Grouped According to Area of Specialization Profile Using Analysis of Variance (ANOVA)**

Essential Newborn Care	f-value	Df	Significant value	Decision	Remarks
Knowledge on the essential newborn care	3.535	115	0.009	Significant	Reject the Null Hypothesis
Attitude on the essential newborn care	1.879	115	0.119	Not Significant	Accept the Null Hypothesis
Practice on the essential newborn care	7.809	115	0.000	Significant	Reject the Null Hypothesis
Baby not Breathing	6.162	115	0.000	Significant	Reject the Null Hypothesis
Before discharge	5.359	115	0.001	Significant	Reject the Null Hypothesis

It is clearly manifested from the table that the knowledge of essential newborn care when assessed by area of specialization have significant difference having a f-value of 3.535 with df of 115 with p-value of 0.009, practice on the essential newborn care having a f-value of 7.809 with df of 115 with p-value of 0.000, baby not breathing having a f-value of 6.162 with df of 115 with p-value of 0.000 and before discharge care having a f-value of 5.359 with df of 115 with p-value of 0.001 that the four variables have less than the alpha value 0.05 which means that the evidences gathered must reject the null hypothesis. This implies that there is a statistical difference between the two variables of the study. Data denotes that knowledge on the essential newborn care, practice on the essential newborn care, baby not breathing and before discharge have significant difference when grouped in terms of area of specialization. This means that a nurse assigned in general unit ward have different assessment with those assigned in emergency room and other areas.

However, the attitude on the essential newborn care having an f-value of 1.879 with df of 115 with p-value of 0.119 that is higher than the alpha value 0.05 which means that the evidences gathered must accept the null hypothesis. This implies that there is a no statistical difference between the two variables of the study. Data denotes that the attitude on the essential newborn care parameter have no difference in the assessment when grouped in terms of area of specialization which means that those who assessed by the general unit nurse have no difference those who assessed in the emergency nurse and other area of specialization.

### Conclusion

Overall, the data showed that the total average mean KAP are as follows: Knowledge is 13 (out of 20), Attitude towards Essential Newborn Care summarized to be interpreted as (Agree) and Practice on Essential Newborn Care has a total average mean, interpreted as (Always) practiced.

It is also notable to say that two out of the four time bound interventions included in ENC protocol have low percentage of correct answers from the respondents. Nurses' knowledge on immediate and thorough drying of the newborn and properly timed cord clamping and cutting were low.

Age profile and the area of specialization of nurses have significant difference in the knowledge and practice of essential newborn care. These two factors can be taken into consideration by the nursing division in decking the staff nurse for ENC training schedule.

### **Conflicts of Interest Disclosure**

The authors declare there are no significant competing financial, professional, or personal interests that might have influenced the performance or presentation of the work described in this manuscript.

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