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Research Article

**KNOWLEDGE AND EXPERIENCE OF NEWBORN  
RESUSCITATION PRACTICES AMONG NURSES OF LAHORE**Shazia Yousaf<sup>1</sup>, Samina Naz<sup>2</sup>, Tahira Shaheen<sup>3</sup><sup>1</sup>Head Nurse, The Children's Hospital and Institute of Child Health, Lahore<sup>2</sup>Charge Nurse, Punjab Institute of Cardiology, Lahore<sup>3</sup>Nursing instructor, Post Graduate College of Nursing Punjab, Lahore**Article Received:** January 2021**Accepted:** January 2021**Published:** February 2021**Abstract:**

**Introduction:** Neonatal resuscitation (NR) is a means to restore life to a baby from the state of asphyxia. It is a single intervention of birth asphyxia. **Objectives:** The main objectives of the study is to analyse the knowledge and experience of newborn resuscitation practices among nurses of Lahore. **Material and methods:** This descriptive study was conducted in The Children's Hospital and Institute of Child Health, Lahore during June 2019 to January 2020. Data were collected from the study subjects in a pre-selected comfortable setting and using a pre-tested face-to-face interview administered questionnaire. **Results:** The data was collected from 400 nurses of the Lahore from different hospitals. The mean age of the participants was 29.5±5.67 years. The study showed that only one-fourth (25%) of the respondents were taken additional training on neonatal resuscitation. Nearly half of the study participants had performed resuscitation at least once with the basic training they took in college before graduation, and had ever worked in the delivery room. **Conclusion:** It is concluded that nurses should be always prepared to deliver newborn resuscitation. Poor knowledge and poor skill regarding newborn resuscitation among nurses observed in the study.

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**INTRODUCTION:**

Neonatal resuscitation (NR) is a means to restore life to a baby from the state of asphyxia. It is a single intervention of birth asphyxia. Resuscitation of a neonate is more challenging than that of an adult or even older infant or child. Basic newborn resuscitation refers to airway clearing (suctioning if required), head positioning, and positive pressure ventilation with bag and masks. Annually, approximately four million babies die within the first month of life, of these deaths about 99% occur in low-middle income countries, where most births occur at home, without a skilled attendant [1]. Nearly 1.2 million African babies are assumed to die in the first four weeks of their life, and half of the deaths occur in the first 24 hours of birth. This is particularly true in Sub-Saharan African countries [2].

Neonatal mortality is an indicator of a country's socio-economic condition and quality of life. A large proportion of maternal and neonatal deaths occur during the 48 hours after delivery, which is a critical time for monitoring complications arising from the delivery [3]. In the short term, asphyxia could lead to multi-organ dysfunction or even death, whereas in the long term, childhood survivors of neonatal hypoxic-ischemic encephalopathy might develop cerebral palsy, developmental delay, visual, hearing, and intellectual impairments; epilepsy, and learning and behavioral problems [4].

Immediate newborn assessment and stimulation reduce both intrapartum related and preterm related deaths by 10%. However, studies done in Kenya and Nepal have reported that a shortage of equipment and health provider's knowledge are problems with NR performance [5]. Additionally, maintaining knowledge of resuscitation is a challenge, particularly in settings where providers attend very few deliveries and infrequently resuscitate newborns. Current trends predict that close to 26 million new borns will die between 2019 and 2030. These deaths can be prevented through quality antenatal care, skilled care at birth, postnatal care for mothers and babies, and care of small and sick newborns [6]. Neonatal resuscitation and comprehensive emergency obstetric care are

among those recommended to reduce deaths due to intrapartum-related events. In short, knowledge of health care providers about NR is of crucial importance. In resource-poor areas, nurses and midwives are the medical persons available to perform neonatal resuscitation [7].

**Objectives**

The main objectives of the study is to analyse the knowledge and experience of newborn resuscitation practices among nurses of Lahore.

**MATERIAL AND METHODS**

This descriptive study was conducted in The Children's Hospital and Institute of Child Health, Lahore during June 2019 to January 2020. Data were collected from the study subjects in a pre-selected comfortable setting and using a pre-tested face-to-face interview administered questionnaire. Data were collected on facility type, availability of essential resuscitation equipment, socio-demographic characteristics of participants, current working unit, years of professional experience, whether a nurse or midwife received in-service training and knowledge related to neonatal resuscitation. Knowledge of nurses on neonatal resuscitation was determined using a set of 25 Yes/No questions. Each correct answer was valued at one point, and a wrong answer given zero points. Questions not answered were considered as wrong answers.

The data was statistically analysed by using SPSS 19.

**RESULTS:**

The data was collected from 400 nurses of the Lahore from different hospitals. The mean age of the participants was  $29.5 \pm 5.67$  years. The study showed that only one-fourth (25%) of the respondents were taken additional training on neonatal resuscitation. Nearly half of the study participants had performed resuscitation at least once with the basic training they took in college before graduation, and had ever worked in the delivery room. In this study, almost all the health facilities had neonatal resuscitation corners; 63% had sufficient newborn resuscitation guidelines and 85% had essential equipment for newborn resuscitation.

Table 01: Level of knowledge among participants

Knowledge level	Frequency	Percentage (%) (N = 400)
Sufficient knowledge	223	55.75
Insufficient knowledge	177	44.25

**Table 02:** Percent of Providers Who Gave Correct Responses to Each Knowledge Questions Items on Newborn Resuscitation

Questions and Correct Response	Frequency (n)	Percentage (%)
<b>How would you diagnose birth asphyxia?</b>		
Depressed breathing	399	95.3
Heart rate below 100 beats per minutes	114	26.7
Floppiness	143	33.5
Central cyanosis (blue tongue)	333	78
<b>What are the preliminary steps of newborn resuscitation? Tell me in a sequential order</b>		
Call for help	24	5.6
Explain to mother condition of baby	28	6.6
Place newborn face up	295	69.1
Wrap or cover baby, except face and upper portion of chest	196	45.9
Position head so neck is slightly extended	287	67.2
Aspirate mouth then nose	344	80.6
<b>Were the steps mentioned in sequential order?</b>		
Yes	27	6.3
<b>What do you do when resuscitating with a bag and mask or tube and mask?</b>		
Place mask to cover chin, mouth and nose	303	71
Ensure seal between mask and face	233	54.6
Ventilate 1 or 2 times and see if chest is rising	242	56.7
Ventilate 40 times per minute for 1 minute	113	26.5
Pause to determine whether baby is breathing spontaneously	283	66.3
<b>What do you do if the baby is breathing and there is no sign of respiratory difficulty?</b>		
Keep baby warm	264	61.8
Initiate breastfeeding	365	85.5
Continue monitoring the baby	227	53.2

**DISCUSSION:**

130 million babies born every year, about 4 million die in the first 4 weeks of life- the neonatal period. Most neonatal deaths (99%) arise in low income and middle-income countries. Newborn resuscitation is defined as the set of interventions at the time of birth to support the establishment of breathing and circulation [8]. The goals of neonatal resuscitation are to prevent the morbidity and mortality associated with hypoxicischemic tissue (brain, heart and kidney) injury and also to re-establish adequate spontaneous respiration and cardiac output. Proper knowledge of newborn resuscitation can prevent the consequences of perinatal asphyxia [9]. An organized knowledge and awareness of the necessity to undertake resuscitative procedures in the newborn play an important role in proper, early diagnoses, suitable management and reducing the number of complications in newborns with life-threatening conditions [10].

**CONCLUSION**

It is concluded that nurses should be always prepared to deliver newborn resuscitation. Poor knowledge and poor skill regarding newborn resuscitation among nurses observed in the study. Newborn resuscitation skill are good among Nurses who got related training, and having more working experience in maternity ward.

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