

Understanding new born care provided by the nurses of pediatrics ward at public sector tertiary care hospitals of Islamabad and Rawalpindi: A descriptive cross-sectional.

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Abstract

Objective: Assess the newborn care practices such as cord care, baby bathing early breastfeeding and baby mother skin to skin contact (Kangaroo Mother Care KMC).

Study Design: Cross sectional descriptive study of 50 Nurses selected using universal sampling technique.

Place and Duration of the study: Study was conducted in Islamabad and Rawalpindi, and data were collected from 25th Oct 2017 to 25 Jan 2018.

Material and Methods: Adopted semi-structured questionnaire was used and also pretested in a pilot study at polyclinic hospitals in the female medical ward. Correlation coefficient was 0.76.

Results: The determination concealed that years of experience have no significant impression ($p>.05$) on the level of knowledge of neonatal health nursing guardianship or that only 4 out of 50 nurses have followed practice level appropriately.

Conclusion: Results reveal that the attitude of nurses has no significant effect ($p>0.05$) on practices of nurses in the management of neonatal life or newborn. To maximize the newborn survival policy adviser should be recommended some advanced courses for nurses to improve their level of knowledge leads to good practice in the care of study factor of eight danger sign of newborn health.

Keywords: Assessment, Knowledge, Attitude, Practice, Management.

Accepted on April 20th, 2021

Introduction

Newborn or neonate is the baby of 28 days and is considered the most perilous life period of a newborn because the invulnerability at the time of confinement of an infant is stumpy and the baby is more parallel to develop infection or death if the proper nursing care is not provided by Preterm or early baby with the contrast of any other age group can become early E newborn comparing to any other age group can be rapidly collapse and will die in may die in a matter of hours. However, infant health issues have only of delayed begun to receive particular consideration in policy and programmed [1]. It is broadly considered that MDGs 4 was entirely littered for child continued existence which cannot be achieved by focusing or ignoring newborn health particularly during the early time of neonatal life [2,3,4].

Access to proper learning communiqué and actions offered to women by health care personnel (nurses) during the postnatal period that is fundamental in declining associated morbidity and transience among newborn babies [5].

The Essential Newborn Care (ENC) course may be aimed at improving newborn precaution because it offers a forum for the sharing of experiences between care providers, the development of strategies to improve the wellness of newborns and breeding in updated newborn care exercise [6,7]. Effective measure that

may minimize neonatal deaths, such as critical newborn care, resuscitation, and support for exclusive breastfeeding assistance, are not available to newborns in many parts of the domain on a volunteer basis due to scarcity, The shortage of health care providers and communications, and lack of accession to health care (low-density and vulnerable health scheme), among other reasons [8].

According to WHO Essential newborn care is a set of comprehensive recommendations designed by World Health Organization (WHO) which aimed to improve the newborn's health through various pre-conception treatments, during pregnancy, shortly after birth and postnatal periods [9]. This includes thermoregulation, safe delivery and cord treatment, breastfeeding initiation Lack of effective use of the recommendations by the health care providers may lead to increased neonatal mortality.

Hypothermia is the condition when body temperature becomes less than 36°C is a dangerous risk in neonatal health and mainly in Low Birth Weight baby (LBW) or particularly stumpy birth mass (ELBW) baby. Baby is more prone to unfasten his/her body heat within the first minutes to hours after birth [10,11].

Hypothermia result in a significant increase in APGAR score below 7, late-onset sepsis, hypoglycemia and respiratory

distress [12]. The guideline for NRP 2015 recommends maintaining temperature between 36.5°C to 37.5°C and avoiding hyperthermia (>37.5°C) [13].

Early Cord Care or Clamping (ECC) have been defined as after the delivery when there is still blood circulation from the placenta to newborn, then clamp a clamp to the umbilical cord within 15 seconds, while on the other hand delayed cord clamping after 30 seconds is known as cord care or clean delivery. Delayed clamping is dependent on the stoppage of the circulation of placenta to the baby [14,15].

For all preterm and newborn 30, seconds were recommended for delayed cord care, also newborn, having no any birth-related problems such that needs of resuscitation, but if situation persists and complications appear at the time of birth then DCC should not be done till further trials are done looking for the feasibility over this [16-18].

Improving care in the labour at the time of liberation or birth, neonatal care is very crucial because in the first week of the life of a newborn is very prone to develop infection and for small and sick babies is likely to have the prevalent impact on transience rates [19].

In the first week of life recommendations for care include improving thermal care practices such as drying and covering, skin to skin contact, immediate breastfeeding and delayed bathing [20,21]. Thermal care is important because neonates, even in steamy climates are vulnerable to hypothermia. Newborns have a large body surface area, thin skin, little insulating stout, and partial and purely weighed down thermoregulatory mechanisms [22-24].

In counting the energy exhausted to sustain body heat has been associated with condensed head enlargement in low birth weight babies, which may reveal decreased brain growth at this vital time of development [25]. Thermal care practices in Ethiopia, Nigeria and Tanzania, which, collectively with nine other countries, account for two-thirds of all neonatal deaths [26,27].

Pakistan the king of developing economic country is one of the countries where neonatal mortality and morbidity rate remains stagnant according to Pakistan Health Demographic Survey (PDHS). It was reported prenatal mortality was 75/1000 pregnancies while experience the other hand neonatal death rate was 55/1000 live births [28,29]. Neonatal transience tempo was not different as it was reported in 1990-91.

Comparing with the neighbors and developing countries with the effect of GDP, Pakistan has grown up with economic progress as well as international conjecture in MNH worldwide. Pakistan has had remarkably inadequate accomplishment in reducing maternal and newborn deaths [30]. The capability to identify knowledge gaps early in the neonatal period will help health care workers to spot and put into practice timely and suitable interventions that will lead to better neonatal outcomes. This study will provide in turn to Policymakers for developing policies about neonatal health and continued existence. Neonatal survival will be made an issue of national interest to all stakeholders; hence practices in

apprehensive for the infant will be enhanced and adapted to regulate to save newborn life.

Every year 2.9 million newborn dies within first 7 days of life or neonatal period, the most babies die due to any reason, majority of birth Asplasia, and other infection. From 1990 to 2015, child mortality rates remain stagnant, between the age of 2 months to 5 years and decrease up to 58% globally [31,32]. A comparative study which was done in Switzer land confirms 2.7 million neonate die each year globally, mainly as a result of birth asphyxia, complications of early baby birth and infections related to Cord care, delayed breastfeeding [33]. This death ratio in African countries is very at a very extreme level regardless of developed countries whereas low-earnings and middle-earnings countries and sub-Saharan Affricates has the highest or uppermost newborn death rate.

In a study of Bangladesh, India, it was reported that only 10% of babies were bathed after delivery or within 24 hours more often. It was also reported that 19% women breastfeed their baby immediately after birth. The only significant difference about cord care practice was observed by religion (P=0.034). It means cultural values had greater influence in the care infant.

Recently a cross-sectional survey-based study was conducted in Pakistan at tertiary care hospitals of Karachi on mothers. A Sample of 170 mothers was studied along with their infants, newborn and all those mothers who were visiting or attending the pediatric clinics as well as paediatrics outpatient were also interviewed .92% were reported that they have had at least one antenatal care visit. Similarly, 10 (68%) mothers reported that they use the specific ointment for eye care, while eighty-six per cent 86% of mothers agreed on their first baby bath within 24 hrs of after birth.

Methods

Study design

Descriptive cross-sectional study.

Study setting

The study was carried out at Pakistan Institute of Medical Sciences (PIMS) Hospital Islamabad, Holly family and allied hospitals Rawalpindi that provides health services to the population living in Central Punjab as well as the people of twin cities while also serving as a referral hospital for the entire country of central Punjab of Pakistan. These health care facilities have different wards with various departments and have a total bed capacity of 580 (PIMS) Hospital, 760 (BBH) Benazir Bhutto Hospital, while similar numbers are In Holy family hospital.

Study population

The study population consisted of nurses who were working in the neonatal wards as well as in PEADS nursery to provide the care of a newborn. Similarly, the nurses of the maternal and neonatal child health unit were also considered for this study.

Study period

This study was conducted over three months (November to January 2018).

Inclusion criteria

All Nurses having experience of one year or above of pediatric nursing care in nursery ward /MNCH/Labor room.

Exclusion criteria

- Nurses those were on leave and student nurses
- Nurses who were not willing to participate.

Sample size determination

The sample size was determined by confirming the availability of staff nurses in NICU as well as MNCH unit. It was determined with the prevalence of 17% and sample size become 50

$$N=Z^2 pq/d^2=N=1.962 \times 0.17 (1-0.17)/0.01=50$$

Sampling

A random sampling method was used to select pediatrics nurses of NICU and MNCH /Labor room because of small sample size and availability of staff nurses in the concerned unit of hospitals.

Data collection tools

Adopted questionnaire was used for the study and was pre-test in a pilot study at a female medical ward in polyclinic hospital Islamabad. An open-ended question was used and there were 29 questions which were distributed as knowledge, 10 questions), Attitudes (10 questions) and 9 questions were regarding newborn care practices.

Data analysis

Quantitative data was entered in SPSS version 20 was dully checked by the principal researcher and supervisor for errors and data entry. Data were analyzed through SPSS version 20. There were four sections in the questionnaire which are identically described separately as, Socio-demographic characteristics of nurses, Knowledge of nurses regarding newborn care, their attitude towards newborn care, and their practices which were being done in the hospitals.

Results

Table 1 shows the socio-demographic characteristics of nurses who were in the study participants. Out of 50 (n=50), 74% were between the age of 23-33, 16% were between the age of 34-44 while remaining 10% were above 45 age as the mean age was 32 ± 6.82 SD. Similarly, 64% were RN, 32% were BScN (Post RN) and 4% were BSN (Generic). No anyone was found to be a master degree in nursing or public health (MSN/MSPH). There were 2 questions which were asked from nurses (n=50), the participants were responded accordingly Question

number 1 and two contains more than one answer and were the sources of information as well as the source of knowledge by their corresponding, 29.6% were known to breastfeed, 24. 5% were knowing cord care, while 3.8%. After delivery when, asked from the nurses any substances should be applied on the umbilical stump 58% of nurses replied with Yes. On asking how soon you start the baby breastfeeding, 90% (n=45) replied with immediately, while 10% (n=5) within one hour.

Variables	Categories	Frequency (%)
Age of Nurses Mean Age of nurses 32 ± 6.82 SD	23-33	37(74)
	34-44	8(16%)
	>45	5(10%)
Level of education	RN	32(64%)
	BSc N(Post RN)	16(32%)
	BSN(Generic)	2(4%)
Years of experience	1-5	18(36%)
	6-10	19(38%)
	11-15	4(8%)
	>16	9(18%)
Training on neonate	Once in last year	40(80%)
	Twice in last year	10(20%)
Number of training so far	1-4	45(90%)
	5-10	5(10%)
Duration of last training	One week or less	21(42%)
	Two weeks	14(28%)
	Three weeks or more	15(30%)

Attitude of nurses towards newborn care was categorized into two types of statements, positive and negative attitude, a positive statement of strongly agree, with correct answer contains 5 marks with negative statements of correct answer contains -5 marks. The maximum possible score was 50. The total number of participants were n=50 while total statements were 10.

Practices of nurses in the care of newborn contain 9 questions which were related to the nurses' daily practices during the care of a newborn. The nurses were asked to response appropriate Practice while handling the newborn during the delivery of placenta as well as baby delivery.

There were 5 questions in the knowledge portion. On analysis, knowledge was categorized into two groups as bad below the mean score, while the above mean score was categorized as good knowledge. As the mean score of knowledge was ± 1.2857 similarly the maximum numbers were 2 and minimum were 1. When the knowledge of nurses was measured based on scale, it was divided into two groups, bad and good knowledge.

Among 50 nurses who were included in the study, only 8% (n=4) were having positive (good level), attitude about

newborn care, 92% (n=46) were having negative (poor level), attitude regarding newborn care. In addition to this the practices of nurses were measured based on scale, it was divided into three groups, poor practice, average and good, only 8% (n=4) were having good practices about newborn care, 92% (n=46) were having bad (poor) practices regarding newborn care.

As far as concern about the mean age of the participants \pm 32.682 SD, There is no change or improvements in the knowledge of the nurses. Similarly, the p-value is greater than alpha value $p > 0.05$, so there is no statistical significance in the level of knowledge with the increase of age. Similarly there is no statistical changes with level of experience on knowledge of nurses as $p > 0.05$ it means knowledge remains same either increase or decrease in the number of years of experience.

Moreover it has also shown that, there is no change in the practices of nurses with regards of age, experience, level of education as well as the number of training that is given to nurses during their duration of job experience or within the duty timing.

Discussion

The high level of knowledge observed by the researcher and was attributed to their training, though results revealed that nurses involved in the management of neonatal have the essential acquaintance and ability.

Management of newborn care are not yet evident, the outcome of this study is an indication that specialization in pediatrics can improve knowledge and improve the management of related factors for newborns. The consequence of a study which revealed that the practice of nurses in the delivery room was weak and further demonstrated that there was no significant association between the practices of nurses and their age, level of didactic, marital status, years of experience and neonatal resuscitation training. It further exposed than though attitude and knowledge may be the coordinating forces yet quality in nursing practices may not be reachable.

The result of the study is not generalized to the other health personnel have trained on newborn care of the country because the sample size was too small. The study was done on small sample size population of NICU unit of pediatrics unit.

Conclusion

Above all 4 out of 50 nurses involved in the management of newborn care have good level of knowledge required for effective management factors related to newborn care, (Cord care, temperature care, breastfeeding and early baby bathing), while 46 of nurses were having bad knowledge as well as poor practices because of the effect of their non significant attitude towards newborn care, irrespective of their age, level of education, experience as well as trainings on neonatal handling care, only 42% out of 50 nurses were having the average knowledge, attitude and practices as the results of the study reveals $p > 0.05$.

Research Funding

The research was purely based on education purpose; hence it was conducted from self-finance.

Conflict of Interest

Participants do not have any sort of conflict of interest.

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