

## Assessment of knowledge, Attitude and Practices of nurse midwives towards immediate care of the newborn In Khartoum state teaching hospitals (2011)

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**Abstract: Background:** knowledge is one of the crucial aspects of health systems to adherence to essential of immediate newborn care practices as first step for resuscitation and prevention of further complication at hospital based level. This study conducted to assess nurse midwives' knowledge, Attitude and Practices towards immediate care of newborn. Specific objectives to examine the relationship between knowledge, attitudes, and the self-perception of preparedness of nurses regarding their abilities to manage a newborn. **Methods:** data collected from 96 nurse midwives from different hospitals, interviewed using structured Questionnaire and Observation check list. to assess their performance. **Results:** The result showed that, study population had a fair knowledge level (50.6%), in spite of this; their performance level of practices was poor (41.1%) towards immediate care of the newborn. **Conclusion:** NMs' performed well below competency levels for knowledge and skills regarding immediate care of the newborn. This evaluation highlighted the need for training and periodic assessment to address gaps and develop targeted continuing education modules.

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### 1. Introduction

The transition from intrauterine to extra uterine life is dramatic one and demands considerable and effective physiological alterations by the baby in order to ensure survival; (the fetus leaves the uterine environment, which has been completely life sustaining for oxygenation, nutrition, excretion and thermoregulation). Subjected to intermittent diminished of the oxygen supply during uterine contractions compression followed by decompression of the head and chest and extension of the limbs, hips and spine during birth, the baby emerges from the mother to encounter light, noises, cool air, gravity and tactile stimuli for the first time; Simultaneously the baby has to make major adjustments in the respiratory and circulatory systems as well as controlling body temperature. These initial adaptations are crucial to the baby's subsequent wellbeing and should be understood and facilitated by the midwives at the time of birth.<sup>(1)</sup>

#### Newborn Care Starts Before Birth

Newborn health care starts long before birth. It starts with caring for pregnant mothers. During pregnancy a mother needs to be adequately nourished, free from infections, and monitored for complications. Pregnant mothers should also have access to preventive measures, treatment when needed, and health counseling/advice, including education about danger signs, during labor and delivery, emergency obstetric care is particularly critical to treat life-threatening complications. Good care during

pregnancy, labor, and birth is the first step in good newborn care.

Most babies are born healthy and at term. The care they receive during the first hours, days, and weeks of life can determine whether they remain healthy. Although some babies may require special attention (for example, those who are sick or premature), all babies need basic care to help ensure their survival and well-being.<sup>(2)</sup>

Among the life span of the childhood period neonatal period is very crucial, which to large extent determines the overall health status of the child and in turn adult life. (3)

Neonate is a newborn infant. The neonatal period include the time from birth through the twenty eighth day of life. (4)

Birth is a major challenge to the newborn to negotiate successfully from intrauterine to extra uterine life. (3)

Delivery and the first few hours of life are critical period for the further growth and development of infant. (4)

Newborn is considered to be tiny and powerless, completely dependent on other for life within one minute of birth the normal new born adapts from a dependent fetal existence to an independent one; capable of breathing and carrying on life process. Thus these first hours are crucial because multiple organ system is making the transition from intrauterine to extra uterine functions. (4)

Although the vast majority of newly born infants do not require intervention to make the transition from intrauterine to extra uterine life, those newly born infants who do not require resuscitation can generally be identified by a rapid assessment. The baby should be dried, placed skin-to-skin with the mother, and covered with dry linen to maintain temperature. Observation of breathing, activity, and color. Immediate care of newborn is essential initial steps in stabilization (provide warmth, clear airway if necessary, dry, stimulate)

#### **Immediate care after birth**

Immediately after birth the newborn infant is faced with risks such as heat loss and aspiration of fluid and the challenge of functioning in a new environment. Immediate care is directed toward the infant well being, it include:

- Clearing the airway.
- Evaluating Cardio respiratory Function.
- Temperature Regulation.
- Put an Identification band and Security.
- Clamping and cutting the Umbilical Cord<sup>(3)</sup>

#### **Justification of this study**

- The infant mortality rate in Sudan is estimated at 72.39 deaths/1,000 live births and about half of those are neonatal deaths that occur during the first month of life in 2010. and :68.07 death /1,000 live births in 2011 respectively . ( 5,6 ).
- Maternal and neonatal mortality can be reduced by ensuring access to voluntary family planning to space births, provision of adequate antenatal care, ensuring skilled attendance at delivery. (5)
- Nurse midwives are providing primary care to women during pregnancy, labor, birth and the postpartum period due to this the researcher concern to assess knowledge, Attitude and Practice of midwives to ward immediate care of newborn
- There is no evidence-based practices guideline that dealing with the immediate care of newborn. The results helped in conducting it .

#### **Objectives**

##### **General objective:**

Assessment of knowledge, Attitude and Practice of nurse midwives towards immediate care of the newborn In Khartoum state teaching hospitals----- (2011)

##### **Specific objectives:**

- To assess the nurse midwives knowledge regarding immediate care of newborn.
- To evaluate the attitude of nurse midwives to words immediate care of newborn.
- To assess the practice of nurse midwives to words immediate care of newborn.

#### **Literature Review**

Approximately 10% of newborns require some assistance to begin breathing at birth. Less than 1% requires extensive resuscitative measures (7).

Immediate care of newborn is the care of the newborn in the delivery area during the time after birth before the mother and infant are transferred to the postpartum unit.

In recent years child survival activities (such as childhood immunization and diarrhea control programs) have lead to a dramatic decrease in mortality among children under five. Despite this success, however, the newborn mortality rate in developing nations is still alarming; over 40 percent of all deaths of children under five occur in the first month. (2)

Research from around the world has identified the main causes of newborn deaths; about 85 percent of newborn deaths are from three main causes: infections, birth asphyxia, and complications of prematurity, many newborns die because of their mother's poor health or because of lack of access to essential care. (2)

The newborn child will be extremely vulnerable unless he/she received appropriate basic care, or essential newborn care. When normal babies do not receive this essential care, they quickly fall sick; and too often they die.

The newborn infant has to make important adaptation for the transition to extra uterine life to live independently from the mother; the newborn infant must immediately establish pulmonary ventilation that is breath on his or her own, accompanied by marked circulatory changes.

The health care provider must understand normal newborn adjustment in order to organize their circulatory changes.

The nursing care of the newborn is directed toward promoting the physical well-being of the infant and supporting the family unit. Immediate care of the infant take place in the birth room, because numerous physiological adaptations begin right after birth, so immediate care is a very important part of infant care' (2)

#### **Preparation for a Baby's Birth**

It is important to prepare the environment, equipment, and supplies that are needed for the care of a newborn at birth.

The preparation should include the following actions:

##### **Prevent Infection**

According to Global Causes of Newborn Deaths about 29 percent of newborn deaths are caused by infection (sepsis or pneumonia, tetanus and diarrhea), Where hygiene is poor, newborns may become infected with bacteria or other organisms which can cause serious infections in the skin, umbilical cord, lungs, gastrointestinal tract, brain or blood. Therefore, the

Standard Precautions for infection control is the important point for newborn care at birth. <sup>(2)</sup>

**Standard Precautions for Infection Control during Delivery procedure include:**

1. Hands washing: Always wash hands with soap and water after handling potentially contaminated materials whether gloves were worn or not.
2. Gloves: Always wear gloves when touching potentially contaminated materials.
3. Face and eye protection: Wear mask and eye protection when procedures and newborn care activities are likely to generate splashes or sprays. This prevents infection via the mucous membranes of the eyes.
4. Gown: Wear a gown to prevent soiling of clothing when procedures and birthing activities are likely to generate splashes or sprays.
5. Soiled equipment: Handle newborn care materials and equipments soiled with potentially infectious material in a manner that will prevent secondary transmission.
6. Surface contamination: Surfaces should be regularly cleaned and disinfected.
7. Soiled linen: Handle bed linens soiled with potentially infectious material in a manner that will prevent secondary transmission. <sup>(3)</sup>

**Prepare the Birth Room**

**Warm:** The temperature of the room should be warm; heat the room, if it is cold, and close doors or windows to prevent drafts.

**Light:** The health worker must be able to see the newborn to check color and breathing. If there is not enough natural light, use candles, a lamp, or another light source.

**Privacy:** In the home let the mother decide who will be present for the birth. Provide as much privacy as possible by using curtains and/or closing doors and windows as needed. In a health facility use a curtain or screen to give the mother privacy. If possible, allow her to have the support of the person of her choice during the facility birth. <sup>(2)</sup>

**Prepare the equipment and supplies for the delivery and immediate care of newborn:**

- Linens for mother.
- Towels for baby.
- Infection prevention equipment and supplies.
- Birth equipment and supplies.
- Equipment and supplies for emergency. <sup>(2)</sup>

**Immediate care of newborn start during delivery**

As the baby's head is born, excess mucus may be wiped gently by sterile gauze from his eyes, nares and mouth. Gentle handling during delivery is essential, the baby being drawn up into the mother's abdomen. The time of birth, date, sex of the baby and hospital admission are noted and recorded once the baby has

been completely expelled from his mother because time is crucial. <sup>(3)</sup>

**The immediate care of newborn include:**

1. Clearing the Airway.
2. Evaluating Cardio respiratory Function.
3. Temperature Regulation.
4. Put an Identification band and Security.
5. Clamping and cutting the Umbilical Cord. <sup>(3)</sup>

**Other formulated as follow:**

Step 1: Dry and stimulate the baby.

Step 2: Assess the baby's breathing and color.

Step 3: Decide if the baby needs resuscitation.

Step 4: Tie and cut the cord.

Step 5: Place the baby in skin-to-skin contact with the mother

Step 6: Have the mother start breastfeeding.

Step 7: Give eye care. <sup>(2)</sup>

**(1) Clearing the air way and establish respiration:**

The most important need for the newborn immediately after birth is a clear airway to enable the newborn to breathe effectively since the placenta has ceased to function as an organ of gas exchange. It is in the maintenance of adequate oxygen supply through effective respiration that the survival of the newborn greatly depends on it.

Newborns are obligatory nose breathers. The reflex response to nasal obstruction, opening the mouth to maintain airway, is not present in most newborns until three weeks after birth. <sup>(8)</sup>

**To establish and maintain respirations**

1. Wipe mouth and nose of secretions after delivery of the head in order to maintain respiration and prevent infection.
2. Suction secretions from mouth and nose by use a bulb syringe.
  - Compress bulb syringe before inserting.
  - Suction mouth first, then, the nose.
  - Insert bulb syringe in one side of the mouth.
3. A crying infant is a breathing infant. Stimulate the baby to cry if baby does not cry spontaneously, or if the cry is weak
  - Do not slap the buttocks rather rub the soles of the feet.
  - Stimulate to cry after secretions are removed.
  - The normal infant cry is loud and husky.
4. Oral mucous may cause the newborn, to choke, cough or gag during the first 12 to 18 hours of life. Place the infant in a position that would promote drainage of secretions.
  - Trendelenburg position – head lower than the body.
  - Side lying position: place infant in side lying position to permit drainage of mucus from the mouth. Place a small pillow or rolled towel at the back to prevent newborn from rolling back to supine position.

5. Keep the nares patent, remove mucus and other particles that may be cause obstruction. <sup>(2)</sup>

**(2) Evaluate cardiorespiratory functions:**

*When dry the baby, check to see if the baby is:*

Breathing normally, having trouble breathing or not breathing. Look at the baby's color. The face and chest should be pink, not gray or blue. In darker-skinned babies, the health worker can assess the color of the tongue, lips, and mucous membranes; they should be pink, not gray or blue. A baby's pink skin color is a good sign of adequate breathing and circulation. A blue color of the tongue, lips, and trunk is a sign of a lack of oxygen in the blood. A bluish color of only the hands and feet may be present for 1-2 days after birth and usually does not indicate a lack of oxygen.

If the baby does not breathing, or breathes less than 30 breaths per minute, or is gasping; the health worker quickly clamp or tie and cut the cord, leaving a stump at least 10 cm long, put the baby on a flat, warm surface and start resuscitation quickly. Call for help because a second person is needed to care for the mother. <sup>(2)</sup>

**(3) Prevention of heat loss:**

From stable intrauterine temperature of 37c (98.6F), the wet neonate emerges into a world almost 30F cooler.

With an immature temperature regulating system, proportionately large body surface area relative to weight a larger surface area size than an adult's, and just a thin layer of subcutaneous fat, the neonate is subject to heat loss at birth, and un able to regulate body temperature by shivering, the neonate exposed to cool air kicks and cries, thereby increasing the metabolic rate and oxygen consumption, which may lead to metabolic acidosis. Conversely, in over heated environment, the newborn has difficulty dispersing heat and may be suffer from hyperthermia. <sup>(8)</sup>

**Newborn may lose heat from four processes:**

**Evaporation** is a heat loses through conversion of a liquid to a vapor. To prevent the rapid loss of heat from evaporation of an amniotic fluid, it is imperative that the infant be dried rapidly and gently with a warm towel and placed into warm environment. In setting where skin to skin contact between the infant and mother is encouraged. An overhead radiant warmer may be used to reduce heat loss. Some hospital and birthing room use stockinet caps of neonate because so much heat is lost through the neonate's wet head if the infant is not placed skin-to-skin with the mother a soft warm blanket is use to warped the newborn who is either given to the mother to hold or place in warm crib or infant warmer.

**Radiation** is the transfer of body heat to cooler solid object that are not in direct contact with the infant. The temperature of the surrounding air has no

effect on heat loss through radiation therefore the infant should not be examined until he or she is moved as far as possible from the walls of the delivery room which tend to be colder than the air.

**Conduction** heat loss occurs when neonate's skin is indirect contact with cooler solid object. To avoid this infant should be placed on padded surface and should be insulated with clothes and blankets.

**Convection** heat loss is similar to conduction but is increase by moving air currents. Transporting the infant in a crib with solid sides reduces convection heat loss. <sup>(7)</sup>

The normal newborn is not entirely without protection from heat loss. The newborn naturally assumes a flexed, fetal position that conserves body heat by reducing the amount of skin exposed to the surface and conserving core heat. The newborn can also produce heat by burning brown fat, specialized form of heat-producing tissue found only in fetuses and newborns. Deposits of brown fat are located at the nape of the neck, in the armpits, between the shoulder blades, along the abdominal aorta around the kidneys and sternum. Unfortunately, brown fat is not renewable; once stores are depleted, the newborn can no longer use this form of heat production. <sup>(9)</sup>

**The Warm Chain for prevention of heat loss at birth...**

- Keep the birthplace warm and avoid drafts. Warm the room before the baby is born.
- Immediately after the birth, dry the baby with a warm towel. Most cooling happens in the first minutes after birth. In the first 1-2 minutes, the newborn may lose enough heat for his body temperature to fall 2 °C, which is very dangerous.
- Keeps the baby lying on the mother's abdomen or chest for all care. If this is not possible, put the baby on a warm surface and keep the baby covered.
- Put the baby in skin-to-skin contact with the mother for at least 2 hours after birth. Cover both with a warm cloth.
- Dress the baby in light, loose, warm clothing. A baby needs at least 1-2 more layers than an adult in the same climate. The number of layers depends on room warmth. About 25 percent of the baby's heatloss can come from the head, so cover the baby's head with a hat or cloth and warm blanket. <sup>(2)</sup>

**(4) Identification**

When babies are born in hospital it is necessary that they are readily identifiable one from another.

Various methods of indicating identity can be employed, e.g. name bands are usually applied, one on the infant's wrist and one on the ankle and other in mother's wrist, each of which should indicate legibly in indelible pen the family name, sex of the infant and

date and time of birth. In some centers the name bands are number-coded with infant's case records, in others the number coding corresponds with that of the mother. The amount of information written on the name bands may vary slightly according to hospital policy. It is the practice in many units to apply the name bands to the infant before the cord is cut. The mother and /or father should verify that the information on the bands is correct prior to their being applied to the baby. The midwife should ensure that the name bands are fastened securely and are neither too tight, impeding circulation or likely to excoriate the skin, nor too loose risking loss of the means to identification which should on the baby until his discharge from hospital. <sup>(3)</sup>

Many hospitals also footprint the newborn and finger print the mother. To prepare the newborn for foot printing, wipe the soles of both of the newborn feet to remove any vernixcaseosa, once used for security purposes, finger printing and foot printing of infant is now performed to provide souvenir for the new parents. <sup>(10)</sup>

#### **(5) Clamping and cutting the cord**

The umbilical cord is the life line of the fetus and of the baby in the first few minutes after birth separation of the baby from the placenta is achieved by dividing the umbilical cord between two clamps which should be applied approximately 8-10cm from the umbilical application of a gauze swap over the cord while cutting it with scissors will prevent blood spraying the delivery field, the cord should not be cut until it has been clamped securely. Failure to comply with this procedure may result in excessive blood loss from the baby. In some delivery suites it is now common practice for the father of the baby to assist the midwife and cut umbilical cord. Care of the umbilical cord and stump in the immediate period varies according to social cultural and geographic factors.

The optimal time for umbilical cord clamping after birth remains unknown. Some center advocate delay in cutting until respirations are established and cord pulsation has ceased thus ensuring that the infant receives a placental transfusion of some 70ml of blood. This view is countered by those who maintain that the placental transfusion so acquired may predispose to neonatal jaundice. What is agreed is that a term baby at birth can be drowning up onto the mother's abdomen, but raised no higher and a preterm baby should be kept at the level of the placenta, this is because if a preterm baby is held above the placenta the blood can drain from the baby to placenta resulting in anemia and if held below could cause the baby to receive a blood transfusion. <sup>(1)</sup>

#### **Cutting the cord**

A sterile and sharp instrument, such as a new razor blade or scissors, is usually recommended for cutting the cord. Experience with a blunter instrument resulted in more vessel spasm and thus less blood loss. However, using a blunt instrument could possibly result in an increased incidence of infection due to more traumas to the tissues. The cord must always be clamped or tied tightly before cutting. <sup>(11)</sup>

#### **Length of the cord stump**

The recommended length of the stump after cutting is (3-4 cm) clear from the abdominal wall to avoid pinching the skin or clamping a portion of the gut. A long stump could possibly increase the risk of infection because it is harder to keep clean and dry. In many cultures the custom is to leave the cord long for reasons that are believed to be of vital importance to the newborn; in such cases, the importance of keeping the cord clean and dry and of not letting it come in contact with urine and feces should be explained to the family. <sup>(11)</sup>

#### **Care of the cord stump**

Clean cord care at birth and in the days following birth is effective in preventing cord infections and tetanus neonatorum. Clean cord care is accomplished by the maintenance of aseptic technique so that the umbilical cord is uncontaminated by pathogens.

At birth, hands should be washed with clean water and soap before delivery, after any vaginal examination, and again before tying and cutting the cord. The newborn should be laid on a clean surface (such as the mother's abdomen) and the cord should be cut with a sterile instrument. <sup>(12)</sup>

#### **Previous studies**

A study was conducted in , Nepal aim at assessment of quality of care provided by nursing personnel to newborn in the labor room. 814 newborns was analyzed in the study, more than half of the newborn (57.60%) received only average quality of care. <sup>(13)</sup>

#### **2.Methodology**

##### **Study design:**

Hospital base Descriptive study design.

##### **Study area and setting:**

This study was conducted in four labor room of two maternity hospitals and biggest two general teaching hospitals (Khartoum teaching hospital and Khartoum north teaching hospital.) in Khartoum state.

##### **Study Population:**

- Study population: All Nurse Midwives in selected hospitals (they complete basic nursing education and had experience of two years in working then complete midwifery program for one year).

##### **Sampling:**

- Sample: total coverage.

- Sample size ... All nurse midwives worked in labor rooms in the four studied hospitals (106 nurse midwives).
- Sample technique: Total coverage, all nurse midwives in labor rooms in the study time (96 nurse midwives).
- Inclusion criteria: all nurse midwives work in labor rooms and agree to be involved in the study.
- Exclusion criteria: other midwives work in other departments (village midwife, sister midwives) and midwives that disagree to be involved in the study.

#### Data collection:

- Data collection techniques used written structure interview + observation.
- Tools: structure interview Questionnaire (which involved questions which fulfilled the objectives.) + Observation check list.
- The data was collected by trained nursing personnel pretested observational check list.

#### Data Analysis:

Data was analyzed by using SPSS (statistical package for social science) and showed in tables and figures.

#### Ethical consideration:

Permission was taken from hospitals health authorities', and after approval, consent from nurse midwives was taken before interviewing them.

### 3.Results

**Table (1)** Age of study population. (n=96)

Age	Frequency	Percent
30-40 years	29	30
More than 40 years	67	70
Total	96	100.

**Table (2)** Distribution of study population in study area (n=96)

Hospital name	Frequency	Percent
Omdurman new maternity hospital	30	31
Omdurman maternity hospital	20	21
Khartoum teaching hospital	24	25
Khartoum north teaching hospital	16	17
Total	96	100

**Table (3)** Training courses of study population towards immediate care of newborn. (n=96)

	Frequency	Percent
Trained	89	93
Not trained	7	7
Total	96	100.

Table (4) knowledge of study population towards immediate care of newborn (n=96)

Items	Frequency of Correct answer	Percent
The immediate care of newborn start during birth.	41	42.7%
The immediate care of newborn included five steps.	66	68.8%
About the identification band there Is three identification bands.	7	7.3%
Type of identification band (infant foot prints and code number).	21	21.9%
The identification band should include (the mother full name, hospital admission, sex of the infant, date and time of delivery).	21	21.9%
Total percentage		32.5%

**Table (5).** Knowledge regarding practices of study population N=96.

_ Items	Frequency of Correct answer	Percent
During the delivery of the head we wipe the face and eye, suction of the mouth and nares if needed.	48	50 %
Suctioning the mouth before the nares.	69	71.9%
Use sterile bulb syringe when suction the mouth and nares	12	12.5%
Dry the newborn by use two sterile towels.	92	95.8%
Placed the newborn immediately after delivery on the mother's abdomen.	75	78.1%
The identification band putting immediately before cutting the cord	23	24 %
During cutting and clamping the cord put the infant in the mother's abdomen.	65	67.7%
To cut and tie the cord we use sterile (gauze, scissors and artery forceps) .	35	36.5%
Cutting the cord immediately after cessation of cord pulsation (2-3min after birth).	34	3 5.4%
Use separate sterile scissor during cutting the cord.	80	83.3%
<b>Total percentage</b>		<b>55.5%</b>

**Table (6)** wear of protective barrier method for infection control N=96.

Items	Frequency of Correct answer	Percent
Wearing gloves during delivery.	95	99 %
The type of gloves is sterile.	51	53 %
Wearing sterile gown, clean mask and glass.	38	39.6%
Total percentage		63.9 %

Table (7). Attitude of nurse midwives regarding caring of newborn of infected mother with (HIV or HBVS). N=96

Item	Frequency of correct answer	Percent
Willing to deliver the same care for newborn which his mothers have (HIV or HBVS)	94	98 %

Table(8). Over all Knowledge of study population towards immediate care of newborn . N=96

Items	Percent
Knowledge of study population about immediate care of newborn.	32.5%
Knowledge regarding practices of study population	55.5%
Knowledge regarding infection prevention (wear of protective barrier method).	63.9%
Over all knowledge	50.6

**Table (9)** Showed result of check list *Nurse midwives performance regarding immediate care of newborn (n= 96)*

Items	Done	
	Frequency	Percent
<b>Preparation the room for birth and care the newborn</b>		
All needed equipment and instruments are good working order, ready, available, clean/sterile	92	95.8%
All needed disposable/consumable supplies/towel are clean, preferably sterile	80	83.3%
The room is free drafts from open windows, doors or from fans/air conditioners	37	38.5%
All surfaces women and baby will come in contact with are clean, dry and warm	85	88.5%
The room is well light	89	92.7%
<b>Perform the method of infection control:</b>		
Wearing sterile gown	7	7.3%
Wearing sterile gloves	8	8.3%
Clean mask	41	42.7%
<b>PRACTICING OF IMMEDIATE CARE OF NEWBORN :</b>		
Wipes the eyes and face when the head is delivered	3	3.1%
Wipes by using sterile cotton material	3	3.1%
Clearance of airway by bulb syringe if needed	5	5.2%
After full delivery of the baby, dries the baby while assessing the baby's breathing.	89	92.7%
if the baby not crying or breathing well within 30 seconds of birth, calls for help, clamps and cuts the cord, takes the baby to the table designated for steps for resuscitation, and begins the	90	93.8%
If the baby breathing well, place him/her in skin-to-skin contact on the mother abdomen and covers the body	7	1.8%
Clamps the cord approximately 2 - 3 minutes after the birth or after cessation of cord pulsations	8	8.3%
Cuts the cord with sterile scissors between the 2 sterile clamps, taking care to cover the site with sterile gauze while cutting to prevent splashes.	63	65.6%
Ties the cord firmly about 2 fingers (3 - 4cm) from the baby's abdomen and cuts the cord 1 cm away from the tie.	76	79.2%
Put the identification bands before cutting the cord	2	2.1%
Put at least two Identification bands on baby's wrist and mother's wrist.	2	2.1%
Identification bands should include (mother's full name, infant's sex, hospital admission, date and time of delivery)	2	2.1%
<i>Average performance of nurse midwives towards immediate care of newborn</i>		<b>41.1</b>

**Statement of problem:**

Nurse midwives are providing primary care to women during pregnancy, labor, birth and the

postpartum period. In this study the researcher concern to assess knowledge, Attitude and Practice of midwives to ward immediate care of newborn.

#### 4. Discussion

The immediate care of newborn is performed for saving the newborn life so most of the study populations were received in service training courses in the immediate care of newborn (93 %), in spite of this; the study populations had poor knowledge regarding care of new born at birth (50.6%) (Table 8),. Practices of the nurse midwives regarding the immediate care of newborn is poor (41.1) (Table 9 ) may be due to their low level of education

Infection control is a priority when dealing with a new born at birth so the health worker should prepare the environment, equipment considering methods of infection control, the knowledge of study population were (63.9%) while their practice show they do not apply it only (44.2%) which may prone the babies to the hazared of infections, one of the leading cause of death among newborn (Tables 6 & 9).

The observation show that the knowledge of study population regarding how to practice the newborn care at birth is (50.6%), their skills towards immediate care of newborn (40.1%), that may be due to lack of direct supervision or lack of hospitals protocols that dealing with the newborn care at birth. The nurse midwives skills towards immediate care of the newborn (40.1%) which is less than what was found in the study conducted in Nepal regarding quality of care provided by nursing personnel to newborn in the labor room ,(57.60%) .(13)

When comparing the years of experience with knowledge of study population regard care of newborn at birth the result shows that there is no significant relationship between them. (Table 10)

#### Conclusion

*According to the result of the study the researcher concluded that:*

Knowledge level of study population regarding immediate care of the newborn was fair (50.6%), but their performance of practices was poor (41.1%).

#### Recommendation

*According to the result of the study the researcher recommended that:*

- The hospital's policy makers have to upscale the competence of the midwives through regular training program; accompanied with supervision to maintain the high quality of newborn care.
- Provision of adequate resources that requiring during immediate care of newborn at birth.
- Supported supervision.

Immediate proper care of newborn is vitally important for survival, growth and development of a baby. Despite several studies conducted in Nepal

about maternal and child health care practices, little is known about factors that determine behaviors related to immediate care of newborn

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