

## Nurses Competences Regarding Nursing Care of Neonatal Sepsis 2019

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### Abstract

### Original Research Article

**Background:** Neonatal sepsis is a serious problem causing high mortality in neonates. Neonatal sepsis has 2 type's early onset neonatal sepsis which develop before 72 hours, and late onset neonatal sepsis which develop after 72 hours of birth. **Methodology:** This study aimed at assessing pediatric nurses' knowledge about neonatal sepsis. **The sample size:** was the total coverage consists of 30 nurses" which is the available number of pediatric nurses at the hospital during the study. **The data collected:** by using questionnaire and check list designed for the purpose of the study, and the data analyzed by using "SPSS". **The result showed:** (86.7%) of nurses knew the main cause of sepsis and mode of transmission of neonatal sepsis. Only (.16.7%) knew the prevention of neonatal sepsis, the nurses showed excellent performance (100%) advices mothers for cleaning. The study concluded the nurses have good knowledge and an excellent performance.

**Key words:** Nurses- competences- neonatal sepsis.

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## INTRODUCTION

Neonatal sepsis is a serious problem causing high mortality in neonates. When pathogenic bacteria gain access in the blood stream, they may occur cause an overwhelming infection. The systemic bacterial infections of neonates are termed as neonatal sepsis which in corporate septicemia pneumonia and meningitis of new born [1].

The predisposing factors of neonatal sepsis are intrauterine infections premature and prolonged rupture of membrane, encomium stained liquor, repeated vaginal examination, maternal infections, lack of aseptic practices, birth asphyxia ,low birth weight, a aspiration of feeds and lack of breast feeding, needle pricks.

The neonatal sepsis has two types, early onset neonatal sepsis, it develop before 72hours of life due to intrauterine infections, maternal conditions and intranatal cause. It manifests as pneumonia. And late onset neonatal sepsis, it is developing after 72hours may be at the end of first week or second week. It acquired as no so comical infections, the clinical presentations are those of septicemia, pneumonia or meningitis.

The neonatal sepsis manifested by prenatal hypoxia, resuscitation difficulties and congenital pneumonia in the form of respiratory distress. The late onset in very small baby may be silent who may die suddenly without any sign and symptom. Also the child may have alteration of the established feeding behavior, hypothermia, poor cry, destination of abdomen, diarrhea, vomiting [1].

The world health organization (who) reported in 2005 that over 70%of death in children under age five occur within the first year of life and 40%occur within the first month [2]. Neonatal sepsis currently causes 1.6 million deaths annually in developing countries. Sepsis and meningitis are responsible for most of these deaths.

The diagnosis should be done to confirm the neonatal sepsis is: (blood culture from septic umbilicus or any other location, lumber puncture for csf study, urine culture and cxr).

The incidence of bacterial sepsis in inversely proportional to birth weight and gestational age, ranging from 1 to 8 per 100 live births in the term infant to as high as 300 per 100 live bi rths in the premature infant undergoing prolonged hospitalization. The mortality

rate 10% to 50% and higher in premature infants and infants with early onset sepsis. Neonatal sepsis is major health problems throughout the world. Estimated 30 million new born acquired infection and 1-2 million of these die. Mortality due to sepsis has increased by approximately 13.7% each year over the past 2 decades. in the united states the incidence of culture proven sepsis is a proximately 2 per 1000 live birth of the 7.13% of neonates' who are evaluated for neonatal sepsis. The incidence of sepsis in the developing countries is much higher than in the developing world and in the some of these countries, sepsis-related mortality rate was estimated as high as 50% for these infants who are not treated. Neonatal infections currently cause 1-6 million deaths annually, sepsis and meningitis are responsible for most of these deaths. Neonatal sepsis where is responsible for about 30-5% of the total of neonatal death. Neonatal mortality is about 34 per 1000 live birth in Asia, 42 per 1000 live births in Africa. In Sudan Neonatal sepsis resulting is more than 5 million deaths per years each ninety-nine percent of these deaths occur in low medical resources setting. the proportion of female infected with neonatal sepsis 11.48% and the proportion of death 20.45%. In male the infected proportion 11.93% and the preparation of death 19.52%.

**Justification:** Neonatal sepsis is a leading cause of morbidity, mortality rate in both developing and developed countries.

Knowledge of the etiologic agent is important and helps to reduce associated mortality in neonatal septicemia. The complication of the disease very serious and severs effect in *neonatal* life. Nurses play a great role in prevention of neonatal sepsis by applying standard nursing care. The sepsis is the hazard in the community if not treated.

## OBJECTIVE

**General objective:** To assess the nurses' Competences regarding nursing care of neonatal sepsis

**Specific objective:** to identify the quality of care given to the neonate with sepsis.

- To identify the preventive measures
- To assess the nurses performance approach in control of infection

## METHODOLOGY

### Study design

Descriptive hospital based study aimed assessing pediatric nurses knowledge and practices about nursing care of neonatal sepsis in mohammed al amin hamied , conducted from February to march, 2017.

**Study area:** Khartoum state (Omdurman locality).

Mohammed Alamin pediatric specialized hospital. East Omdurman hospital in the south mosque Aleman Almahdi. Northern of Alshohada market. 7200mm, length from the north to the south 120mm and the wide from eastern to the western 60mm. History of building: This hospital is founded in 1986 by men mohammed alamin hamed. Divided into three builds:

### Study population

Qualificatied nurses who are graduate from university holding the following certificate – Dip, BCS, MSC, or PHC. Working at mohammed al amain hameid. Were chosen to conduct the study to knowledge and practices regarding nursing care of neonatal sepsis.

### INCLUSION CRITERIA

Nurses who fulfill the above criteria, willing to participate and available during the period of the study

### EXCLUSION CRITERIA

Nurses who were not fulfill the above criteria, not willing to participate and not available during the period of the study.

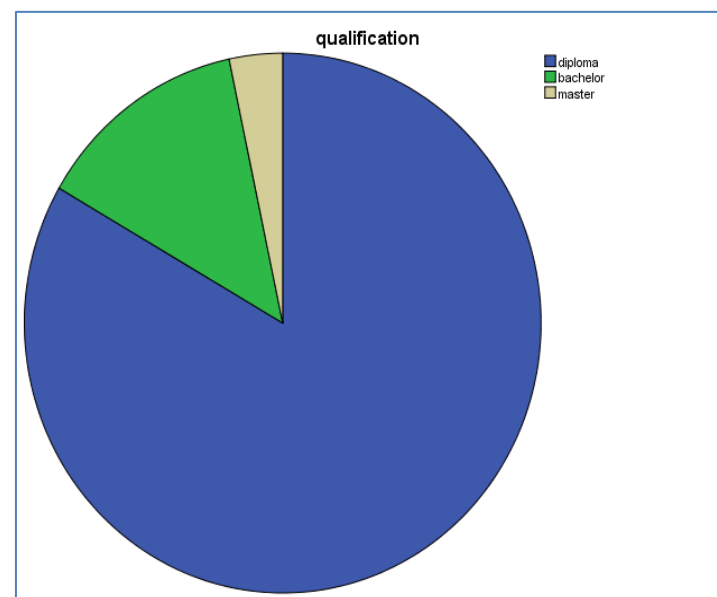
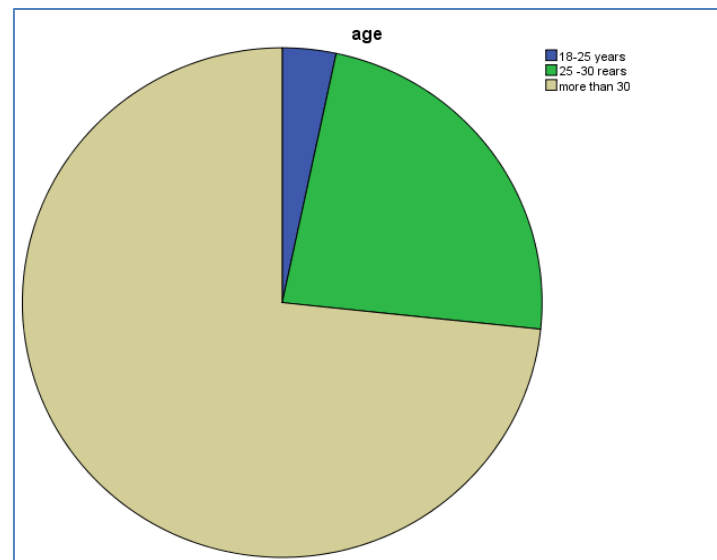
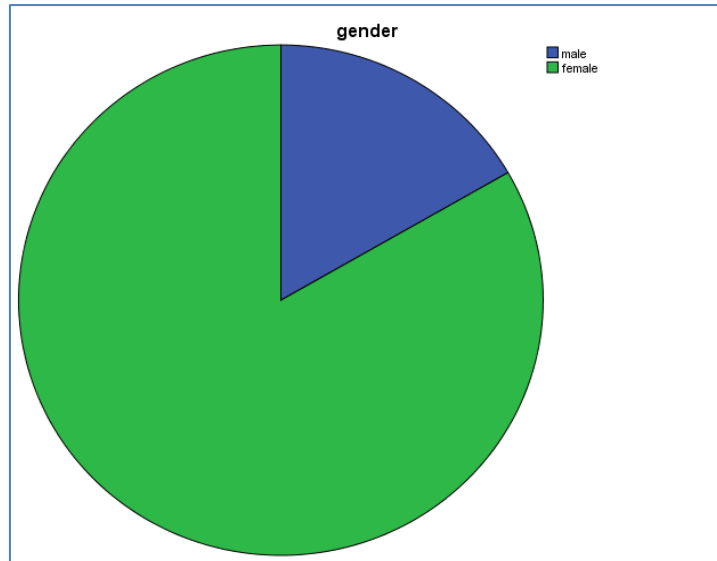
**Sample size:** Total coverage.

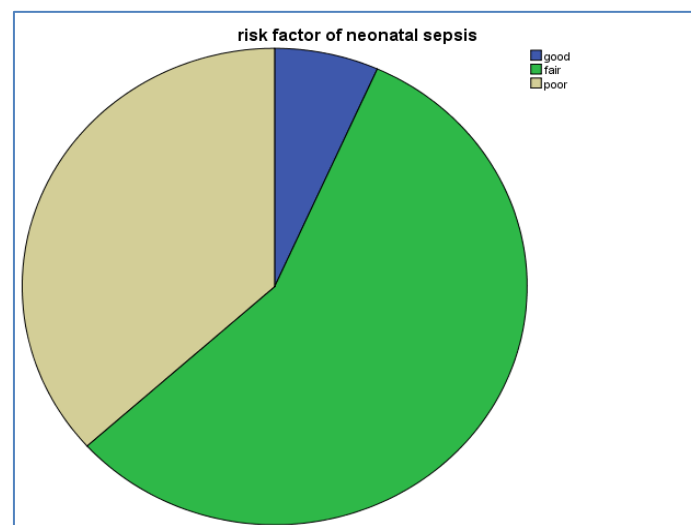
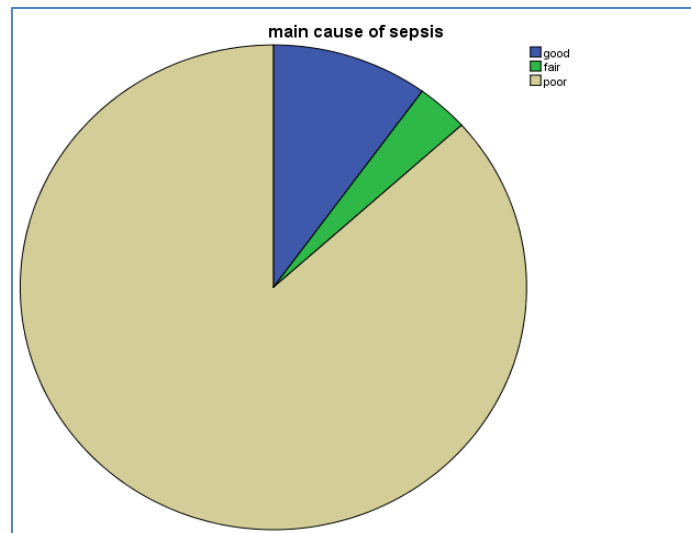
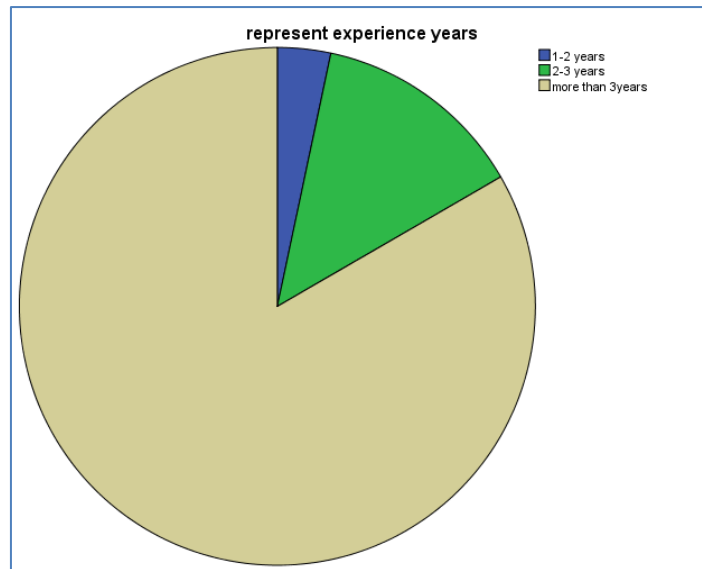
**Tools of data collection:** Data collected by used questionnaire and checklist.

### Analysis

Data was entered into password protected Microsoft access and analysis done using Statistical Package for Social sciences (SPSS) method.

## RESULT





## DISCUSSION

Neonatal sepsis is serious problem causing high mortality in neonates sepsis refers to generalized bacterial infection in the blood stream. The

predisposing factors of neonatal sepsis are intrauterine infection, premature and prolonged rupture of membrane.

The neonatal sepsis has two types early onset neonatal sepsis it is develops before 72 hours and late onset neonate sepsis it is develop after 72 hours.

Descriptive study conduct at mohammed al amain hamied to assess pediatric nurse knowledge and practices about nursing care of neonatal sepsis during the period from February to march 2017.

The sample size available (30) nurses work in mohammed al amain hamied hospital during the period of the study from February to march 2017. The data was collected by used questionnaire and check list designed by researcher. The data was analysis and interred to computer using statistical package for social sciences (SPSS).

Regarding the gender most of them are female this result related to attributed to desire of girls in nursing more than boys (Table 1).

Regarding the age group for nursing among study population was found that the common age group more than 3 years (Table 2).

The study show of qualification of nurse majority of diploma more than bachelor because the nurse bachelor favorite the work in private hospital and outside country (Table 3). Regarding years of experience the majority of study sample more than 3 years (Table 4).

Regarding definition of neonatal sepsis the majority of study sampe is very good this indicate to most of nurse has back ground about the definition of neonatal sepsis (Table 5).

Regarding main cause of neonatal sepsis the result showed that (86.7%) causative agent of neonatal sepsis is bacteria this result indicate most of nurses are known gable (Table 6).

Regarding sign of neonatal sepsis majority of nurse is good (Table 7). Regarding mode of transimination the majority of study sample is poor this result indicate most of nurses are poor knowledge about mode of transsimmation of neonatal sepsis (Table 8).

Regarding the knowledge of nurse about risk factor of neonatal sepsis the majority of study sample have fair knowledge this result indicate to lack of curses to train and habitation of nurse in hospital (Table 9).

The study showed (80%) of neonatal sepsis occur during early onset in first 7 days this result indicate the nurse have poor knowledge about duration of neonatal sepsis occurring (Table 10).

Regarding complication of neonatal sepsis the majority of study sample is very good this result

indicate to good information about complication of neonatal sepsis (Table 11). Regarding knowledge of nurse about nursing care of neonatal sepsis the majority of nurses are good knowledge (Table 12).

Regarding to the knowledge of nurse about aim of nurse care of neonatal sepsis most of nurse have poor knowledge this result indicate that nurse poor knowledge because the nurses are not specialized in neonatology (Table 13).

Regarding daily care of neonatal sepsis the majority of study sample is fair knowledge this result indicate there are no previous study about daily care of neonatal sepsis (Table 14).

Regarding to the knowledge of nurse about prevention of neonatal sepsis the majority of study sample have poor knowledge this result due to their focus on work more than renewal information (Table 15).

Regarding the drug use for treatment of neonatal sepsis majority of study sample is poor knowledge about treatment for neonatal sepsis (Table 16).

Regarding practice of nurse hand washing before and after procedure the majority of nurses are done because this nurse has responsibility "Table 1". Regarding practice for wearing one gloves from baby to baby observe majority of nurse is done "Table 2".

Regarding practice for use personal protective equipment observes majority of nurses have not done be cause there is no available personal equipment in the ho spital." Table 3"

Regarding practice of checking the vital signs every 4 hours the majority of nurses have not done beca use most of nurses have not adequate information about the vital signs. "Table 4". Regarding practice of care for personal hygiene observe majority of nurses have not done "Table 5".

Regarding practice for checking the umbilical cord routinely and dressing if needed observe majority of nurse not done because the equipments of dressing ar e not available in the hospital "Table 6". Regarding prac tice for cleaning the environment observe majority of n urses have not done" Table 7".

Regarding practice of cleaning the skin of the baby observed that majority of nurses have not done be cause the nurse think that is a responsibility of the co patient " Table 8".

Regarding practice of maintain warm the baby in case of hypothermia observed that majority of nurse s are done because of the availability of warmers in the hospita "Table 9".

Regarding practice of advice mother for cleaning breast and hand washing before feeding the baby observed all the nurses have done because they are knowledgeable about that "Table 10".

## CONCLUSION

Based on the result of the study the researcher concluded that: sepsis program and education courses are importance to improve knowledge and practice also provide adequate medical equipment. The majority of study sample is knowledge about definition, complication and management of neonatal sepsis. In the other hand the nurse have mal practice of nursing care of neonatal sepsis in some area because they have diploma in nursing and have not back ground and knowledge about neonatal sepsis.

## RECOMMENDATIONS

Based on the conclusion of the study the researcher recommended the following: Continuous training program for nurse to refresh and to practice nurse work, encourage the midwife and nurse for continues learning, establish good plan for both treatment and prevention, health education for mother.

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