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Assessment knowledge and practical of nurses regarding endotracheal tube care in critical care Omdurman hospital

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ABSTRACT

The aim of these research to assess the knowledge and practice of nurses about endotrachiel tube care of patient in critical care unit on Omdurman teaching hospital because the mortality rate is increase so that is importance to evaluate the knowledge and practical of nursing about ETT care and tong in improve and reduce complication .There for this study was conducted among 50 nurses working critical care unit in Omdurman teaching hospital the data was collected by asking them using close questionnaire to assess the knowledge and check list to assess practical. Then data analyzed by using SPSS software programs. The result is 25.26% of nurse good knowledge, 27.36% middle knowledge and 47.26% poor knowledge because low experience. And practical 67.21% good, 26.55% middle and 6.22 % poor practical. The nurse good of practical more than knowledge

Keywords: knowledge – practical- endotracheal- nursing

INTRODUCTION

Endotrachial intubation involves passing an Endotrachial tube through the mouth or nose into the trachea. Intubation provides a patent airway when the patient is having respiratory distress that cannot be treated with simpler methods. It is the method of choice in emergency care. Endotrachial intubation is a means of providing an airway for patients who cannot maintain an adequate airway on their own (e.g., comatose patients or patients with upper airway obstruction), for mechanical ventilation(1), and for suctioning secretions from the pulmonary tree. An Endotrachial tube usually is passed with the aid of a laryngoscope by specifically trained medical, nursing, or respiratory therapy personnel. Once the tube is inserted, a cuff around the tube is inflated to prevent air from leaking around the outer part of the tube to minimize the possibility of subsequent aspiration, and to prevent movement of the tube(2). Nurses should be aware that complications could occur from pressure in the cuff on the tracheal wall. Cuff pressures should be checked with a calibrated aneroid manometer device every 8 to 12hours to maintain cuff pressure between 20 and 25 mm Hg(3). High cuff pressure can cause tracheal bleeding, ischemia, and pressure necrosis, while low cuff pressure can increase the risk of aspiration pneumonia. Routine deflation of the cuff is not recommended due to the increased risk of aspiration and hypoxia. The cuff is deflated prior to removing the Endotrachial tube (St. John, 1999b). Tracheobronchial secretions are suctioned through the

tube(4). Warmed, humidified oxygen should always be introduced through the tube, whether the patient is breathing spontaneously or is receiving Ventilatory support(5). Endotrachial intubation may be used for no more than 3 weeks, by which time a tracheotomy must be considered to decrease irritation and trauma to the tracheal lining, to reduce the incidence of vocal cord paralysis (secondary to laryngeal nerve damage), and to decrease the work(6).

METHODOLOGY

Study design

Descriptive - cross sectional study

Study Area

Omdurman teaching hospital

Study population

All ICU nurses in Omdurman teaching hospital

Inclusion criteria

Certified and qualified nurses working in critical care unit at Omdurman teaching hospital

Exclusion

Those who are disagree to be included in this study.

Sampling and sample size

Fifty nurse. All the nurse in critical care unit in Omdurman hospital.

Data collection

Data collection tools

Data will be collected using structured designed closed questioner and observational check list to measure the knowledge and practice of nurses in ICU regarding ETT care patients.

Data collection technique

By the :self-administered questionnaire and observation check list.

Data Processing and analysis

Computerized using Statistical Package for Social Sciences program (SPSS) to present the information through Pie, Bar, Table, Cross tabulation.

RESULTS

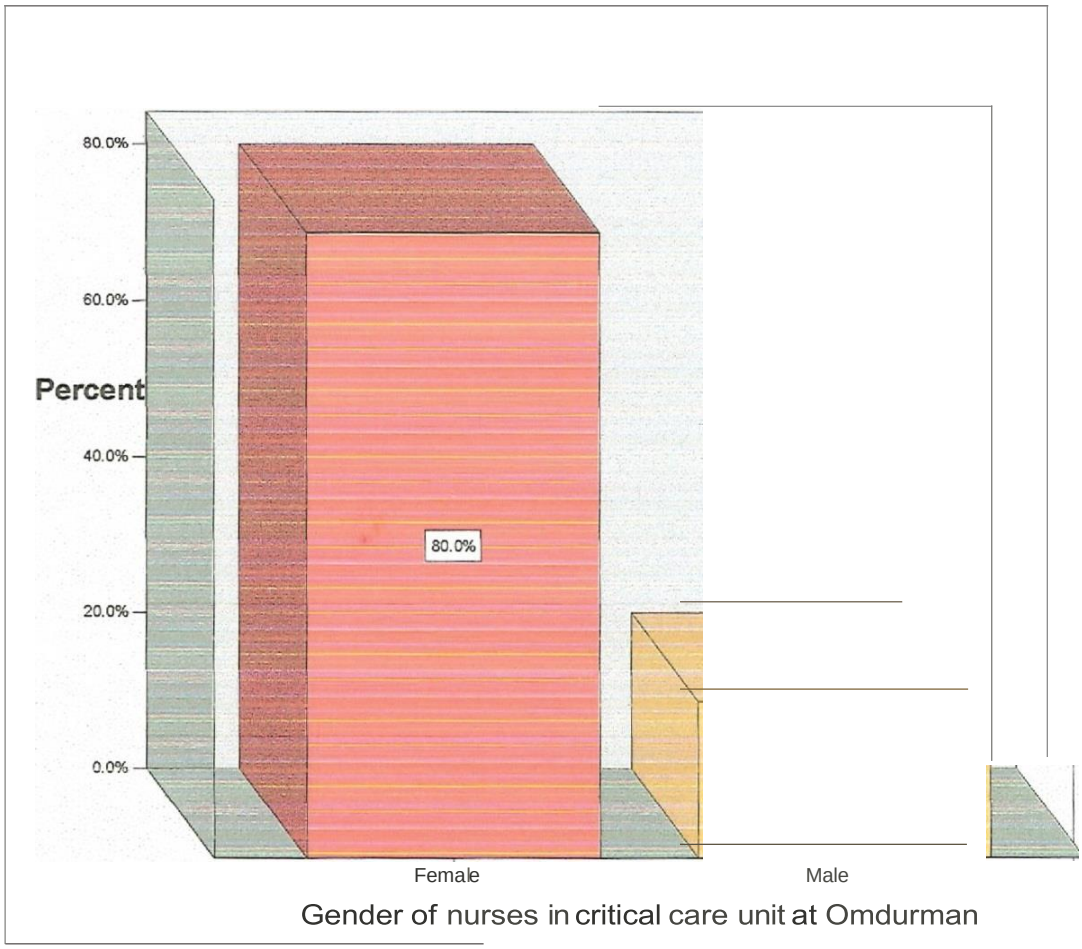


Fig 1: Gender of nurses in critical care unit at Omdurman teaching hospital 2011

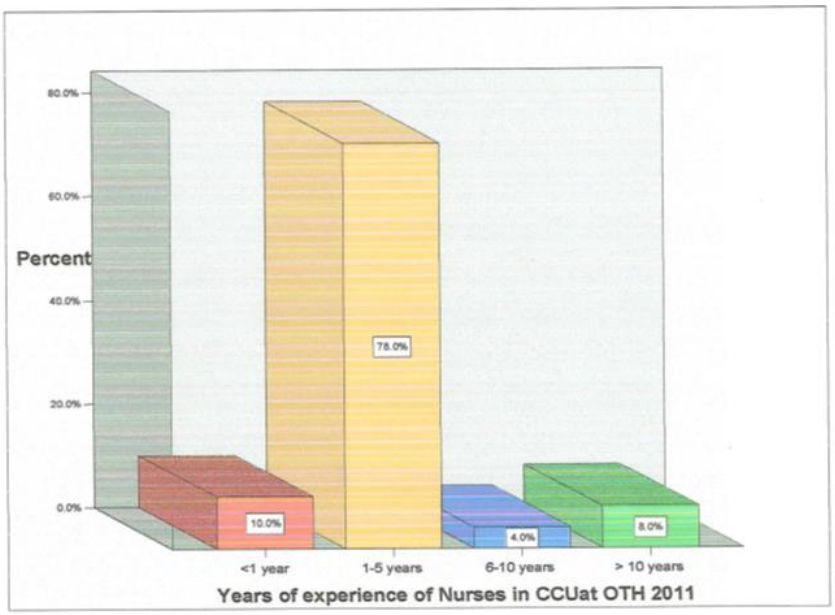


Fig 2: Years of experience of Nurses in CCU at OTB 2011

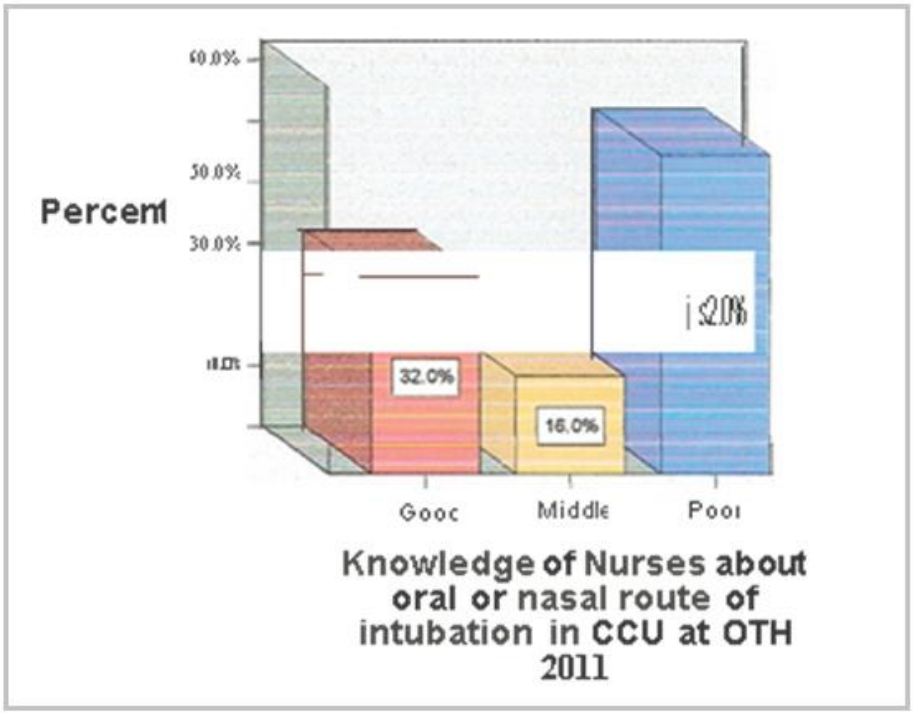


Fig 3: Knowledge of Nurses about oral or nasal route of intubation in CCU at OTH

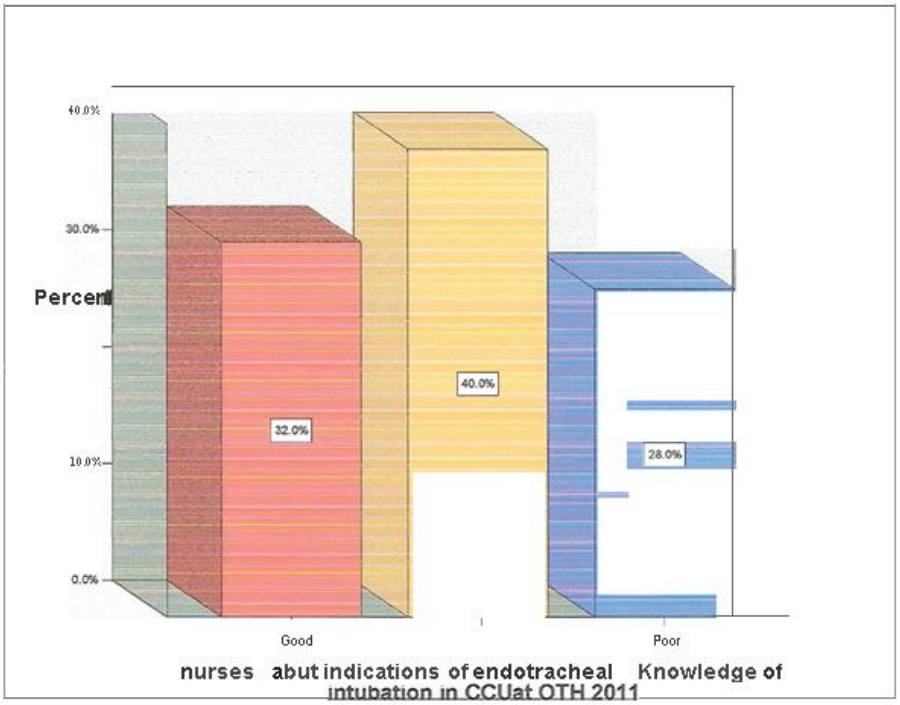


Fig 4: Knowledge of Nurses about indications of endotracheal in intubation in CCU at OTH 2011

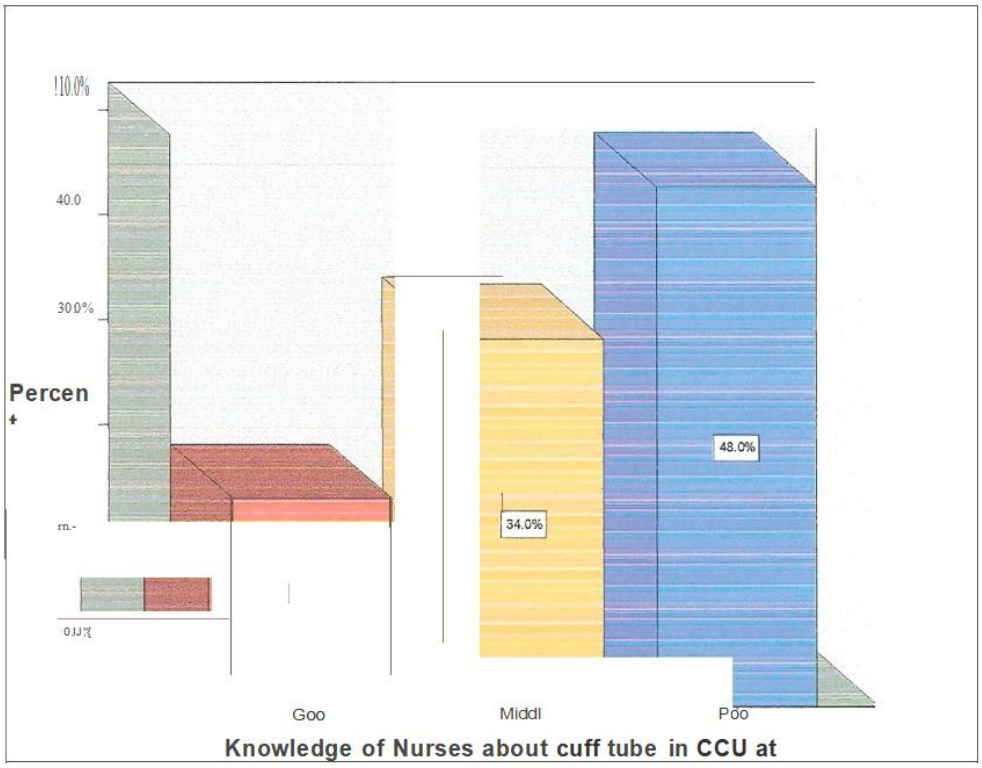


Fig 5: Knowledge of Nurses about cuff tube in CCU at OTH

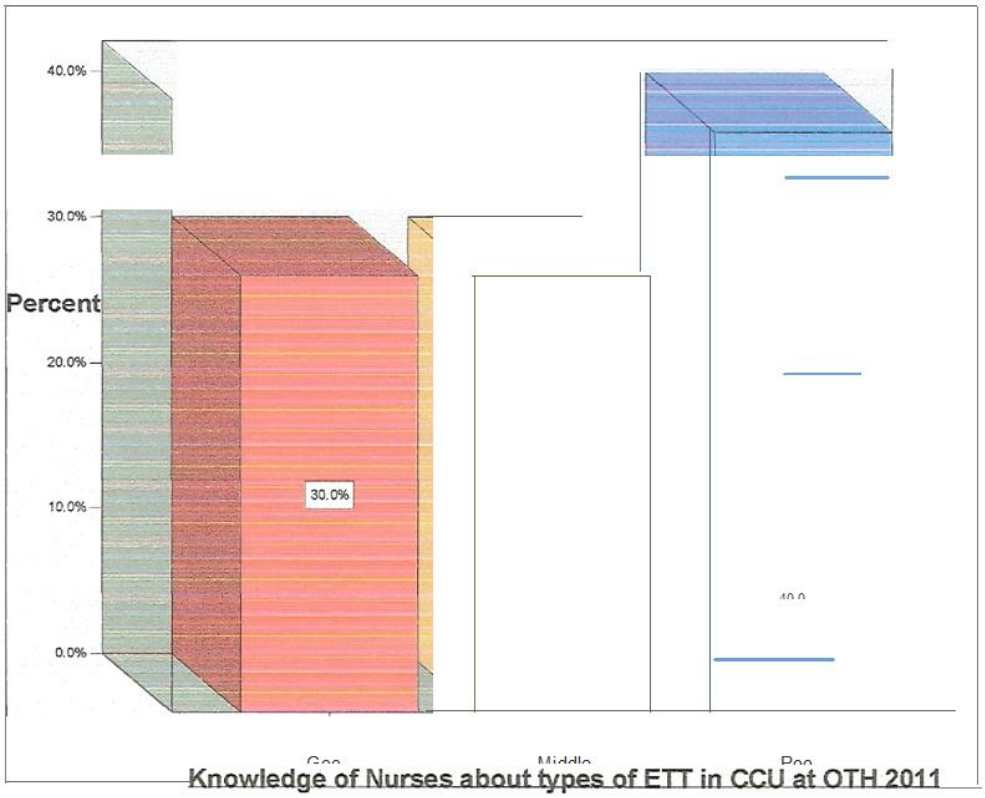


Fig 6: Knowledge of Nurses about types of ETT in CCU at OTH 20 11

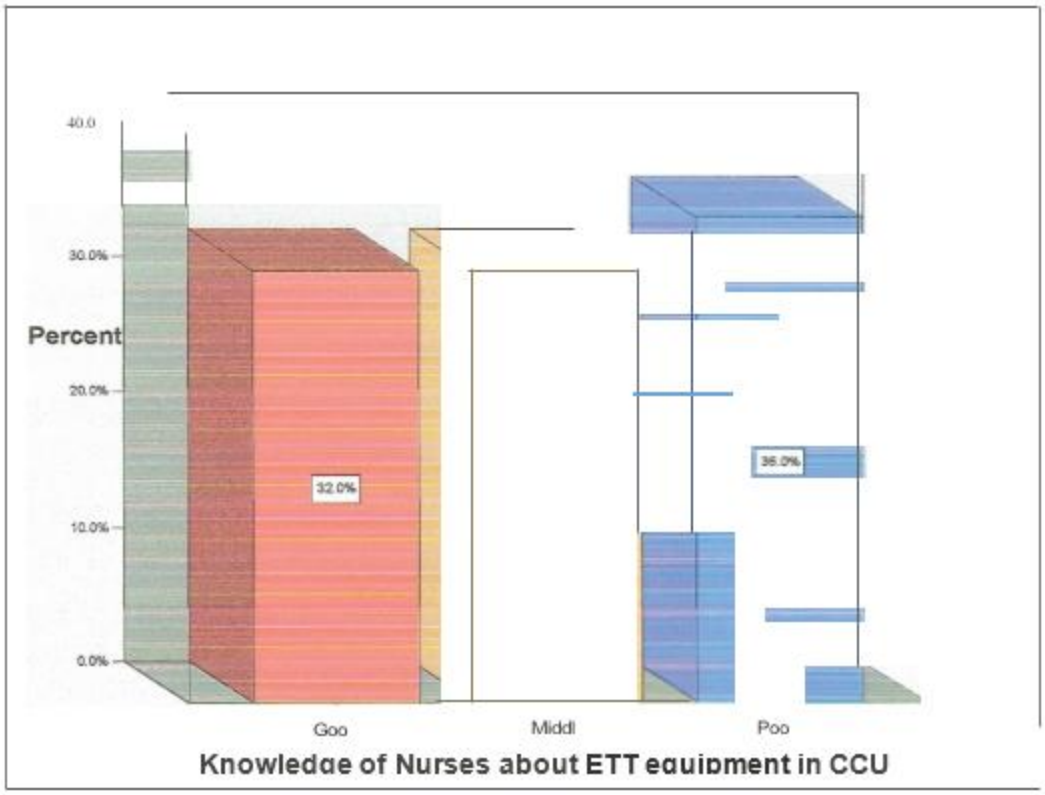


Fig 7: Knowledge of Nurses about ETT equipment inCCU at OTH 20 11

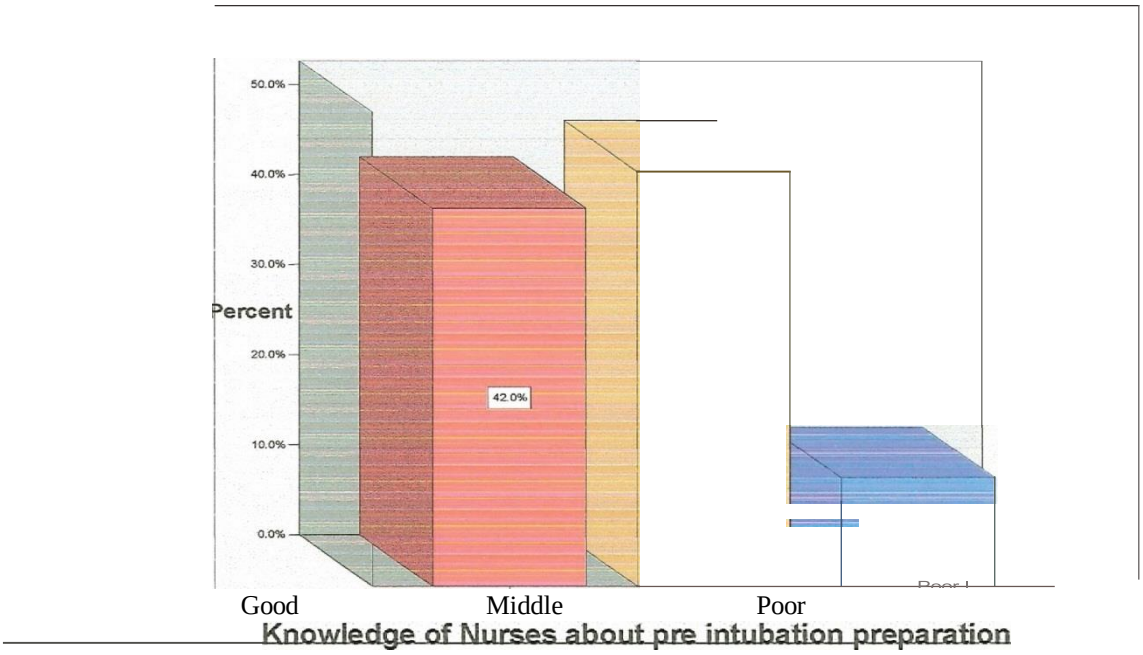


Fig 8: Knowledge of Nurses about pre intubation preparation

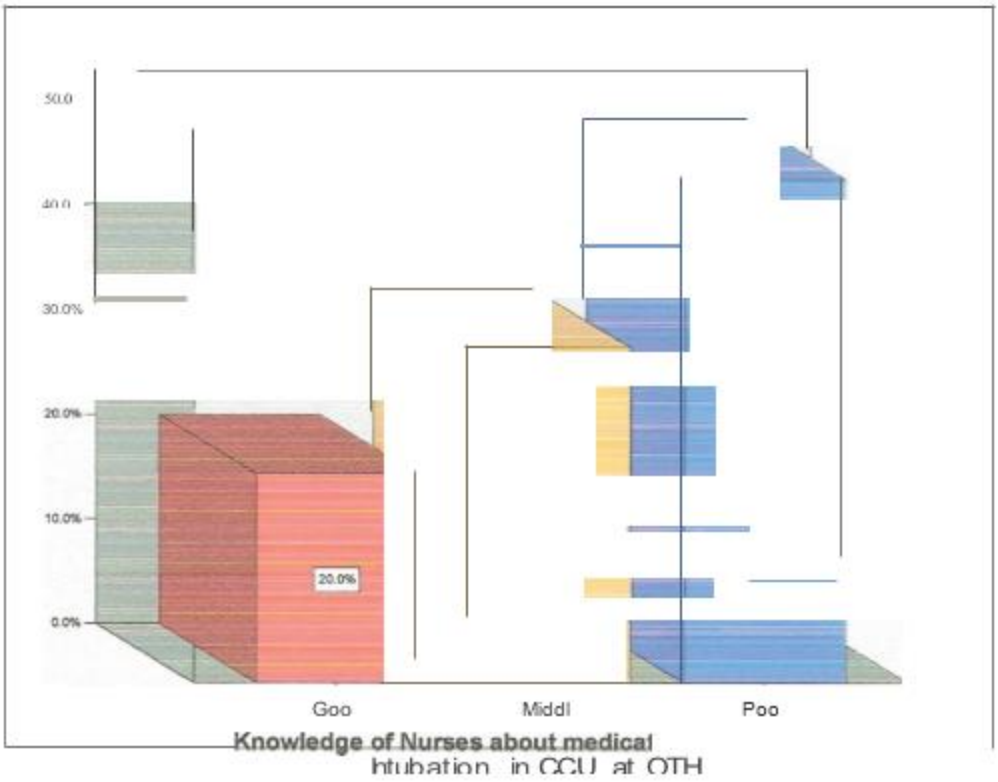
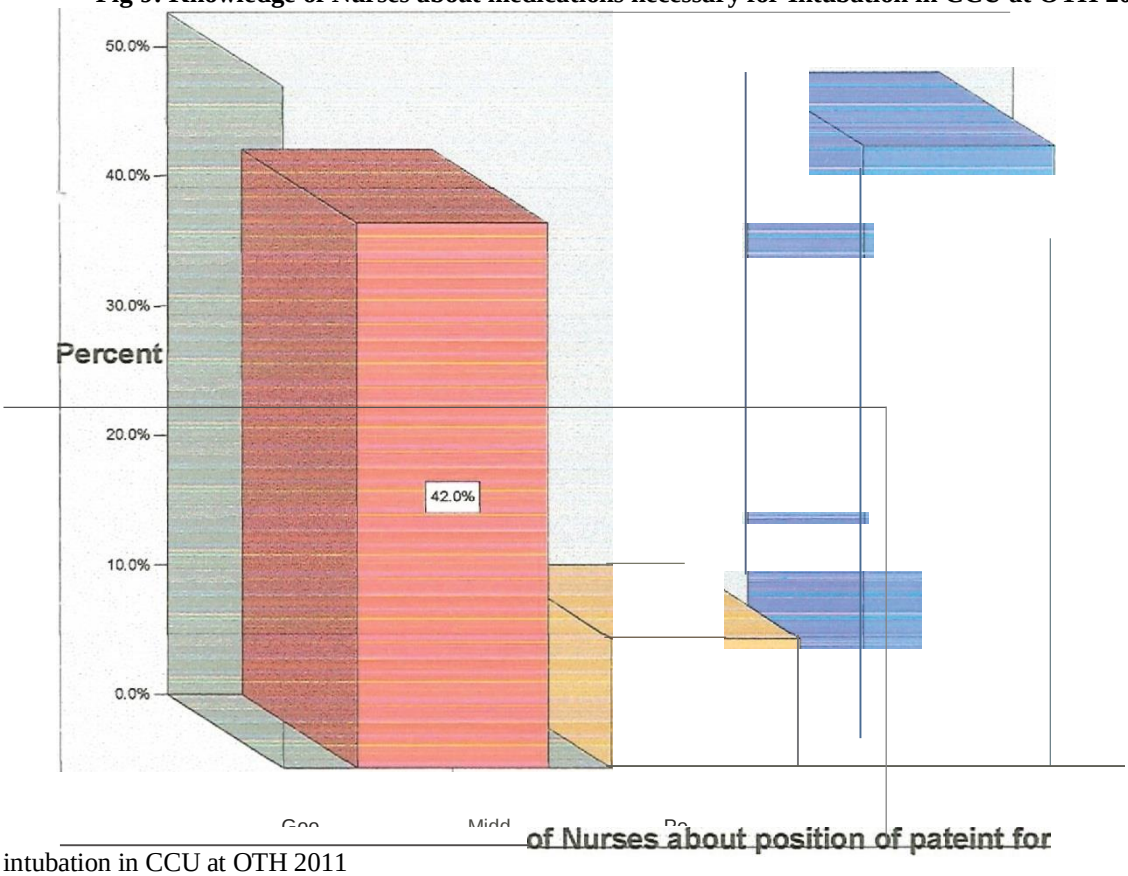


Fig 9: Knowledge of Nurses about medications necessary for Intubation in CCU at OTH 2011



intubation in CCU at OTH 2011

Fig 10: Knowledge of Nurses about position of patient for intubation in CCU at OTH

DISCUSSION

This is clinic based study conducted Omdurman hospital CCU to assess level of knowledge; of Nurse about endotracheal nursing care and practical. A pretested and preceded designed structured questionnaire check list consisting of open and closed ended questions was used. Ranking that was used to code the level of knowledge was determined to be standard as :This study involved fifty nurses. All the nurse in critical care unit in Omdurman hospital(1).(2). (3)The gender of nurses 80% female and 20% male figure (1) 78% of nurses experience 1--5 year's middle 10 % less than years poor 4 % 6 – 10 years good experience and MOR than 10 years 8% very good figure (2) Good knowledge of nurses 32% about oral or nasal route of intubation experience 6---10 years and 16% middle and 52% poor because experiences loss than one yeas figure (3) 32 % of nurse's very good experiences 40% middle 28% poor about knowledge of indication of endotracheal in intubation figure (4) 18 % good knowledge of nurses about cuff tube 34 % middle knowledge of nurses about cuff tube 48 % poor knowledge of nurses about cuff tube figure (5) 30 % of nurses good knowledge30% middle (4).and 40%poor figure (6) of Knowledge of Nurses about types of ETT 32 % of nurses about ETT equipment good knowledge and middle 32% and 36 % poor knowledge because low experiences figure (7) Knowledge of nurses about pre intubation preparation good 1.2% and 46% middle 6% poor figure (8) Knowledge of Nurses. about medications necessary for intubation 20% good and 32% middle and 48%poor figure (9) 42 % good Knowledge of Nurses about position of patient for intubation 10 % middle Knowledge of Nurses about position (5)of patient for intubation 10 % middle Knowledge of Nurses about position of patient for figure (10) Intubation 40 % good Knowledge of Nurses about proper positioning of ETT 32 % middle Knowledge of Nurses about proper positioning of ETT 28 % poor Knowledge of Nurses about proper positioning of ETT 20 % good Knowledge of Nurses about method of tube stabilization Technique 36 % middle Knowledge of Nurses about method of tube stabilization Technique 44 % poor Knowledge of Nurses about method of tube stabilization (6)Technique figure (12)10 % good Knowledge of Nurses about advantage of nasoracheal intubation 22 %middle Knowledge of Nurses abut advantage (7)of nasotrachcal intubation 58 % poor (8)Knowledge of Nurses about advantage of nasotracheal intubation figure (13) 16 %good Knowledge of Nurses about types of airway humidifier 2 % middle good Knowledge of Nurses about types of airway hum.1difier 82 %poor Knowledge of Nurses about types of airway humidifier experiences loss than year's figure (14) 22 %good Knowledge of Nurses about open vs. (9)closed suction systems 8 % middle Knowledge of Nurses about open vs. closed suction systems 70 %poor Knowledge of Nurses about open vs. closed suction systems(10).

CONCLUSION

Fifty nurse. All the nurse in critical care unit in Omdurman hospital certified and qualified assessed their gender - most of nurse female and Experience their knowledge use questionnaire and practical use observation check list about nursing care of endotracheal tube - 25,26% of nurse good knowledge, 27,36% middle knowledge and 47,26% poor knowledge because low experience and practical 67,21% good, 26,55% middle and 6,22% poor practical the nurse good of practical more than knowledge.

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