

**Nurses' Performance Regarding Patient
Safety In Operating Room at Zagazig
University Hospitals**

Thesis

*Submitted for Partial Fulfillment of the Requirement
of Master Degree in Medical Surgical Nursing*

By

Samar Nabil Mohamed Abd Elgil

Teaching Instructor at Medical Surgical Nursing Department
Imbaba Technical Health Institute

**Faculty of Nursing
Ain Shams University
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Teaching Instructor at Medical Surgical Nursing Department
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Under Supervision of

Assist.Prof. Howyda Ahmed Mohamed

Assistant Professor of Medical Surgical Nursing
Faculty of Nursing – Ain Shams University

Assist.Prof. Mona Nadr Ebrahim

Assistant Professor of Medical Surgical Nursing
Faculty of Nursing – Ain Shams University

**Faculty of Nursing
Ain Shams University
2019**

Acknowledgement

*First of all, all gratitude is due to **Allah** almighty for blessing this work, until it has reached its end, as a part of his generous help, throughout my life.*

The success of any work depends largely on the encouragement and guidelines of many others. I take this opportunity to express my gratitude to the people who have been instrumental in the successful completion of this work,

*I would like to express my deepest gratitude and sincere appreciation toward **Dr. Howaida Ahmed Mohamed**, Assist. Prof. of Medical-Surgical Nursing, Ain Shams University, who devoted much of her time, effort, and generous advice for the completion of this work. Words can never express my hearty thanks and indebtedness to her valuable advice, experienced guidance and encouragement.*

*My deep hearty gratitude and thankfulness to **Dr. Mona Nadr Ebrahim**, Assist. Prof. of Medical Surgical Nursing, Faculty of Nursing, Ain Shams University for her continued effort, support, sincere advice, suggestions and guidance during all phases of this work,*

Many thanks are sincerely sent to my parents, Husband, all family members, and friends for their tolerance and sustained normal support.

Last but not least I would like to express my deep thanks to all nurses who participated in this research and to all persons who directly and indirectly helped me by giving their time, effort and encouragement to the fulfillment of this work,

Samar nabil Mohamed

Nurses' Performance Regarding Patient safety In Operating room at Zagazig University hospitals

Abstract

Background: The patient safety is a fundamental principle of health care. It has been defined as reduction of risk of unnecessary harm associated with delivery of health care to a minimum as well as the prevention of errors and avoidable adverse events, to protect patients from injury. **Aim:** This study was conducted to assess nurses' performance regarding patient safety in operating room. **Design:** A descriptive research design was utilized to meet the aim of the study. **Setting:** The study was conducted in the General operating rooms at Zagazig university hospital. **Study subject:** A purposive sample included all available nurses working in general operating room (50 nurses) at zagazig university hospital were recruited. **Tools:** three tools were used including:- **I-**Self-administered questionnaire . **II-**Nurses' Level of practice observational checklists. **III-**Nurses' attitude Likert scale. **Results:** 74% of studied nurses had unsatisfactory level of knowledge regarding patient safety in operating room, 54% of studied nurses had unsatisfactory level of practice regarding patient safety in operating room and 96% of studied nurses had positive attitude regarding patient safety in operating room. **Conclusion:** about three quarters of studied nurses had unsatisfactory level of knowledge regarding patient safety in operating room. More than half of studied nurses had unsatisfactory level of practice regarding patient safety in operating room. While, the most of studied nurses had a positive attitude regarding patient safety in operating room. **Recommendations:** On-going and regular in-service educational programs regarding evidence-based guidelines about application of patient safety checklist in the operating room.

Keywords: Nurses' performance – Patient safety— Operating room.

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List of Abbreviations

AORN: Association of perioperative Registered Nurses.

CRBSI : Catheter-Related-Blood stream Infection.

FIOH : Finish Institute Of Occupational Health.

NIOH : The National Institute for Occupational Safety
and Health.

OR : Operating room

PACU : Post Anesthesia Care Unit.

PaO2 : Partial Pressure of Oxygen.

PH : Measure of acidity or alkalinity.

RSI : Retained Surgical Items.

SaO2 : Oxygen Saturation.

SD : Standard Deviation.

SPSS : Statistical packages for Social Science.

SSC : surgical safety checklist.

VAP : Ventilator Associated Pneumonia.

WHO : World Health Organization.

WSS :Wrong-site surgery.

Introduction

The operating room is a facility within a hospital where surgical operations are carried out in an aseptic environment. It is a very critical area and has great importance in the hospital among other health care settings. The operating room environment is basically a closed, isolated, restricted, yet flexible environment charged with multiple inherent risks and hazards and the number of patients undergoing surgery may come across various hazards that can be classified as: physical, accidental hazards, chemical hazards, biological hazards, fire hazards and other hazards **(Markel, Gormley & Greeley, 2017)**.

The patient safety is a fundamental principle of health care. It has been defined as reduction of risk of unnecessary harm associated with delivery of health care to a minimum as well as the prevention of errors and avoidable adverse events, to protect patients from injury. It is a global health concern, affecting patients in all health care settings, whether in developing countries. While health care has been more effective, it has been more complex, with greater use of new technologies, medicines and treatments **(Russo, Sittig & Murphy, 2016)**.

Patient safety in operating room is a critical consideration of all nurses, but nowhere is this a greater

priority than in the operating room environment. This is due to the vulnerability of the surgical patient and the nature of the environment itself. It is very important to protect and minimize the damage to the patient while doing an invasive procedure in the operating room. The patient is safe from the operation when errors never occur and nurses are patient-oriented (**Lepanluoma, Takala & Kotkansalo, 2014**).

Inadequate safety measures may be result in multiple ill effects, constant vigilance, awareness with timely intervention, maintenance of a specific operative procedure, and an educated team culture can make the operating room environment safe for the patient as well as for the operating room team. Safety in surgery requires a reliable execution of multiple necessary steps in care, not just by the surgeon but by the team of health care professionals working together for the benefit of the patient safety (**Pérez, Gutiérrez & Rodríguez, 2014**).

Hazard is a situation that poses a level of threat to life. The hazards in operation rooms can be classified as: mechanical or accidental hazards, the possibilities are faulty operative procedures, fall from operation table, injury due to improper positioning; chemical hazards are the substances that on contact cause harm to a person as Hypersensitivity to anesthetics, Biological hazards as

infections due to the exposure to blood, body fluids possibly leading to blood-borne diseases such as HIV, Hepatitis B and Hepatitis C, fire hazards it includes surgical fire, airway fire, and fire within the airway circuit and electrical hazards, skin burn to the patient may occur due to inadequate diathermy machine grounding (**Sen & Sen, 2013**).

The operating room nurses play an important role in the care of patients undergoing surgery to prevent complications and maintain patient safety. Patient safety should be an area of focus in basic nursing care. A strategy for ensuring patient safety in operating room should include equipment safety, electrical safety, radiational safety and chemical safety. Proper positioning for ensuring patient comfort and safety in addition to providing access to the surgical site, airway, intravenous lines, and all monitoring devices (**Yaldez & Navine, 2013; Willassen, Lise & Jacobsen, 2018**).

Safe transfers of the patient to or from the operating room bed with all tubes are visible, maintaining body temperature, achievement of safe anesthesia, infection prevention, safe handling of equipment, aseptic technology appliance, effective communication and correct use of the surgical safety checklist (SSC). These measures tend to prevent hazards and avoid postoperative

complication. Less morbidity and mortality, improved quality and greater efficiency are potential benefits of surgery that is safe for the patient **(Banguti, Paulin & Mvukiyehe, 2018)**.

Significance of the study:

Surgical care has been an essential component of health care worldwide for over a century. Each year 4% of the world's population is going under surgery. Although surgery represents a mainstay of medical treatment, the rate of death directly due to inpatient surgery has been estimated at 0.4–0.8%, and the rate of major complications has been estimated at 3–17% **(WHO, 2016)**.

An annual estimated rate of Surgical site infection (39%), bleeding and hematoma (23%), injuries by physical or chemical hazards (22%), and other functional disorders (16.5%). Other studies report technique-related complications as the most frequent injury in 24-30% of their patients **(Kumer & Raina, 2017)**.

In Egypt, at Zagazig University Hospitals the total number 10478 of patients undergoing surgical operations were and its mortality rate represents 5% in 2018. **(Information Center, Zagazig University Medical Records Office, 2018)**.