

**Nursing Core Competencies of
Staff Nurses Providing Care for
Burned Patients**

Thesis

*Submitted for the partial fulfillment of Master Degree In
Nursing Sciences (Nursing Administration)*

By

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**Faculty of Nursing
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List of abbreviations

Abb.	Full term
ABA	American Burn Association
AKI	Acute Kidney Injury
ANA	American Nurses Association
BNCI	Burn Nurse Competency Initiative
BRTS	Burn Rehabilitation Therapists
COPA	Competency Outcomes Performance Assessment
DHE	Department of Higher Education
HLCM	Health Leadership Competency Model
HOTOHA	Hoitotoimintojenhallinta
IAPCC-R	Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised
ICN	International Council of Nurses
IOM	Institute of Medicine's
IGFBP7	Insulin-like Growth Factor Binding Protein 7
MOH	Ministry Of Health
MPNEP	Maine Partners in Nursing Education and Practice
NGAL	Neutrophil Gelatinase-Associated Lipocalin
NCS	Nurse Competence Scale
NOF	Nurse of the Future Core Competencies
NMC	Nursing and Midwifery Council
QSEN	Quality and Safety Education for Nurses
RNs	Registered nurses
TBSA	Total Body Surface Area
TIMP-2	Tissue Inhibitor of MetalloProteinase2
VAS	Visual Analogue Scale
WHO	World Health Organization

Abstract

Introduction: Competency standards for nurses who specialize in the care of burn-injured patients are lacking. Currently, there are no nationally agreed on standards that define safe and competent burn nursing practice. In 2014, nurse members of the American Burn Association proposed the Burn Nurse Competency Initiative (BNCI) with the intent of establishing a core set of competency standards for burn nursing. **Aim;** this study aimed to **Assess of Competency Levels of staff nurses providing care for burned patients. Subject and method;** This study was conducted at two different settings , the first setting is Ahmed Orabi Hospital for burn and tumor and the other setting is Burn Unit in El-Demerdash hospital at Ain Shams University. The subjects of the study included 61 staff nurses, 33 Staff nurses working at Ahmed Orabi hospital and 28 Staff nurses working at Burn unit in El-Demerdash hospital at Ain Shams University. Two types of tools were used to collect data, one Questionnaire sheet namely nurses knowledge core competencies Questionnaire, the other Observational checklist **Result;** the majority of staff nurses had low competency level of knowledge about burn and core competencies regarding (infection control , hazards materials safety , medication administration) at both hospitals. **Conclusion;** the study findings showed a statistically significant correlation between Total Core competencies of Nurses' knowledge and skills. **Recommendation;** Nursing administration should develop effective training program related to Infection control, medication administration and hazards materials safety.

Key words: Nursing, Core Competencies, Staff Nurses, Burned, Patients.

Introduction

Burn is a problem prevalent worldwide, especially in developing countries. Based on the available information regarding the incidence of burns and burn deaths, this should be considered as a significant problem in Egypt. Though there is no time trend in Cairo Governorates, yet it constitutes 2.66% of the total deaths coming for autopsy at mortuary. Burns have always been considered as one of the most destructive injuries, causing not only deaths but also major economic and psychological impacts and long-term somatic sequel as well burn injury is a common type of traumatic injury, causing considerable morbidity (*Arshi, Sadeghi-Bazargani, Mohamm, Djafarzadeh, 2015*).

Burns are injuries produced by application of dry heat such as flame, radiant heat or some heated solid substance like metal or glass to the body. Local injury to the body by heat may result from dry heat, application of hot bodies, licking by flames resulting in simple burns, moist heat leading to scalds, and corrosive poisons resulting in corrosive burns. Burns are an important cause of injury to young children, being the third most frequent cause of injury resulting in death behind motor vehicle accidents.

Burn injuries account for the greatest length of stay of all hospital admissions for injuries (*Toon, Maybauer, Arceneaux, Fraser, Meyer, Runge, 2013*).

According to the World Health Organization, 238,000 individuals died of fire-related burns in 2000, and 95% of these deaths occurred in low and middle-income countries. The approach to burn prevention, to be effective in a particular area, should be based on a sound knowledge of etiological patterns of burn injuries and must take into account the geographical variations and socioeconomic differences in burn epidemiology. As in other low income countries, burns in Egypt are considered as major health problems that are associated with high mortality and morbidity. (*World Health Organization, 2013*).

Though optimal care of the burn injured patient requires a multidisciplinary approach, the bulk of burn care activities have been indicated to involve the expertise of burn care nurses: wound care, monitoring various vital parameters, monitoring urine output pain assessment, monitoring the burned patient on ventilatory support among others (*Carlson, 2013*).

Professional competence is the combination of knowledge, judgment, skills, experience, and attitude required to respond adequately to the demands of one's

occupational responsibilities. Models for competence in health care have been used to improve practice standards, accommodate new knowledge, promote professional development, and improve effectiveness of training and education programs (*Verma, Paterson and Medves, 2012*).

The Maine Partners in Nursing Education and Practice (MPNEP) Steering Committee met for the first time in July 2009. Steering Committee members agreed that adopting Maine Nursing Core Competencies was the top priority. A sub-committee quickly got to work utilizing a comprehensive approach to the process of identifying, defining and adopting core nursing competencies. A rigorous assessment of the work underway in other states and nationally related to core competencies, current and proposed practice standards, as well as education accreditation standards was conducted (*Nichols, 2013*).

In an effort Nursing aims at maintaining a state of health regain normal or near normal state of health in the event of burns and stabilize, control or minimize the effects of chronic poor health or disability. The nursing actions deliberately selected and performed by nurse to help individuals using the aseptic technique procedures for patient with burns wound recover quickly and to maintain

or change condition in themselves or their environment (*Basavanthappa, 2010*).

Although a competency based approach to training and staff development is accepted as a central strategy to improve the effectiveness of healthcare providers, the development and implementation of competencies can be a complex endeavor. Burn Rehabilitation Therapists (BRTs) require a specific skill set and supporting knowledge to perform their job safely and competently. American Burn Association (ABA) burn center verification criteria requires that burn centers provide BRTs with a “competency based burn therapy orientation program,” recognizing the importance of practice standards in burn rehabilitation (*Guidelines for the Operation of Burn Centers, 2015*).

However, currently, no universally agreed-upon competencies exist to define the skill set essential to BRT job performance. There is a paucity of supporting research for best practice in burn rehabilitation, and the associated component skills are ill defined. So, many burn centers have developed their own competency-based tools for training BRTs. The criteria for these tools vary throughout burn centers depending on previous education, work experience, treatment philosophies, baseline skill abilities, and cultural background of the BRTs at the given burn

center. (*Richard, Baryza, Carr , Burn rehabilitation and research, 2013*).

The complexity and multisystem involvement of the burn patient demand that the burn nurse possess a broad-based knowledge of multisystem organ failure, critical care techniques, diagnostic studies and rehabilitative and psychosocial skills. The nurse oversees the total care of the patient, coordinating activities with other disciplines such as occupational and physical therapy, social services, nutritional services and pharmacy. At the same time, the burn nurse is also a specialist in wound care. The nurse is responsible for wound care and for noting subtle changes that require immediate attention, prevention of infection and pain management (*Greenfield, 2010*).

Significance of the study

According to WHO statistics estimated number of (195000) death every year is caused by burn wounds, and the vast majority occur in low and middle-income countries. The statistical and medical records department at El-Manial hospital revealed that the number of patients who diagnosed with burn injury are increased in the following three consecutive years (2011, 2012, & 2013) as (405, 543, 487) burnt patients respectively (*WHO, 2013*).

This study provides a foundation for future research regarding nurse practitioners specializing in the care of patients who are burned. This study investigated the potential of the nursing competency program in providing significant insights for nursing leadership to improve the quality of nursing care and enhance the safety of nursing practice through assessing their levels of competency. On the other hand, there is few research has studied for nursing core competencies of staff nursing providing nursing care for burned patients.

Aim of the study

This Study Aims to Assess of Competency Levels of staff nurses providing care for burned patients.

Research Questions:

- What are the competency levels of staff nurses providing care for burned patients?