



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكرو فيلم



MONA MAGHRABY



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



MONA MAGHRABY

Designing and Validating Standards of Nursing Care for Trauma Patient

Thesis

Submitted for Partial Fulfillment of the Requirements
of Doctorate Degree in Nursing Science
(Nursing Administration)

By

Engy Sabry Mahmoud Fahmy
(M.Sc. Nursing Administration)

*Faculty of Nursing
Ain Shams University
2019*

Designing and Validating Standards of Nursing Care for Trauma Patient

Thesis

Submitted for Partial Fulfillment of the Requirements
of Doctorate Degree in Nursing Science
(Nursing Administration)

Supervisors

Prof. Dr. Harisa Elshemy

*Professor of Nursing Administration
Faculty of Nursing, Ain Shams University*

Prof. Dr. Samah Faisal Fakhry

*Professor of Nursing Administration
Faculty of Nursing, Ain Shams University*

*Faculty of Nursing
Ain Shams University*

2019



First and foremost I express my thanks and gratitude to **ALLAH**, the most kind and most merciful.

I would like to address my great appreciation and thanks to **Prof. Dr. Haresa Elshemy**, Professor of Nursing Administration, Faculty of Nursing, Ain Shams University for her intensive support, comprehensive advice, continuous and friendly encouragement, faith, and full guidance. I also appreciate her efforts and the precious time she has devoted for the perfection of this work.

My special thanks and gratitude are also due to **Prof. Dr. Samah Faisal Fakhry**, Professor of Nursing Administration, Faculty of Nursing, Ain Shams University for her kind attitude, stimulating enthusiasm and unlimited help, which were encouraging towards the accomplishment of this work.

My thanks are also extended to all the staff nurses and jury who gave some of their precious time to participate in this study.

Engy Sabry

List of Contents

<i>Subject</i>	<i>Page No.</i>
<i>Introduction and Aim of the study</i>	<i>1</i>
<i>Review of literature</i>	
<i>Definitions of Trauma</i>	<i>10</i>
<i>Causes of Trauma</i>	<i>11</i>
<i>Symptoms of Trauma</i>	<i>14</i>
<i>Trauma Center Levels</i>	<i>16</i>
<i>Level I Trauma Centers</i>	<i>18</i>
<i>Level II Trauma Centers</i>	<i>19</i>
<i>Level III Trauma Centers</i>	<i>19</i>
<i>Trauma System</i>	<i>20</i>
<i>Management of trauma</i>	<i>31</i>
<i>Roles and responsibilities of trauma nurse at trauma center</i>	<i>40</i>
<i>Standards of Care</i>	<i>50</i>
<i>Definition of Standards</i>	<i>50</i>
<i>Aims of Standards</i>	<i>51</i>
<i>Classification of Standards</i>	<i>52</i>
<i>Structure Standards</i>	<i>52</i>
<i>Process Standards</i>	<i>54</i>
<i>Importance of Nursing Care Standards</i>	<i>56</i>
<i>Outcome Standards</i>	<i>58</i>
<i>Developing Standards</i>	<i>59</i>
<i>Process of developing standards</i>	<i>60</i>

Subject	Page No.
<i>Standards Validation</i>	66
<i>Disseminating of the Standards</i>	68
<i>Standards of trauma nursing care</i>	71
<i>Standard I Assessment</i>	73
<i>Standard II Assessment</i>	74
<i>Standard III Outcome Identification</i>	74
<i>Standard IV Planning</i>	75
<i>Standard V Implementation</i>	76
<i>Standard VI Evaluation</i>	77
<i>Subjects and Methods</i>	79
<i>Results</i>	94
<i>Discussion</i>	144
<i>Conclusion and Recommendations</i>	159
<i>Summary</i>	162
<i>References</i>	168
<i>Appendices</i>	200
<i>Arabic Summary</i>	--

List of Tables

Table No.	Title	Page No.
1	Structure standards of trauma center	84
2	Process standards of nursing care for trauma patient	85
3	Standards and criteria before and after jury validation	91
4	Personal characteristics of staff nurses in the observation sample (n=40)	95
5	Staff nurses' performance of assessment before the proposed standards dissemination	97
6	Staff nurses' performance of nursing diagnosis before the proposed standards dissemination	99
7	Staff nurses' performance of nursing planning before the proposed standards dissemination	100
8	Staff nurses' performance of nursing implementation before the proposed standards dissemination	102
9	Staff nurses' performance of nursing evaluation before the proposed standards dissemination	104
10	Personal characteristics of jury group members (n=60)	105
11	Agreement of jury group upon face validity of proposed standard	106
12	Agreement of jury group upon standards related to mission and vision and policies and procedures	107
13	Agreement of jury group upon standards related to human resources, organizational structure, and job descriptions	109
14	Agreement of jury group upon standards related to procedural protocols and performance appraisal	111
15	Agreement of jury group upon standards related to non-human resources	112
16	Agreement of jury group upon standards related work environment and infection control	114

Table No.	Title	Page No.
17	Agreement of jury group upon standards related to nursing assessment	115
18	Agreement of jury group upon standards related nursing diagnosis	117
19	Agreement of jury group upon standards related to nursing planning	118
20	Agreement of jury group upon standards related to nursing implementation	119
21	Agreement of jury group upon standards related to nursing Evaluation	121
22	Agreement of jury group upon total standards criteria	122
23	Staff nurses' performance of assessment before and after dissemination of standards	124
24	Nurses' performance of nursing diagnosis before and after dissemination of standards	126
25	Nurses' performance of nursing planning before and after dissemination of standards	127
26	Nurses' performance of nursing implementation before and after dissemination of standards	129
27	Nurses' performance of nursing evaluation before and after dissemination of standards	131
28	Personal characteristics of nurses in the site inspection interview sample (n=20)	134
29	Applicability of standards related to mission and vision and policies and procedures	135
30	Applicability of standards related to human resources, organizational structure, and job descriptions	137
31	Applicability of standards related to procedural protocols and performance appraisal	139
32	Applicability of standards related to non-human resources	140
33	Applicability of standards related to work environment and infection control	142

List of Figure

Figure no.	Title	Page No.
1	Nurses' total performance before and after dissemination of standards	133

Designing and Validating Standards of Nursing Care for Trauma Patient

Abstract

Background: The dynamic nature of the health care environment the, growing body of knowledge in nursing practice and the high incidence of accidents highlight the need to interpret and describe the standards of nursing care for the trauma patients. **Aim:** designing standards of nursing care for trauma patient **Setting:** this study conducted at Elgalaa Medical Complex **Tools:** of data collection: three tools were used namely jury opinionnaire sheet: Observation checklist Applicability of the developed standards checklist **Results:** unanimous agreement 100% of both nursing and medical groups upon almost all items of face validity and content validity and all areas of the proposed standards. The nurses' performance before dissemination of the standards was very low nurse 2.5%. After dissemination of the standards, statistically significant improvements were demonstrated in all areas ($p < 0.001$). The total adequate performance increased from 5.0% to 80.0%. **Recommendations:** The developed standards for nursing care for patients in trauma center are recommended to be applied in the trauma center. Job descriptions should be available for all staff members, and should be reviewed periodically. Protocols for each type of the procedure or examination done in the center should be present and used in each unit in the trauma center. **Conclusion:** In the light of the study findings, it is concluded that the majority of the staff nurses had inadequate performance of most of the criteria related to process standard, with improvement in performance after dissemination of the standards among staff nurses, which points to its applicability. The proposed standard has been face and content validated through majority agreement of nursing and medical jury group members. Additionally, the study settings have adequate structures that would guarantee the possibility of implementation of the standard in these settings.

Key words: Nursing care for trauma patient, nursing standards, standards validity

Introduction

Trauma exacts a major toll on families, communities and society (*Bardt, 2016*). The *American Health Association [AHA]*, (2015) mention trauma as a disease that leads to global public health problem affecting 135 million people throughout the world a year and is responsible for about 5.8 million deaths annually (approximately 10% of all deaths). Around 6 to 50 million people are moderately or severely disabled due to injury and over 180 million disability adjusted life years are lost annually. The global burden of disease due to trauma is expected to increase dramatically in coming years, becoming the third leading cause of death by 2020. The word ‘trauma’ means wounding due to physical injury, However, It is important to understand trauma as a disease entity (*Palme, 2011*).

According to the *World Health Organization [WHO]*, (2015), road traffic trauma injuries accounted for 1.25 million deaths in 2014, and trauma is expected to rise to the third leading cause of disability worldwide by 2030. Outside areas of armed conflict, penetrating injuries are responsible for fewer than 15 percent of traumatic deaths worldwide, but these rates vary by country, as examples,

while homicide accounts for as many as 45 percent of deaths in Los Angeles, penetrating injuries account for only 13 percent of deaths in Norway.

Trauma is a wound or injury caused by mechanical or physical factors. It can also occur due to a negative psychological effect such as an emotional shock caused by a stressful event eventually leading to neurosis or psychosis, meanwhile major trauma describes serious injuries that are life changing and could result in death or serious disability, including head injuries, severe wounds and multiple fractures (*Grande, 2012*).

The *Australasian College for Emergency Medicine [ACEM]*, (2011) defines trauma care as the situation where the Emergency Department (ED) function is impeded primarily because the number of patients waiting to be seen, undergoing assessment and treatment, or waiting to leave exceeds the physical and staffing capacity of the emergency department. Trauma care is one of the most sensitive areas of health care. This sensitivity is commonly based on a combination of factors such as urgency and crowding. Urgency of care results from a combination of physical and psychological distress, which appears in all emergency situations in which a sudden, unexpected,

agonizing and at times life threatening condition leads a patient to the trauma center (*Medza and Mitchell, 2015*).

Trauma care requires a systematic process of identifying, treating and stabilizing patients with potentially life-threatening injuries in an organized and timely manner. Time is a critical factor, so having a process that is methodical, easy to learn and consistent for all the members of the trauma team is the most effective way to provide care. The "golden hour" concept, which emphasized the increased risk of death and the need for rapid intervention during the first hour of care following major trauma, Undoubtedly, there are instances when rapid intervention improves the outcome of injured patients (eg, obstructed airway, tension pneumothorax, severe hemorrhage), especially in battlefield injuries. However, the relationship between timing and mortality may be more complex than once thought (*Cherkas and David, 2011*).

A well rehearsed and systematic assessment at hospital resuscitation can save lives as well as limiting the consequences of the trauma. It should be remembered that the primary survey or initial assessment should be repeated whenever an intervention has been made and if changes in the patient's clinical state occurs, to avoid the 'triad of death' (hypothermia, acidosis and coagulopathy) and to be