

# **Effect of Rehabilitation Program on Physical and Psychosocial Functioning of Patients with Burn**

THESIS

Submitted for Partial Fulfillment of the  
Requirements for Doctorate in Nursing  
Science

*(Medical- Surgical Nursing)*

By

*Salwa Attia Mohamed*

*(M. Sc.N.)*

Faculty of Nursing  
Cairo University

Faculty of Nursing  
Ain Shams University  
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***Supervised By***

***Prof. Dr. Mohamed Radwan El Hadidy***

*Prof. of Plastic Surgery,  
Faculty of Medicine, Mansoura University*

***Assist. Prof. Dr. Salwa Samir Ahmed***

*Assistant Professor of Medical-Surgical Nursing  
Faculty of Nursing, Ain Shams University*

***Assist. Prof. Dr. Ola Abd El-Aty Ahmed***

*Assistant Professor of Medical-Surgical Nursing  
Faculty of Nursing, Ain Shams University*

Faculty of Nursing  
Ain Shams University  
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# تأثير برنامج تأهيلي على الوظيفة البدنية والاجتماعية والنفسية بين مرضى الحروق

رسالة مقدمه

توطئة للحصول على درجة الدكتوراه في علوم التمريض  
(تمريض باطني- جراحي)

من

سلوه عطية محمد

ماجستير تمريض باطني جراحي

كلية التمريض - جامعة القاهرة

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تحت إشراف

الأستاذ الدكتور/ محمد رضوان الحديدي

أستاذ في جراحة التجميل

كلية الطب، جامعة المنصورة

أستاذ مساعد دكتور/ سلوى سمير أحمد

أستاذ مساعد التمريض باطني جراحي

كلية التمريض، جامعة عين شمس

أستاذ مساعد دكتور/ علا عبد العاطي أحمد

أستاذ مساعد التمريض باطني جراحي

كلية التمريض، جامعة عين شمس

كلية التمريض

جامعة عين شمس

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## *List of Abbreviations*

<b>ADLs</b>	: Activities of daily living
<b>ABA</b>	: Americans Burn Association
<b>ARF</b>	: Acute renal failure
<b>BSA</b>	: Body surface area
<b>BSHS-B</b>	: Brief Burn Specific Health Scale.
<b>CBC</b>	: Complete blood count
<b>ECG</b>	: Echocardiogram
<b>GFR</b>	: Glomerular filtration rate
<b>GI</b>	: Gastrointestinal
<b>IV</b>	: Intravenous
<b>ROM</b>	: Range of motion
<b>PTSD</b>	: Post-traumatic stress disorder
<b>TBSA</b>	: Total body surface area

## Operational definitions

**Burn rehabilitation program:**

It is a comprehensive package of services for patients with. These services aid individuals in adjusting with medical regimen that includes: physical exercise, pain control, wound care, dietary counseling and modification responses to stress.

## ABSTRACT

*The study was aiming to evaluate the effect of rehabilitation program on physical and psychosocial functioning of patients with burn. Data were collected from burn units of Main University and Emergency Hospital in El-Mansoura. The study was conducted on 100 adult patients with burn (50 for the study group and 50 for the control group). **Data were collected through:** (I) Interviewing questionnaires sheet for assessing the following: A) socio-demographic and medical data. B) Patient's health needs assessment sheet was constructed to assess physical and psychosocial need. (II) Burn knowledge assessment sheet of burn. (III) Observation checklist for assessing practice for patient burn and (IV). Brief Burn Specific Health Scale is adopted from (Kildal et al., 2001), to assess physical and psychosocial function in individual suffering from burn injury. The study group was exposed to the designed teaching program while the control group exposed to usual care. **The results of this study** showed significant difference between the study and control groups related to knowledge and practice. **This study concluded** that burn rehabilitation program improved burn knowledge and practice and improved physical and psychosocial conditions after implementation of rehabilitation program among the study group than the control group. **This study recommended** replication of the study on a larger probability sample from different geographical areas, to achieve more generalizable results.*

**Key word:** Rehabilitation; Burn; Injury; Physical and psychosocial status.

## INTRODUCTION

Burns can be devastating injuries that result in death or lifelong scarring, disfigurement and dysfunction. Burn injuries are the third leading cause of accidental death in the United States (after incidents involving motor vehicles). More than 2 million people in the United States require treatment for burns each year. Currently, approximately 75,000 are hospitalized. Of these hospitalized, 20,000 have major burns involving at least 25% of their total body surface. Between 8,000 and 12,000 of patients with burns die as a direct result of the injury. Half of those with burns will have injuries severe enough to restrict daily activities in the home, school, and workplace (*Park et al., 2008 and Linton & Maebius, 2007*).

In Egypt the researcher obtained the following statistics from burn unit at Mansoura University Hospital which stated that in years 2008, the number of cases who were burned accounted for 550 cases from total admission (*Hospital Records in Mansoura University Hospital*).

The burn injury considered one of the most serious and devastating injuries among people of all age. Burn injury result in tissue loss or tissue damage. This tissue injury occurs when

energy from heat source is transferred to the tissues of the body, as a result of direct contact or exposure to any thermal, chemical, electrical, or radiation which are termed burns. Burns severity depends on its depth and the body surface affected. Burn care classified according to the depth of tissue destruction and identified as superficial, partial thickness and full thickness injuries (*Edelman, 2007*).

Burn injury is associated with anatomic, physiological, and immunologic alterations. These problems need to be identified and treated properly to prevent or minimize the extent of the damage. In recent years, advances in burn treatment have reduced morbidity, mortality and improved the quality of life for burn survivors (*Hosseini, Askarian and Assadian, 2007*).

Burns represent an extremely stressful experience for both the burn victims as well as their families. An extensive burn profoundly affects the patient's physical, psychological, economic and family. Patients who suffer from extensive burn injuries frequently die, while others suffer from painful physical recovery. In addition to their dramatic physical effects, burn injuries frequently cause deleterious psychological complication (*Jaiswal et al., 2007*).

Burn injury result in insignificant physical and psychological complications that require comprehensive rehabilitation treatment and coordination with the acute care burn team. This interdisciplinary rehabilitation treatment is focused on preventing long term problems with scarring, contractures, and other problems that limit physical function. Adequate pain management and recognition of psychological issues are important components of treatment after burn injuries. Burn injuries present significant barriers to community integration, but many people can successfully return to work and other activities(*Esselman, 2007 and Smeltzer and Bare, 2004*).

Burn rehabilitation program begins during the acute treatment phase and may last days to months to years, depending on the extent of the burn. Rehabilitation program is designed to meet each patient's specific needs. Burn rehabilitation program can help patients to return the highest possible level of independent function. Also improving the overall quality of life for each individual physically, emotionally and socially (*Heimbach, Engrav and Gibran, 2003*).

Nurses have an important role in facilitating the presence and involvement of family and friends in the recovery and