

ASSESSMENT OF POST OPERATIVE COPING STRATEGIES
AMONG THE LIMB AMPUTATED PATIENTS AT EL MANIAL
UNIVERSITY HOSPITAL

Thesis Submitted for Partial Fulfillment of the Requirements of the Master
Degree Science in Nursing
(Medical-Surgical Nursing)

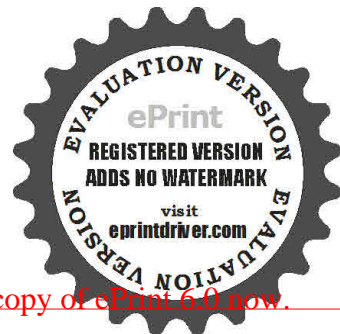
By
Mishmisha El-Said Ibrahim
(B.Sc. Nursing)

Supervisors

Dr.Suzan Atteya Abd El Sayed
Professor. Medical Surgical Nursing

Dr. Hanan Ahmed El-Sebaee
Lecturer. Medical Surgical Nursing

Faculty of Nursing
Cairo University
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Assessment of Post Operative Coping Strategies among The Limb Amputated Patients at El Manial University Hospital

Abstract

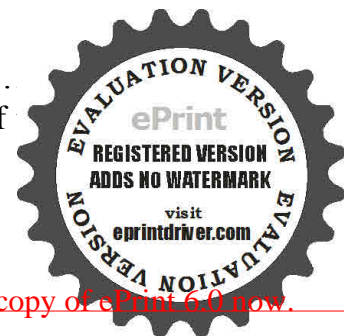
By

Mishmisha El-Said Ibrahim

Amputation is a profound loss that affects both the individual and family on all levels. Amputation poses challenges on many levels: physical, emotional, social, spiritual, and financial and may affect one's ability to think clearly and solve problems. Emotional responses to amputation are different for every individual and family. However, it is common to feel a sense of grief and loss. How people respond to their amputation depends upon their unique make-up (personality, values, and attitudes), previous life experiences, their support systems, and the meaning they give to their amputation. Therefore, the aim of this study was to assess the post operative coping strategies among the limb amputated patients. A sample of convenience of fifty limb amputated patients admitted to general surgery, orthopedic and/or vascular disorder departments at El Manial University Hospital have participated in this study. Data were collected utilizing the following tools that consist of : (1) Interviewing Questionnaire: This tool was designed by the investigator to collect data relevant to socio-demographic characteristics and medical background data (2) Amputated related stressors, it divided into 3 parts a) Hospital Stress Rating scales b) Other Stressors Like. c) Michel Uncertainty in Illness Scale. (3) Ways of coping questionnaire. The study findings revealed that, there were different levels of amputation that affect both sexes, also different stressors the amputated patients are facing them during hospitalization period as physical stressors, hospital stay stressors, and uncertainty related stressors. There were different coping strategies that amputated patients used, the most common one was minimize the situation coping followed by active coping strategy. There were also statistically significant differences among the study subjects between different coping strategy subscale in postoperatively one and two. Comprehensive nursing management protocol for amputated patients should be available in all surgical wards to improve postoperative patients' outcomes.

Key words: amputation, stressors, coping, prosthesis.

Signed.....
Chairperson of



Acknowledgement

My sincere gratitude should be submitted first for "Allah" who always helps and cares for me.

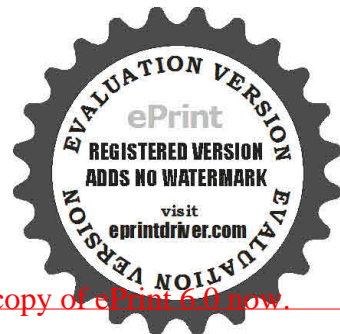
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By

Mishmisha El-Said Ibrahim

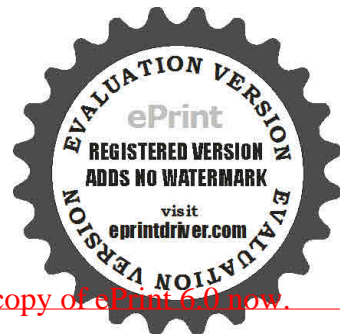
Has Been Approved for The Department of Medical Surgical Nursing

By

Prof. Dr. Suzan Atteya Abd El Sayed

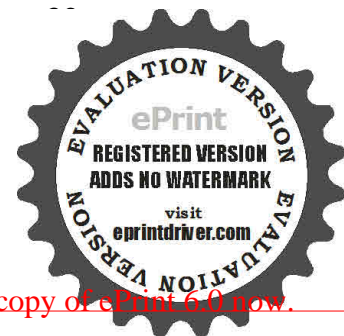
Dr. Hanan Ahmed El-Sebaee

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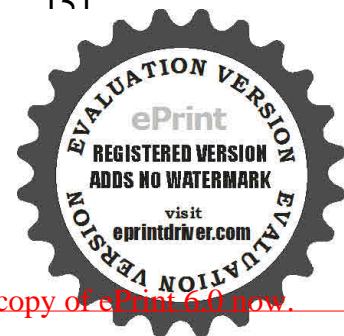
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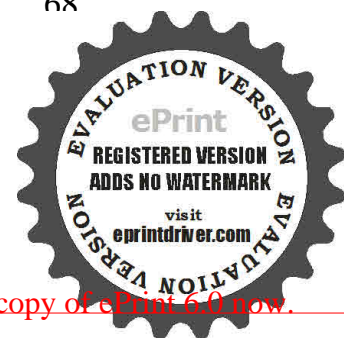
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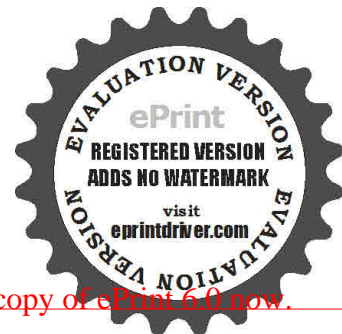
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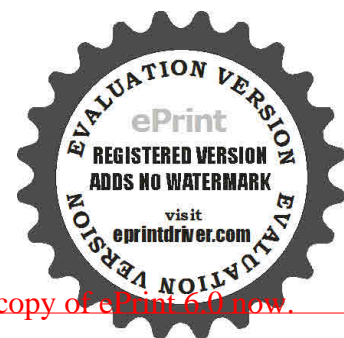
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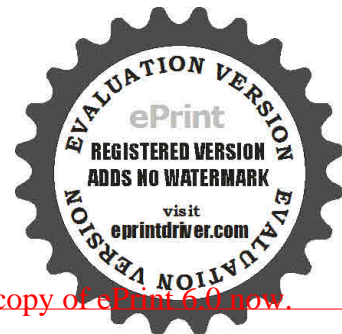
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LIST OF ABBREVIATIONS

MUIS	: -Michel Uncertainty in Illness Scale
PLP	: - Phantom Limb Pain
PCA	: Patient-controlled Analgesia
WCQ	: Ways of Coping Questionnaire
ADL	: Activity of Daily Living
WBC	: White Blood Cells
CBC	: Complete Blood Count
DVT	: Deep Vein Thrombosis
ABC	: Airway, Breathing, Circulation
ROM	: Range Of Motion Exercise
DM	: Diabetes Mellitus



CHAPTER I

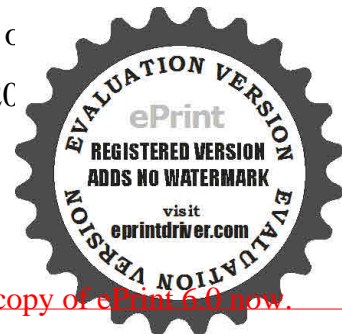
Introduction

Amputation is the absence or removal of all or part of a limb, it may be congenital or result from an injury or surgery, also an amputation is the treatment of choice only when other means cannot control or arrest a disease process, in such cases amputation is often a life-saving measure (Bunker, 2000).

The loss of all or part of an extremity has a significant physical and psychological effect on the patient and family. Adaptation may take a long time and require much effort. A multidisciplinary health team is necessary to meet the patient's physical, spiritual, cultural, and emotional needs. (Karen & Priscilla, 2004).

The planning and process of rehabilitation of amputees should start prior to amputation and continue into community. Expert and holistic assessment of the patient leading to careful selection of the level of amputation. Good surgical technique and optimal postoperative management are vital in the initial stage of amputee rehabilitation. The process then dovetails into post–surgery early rehabilitation, use of early walking aids, wheelchair and home assessment, and prosthetic rehabilitation (Jonathan & Peter,2004).

Amputation can occur through a joint (between the bones) or through a bone itself. Disarticulation is the term for an amputation through the joint. The general site of the amputation is described by the joint nearest to it. For example, removal of the lower leg at the middle c shin or calf is called a below–knee amputation (Adrienne & Nancy, 20



There were several interpersonal and extra personal stressors, such as changes in body image, role reversal, loss of employment, and need to pay medical bills, this patient had to overcome. Amputation of a limb has significant long-term consequences for the patient; the patient will grieve the loss of a body part and must adjust to a new self-image. The patient's ability to perform normal activity of daily livings (ADLs) and to maintain his or her usual family and social roles may be significantly affected, at least initially. Depending on the patient's occupation, job performance may be affected, necessitating a change of career; most patients experience a period of grief and mourn over this loss (Priscilla & Karen, 2008).

Hargrove (2002), and Karen and Priscilla (2008) mentioned that, peripheral vascular disease is the major cause of amputation of lower extremities that commonly develop in hypertensive, diabetic, smoked, and hyperlipidemic patients, also thermal injury (such as that from frostbite, chemical exposure, or burns). Peripheral neuropathy, and loss of sensation frequently occurring in diabetic patient lead to unrecognized injury and infection. Delayed management of infection may lead to gangrene and need for amputation. Trauma is the major cause of amputation of upper extremities and common in young men.

Amputation may be open (guillotine), it is usually performed on an infected limb because it allows the wound to drain freely. A second surgery for stump revision and closure is done after infection has been eradicated; the wound healed by granulation or secondary closure in about a week, closed amputation is performed when there is no evidence of infection and no need for draining. The most common technique used for vascular disease is a residual limb where it is covered by a flap of skin that is posterior (Sandra 2001, Hargrove 2002, and Karen & Priscilla. 2004).



Swearingen, (2003) clarified that; selection of the level of amputation depends on the degree of pain, infection, or necrosis. In addition, sufficient residual limb must remain to enable fitting with a functional prosthesis. Bunker (2000) identified that; amputation of extremity is performed at the most distal point possible. When a surgeon is able to preserve joints and maximize limb length, prosthetic fitting is easier and patients retain more functional ability. Many complications are associated with amputations, including hemorrhage and hematoma, necrosis, wound dehiscence, gangrene, edema, contracture, pain, infection, phantom limb sensation, and phantom limb pain.

The management of amputations requires both medical and surgical approaches by the physicians involved in the care of the patient. It is important that the patient receives as much information, moral and practical support, by healthcare personnel during both the pre-operative as well as the postoperative phases of the treatment as is deemed desirable. This is of course dependent on the wishes and motivation of the patient him/herself as this has a direct effect on the healing and eventual rehabilitation of the patient. It is important that all health-care personnel not only engage themselves in the obvious physical aspects of the sickness/disability, but to see their patient from a holistic perspective, and take into consideration every patient's right to contribute with their own resources, to their own care. It can also be of great help to know what the lost limb or organ had for significance and meaning for that particular patient. Every patient, regardless of their gender, age, social class or reason for amputation must adopt their own approach to deal with this new situation (Cullberg, 2003).

Unless the amputation of a limb is an emergency procedure patient is prepared physically and psychologically for the removal of

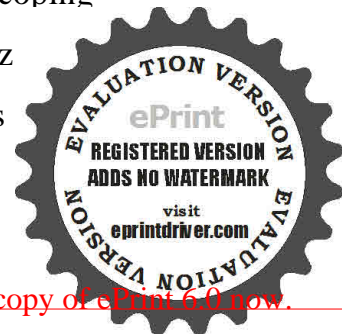


part of the extremity, the patient should understand the need for the amputation and have opportunity to discuss realistic goals of rehabilitation with several members of health care team, also rehabilitation team should discuss with the patient what can be expected postoperatively in regard to pain, immobility, and readjustment to self care (Dewitt, 2001).

Significance of the Study

The prospect of an amputation is frightening for both the patients and their concerns, because amputation occurs at any age, it evokes disability in performing activity of daily living (ADL). Dependency in performing ADL leads to psychological upset for family as well as create social problems (Chin & Finocchiaro, 1999). The World Health Organization (2007) reported that the highest incidence of amputation was in the age group of 41-60 years, representing 43% of the cases. Prevalence and incidence of amputation was assumed to be zero below 20 years of age, however the age 41-60 years is the age of productivity, thus occurrence of amputation in this age could affect the patients coping strategies because of its effects on physical, emotional, social and financial status to the amputees as change in body image, psychological disturbance, dependency in ADL etc. Revision of the medical records and statistical data of El Manial University Hospital revealed that prevalence of amputation was 140 cases of amputation at year 2005 and was 78 cases at year 2006.

It has been observed over many years of experience as a clinical instructor, supervising second year students in different surgical units that, the amputated patients had many factors that may affect their coping strategies with new disability such as financial status, hospitaliz nature of work, and change in body image. As well the patient raises



questions about adaptation to new situation. Previous researches indicated that coping strategies differ according to religious, culture, personality and patient perception to the new situation (Mostafa 2006). So, the suggested study will be beneficial in identifying factors affecting coping strategies, also result of study will increase nursing knowledge as regards strategies of coping among amputees as evidence research. Additionally, this study might generate an attention and motivation for further researches in this area.

Aim of the Study

The aim of this study was to assess of the post operative coping strategies among the limb amputated patients at El Manial University Hospital.

Research Questions

To fulfill the aim of this study, the following research questions are formulated:

1. What are the post operative stressors exhibited by the limb amputated patients?
2. What are the post operative coping strategies for patients with limb amputation?



CHAPTER III

Subjects and Methods

Amputations are major sources of permanent impairment and functional limitation, affecting the quality of life for adolescence and young working adults. It may extensively affect a persons self concept, which may necessitate intensive, long-term rehabilitation, both physically and emotionally (Ruth & Constance, 2008).

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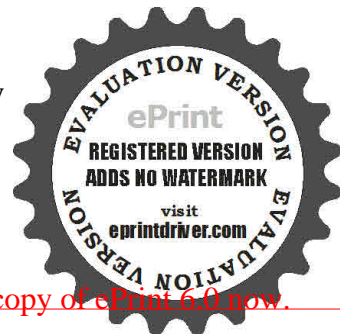
1. What are the post operative stressors exhibited by the limb amputated patients?
2. What are the post operative coping strategies for patients with limb amputation?

Design

A descriptive explorative survey research design was selected to fulfill the aim of the study and answer the research questions.

Sample

A sample of convenience 50 limb amputated patients admitted to general surgery, orthopedic and/or vascular disorder departments Manial University Hospital constituted the sample of the study. They



enrolled in this study according to the following criteria: male and female, adult patients, aged ranged between 20 to more than 60 years, with upper or lower limb amputation and who agree to participate in the study.

Setting

The study was conducted at 5, 11, 18, 20, 25, 27, 28, and 30 departments of the general surgical, vascular and orthopedic departments at El Manial University Hospital. It is one of the largest educational university hospitals in Egypt.

Tools

The data of this study were collected using the following tools:

1. An Interviewing Questionnaire Sheet

This sheet was designed by the investigator to collect data relevant to socio-demographic characteristics e.g., age, sex, marital status, etc. and medical background data e.g., diagnosis, past medical history etc. data were collected postoperatively within 2-3 days.

2. An Amputated Related Stressors Tool

It comprised 3 parts:

2-1. Hospital Stress Rating Scale:-Adopted from Volicer (1973), it is designed to measure factors of stress related to hospitalization. The scale includes 45 items, the items were grouped under 7 stress categories for statistical analysis as; stress related to hospital stay (4), stress related to financial factors (3), stress related to disease itself (4), stress related to physical factors (11) and it is subscribed to 10 items after removing one of them not suitable for the patient, stress related to separation (5), stress related to medical factors (4) and stress related to environment (14). The scale was a two – point scale (Yes/No). The highest score indicates high stress.

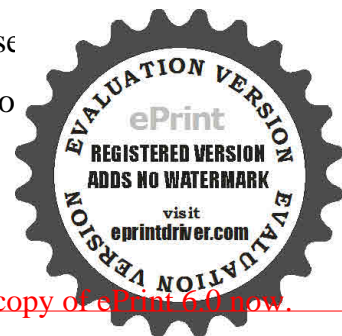


2-2. Other Stressors Like adopted from Baird (1991), and Fuller (1994) such as; stressors related to the nature of illness (10) items, stressors related to social life (5) items, stressors related to work situation (6 items), Stressors related to change body image (10 items). The patient response was in two points scale (Yes/No). The highest score indicating higher stress.

2-3. Michel Uncertainty in Illness Scale (MUIS):- Adopted from Michel (1980), it contains 28 statements to measure perceived ambiguity and complexity related to uncertainty about symptoms, diagnosis, prognosis, treatment and relationship with care givers. Modification was done in the scoring system for statistical analysis using 3 point Likert scale with response option of Agree (3) Undecided (2) Disagree (3). The higher scores indicate high level of uncertainty. The three scales were collected postoperatively within 2-3 days.

The items constituting these stressors were constructed, translated and tested for validity and reliability by Helmi (1998) for conduction of Master Thesis.

3. Ways of Coping Questionnaire (WCQ):- Adopted from Smyth and Yarandi (1991), this tool was translated and tested for content validity by Younis (2004). It was designed to assess the patient thoughts and actions in dealing with stressful incidents in their social life. It consists of 35 items divided into 3 sub-scales. The first sub-scale comprises 15 items, covering active coping, these items describe aggressive efforts to alter situations. The second sub- scale consists of 10 items, reflecting avoidance coping, these items describe wishful thinking and efforts to escape or avoid problem situation. The third sub-scale includes 10 items, represent minimizing the situation. It describes efforts to detach oneself from



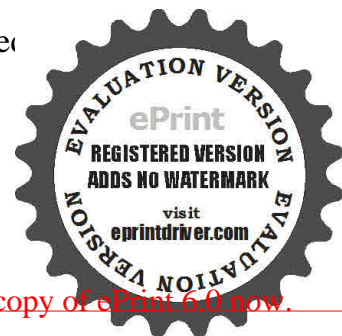
unpleasant situation and included (4) items. In the original scale, responses were measured on a 4-point Likert scale with response options of doesn't apply/not used at all (1), used some what (2), used quiet a bit (3), and used a great deal (4). It was modified in this current study WCQ into three point Likert Scale: with the following responses scoring doesn't apply/not use at all (1), used a little bit (2), and always used (3).The current study followed the same system, a high score indicates greater use of that particular coping strategy. This tool was completed twice, the first time from patients within 2-3 days postoperatively and the second one 2 weeks postoperatively during follow up visit or by telephone.

Protection of Human Rights

Permission to conduct the proposed study was obtained from the hospital authorities of El-Manial University Hospital affiliated to Cairo University. Prior to the initial interview, each potential patient was fully informed with the purpose and nature of the study. The researcher emphasized that participation in the study is entirely voluntary; anonymity and confidentiality were assured through coding the data.

Procedure

For ethical consideration, an official permission was obtained from the concerned department to conduct the current study. Once permission was granted to proceed with the proposed study, a pilot study was carried out on 5 patients to test feasibility and clarity of the tools. An informal verbal consent from patients was taken after explaining the purpose of the interview. Time taken for data collection was 10 months over the academic year 2007-2008. The investigator met the patients who fulfilled inclusion criteria. Each patient was interviewed individually for 45



minutes, the questionnaires read, explained and the choices of answers from patients were recorded by the investigator. For more validation of information, patient's files were revised to help in completion of needed information. Post operative data collection was performed as soon as patients felt well enough to complete the tools and participate in the post operative interview. Amputation related stressors and the interviewing Questionnaire were completed postoperatively within 2-3 days while ways of coping were conducted twice postoperatively, the first one within 2-3 day postoperative or before discharge and the second one during follow up visits or by telephone calls.

Statistical Analysis

Upon completion of data collection through the previously mentioned tools, data were computed and analyzed. Data analysis was done using statistical package for social sciences (SPSS 11). The following statistical tests were used according to the number of participant patients: (a) Frequency distribution and percentage, (b) Means and Standard Deviations. (c) Correlation, Chi-square and t-test were used. For all the statistical tests, the threshold of significance for answering the research questions was fixed at the 5% level. The p-value indicates the degree of significance. A probability level of 0.01 and 0.05 was adopted as the level of significance.

