DEVELOPING AND VALIDATING NURSING CARE STANDARDS FOR HEMODIALYSIS PATIENTS

Thesis
Submitted in Partial Fulfillment for Doctorate
Degree in Nursing Sciences
Nursing Administration

By
Sanaa Hassan Mohamed El-Malah
Msc. In Nursing administration

Faculty of Nursing Ain Shams University 2010

DEVELOPING AND VALIDATING NURSING CARE STANDARDS FOR HEMODIALYSIS PATIENTS

Thesis
Submitted in Partial Fulfillment for Doctorate
Degree in Nursing sciences
Nursing Administration

Under Supervision

Dr. Samia M. A. Adam

Assist. Prof. of Nursing Administration Faculty of Nursing Ain Shams University

Dr. Mona Mostafa Shazly

Lecturer of Nursing Administration Faculty of Nursing Ain Shams University

> Faculty of Nursing Ain Shams University 2010

ACKNOWLEDGMENT

First and foremost I feel always indebted to GOD the most merciful.

My deepest thanks and gratitude and sincerest appreciation are due to **Dr. Samia Adam**, Assist.Prof. of Nursing Administration, Faculty of Nursing, Ain Shams University, for her helpful advice and continuous encouragement that were quite valuable in accomplishing this work.

I also express my thnaks to **Dr. Mona Shazly** lecturer of Nursing Administration, Faculty of Nursing, Ain Shams University, for her patience, help, and directions. She gave me much of her valuable time supervising this work.

My thanks and appreciation are due to all jury members and nurses who gave some time to fill-up the forms used in this work.



كلية التمريض جامعة عين شمس

اسم الطالبة: سناء حسن محمد الملاح

عنوان الرسالة: تصميم وقياس مصداقية معايير الرعاية التمريضية لمرضى الاستصفاء الدموي

اسم الدرجة: دكتوراة في إدارة التمريض

لجنة المناقشة:

أ.م.د./ إجلال أحمد عبد الوهاب/ (ممتحن خارجي)

أستاذ م. إدارة التمريض

كلية التمريض – جامعة القاهرة

أ.د./ ماجدة عبد العزيز/(ممتحن داخلي)

أستاذ التمريض الباطني الجرلحي

كلية التمريض- جامعة عين شمس

أ.م.د. سامية محمد عبد الله آدم/ (عن المشرفين)

أستاذ م. إدارة التمريض

كلية التمريض- جامعة عين شمس

تاريخ البحث: / / 2010م

الدراسات العليا

ختم الإجازة: / 2010م أجيزت الرسالة بتاريخ: / 2010م

موافقة مجلس الكلية: / /2010م موافقة مجلس الجامعة: / /2010م



كلية التمريض جامعة عين شمس

اسم الطالبــــة: سناء حسن محمد الملاح

اسم الدرج ـــة: دكتوراة في إدارة التمريض

القسم التابع له: إدارة التمريض

اسم الكلي ـــة : كلية التمريض

الجامعة: عين شمس

سنــــة التخرج: 1995

سنـــــة الـمنــح: 2010م



كلية التمريض جامعة عين شمس

شك____ر

أشكر السادة الأساتذة الذين قاموا بالإشراف وهم

أ.م.د./ سامية محمد عبد الله آدم

أستاذ م. إدارة التمريض كلية التمريض- جامعة عين شمس

د./ منی مصطفی شاذلی

مدرس إدارة التمريض كلية التمريض- جامعة عين شمس

تصميم وقياس مصداقية معايير الرعاية التمريضية لمرضى الاستصفاء الدموي

رسالة مقدمة توطئة للحصول على درجة الدكتوراة في إدارة التمريض

مقدمة مـن سناء حسـن محمد الملاح

ماجيستير التمريض كلية التمريض جامعة عين شمس

كلية التمريض جامعة عين شمس 2010

تصميم وقياس مصداقية معايير الرعاية التمريضية لمرضى الاستصفاء الدموي

رسالة مقدمة توطئة للحصول على درجة الدكتوراة في إدارة التمريض

تحت إشراف

أ.م.د./ سامية محمد عبد الله آدم أستاذم. إدارة التمريض كلية التمريض- جامعة عين شمس

د./ منی مصطفی شاذلی

مدرس إدارة التمريض كلية التمريض- جامعة عين شمس

> كلية التمريض جامعة عين شمس 2010

TABLE OF CONTENTS

	Page
INTRODUCTION	1
AIM OF THE STUDY	6
RESEARCH QUESTION	6
REVIEW OF LITERATURE	7
STRUCTURE OF THE KIDNEYS	7
RENAL FUNCTION	8
RENAL FAILURE	10
MANAGEMENT OF ESRD	22
Pharmacological therapy	22
Nutritional therapy	23
HEMODIALYSIS	27
NURSING CARE IN HAEMODIALYSIS	29
Pre-dialysis therapy	29
During hemodialysis	32
Post-dialysis therapy	33

	Page
Patient Education	34
Nursing care of hemodialysis complications	35
QUALITY OF HEALTH CARE	43
PHYSICAL STRUCTURE OF HD UNIT	47
MEASURING QUALITY IN NURSING CARE	49
SOURCES OF NURSING CARE STANDARDS	55
STANDARDS OF NURSING CARE	56
STANDARDS DEVELOPMENT PROCESS	65
VALIDITY	66
Definitions	66
Types of validity	67
EVALUATION OF STANDARDS	69
HEMODIALYSIS NURSING STANDARDS	71
SUBJECTS AND METHODS	73
RESULTS	87
DISCUSSION	150
CONCLUSION	176
RECOMMENDATIONS	177
SUMMARY	179
REFERENCES	183
PROTOCOL A RDENIDICES	
APPENDICES ARABIC SUMMARY	
ANADIC BUIIIIAN I	

LIST OF TABLES

Table		Page
1	Socio-demographic characteristics of nurses in the study samples	88
2	Nurses' opinions about importance of proposed structure standards related to mission, vision, and organization plan	89
3	Nurses' opinions about importance of proposed structure standards related to personnel and training programs	91
4	Nurses' opinions about importance of proposed structure standards related to job description, nursing administration system, and performance appraisal.	93
5	Nurses' opinions about importance of proposed structure standards related to references and resources and documentation.	95
6	Nurses' opinions about structure standards related to infection control and functioning facilities and supplies	97
7	Total nurses' opinions about importance of proposed structure standards.	98
8	Presence of structure standards related to mission, vision, and organization plan in the study unit	99
9	Presence of structure standards related to personnel and training programs in the study unit	101
10	Presence of structure standards related to job description, nursing administration system, performance appraisal in the study unit	103
11	Presence of structure standards related to references and resources and documentation in the study unit.	105
12	Presence of structure standards related to infection control and functioning facilities and supplies in the study unit	107
13	Nurses' opinions and observed practice of process standard of quality of practice	109
14	Nurses' opinions and observed practice of process standard of professional practice evaluation and education.	111
15	Nurses' opinions and observed practice of process standard of collegiality.	113

Table		Page
16	Nurses' opinions and observed practice of process standard of ethics and collaboration.	115
17	Nurses' opinions and observed practice of process standard of research and resource utilization.	117
18a	Nurses' opinions and observed practice of assessment standards of practice.	119
18b	Nurses' opinions and observed practice of assessment standards of practice Cont.,	121
18c	Nurses' opinions and observed practice of assessment standards of practice Cont.,	123
19	Nurses' opinions and observed practice of diagnosis standards of practice.	124
20	Nurses' opinions and observed practice of planning standard of practice.	126
21	Nurses' opinions and observed practice of implementation standard of practice related to machine preparation.	128
22	Nurses' opinions and observed practice of implementation standard of practice related to starting dialysis.	130
23	Nurses' opinions and observed practice of implementation standard of practice during dialysis.	132
24	Nurses' opinions and observed practice of implementation standard of practice in dialysis termination	134
25	Nurses' opinions and observed practice of implementation standard of practice of care of dialysis catheter.	136
26	Nurses' opinions and observed practice of standard of practice in post dialysis session	138
27	Nurses' opinions an observed practice of standard of practice of health education	139
28	Nurses' opinions and observed practice of evaluation standard of practice	141
29	Nurses' opinions and observed practice of documentation standard of practice	143

Table		Page
30	Total nurses' opinion and observed practice of process standards.	145
31	Nurses' opinions and observed practice of outcome standards.	147
32	Total nurses' opinion and observed practice of outcome standards.	
		149

List of Abbreviations

Abbreviations Intended Meaning

ACE Angiotensin – converting enzyme

ANA American nurses association

ANP Administrative Nurses Practice

Anti-HCV Antibody to hepatitis C virus.

ARF Acute renal failure

ATN Acute tubular necrosis

AV Arteriovenous

BLS Basic Life Support

Blood urea nitrogen

CDC Center for disease control and

prevention

CNS Central nervous system

CRF Chronic renal failure

CVP Central venous pressure

CXR Chest x-ray

EBP Evidence based practice

ECG Electrocardiograph

ESRD End-stage renal disease

G Gram

GFR Glomerular filtration rate

GI Gastrointestinal

Abbreviations

Intended Meaning

HBsAg Hepatitis B surface antigen

HBV Hepatitis B virus

HCV Hepatitis C virus

HD Hemodialysis

HDL High density lipoprotein

HIV Human immunodeficiency virus.

HRs Hours

IOM Institute of Medicine

JCAHO Joint Commission on Accreditation of

health organization

K+ Potassium ion

Kg Kilogram

Lab. Laboratory

MOH Ministry of Health and population

Na+ Sodium ion

NaCl Sodium chloride

PD Peritoneal dialysis

PmP Per million Population

PPE Personal protective equipment

QC Quality control

QCN Quality care nursing

QoL Quality of life

RBC Red blood cell