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Performance Obstacles and Their Effects on Patient Safety among Intensive Care Unit Nurses at Selected Hospitals in Sana'a City-Yemen

Thesis Submitted to the Applied Medical Sciences Department, College of Medical Sciences, AL-Razi University as Partial Fulfillment for MSc. in Critical Care Nursing

Submitted by:

Qumria Ali Ali AL-Zourqi

BSc. Nursing

Main Supervisor

Dr. Mohammed M. AL-Akmar

Associate Professor in Medical – Surgical Nursing

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قرار لجنة المناقشة والحكم

أنه في يوم السبت الموافق 2021/02/06 تم اجتماع لجنة المناقشة والحكم على رسالة الماجستير المقدمة من الطالبة/ فمرية علي علي صالح الزورقي المسجل بكلية: العلوم الطبية تخصص: تمريض حالات حرجة والمشكلة بقرار مجلس الدراسات العليا والبحث العلمي في محضر اجتماع رقم (01) بتاريخ 2020/11/25م بتشكيل لجنة المناقشة والحكم من الذكارة التالية:

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2	أ.د نبيل احمد احمد الربيعي	ممتحناً داخلياً- عضواً	صحة عامه	أستاذ دكتور	جامعة الرازي
3	أ.م.د محمد محمد الاقمر	مشرفاً- عضواً	تمريض	استاذ مشارك	جامعة صنعاء

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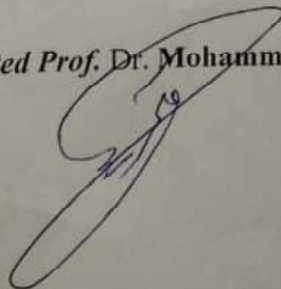
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Supervisor:

Associated Prof. Dr. Mohammed AL-akmar



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تحية طيبة وبعد ،،،

بناء على تفويضي من قبل لجنة مناقشة الرسالة العلمية المقدمة من الطالبة/ **قمرية علي علي صالح الزورقي**، تخصص: **تمريض حالات حرجية**، وذلك لاستكمال متطلبات نيل درجة الماجستير في تمريض حالات حرجية والموسومة بـ " **معوقات الأداء** واثارها على سلامة المرضى بين مرضى وحدات العناية المركزة بالمستشفيات المختارة في مدينة صنعاء- اليمن "

* Performance Obstacles and Their Effects on Patient Safety among Intensive Care Unit Nurses at Selected Hospitals in Sana'a City-Yemen'.

الذي ناقشت يوم الأثنين الموافق 2021/02/06 وقد أجازت الرسالة من قبل اللجنة مع طلب القيام بالتعديلات اللازمة والمكونة من النقاط الأفاضل:

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2	أ.د. نجيل احمد احمد الربيعي	ممتحناً داخلياً - عضواً	صحة عامه	استاذة دكتور	جامعة الرازي
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وعليه: يسرني ابلاغكم أن الطالبة قد انتهت من إجراء التعديلات المطلوبة على الدراسة التي طلبتها اللجنة المناقشة منها ونطلب إقرارها وتخريج الطالبة.

وتقبلوا خالص التحية،،،

العضو المفوض من قبل اللجنة

أ.م.د / محمد محمد الأتمر

DEDICATION

This thesis is dedicated to

***My great parents, who never stop giving of themselves in
countless ways,***

***My husband, who leads me through the valley of darkness with
the light of hope and support,***

My beloved brothers and sister,

***My beloved kid: Goud whom I cannot force myself to stop
loving. To all my family, the symbol of love and giving,***

My friends who encourage and support me,

All the people in my life who touch my heart.

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ABSTRACT

Background:

Nurses in intensive care units confront various challenges and problems during their everyday work that adversely affect performance and patient safety. Patient safety refers to the prevention of errors to patients during health care. The work environment of intensive care nurses may have substantial impact on both nursing outcomes and patient safety.

General objective:

The general objective of this study was to explore performance obstacles and their effects on patient safety attitudes among intensive care unit nurses at selected hospitals in Sana'a city, Yemen.

Methodology:

A descriptive cross-sectional study was conducted between 1st March and 30th May 2019. A stratified simple random sampling of 230 nurses was drawn from a total population of N=541 to select the sample size from the intensive care units at six governmental and private hospitals. A self-administered questionnaire was used to collect data by using performance obstacles questionnaire, and safety attitudes questionnaire (ICU version). The data were entered, analyzed by descriptive and inferential statistics and tabulated using the Statistical Package for Social Sciences Version 21.

Results:

The study depicted that more than a half of ICU nurses (61.7%) were belonging to age group (20-29years) and the mean age was 29.3 ± 4.8 years. Among the participants 55.2% were female, 51.7% were single, 98.3% were Yemeni nurses and 47.0% had Higher Diploma degree. About (64.8 %) of ICU nurses had working experience from 1-5 years and their mean work ICU experience was 5.3 ± 4.9 years. The majority of participants were working more than one shift types and two thirds of them affirmed that they received help on time from other nursing. In relation to the training course of the participants, (60.4%) of them had ICU training course compared to only (39.6%) of them had not attended. Followed by training course in patient safety (53.0%) of them had not attended and the field of stress management (69.6%) of them had not attended. The common obstacles included the patients rooms are close to each other, trouble noise, delay in getting patients' medications, poor conditioned materials used, equipment are not existed in place when needed, and "spending time dealing with family needs.

The study showed that the correlation between performance obstacles total score & patient safety attitudes total score was found very high statically significant negative correlation (** $p < 0.000$). There was statistical significant association between the years of nurse experiences in ICU and the total performance obstacles. In this study (72.6%) of participants were rated their patient safety attitudes as being moderate level, (18.7%) of them were rating their patient safety attitudes as high level and only (8.7%) of them were rating their patient safety attitudes as low level. Regarding workplace characteristics (background), this study presented that there was high statistically significant negative correlation in item of "Number of hours worked daily and patient safety attitudes total scores (** $p < 0.006$). There was no statistically associated between patient safety attitudes total score and demographic characteristics data regarding age (P-value= 0.296), education level of (P-value=0.225), years 'experience (P-value=0.583).

Conclusion:

The study conclude that the common obstacles included the patients rooms are close to each other, trouble noise, delay in getting patients' medications, poor conditioned materials used, equipment are not existed in place when needed, and "spending time dealing with family needs. Also, there was very high statistically significant negative correlation between total performance obstacles scores and total patient safety attitudes scores.

Recommendations:

Decision makers in selected hospitals must develop strategy aimed at redesigning the work system of critical care units to eliminate performance obstacles. Health care organizations can use the findings of the present study as a blueprint to improve work environment and increase the retention of critical care nurses instead of helping nursing assistants and unit clerks to eliminate performance obstacles and enhance patient safety. Future researches that more quantitative and qualitative studies be conducted to evaluate the strategies of overcoming performance obstacles to the establishment of the quality and safety culture. Future research should investigate the impact of reducing performance obstacles on ICU nurses' workload and other outcomes.

Keywords: ICU, nurses, performance obstacles, patient safety attitudes.

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LIST OF ABBREVIATIONS

Abbreviations	Statement
%	Percentage
AHRQ	Agency for Healthcare Research and Quality
ANOVA	Analysis of Variance
APCU	Acute pediatric care unit
APSQ	Attitudes to Patient Safety Questionnaire
CCU	Cardiac care unit
HSOPSC	Hospital Survey on Patient Safety Culture
ICUs	Intensive care units
IOM	Institute of Medicine
LMICs	low- and middle-income countries
LPNs	Licensed practical nurses
N	Number
NTS	non-technical skills
PICU	Pediatric intensive care unit
PSFHI	Patient Safety-Friendly Hospital Initiative
QOL	Quality of life
QWL	Quality of working life
RNs	Registered nurses
SAQ	Safety Attitudes Questionnaire
SPSS	Statistical Package for Social Sciences
UAP	Unlicensed assistive personnel
UK	United kingdom
WHO	World Health Organization