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RESEARCH ARTICLE

PERCEPTIONS OF PHYSICIANS AND NURSES ABOUT THE ROLE OF INTENSIVE AND CRITICAL CARE NURSES IN THE INTENSIVE CARE UNITS AT TANTA UNIVERSITY HOSPITAL

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ABSTRACT

Intensive and critical care nurses are contributing to care for critically ill patients in the intensive care units through their participation on the multidisciplinary team and in collaborative with physician during practice roles.

Objective: This study was conducted to assess perceptions of the physicians and nurses about the role of the intensive and critical care nurses in the intensive care units.

Setting: The study was carried out in the three intensive care units (neurology, cardiology and medical) at Tanta University Hospital in Gharbia Governate.

Subjects: The subjects of the study consisted of fifty five physicians and nurses (23 physicians, 25 intensive and critical care nurses and 7 supervisor nurses).

Tool: One tool was used, it is divided into two parts related to socio-demographic data and assessment of perception about role of the intensive & critical care nurses, it was included (50) items covered six responses; accessibility (5) items, knowledge (10) items, performance (10) items, care coordination and communication (15) items, psychological role (5) items and system issues (5) items.

Results: Intensive and critical care nurses were seen as less competent in critical thinking, case judgment, manage complex problems, education of new staff, communication skills with family and interdisciplinary team. In addition to the psychological role and social care aspects not involved into nursing care plan as well as less skills in the care of system issues.

Discussion and Conclusion: Responses reflected advantages of the intensive and critical care nurses as a member of medical management team in the intensive care units, but many other roles of critical care nurses in the intensive care units must be cleared and identified.

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INTRODUCTION

Intensive and critical care nursing was organized into a specialty only less than 40 years ago; before that time critical care nursing was practiced wherever there were critically ill patients (Cook, 1995; Stuart, 2004). Intensive and critical care nurses are the largest professional group in the intensive care units. It is estimated that more than 500,000 nurses worldwide are practicing in the intensive and critical care units (Linda Bell, 2008). They contributed to improve patient's outcome, reduce morbidity and mortality rate, reduce complications, errors and overall costs (Lakanmaa, 2012) and also effectively respond to the complex needs of the patients, challenge of advanced technology and demand of a changing society (Tricia Bray *et al.*, 2009). Intensive and critical care nurses are registered practitioner nurse who practise in an intensive care units and they are enhancing the delivery of comprehensive

patient's centered care for acutely ill patients who require complex interventions in a highly technical environment and bringing to the patient care team a unique combination of knowledge and skills (Giblin *et al.*, 2005). Critical care nurses in intensive care units are in critical position, so they must have specialization to perform vital skills as; physical examination, collect patients' data, perform therapeutic procedures and schedule laboratory examination (Richard *et al.*, 2007; Chelluri *et al.*, 1993), also they must be able to prescribe appropriate interventions, provide direct patients' care services in specific intensive care settings, contribute to research, teaching, consulting and provide leadership to the organization nursing profession (Counsel and Guin, 2002; Ball and Cox, 2004). The critical care nurses are a member of intensive care team and have primary responsibility in the management case load of critically ill complex patients in intensive care settings (Marilyn *et al.*, 2003). Responsibilities of the critical care nurses also are detected by the American Association of Critical-Care Nurses (AACCN) as following: they help the patient to obtain necessary care, respect the values, beliefs and rights of the patients, provide education and support that help

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the patient, support the decisions of the patients, monitor and safeguard the quality of care that the patient receives, intervene when the best interest of the patient is in question and act as a liaison between the patients, the patient's family and other health care professionals (Snyder *et al.*, 2000). The Intensive care units are specialist hospital wards, they are a separate section in the hospital which provide care for patients who are seriously ill or who have a life-threatening conditions, high dependency, coronary or neurosurgical problems may also be attended to in the intensive care unit (Williams, 2005). Patients typically cared for in intensive care units need constant medical attention and support to keep their body functioning while in keeping on advanced medical equipment such as; patients that have had a major invasive surgery, accident and trauma patients or patients with multiple organ failure (Mullally, 2001; ACCCN, 2002). Intensive and critical care nurses must utilize the following critical thinking skills to perform their work in intensive care units such as; advanced problem solving, decision making, problem based learning and communication skills to provide proactive, safe and effective care when undertaking continuous complex monitoring, assessment, administering, co-coordinating and evaluating high-intensity therapies, responding promptly to sudden changes in a patient's condition and in providing information and emotional support to patients and their relatives (Mullally, 2001; ACCCN, 2002). Simultaneously, the intensive care units tomorrow will be even more technologically challenging, therefore there is a world-wide need for intensive and critical care nurses, and nursing education for its part has to respond to this need, so critical care nurses in the future must not only be technologically proficient, but also they must have sound theoretical knowledge base and competence in the psychological and developmental role to interact successfully with patients and their family and other members in the health care team (Goode, 2000). Because assessment tools for intensive and critical care nurses' roles are rare, so effective tool to evaluate these roles and competences are needed in today's nursing education and clinical practice (Lakanmaa, 2012). Therefore this study was conducted with the aim of acquiring a deeper understanding of what it is to be a nurse in intensive care units. This understanding might lead to ways to facilitate intensive care nurses' daily work when questions are raised concerning curative treatment.

Aim of the study

The purpose of the study was to explore the perceptions of physicians and staff nurses about the role of the intensive and critical care nurses in the intensive care units.

MATERIALS AND METHODS

Research Design

A comparative survey was conducted to assess the perceptions of physicians and staff nurses about the role of the intensive and critical care nurses in the intensive care units.

Setting of the study

This study was carried out in the three intensive care units (cardiology, neurology and medical) in General Tanta

University Hospital. Two neurological intensive care units were consisted of (20) bedded. Whereas three cardiology intensive care units were consisted of (27) bedded. In addition to (12) bedded in three medical intensive care unit.

Subjects

A convenience sample of all available physicians and staff nurses (supervisors and intensive & critical care nurses) who are working in the three intensive care units (neurology, cardiology and medical). A total of 55 were interviewed after agreeing to participate in the study. (23) physician distributed as following; (7) in neurology ICUs, (8) in cardiology ICUs and (8) in medical ICUs and (32) Staff nurses working in each intensive care units distributed as following; (8 intensive & critical nurses and 2 supervisors) in neurology ICUs, (9 intensive & critical nurses and 3 supervisors) in cardiology ICUs and (8 intensive & critical nurses and 2 supervisors) in medical ICUs. There were a variety of degrees of staff employed in ICUs from baccalaureate to master degree.

The study subjects were selected according to the following criteria

A-Physicians:

- 1-Made rounds daily to review the plan of care.
- 2-Available for consultation throughout the day.

B-Intensive and Critical care nurses:

- 1-had baccalaureate of nursing to be able to deal with medical terminology.
- 2-had approximately 2 years experience in this position in intensive care units.
- 3-Provided coverage 8-12 hours/ day.

Data collection tool

One tool was used after modified by the researchers to collect the relevant data needed for this study .

Tool: An interview questionnaire sheet

An interview questionnaire sheet was modified by the researchers based on the work of Hoffman L. A., *et al.* (Hoffman *et al.*, 2004), it was constructed in an English language based on recent and related literature to explore the perceptions of physicians and staff nurses about the role of the intensive and critical care nurses in the intensive care units., this tool covered the following:

Part one: - Socio-demographic characteristics of the physicians and staff nurses such as (ICU name, years of experience, qualifications).

Part two: - A structured questionnaire are formulated to gather data about the role of the intensive and critical nurses in the intensive care units. It was included (50) items covered six responses; accessibility (5) items, knowledge and educational role (10) items, performance role (10) items, care coordination and communication which contain many sub items (commitment, communication, continuity of care and

interaction) (15) items, psychological role (5) items and system issues (5) items.

Scoring system of this questionnaire:- The subjects response were in three point likert type scaling ranged from agree to disagree. Scoring represents varying levels of physicians and staff nurses perception ranging from agree (3), neutral (2) and disagree (1).

Ethical consideration

To carry out this study approval for data collection was obtained from the head of previous each department for conducting the study. All attending staff nurses and physicians were eligible to participate in the study after explained the aim of the study to each subjects and take the oral consent from their. Assured that the obtained information will be confidential and used only for the purpose of the study.

Procedure of data collection

- 1- Validity of the research tool was ensured through a review by 3 experts who hold a PhD in nursing and the necessary modification were made. Tool language was also tested for clarity of meanings.
- 2- Apilot study was conducted on three physicians and three nurses to ensure the reliability of the tool and to assess the subject's acceptance to be involved in the study.
- 3- Data collection for this study was carried out in the period from June 2014 to August 2014.
- 4- Assessment sheet was distributed to attending physicians and staff nurses who working in the three intensive care units (cardiology, neurology and medical), each of them was asked to complete assessment sheet and return it to the researchers. The researchers were collected the questionnaires personally to be able to give any further clarifications that participants could require. Each participant was taking approximately 25-30 minutes to complete the questionnaire.

Statistical analysis

All data were coded, tabulated and subjected to statistical analysis. Statistical analysis is performed using SPSS version 13. Quantitative variables are described by the Mean, Standard Deviation (SD), while qualitative categorical variables are described by proportions and percentages. Descriptive statistics are used to analyze the response to individual items and the respondents' characteristics. Chi-square was used to test differences between the groups before and after the program.

RESULTS

Table (1): shows socio-demographic characteristics of the physicians and staff nurses in the intensive care units. The table revealed that; as regard to their years of experience, all physicians (100%) had < 5 years of experience, while most of the intensive & critical care nurses (56%) had experience < 5 and about (71%) of supervisors nurse had 10-15years of experience. In relation to their qualifications, more than half of the physicians (56.5%) had master degree, as regard to

intensive & critical nurses and supervisors nurse about (84%, 100%) respectively had baccalaureate in nursing and the remaining intensive & critical nurses had master degree.

Table (2): shows that the perceptions of the physicians and staff nurses related to accessibility of the intensive & critical nurses in the intensive care units during the day. The table revealed that there was a statistical significant difference in relation to; (answering patients and family questions continuously when they need, access for every patient immediately when they need and creating an optimal environment for doing procedure continuously) among physician and staff nurses (intensive & critical care nurses and supervisors nurse) at P= (0.04, 0.02, and 0.01).

Table (3): shows that the perceptions of the physicians and staff nurses as regard to knowledge& educational role of the intensive & critical nurse in the intensive care units. The table revealed that there was a statistical significant difference in relation to; (ability to manage complex problems, future insight into nursing care issue and participate in conference and discussion) among physician and staff nurses (intensive & critical care nurses and supervisors nurse) at P= (0.02, 0.01, and 0.01). Also, the study revealed that there was non statistical significant decrease in relation to; (dedicated to the type of medicine and patient care) among physician and staff nurses (intensive & critical care nurses and supervisors nurse) and a sense of responsibility about education of new staff among nurses supervisor only.

Table (4): shows that the perceptions of the physicians and staff nurses as regard to competence (performance) of the intensive & critical nurse in the intensive care units, the table revealed that there was non statistical significant decrease in relation to; (ability of CCN to determine risk patients for complications as infection and assisting physician to perform complex procedures) among physician and staff nurses (intensive & critical care nurses and supervisors nurse), on the other hand there was non statistical significant decrease in relation to; (performance of diagnostic and therapeutic radiological procedures immediately to patients 24 hours/day) among supervisors nurse. Also, table showed that there was non statistical significant decrease in relation to; (ability to make thorough judgment about critical cases) among physicians and CCNs and (the perception of intensive & critical nurse regarding accept overload without any effect in her work) among CCNs.

Table (5): shows that the perceptions of the physicians and staff nurses as regard to care coordination and communication (commitment, communication, contiuity of care and interaction) as apart of role of intensive and critical care nurses in intensive care units.

As regard to commitment; the table revealed that there was a statistical significant difference in relation to; (committed partners in making policy, direction and evaluating clinical care) among physician and staff nurses (intensive & critical care nurses and nurse supervisor) P= 0.04.

Concerning to communication; the table reported that there was a statistical significant difference in relation to; (facilitate communication between care providers, steady in explanation

any procedure, built trusting relationship with patient and obtain important information easily, relax in listening, and providing supporting to patients and their family in critical condition) among physician and staff nurses (intensive and critical care nurses and supervisors nurse) at P= (0.03, 0.02, 0.04,0.03 and 0.03).

In relation to continuity of care and interaction; The table showed that there was a statistical significant difference in relation to; (reviews physician's orders and allow time for question as well as feedback about orders, interacts well with families using non medical terms, make scheduling to meet with patient and families periodically, and collaboration with fellow members of the critical care team) among physician and staff nurses (intensive & critical care nurses and supervisors nurse) at P= (0.04, 0.05, 0.04, and 0.04).

Table 1. The distribution of physicians and staff nurses (intensive and critical care nurses and supervisors nurse) according to their characteristics

	Physicians		Intensive & critical nurses		Supervisors		X ²	p
	No23	%	N25	%	N7	%		
Intensive care units name								
Cardiology	8	34.7	9	36	3	42.8	1.32	0.236
Neurology	7	30.4	8	23	2	28.6		
Medical	8	34.7	8	23	2	28.6		
Years of experience								
<5	23	100	14	56	-	-	5.36	0.05*
5-9	-	-	9	36	2	28.7		
10-15	-	-	2	8	5	71.4		
Qualifications								
Bacclureate	10	43.5	21	84	7	100	4.36	0.03*
Speciality	13	56.5	4	16	-	-		

*Significant or P<0.05

Table 2. perception of the physicians and staff nurses (intensive and critical care nurses and supervisors nurse) to accessibility of the critical nurses in Intensive care units

Accessibility	Physicians		Intensive & critical nurses		Supervisors nurse		X ²	p
	N=23	%	N=25	%	N=7	%		
Critical nurse being available and easily accessible on unit during the day (24 hours)	21	91	21	84	7	100	2.36	0.51
Critical nurses are answering patients and family questions continuously when they need	23	100	25	100	5	71	3.36	0.04*
Every patient in ICU have immediate access from the critical nurse	20	86	24	96	7	100	3.52	0.02*
Critical nurse creating an optimal environment for doing procedures contiuously	15	65	22	88	5	71	4.52	0.01*
Critical nurse asking declaration of any question	23	100	20	80	7	100	2.63	0.09

*Significant or P<0.05

Table 3. Perception of the physicians and staff nurses (intensive & critical care nurses and supervisors nurse) about knowledge and educational role of critical nurse in Intensive care units

Knowledge (education)	Physicians		Intenesive & critical nurses		Supervisors nurse		X ²	p
	N=23	%	N=25	%	N=7	%		
Have ability to manage complex problems	19	82.6	21	84	6	85	2.36	0.02*
Knowledgeable	21	91	25	100	7	100	0.536	0.983
Dedicated to the type of medicine and patients care	19	82.6	21	84	5	71	1.365	0.568
More interested in patient outcome	22	95	25	100	7	100	0.872	0.963
Have future insight into nursing care issue	0	0	2	8	1	14	9.36	0.001*
Interpret knowledge base and principale easily according to her speciality	22	95	25	100	7	100	0.872	0.963
Participate in conference and discussion.	0	0	2	8	1	14	9.36	0.001*
Has a sense of responsibility about education of new staff	22	95	21	84	3	42	2.362	0.236
Quickly responding to life saving situation	23	100	25	100	7	100	0.869	0.536
Always increase her knowledge about new devices in ICU	22	95	22	88	7	100	0.536	0.963

*Significant or P<0.05

Table 4. perception of the physicians and staff nurses (intensive and critical care nurses and supervisors nurse) about competence (performance) of the critical care nurse in Intensive care units

Competence (performance)	Physicians		Intensive and critical nurses		Supervisors Nurse		X ²	p
	N=23	%	N=25	%	N=7	%		
Performance								
Assessing patient's condition, planning and implementation patient's care plan	21	91.3	23	92	7	100	0.9633	0.853
Perfect in observing and recording patients vital signs	23	100	23	92	7	100	0.863	0.964
Able to determine risk patients for complication as infection	19	82.6	20	84	6	85	1.752	0.365
Use aseptic technique before and after deal with patients	22	95.5	23	92	7	100	0.765	0.563
Ensuring that ventilator, monitor and other type of medical equipment function properly	23	100	23	92	7	100	0.796	0.553
Providing advanced life support for patient's	21	91.3	25	100	7	100	1.120	0.752
Assisting physician in performing complex procedures	20	86	19	76	6	85	1.752	0.365
Performance of diagnostic and therapeutic radiologic procedures immediately to patients, 24 hrs per day	23	100	23	92	6	85	0.753	0.558
Able to make thorough judgment about critical cases.	19	82.6	20	84	7	100	1.758	0.385
Accept overload without any effect on her work.	23	100	20	84	7	100	0.836	0.689

Table 5. perception of the physicians and staff nurses (intensive & critical care nurses and supervisors nurse) about care coordination and communication as apart of role of nurse in Intensive care units

Care coordination and communication	Physicians		Intensive & critical nurses		Supervisors Nurse		X ²	p
	N=23	%	N=25	%	N=7	%		
a-commitment								
Have commitment to provide patients care in icu.	20	86.9	25	100	7	100	0.536	0.820
Have appreciation for chronic care and recovery from acute illness	17	73	23	92	7	100	1.120	0.562
Accept any type of job assignment in order to keep working for this organization	20	86.9	25	100	6	85	0.783	0.653
Have enthusiasm about this role and try to improve	20	86.9	25	100	6	85	0.783	0.653
Committed partners in making policy, directing and evaluating clinical care	14	60.8	21	84	5	71.4	2.212	0.047*
b-communication								
Facilitate communication between care providers	7	30	23	92	5	71.4	1.32	0.036*
Steady in explanation any procedure	7	30	25	100	5	71.4	4.36	0.023*
Built trusting relationship with patient and obtain important information easily	3	13	25	100	7	100	3.652	0.049*
Relax in listening	9	39	20	80	2	28.5	2.987	0.035*
Providing supporting to patients and their family in critical condition	8	34.7	21	84	3	42.8	6.351	0.031*
c-continuity of care and interaction								
Reviews physician's orders and allow time for question as well as feedback about orders	21	91	10	40	3	42.8	3.630	0.044*
Interacts well with families using non medical terms	20	86.9	15	60	3	42.8	3.257	0.051
Make scheduling to meet with patient and families periodically.	23	100	11	44	2	28.5	2.991	0.042*
Collaboration with fellow members of the critical care team	17	73	13	52	4	57	2.863	0.042*
Close interact with patients during all shift	23	100	18	72	7	100	1.320	0.581

*Significant or P<0.05

Table 6. Perceptions of the physicians and staff nurses (intensive and critical care nurses and supervisors nurse) about psychological role of nurse in Intensive care units

Psychological role	Physicians		Intensive and critical nurses		Supervisors Nurse		X ²	p
	N=23	%	N=25	%	N=7	%		
Focus on the whole patient not just medical needs (physical and psychological).	13	56.5	12	48	3	42.8	3.982	0.021*
Continuous observing psychological state of the family	9	39	13	52	3	42.8	4.850	0.028*
Treat patient as a biopsychosocial member	10	43.3	15	60	5	71.4	4.983	0.035*
Identify all type of patients needs (financial, medical, equipment or community supports)	10	43.3	14	56	4	57	4.320	0.011*
Maintain beliefs involving spiritual and religious issues as a resource facing major goals	20	86.6	25	100	7	100	0.536	0.820

*Significant or P<0.05

Table (6): shows that the perceptions of the physicians and staff nurses related to psychological role of the critical nurses in the intensive care units, the table showed that there was a statistical significant difference in relation to; (focus on the whole patient not just medical needs (physical and psychological), continuous observing psychological state of the family, treat patient as a biopsychosocial member, and identify all type of patients needs (financial, medical, equipment or community supports) among physician and staff nurses (intensive & critical care nurses and supervisors nurse) at $P = (0.02, 0.02, 0.03, \text{ and } 0.01)$.

staff nurses reported that less perception in relation to ability of CCNs to creating an optimal environment for doing procedures continuously. In addition, the supervisors nurse alone reported less perception in relation to answering patients and family questions. This could be attributed to numerous stressful factors in ICUs included shortage of personnel, long working hours/8 hours day shift and/ 12 hours night shift and large caseloads. This finding was contraindicating with Hoffman *et al.* (2004) who conducted the survey to attending physicians, staff nurses, and respiratory therapists working in the two ICUs reported that Acute care nurses practitioners ACNPs were seen

Table 7. Perceptions of the physicians and staff nurses (intensive & critical care nurses and supervisors nurse) to system issues as a role of nurse in Intensive care units

System issues	Physicians		Intensive and critical nurses		Supervisors Nurse		X2	p
	N=23	%	N=25	%	N=7	%		
Require having their orders cosigned.	9	44	13	52	4	57	0.635	0.818
Cosign the medication orders.	11	47.8	15	60	4	57	0.221	0.836
The work schedules is routine.	12	52	21	84	7	100	1.47	0.536
Might moves on to increase salary	23	100	25	100	7	100	0.933	1.00
Law institutions policies specify her roles and responsibility	7	30	0	00	0	00	-	-

Table (7): shows that the perceptions of the physicians and staff nurses as regard to system issues as a role of critical nurses in intensive care units. The table reported that there was non statistical significant decrease in relation to; (require having their orders cosigned, cosign the medication orders, the work schedules is routine and law institutions policies specify her roles and responsibility) among physician and staff nurses (intensive and critical care nurses and nurse supervisor).

as accessible to clinicians, patients, and patients' families. ACNPs were perceived as "readily available on the unit during the day" and "easily accessible and approachable," and "open to suggestions," a characteristic that was valued as it provided "immediate access to a decision-maker" who was "able to respond to problems quicker," including issues related to patients and their families. The enhanced accessibility was viewed by respondents as creating an optimal environment for obtaining orders, answering questions, and responding to problems.

DISCUSSION

Intensive and critical care nurses in the 21st century care for complex, critically ill patients and their families. They focus on severely ill patients in the intensive care units. These patients benefit from the attention of highly trained and skilled personnel applying modern techniques and interventions appropriately, intelligently and compassionately (Bernat *et al.*, 2007). The overall purpose of this study was to assess the perceptions of the physicians and staff nurses (intensive and critical care nurses and supervisors nurse) about the role of the critical care nurses in the intensive care units. The present study results showed that the majority of the study subjects from intensive care nurses were more than 5 years experience. This finding was agreed with Varieur (2013) who said that increased years of nursing experiences significantly improved patients' outcomes and independently decrease hospital mortality rate. The death increased when the percentage of nurses with few years of experiences was 20% or more, so increased years of experience was a significant factor in improving outcomes. Also study revealed that about more than three quarter of staff nurses had baccalaureate education, this finding was agreed also with (Varieur, 2013) who mentioned that in adult ICUs there is positive effect of increasing percentage of nurses with baccalaureate educations, this will improved patients' outcomes and reduce the incidence of complications for patients. As regard to perception related to accessibility of the nurses in the intensive care units, the study reported that the intensive care nurses were seen as less immediate accessibility to ICUs patients as a perception of physician. Also, both physicians and

Regarding perceptions of the physicians and staff nurses about knowledge and educational role of the intensive and critical care nurses, the study illustrated that the critical care nurses were perceived as less skill to physicians and staff nurses in relation to; they ability to manage complex problems, dedicated to the type of medicine and patient care, the future insight into nursing care issue, and participate in conference and discussion. Also a intensive and critical care nurses were seen a less sense of responsibility about education of new staff as a perception of supervisors nurse, this could be due to lack of inservice training programmes in the ICUs, workload and shortage of staff personnel. Conversely, the intensive & critical care nurses were perceived as experts in basic knowledge, and quickly repending to life saving situation, and more interested in patient outcomes. This finding was similar to study from Australia by Halcomb *et al.* (2012) who found that similar findings much stress was experienced when the CCNs had to work with unskilled personnel who lacked knowledge about various procedures and protocols. This resulted in work overload and additional more stress for permanent CCNs. In the same line Gureses and Carayon (2005) who mentioned that the intensive care nurses workload that workplace conditions, equipment, relationship between employees and information exchange, helping colleagues, getting help from colleagues and working in the teaching hospital had negative effects on ICUs nurses work. Also Geriner and Knebel (2003) who founded that the education of all health professionals to deliver patient centered care as members of an interdisciplinary team,

emphasizing evidence based informatics, in addition to conference attendance to meet requirements for continuing education and journal subscriptions. Regarding the perceptions of the physicians and staff nurses as regard to competence (performance) of the intensive and critical nurses in the intensive care units, the study revealed that the staff nurses and physicians had positive perception related to all performance role of nurses in ICUs, except ability of them to determine risk patients for complication as infection, and assisting physician in performing complex procedures. While few CCNs accepted overload without any effect on her work. This finding was similar with Queijo *et al.* (2013) who mentioned that workload is more important factors in the intensive care units compared to other units because a large number of patients are hospitalized in the ICUs in each year. These patients need to receive special care such as ventilation, injections, prescribing antibiotics, etc. for a long time which highlights the role of intensive care nurses, especially after the physicians' orders were prescribed. Also this findings was supported by Cohen (2007) who said that during treatment and intervention in the ICUs, nurses are more involved as a team of critical thinker working together, contributing decision making comments that lead to improved patients outcomes. Also, Parbury and Liaschenko (2007) who said that both nurses and physicians are concerned with patient knowledge, especially in relation to response to treatment. The work of physicians are to evaluate patients' responses on the basis of expected statistical patterns of therapeutic efficacy; that is through the use of case knowledge. Regarding to perception of the physicians and staff nurses about care coordination and communication as a part of role of nurses in ICUs. In relation to commitment, the study reported that the CCNs were seen a less committed partners in making policy, directing and evaluating clinical care to physicians and staff nurses. Conversely, intensive and critical care nurses valued for their commitment to provide patients care in ICUs, accept any type of job assignment in order to keep working for this organization about role and try to improve it.

This findings was similar to Hoffman *et al.* (2004) who founded that commitment was uniform perceived as an advantage for ACNPs in ICUs. ACNPs were viewed as being "motivated to provide quality care" because "this is their life's work versus the fellow here as a learning experience, then moving on." The ACNPs were viewed as more understanding and appreciative care providers for chronically, critically ill ICU patients: Physician valued ACNPs as appreciation for chronic care and recovery from acute illness, enthusiasm for this type of patient case, consistent care provider. Concerning to communication, the study revealed that the CCNs were perceived a less communication skills for physicians and staff nurses (intensive and critical care nurses and supervisors nurse) This may be due to weak communication in the ICUs because high levels of stress, dealing mostly with the physical care of patients, and being busy with technological equipments. This findings was similar with Tom *et al.* (2007) who emphasized that Poor communication and team work frequently contribute to occurrence of medical error in the ICU. Furthermore, interventions to improve communication in the ICUs have resulted in reduced reports of adverse events have shown that effective communication between team members is

correlated with improved technical performance. On the other hand Moola *et al.* (2008) they noted that communication and good human relations are important for coping in stressful situations between patients. Participants experienced vulnerability by often having to cope without showing any emotion, tension or pressure. In relation to continuity of care and interaction, the study concluded that the intensive and critical nurses were perceived as less skills related to this role. This could be due to shortage of nurses, long working hours, heavy work load and physical exhaustion. Also, the intensive and critical nurses view visitors as physiologically stressful to patients and thus will try to restrict visitation in order to protect patients. This study was similar to Yeager *et al.* (2006) who mentioned that the CCNs reviews physicians orders which included the flow sheets, medications, and laboratory and radiological findings of the patients in addition to seeking inclusion of the bedside nurses' assessment and thoughts related to each patients plan of care in the ICUs. In addition to Tom *et al.* (2007) who illustrated that critical care nurses serve as mentors, leaders, teachers, communicators, and organizers of their clinical units. The critical care nurses in the ideal situation, work harmoniously with a multidisciplinary team that includes: other professional nurses, physicians; medical students, pharmacists, residents, student nurses, licensed practical nurses, nurse's aides, dieticians, and physical, occupational, and respiratory therapists, as well as social workers, case managers, physician assistants.

Regarding to perceptions of the physicians and staff nurses about psychological role for intensive & critical care nurses in the ICUs, the study revealed that the CCNs were perceived as a less skills in relation to psychological role in the intensive care units to the physicians and staff nurses. This result is not consistent with Douglas *et al.* (2005) and Vanderwerker *et al.* (2005) Who revealed psychological role of the nurses in ICUs as Critical care nurses must assist family members by providing coping and emotional support through referrals, discussions, and reassurance. In addition, critical care nurses could collaborate with case management or social services to provide individualized home care needs for patients and patients' families. This type of emotional and instrumental support can be beneficial to family caregivers. Also Hebert *et al.* (2006) Who said that Critical care nurses are key in helping ameliorate psychological symptoms. The nurses can prepare a patient's family members for what the members may see, hear, or experience while visiting in the ICU; this level of preparedness has been associated with improvement in outcomes in caregivers of chronically and terminally ill patients. Concerning to perceptions of the physicians and staff nurses to system issues as a role of intensive & critical care nurses in ICUs. The study revealed that the intensive & critical care nurses were perceived as a less skills in relation to require having their orders cosigned, cosign the medication orders, the work schedules is routine and law institutions policies specify her roles and responsibility to the physicians and staff nurses (intensive & critical care nurses and supervisors nurse). This study was similar to Hoffman *et al.* (2004) who revealed that ACNPs in ICUs were required to have their orders cosigned. This restriction was viewed as a disadvantage when the ACNPs were compared with fellows. This requirement has since been rescinded, as countersignature is not required by statute.

Concern was also expressed about burnout, given the responsibilities of the ACNP role. Also, Ruth M. and Kleinepell (2005) stated that Discussing patients' care with the patients' family members, ordering laboratory tests and interpreting the results, initiating consultations, and initiating discharge planning have remained the top 5 frequently performed activities of ACNPs in ICUs. The focus of ACNPs practice is not only the performance of work involving invasive skill but also Performance of tasks involving invasive skills depends on job descriptions, patients' acuity and collaborative practice agreements.

Conclusion

The study was concluded that

- Intensive and critical care nurses were viewed as experts in basic knowledge and in providing routine daily managements for patients in ICUs.
- Intensive and critical care nurses were seen as less competent in critical thinking, case judgment, manage complex problems as well as education of new staff.
- Intensive and critical care nurses were perceived as less expert in communication skills, continuity of care and the interaction with patients family and interdisciplinary team.
- Intensive and critical care nurses were viewed as expert in providing routine physical care. Conversely, the psychological and social care aspect not involved into nursing care plan.
- Intensive and critical care nurses were perceived a less skills in area of system issues and their was no clear low institutional policy specify their roles and responsibility.

Recommendation

- According to the results, teaching the skills base and especial nursing interventions and strengthening them when considering contents and methods of learning should be taken into account in nursing education during orientation programs and in continuous nursing education.
- In the future, nurse educators should also keep in mind and focus on arranging special education and continuing education for nursing specialities such as intensive and critical care after graduation. After graduation it is important to strengthen competence in nursing specialities, such as competence in intensive and critical care nursing and focus on education in this field.
- Graduating nursing students' and ICU nurses' basic competence in intensive and care nursing should be studied further, the effectiveness of the clinical practice period and orientation programmes should be examined, and competence scale should be developed and tested further in several ways.
- A formal communication system between intensive and critical care nurses and nurse managers should be established to address critical inconsistencies and shortages of personnel as well as equipment.
- Environmental resources need to combine with individual characteristics and environmental resources to overcome severe stress in the work environment.

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