Critical Care Practice Environment, Burnout and Decision Making Ability among Staff Nurses at a Selected Teaching Hospital

Sahar Hassan Aly EL Banan and Amal Hebashy Elewa

Assistant Professors of Nursing Administration, Nursing Administration Department, Faculty of Nursing, Cairo University, Egypt

Abstract:

A. Background: *Health care organizations with improper work practice environments had a higher percentage of nurses who were reporting high levels of burnout. The practice environment was found to have significant effects on burnout. This makes nurses lose their capability to adjust to the work environment and show negative attitudes toward their job, their coworkers, and their patients. Moreover, nurses' decision-making quality is a very important component of good clinical practice, and nurses' ability to make decisions is affected by the dynamic of the work environment.*

B. Aim: *The present study was conducted to investigate the relation of the critical care practice environment, burnout, and decision-making ability among staff nurses at a selected teaching hospital.*

C. Setting: *This study was conducted at Teaching Hospital affiliated with Cairo University.*

D. Research design: *Descriptive correlation design.*

E. Sample: *A convenient sample of all nurses who agreed to participate in the study at data collection time. Their total number was (n=150) nurses.*

F. Tools: *Data were collected through utilizing three tools as follows:* **I-** *The first tool was the Practice Environment Scale of the Nursing Work Index,* **II-** *The second tool was the Burnout Inventory, and* **III-** *The third tool was the Staff Nurses' Decision-Making Abilities Questionnaire.*

G. Results & conclusion: *The present study concluded that there was a statistically significant correlation between critical care practice environment and nurses' burnout and nurses' decision-making ability. While there was no statistically significant correlation between nurses' burnout and nurses' decision-making ability.*

H. Recommendations: *It was recommended that Managers should create and maintain a practice environment that fosters and supports nurses' decision-making ability. Administrators and health policymakers must review current organizational policies to reduce barriers in the work practice environment to facilitate opportunities for the provision of nursing-based decisional support.*

Keywords - *Work practice environment, Nurses burnout, and Decision-making ability*

I. INTRODUCTION

Alotaibi& Moussa (2016) mentioned that the work environment plays a considerable role in today's health care system. It should be more conducive to provide adequate support to nurses. The practice environment is defined as the organizational characteristics of a work environment that create easy or difficult nursing practice. The establishment of healthy work environments must be a priority if nurses want to make their optimal contributions in caring for patients and their families (Moss & et al., 2016). Considerable knowledge has been generated on the relevance of the nursing practice environment for the nurse, patient, and institution in the past three decades. The healthcare environment is complex, requires technological and human resources to respond to patients' and families' care needs (Guirardello, 2017).

Furthermore, American Nurses Association (2018) reported that nurses have the power to lead the way in improving health and health care for all, but to realize that power, they must work in a safe, empowering, and satisfying environment. As health care workers have a function of care to their patients, employers have a fundamental function of care to their employees through creating a healthy work environment for them. A healthy environment is defined by the World Health Organization (WHO) as a site of "physical, mental, and social well-being," supporting optimal health and safety. Nurse's healthy work environments are defined as practice settings that enhance nurses' health and well-being, quality patient/client outcomes, organizational performance, and societal outcomes. Achievement of nurses' healthy work environments is necessary to their safety, recruitment, and retention.

Ariapooran (2014) reported that work activity is an important practice for nurse's mental health, and it shapes the basis for nurse's autonomy and self-esteem. If internal and external workplace stressors are frequent, they finally lead to burnout and change work quality. Burnout is known as a serious problem that affects many people, especially those in the human service industry. It is an extended response to chronic emotional and interpersonal job stressors (Alotaibi& Moussa, 2016).

The terms job burnout, professional burnout, and occupational burnout are interchangeable because jobs, professions, and occupations are indistinguishable concepts (Ahola, 2007). Burnout as a concept was first described in the 1970s and originally pointed out to a reaction to job interpersonal stressors (Schaufeli, Leiter & Maslach, 2009). It was defined as a situation where the person failed or became exhausted by too many demands on energy, strength, or resources. Burnout at work can be defined as a mental and physical exhaustion state that occurred in one's professional life (Kraft, 2007). Burnout is an emotional exhaustion syndrome, depersonalization (a disconnection from co-workers), and a lower sense of personal accomplishment that can happen among individuals who work on a daily basis with people (Halbesleben, Wakefield, Wakefield & Cooper, 2008).

Grazziano and Bianchi (2014) added that burnout constitutes a psychological syndrome that takes place in individuals exposed to sources of chronic stress present in the workplace, with a higher incidence among those who relate more closely to others. It consists of three components related but independent. First component: emotional exhaustion is the key component to define this syndrome. It is the first reaction caused in response to work overload, social conflict, and stress due to constant demands (Gasparino & Guirardello, 2015). Second component: depersonalization appears as an attempt to protect themselves from exhaustion, and the individuals begin to distance themselves from work and other people. It refers to missing contact with oneself, with a tendency to underestimate oneself or others (Sadati & et al., 2016). Third component: diminished personal accomplishment refers to a decrease in the feeling of competence and successful achievement in an individual's work in relation to people. It leads people to develop a feeling of personal and professional inadequacy to work; to lose confidence in themselves and in their ability to excel (Panunto & Guirardello, 2013).

Galletta& et al. (2016) and Cishahayo, Nankundwa, Sego& Bhengu (2017) mentioned that burnout has recently begun to attract attention among medical professionals. It is a syndrome characterized by extreme physical and mental fatigue and emotional exhaustion. Many professions experience burnout, including physicians, nurses, and educators. All of these professions are characterized by intensive involvement with people or provide assistance to people. Burnout is considered as a problem in the working environment rather than an internal human problem.

Nurses represent the largest group of serving staff in health service organizations. They are the most significant healthcare team members who have close relations with other medical staff and patients. They sustain a responsibility for people's health and life. Their practice occurs in the context of ongoing advances in research and technology. Clinical environments are dynamic, complex, and stressful. Nurses must transact with increasing patient complexity, sophisticated technology, and often declining resources. This, in turn, changes the complexity of nursing care requirements, including decision making. Nurses are the only professional group in health care to provide twenty-four hours of bedside care and thus have a great opportunity to apply their knowledge to meet patients' needs. They spend about fifty percent of their time evaluating patients in their care and view patients holistically to create choices and make decisions (Kyalo, 2008., Burack, Weiner, Reinhardt & Annunziato, 2012, Shafiei, Khodayari & Hashemizad, 2013 and Ashrafi & et al., 2018).

Nurses are continually confronted with demands to make care decisions in clinical settings. Clinical decision-making complexity requires a broad knowledge base and access to reliable information sources, as well as working in a supportive environment. The decisions made by nurses while carrying out nursing care will impact their effectiveness in clinical practice and make an effect on patients' lives and experiences with health care regardless of which setting or country they are practicing in (Bjørk & Hamilton, 2011).

Critical Care environment is qualitatively different from some other nursing environments. It is a highly complex and dynamic scenario, with multiple interventions aimed at the recovery of patients with limited physiological capacity. The role of the nursing staff is fundamental to the success of the patients' hospitalization. (Kelly & et al, 2014 and Ulrich, Lavandero, Woods, & Early, 2014). Decisions made by critical care nurses have a direct and immediate effect on the well-being and the survival of patients they care for. This is because they spend most of their time with the patients and can note improvements or deteriorations in patients' condition and recovery. Nurses' decision-making ability is affected by the dynamic of their work environment, and the quality of nurses' decision-making is an essential component of good clinical practice (Boev, 2012, Backes, Erdmann & Buscher, 2015 and Cishahayo, Nankundwa, Sego& Bhengu, 2017).

II. SIGNIFICANCE

The work practice environment is recognized as a source of chronic stress that leads to job burnout. A work environment that has not possess the ability to satisfy staff nurses' needs can eliminate their energy and enthusiasm, thus causing negative consequences as high absenteeism,

poor performance, mental diseases, and job-related injuries. Today's health care organizations focus primarily on economic results; thus, they don't see the value of the human aspect of the work, particularly in the healthcare setting. This dehumanization state is a reason for an increased discrepancy between job requirements and necessary resources for carrying out work, which can determine adaptability diseases like job burnout (Marin, Lord C & Andrews, 2011, Leiter, Day, Oore & Laschinger, 2012 and Sancassiani & et al., 2015).

Health care organizations with improper work practice environments had a high percentage of nurses reporting high levels of burnout. The practice environment was found to have significant effects on burnout. This makes nurses lose their capacity to acclimate with the work environment and exhibit negative attitudes toward their job, coworkers, and patients. This may be reflected in their ability to make decisions (Aiken, Clarke & Sloane, 2008, Van-Bogart & et al., 2013 and Van-Bogart & et al., 2014). Comprehending the factors that affect job burnout is significant to care nurses' psychosocial state, organizational effectiveness, and patients' health. The workload is a fundamental source of burnout, which reveals that workers feel overloaded, so decreasing time and resources to implement their activity properly. Moreover, insufficient job control can limit the employees' decision-making capability. Therefore to limit the burnout phenomenon, the healthcare environment must be altered. A work environment that is allowing nurses to perform their work well will limit their sense of burnout and also will be reflected on their decision-making ability. Effective clinical decision-making is important for the Nurses and their employing organizations. It will lead to a higher quality of patient care, decreased length of hospital stay by patients, reduction in health care costs, and client satisfaction. (Maslach & Leiter, 2016).

No studies have investigated the relationship between work practice environment, burnout, and how they influence nurses' decision-making ability. This research will provide a theoretical basis to understand work practice environment, burnout, and its relation to nurses' decision-making ability in critical care environments. This study will supply managers and administrators with a piece of basic information about work practice environment factors that can lead to nurses' burnout and also influence their decision-making ability. Also, understanding nurses' clinical decision-making and factors that affect it has important benefits for nurses and employing organizations. Studying the relationship between work environment and decision making provide insights into how work practice environment interfere with the decision-making ability of nurses. Improved clinical decision-making leads to improved patient care outcomes, including high-quality care.

Moreover, Burnout as a stressor affects people's abilities to make decisions. The impact of stress on professional judgment is significant. The relationship between burnout and decision-making is an aspect of human behavior that remains relatively unexplored. Consequently, the literature in this area is limited (Starcke and Brand, 2012). So this study aimed to investigate the relation of the critical care practice environment, burnout, and decision-making ability among staff nurses at a selected teaching hospital.

III. METHODS

A. Aim:
This study aimed to investigate the relation of the critical care practice environment, burnout, and decision-making ability among staff nurses at a selected teaching hospital.

B. Research questions:
1. What is the relationship between the critical care practice environment and nurses' burnout?
2. What is the relationship between nurses' burnout and their decision-making ability?
3. What is the relationship between the critical care practice environment and nurses' decision-making ability?

C. Design:
A descriptive correlation. Cross-sectional.

D. Sample:
A convenient sample of all nurses who agreed to participate at data collection time. Inclusion criteria included: was a staff nurse who provides direct patient care, worked at her current unit for at least one year, and was accepted to participate (n= 150). The highest percentages of the sample were female; they graduated from nursing secondary school, and they were married.
Around half of the sample, their age ranged from 35 to less than 45 years.

E. Study setting:
The present study was carried out at selected eight intensive care units with a total number of 80 patient beds. The intensive care units distributed in the hospital are as follows: Surgical, Adult open heart, Neurology, Chest, Liver, Cardiology, Critical care and Coronary care.

F. Tools:
Data was collected by utilizing the following tools: **I-** The first tool consisted of two parts: A-Socio-demographic data sheet: it included nurses' demographic data as age, gender, educational level, and years of experience in the nursing profession and in the current unit. B-Practice Environment

The scale of the Nursing Work Index, it developed by Lake (2002) and is composed of 5 subscales including 31 items as follows: nurse participation in hospital affairs (9 items); nursing foundations for quality of care (10 items); nurse manager ability, leadership, and support of nurses (5 items); staffing and resource adequacy (4 items); and collegial nurse-physician relations (3 items). II- The second tool was the Burnout Inventory; it was developed by (Maslach & Jackson, 1986). It is composed of three dimensions, including 22 items as follows: emotional exhaustion (8 items), depersonalization (5 items), and personal accomplishment (7 items). III- The third tool was the Staff Nurses' Decision-Making Abilities Questionnaire. It was developed by investigators guided by the Decision-Making Questionnaire (French, West, Elander, & Wilding, 1993) and Nurse Manager Skills Inventory (American Organization of Nurse Executives & American Association of Critical Care Nurses, 2008). It is composed of 11 subscales including 32 items as follows: autonomy (5 items), recognition (4 items), communication, intuition, creativity, reflection and critical thinking (each of them has 3 items), reasoning, self-awareness, and evidence-based and experience (each of them has 2 items).

G. The scoring system:

The scoring system was a three-point Likert scale, and it ranged from one to three as follows (1 = disagree, 2 = neutral, and 3 = agree).

H. Tools validity and reliability

a) Validity:

Tools content validity was measured by a nursing administration expert's panel from the Faculty of Nursing Cairo University (two professors and three assistant professors). They inspected the content of the instrument for its coverage, clarity, wording, length, format, and overall appearance.

b) Reliability:

The reliability test was determined by using Cronbach's Alpha Coefficient. Test results for the questionnaires of practice environment scale were (0.90), burnout inventory was (0.93), and decision-making ability questionnaire was (0.95). They were indicated that the three questionnaires were highly reliable.

I. Pilot study:

A pilot study was carried out on (10%) of samples to ensure clarity and applicability of items and to estimate the time consumed to fill the three questionnaires. The results showed that time consumed in completing questionnaires was ranged between 25-30 minutes, no changes made after the pilot study analysis.

J. Ethical consideration:

Prior to the initial interview, a verbal explanation of the nature and purpose of the study had been explained to the staff nurses included in the study, and clarification was done in the interview with each subject. They were given an opportunity to refuse or to participate, and they were assured that the information would be utilized confidentially and used for the research purpose only.

K. Procedures:

Permission was obtained from the hospital administrator after explaining the work nature. Study aim and significance illustrated for every eligible nurse to get her acceptance to participate and to the administrator to ensure her cooperation during research implementation; also, an individual oral approval was gained from each participant after explaining the study purpose. During data collection, the investigator handed the questionnaires individually to study participants at their units at different shifts and explained the answering way. Time spent in completing questionnaires ranged between 25 and 30 minutes. Data were collected in 2018, and it took three months (the beginning of August to the end of October).

L. Statistical design:

Statistical package for social studies (SPSS), version 20, was used. Suitable descriptive statistics as frequencies, and percentages for qualitative variables, means, and standards deviations for quantitative variables were performed. The correlation coefficient (r) test was used to determine the closeness association among variables. For all used tests, statistical significance was at a p-value $\leq$ of 0.05.

IV. RESULTS

Table 1: Frequency Distribution of Study Sample Demographic characteristics (n=150)

Demographic Characteristics	Frequency	%
1. Age:		
a. less than 25	37	24.7
b. 25- less than 35	40	26.7
c. 35- less than 45	54	36.0
d. 45- less than 55	18	12.0
e. more than 55	1	0.7
X= 2.373 SD= 1.007		
2. Gender:		
a. Male	35	23.3
b. Female	115	76.7
3. Marital status:		
a. Single	57	38.0
b. Married	93	62.0
4. Educational level:		
a. Nursing secondary school	99	66.0
b. Technical institute	40	26.7
c. Baccalaureate nursing	11	7.3
5. years of experience in nursing:		
a. 1year - less than 3 years	24	16.0

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b. 3 years -less than 6 years	22	14.7
c. 6 years and more	104	69.3
X= 2.533 SD= 0.756		
6. years of experience at ICU: a. 1year - less than 3 years b. 3 years -less than 6 years c. 6 years and more	28 25 97	18.7 16.7 64.7
X= 2.460 SD= 0.791		

Table (1) showed that the highest percentage (76.7%) of staff nurses were female, (66.0%) of them had a secondary school degree, and (62.0%) were married. As regards the age of respondents, the mean age was 2.373±1.007, while the mean of their years of experience in the nursing profession was 2.533± 0.756 compared to 2.460±0.791years of experience at ICU.
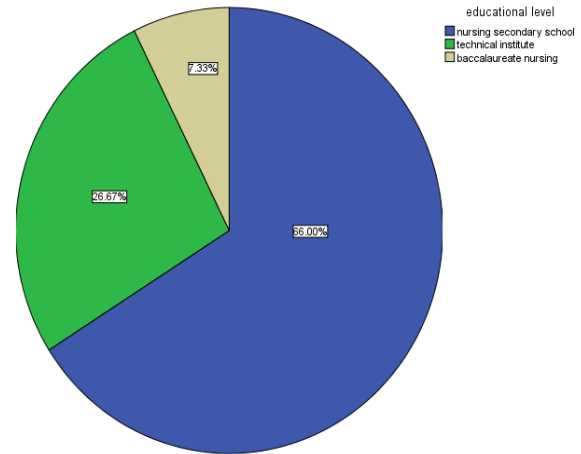
Figure 1:
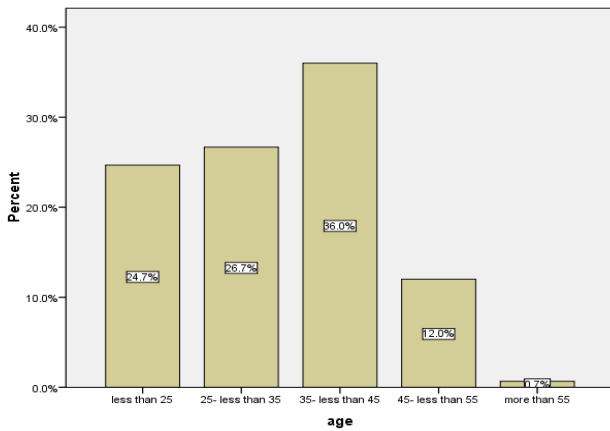
This figure showed that 36% of staff nurses their ages ranged from 35 to less than 45 years.

Figure 2:
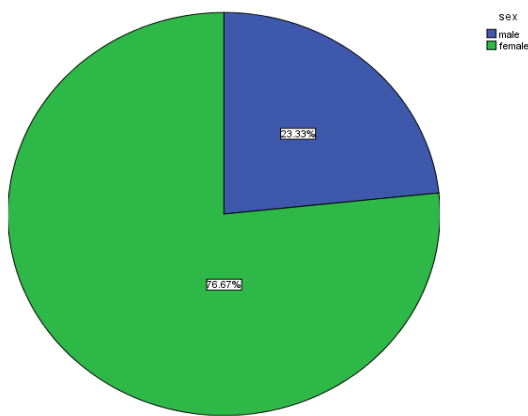
This figure revealed that the highest percentage of staff nurses (76.67%) were female.

Figure 3:

This figure showed that the highest percentage of staff nurses (66%) had a nursing secondary school degree.

Table 2: Correlation between Critical Care Practice Environment and Nurses' Burnout (n= 150)

Study variables	Burnout	
	r	p
Practice Environment	0.176	0.031

This table showed that there is a statistically significant correlation between practice environment and nurses' burnout (p= 0.031).

Table 3: Correlation between Nurses' Burnout and Their Decision-Making Ability (n= 150)

Study variables	Decision-making ability	
	r	p
Nurses' burnout	0.004	0.964

Table 3 represented that there is no statistically significant correlation between nurses' burnout and their decision-making ability (p= 0.964).

Table 4: Correlation between Critical Care Practice Environment and Nurses' Decision-Making Ability (n= 150)

Study variables	Nurses' Decision Making Ability	
	r	p
Practice Environment	0.586	0.000

This table showed that there is a statistically significant correlation between practice environment and nurses' decision-making ability (p= 0.000).

Table 5: Correlation between Dimensions of Critical Care Practice Environment and Nurses' Burnout

Nurses' Burnout Practice Environment	Emotional exhaustion	Depersonalization	Personal accomplishment
Participation in Hospital Affairs r: p:	0.242 0 .003	0.109 0.184	0.026 0.749
Foundations for Quality of Care r: p:	0.234 0.004	0.019 0.820	0.074 0.371
Nurse Manager Ability, Leadership, and Support r: p:	0.114 0.165	0.028 0.738	0.008 0.922
Staffing and Resource Adequacy r: p:	0.085 0.301	0.071 0.387	0.006 0.947
Collegial Nurse-Physician Relations r: p:	0.182 0.026	0.042 0.608	0.030 0.717

Intuition r: p:	0.191 0.019	0.030 0.712	0.022 0.792
Creativity r: p:	0.227 0.005	0.058 0.481	0.051 0.534
Recognition r: p:	0.092 0.261	0.043 0.603	0.115 0.161
Reflection r: p:	0.236 0.004	0.097 0.239	0.020 0.807
Reasoning r: p:	0.118 0.151	0.005 0.955	0.095 0.247
Self Awareness r: p:	0.143 0.080	0.004 0.959	0.098 0.231
Critical Thinking r: p:	0.128 0.120	0.015 0.857	0.030 0.717
Evidence Based r: p:	0.068 0.406	0.036 0.663	0.017 0.833
Experience &Knowledge r: p:	0.287 0.000	0.113 0.170	0.042 0.611

This table represented that there is a statistically significant correlation between emotional exhaustion dimension and participation in hospital affairs, foundations for quality of care, and collegial nurse-physician relations dimensions (p=0 .003, 0.004, and 0.026, respectively).

This table revealed that there is a statistically significant correlation between the emotional exhaustion dimension and communication, intuition, creativity, reflection, and experience &knowledge dimensions (p=0 .053, 0.019, 0.005, 0.004, and 0.000, respectively).

Table 6: Correlation between Dimensions of Nurses' Burnout and Decision Making Ability

Nurses' Burnout Decision Making	Emotional exhaustion	Depersonalization	Personal accomplishment
Autonomy r: p:	0.118 0 .151	0.016 0.850	0.043 0.599
Communication r: p:	0.159 0.052	0. 007 0.934	0. 041 0.622

Table 7: Correlation between Dimensions of Critical Care Practice Environment and Nurses' Decision Making Ability Dimensions (n= 150)

Practice Environment / Decision Making	Participation in Hospital Affairs	Foundations for Quality of Care	Nurse Manager Ability, Leadership, and Support	Staffing and Resource Adequacy	Collegial Nurse-Physician Relations
Autonomy r:	0.455	0.610	0.469	0.442	0.469
p:	0.000	0.000	0.000	0.000	0.000
Communication r:	0.420	0.572	0.446	0.395	0.471
p:	0.000	.000	0.000	0.000	0.000
Intuition r:	0.430	0.535	0.423	0.376	0.516
p:	0.000	0.000	0.000	0.000	0.000
Creativity r:	0.369	0.542	0.431	0.308	0.526
p:	0.000	0.000	0.000	0.000	0.000
Recognition r:	0.274	0.428	0.353	0.238	0.415
p:	0.001	0.000	0.000	0.003	0.000
Reflection r:	0.500	0.615	0.519	0.539	0.480
p:	0.000	0.000	0.000	0.000	0.000
Reasoning r:	0.340	0.533	0.419	0.350	0.516
p:	0.000	0.000	0.000	0.000	0.000
Self Awareness r:	0.384	0.557	0.439	0.347	0.477
p:	0.000	0.000	0.000	0.000	0.000
Critical Thinking r:	0.357	0.493	0.371	0.279	0.391
p:	0.000	0.000	0.000	0.001	0.000
Evidence Based r:	0.410	0.516	0.412	0.402	0.402
p:	0.000	0.000	0.000	0.000	0.000
Experience &Knowledge r:	0.445	0.573	0.463	0.425	0.469
p:	0.000	0.000	0.000	0.000	0.000

This table showed that there is a statistically significant correlation between all dimensions of the critical care practice environment and all dimensions of nurses' decision-making ability (p≤ 0.05).

Table 8: Correlation between Staff Nurses Demographic Characteristics and Critical Care Practice Environment, Nurses' Burnout and Nurses' Decision Making Ability (n= 150)

Demographic Characteristics	Practice Environment	Burnout	Decision-Making Ability
Age: r:	0.191	0.063	0.229
p:	0.019	0.443	0.005
Years of experience in nursing: r:	0.048	0.037	0.029
p:	0.563	0.654	0.0725
Years of experience at ICU: r:	0.031	0.000	0.058
p:	0.704	0.995	0.483
Gender: f:	4.646	0.295	0.064
p:	0.033	0.588	0.801
Marital status: f:	6.297	6.729	0.172
p:	0.013	0.010	0.679
Educational level: f:	0.417	0.602	0.549
p:	0.660	0.549	0.579

It is clear from this table that there is a statistically significant correlation between the critical care practice environment and nurses' decision-making ability and their age (p= 0.019 and p= 0.005, respectively). While there is no statistically significant correlation between critical care practice environment, nurses' burnout and nurses' decision-making ability, and staff nurses' years of experience in nursing and their years of experience at ICU.

Furthermore, this table reveals that there is a statistically significant difference between the gender of staff nurses and critical care practice environment (p=0.033) and their marital status and critical care practice environment and burnout (p= 0.013 and 0.010, respectively). In comparison, there is no statistically significant difference between the educational level of staff nurses and care practice environment, nurses' burnout, and nurses' decision-making ability.

V. DISCUSSION

Constant changes in the occupational world are responsible for the frequent switch in the productive processes, with the objective of preserving competitiveness. Many of those changes can participate in organizational development. However, based on multiple studies, about twenty-five to thirty-three percent of critical care nurses exhibit symptoms of severe burnout, and up to eighty-six percent have at least one of the three classic symptoms, and if these symptoms are badly handled, can increase psychosocial risks and stress, impacting negatively at nurses' health (Nieuwenhuijsen, Bruinvels & Frings-Dresen, 2010).

Furthermore, Costa, Hyeda & Maluf (2016), and Galletta &etal (2016) added that burnout affects all organizations in terms of staff health, business, and productivity. Thus, a proactive approach is suitable to maintain minimum burnout levels before it could attain its critical form, so limiting the risk of manifesting adverse effects on staff health. Therefore work environment is considered as one of the main factors in burnout development. Also, Medina, Garza, and Cheín (2013) revealed that decision-making is a dependent variable. The work environment impacts this variable more strongly, either positively or negatively.

Regarding the correlation between work practice environment and burnout, the current study revealed a statistically significant correlation between work practice environment and nurses' burnout. This could be explained by the researchers, as nurses' work environment is characterized by rapid and stressful areas as they deal with critically ill patients and life-saving, also. In Egypt, there is a major problem of nurses' shortage that resulted in burnout over the long term. This result was consistent with the results of Klopeer, Coetzze, Pretorious & Bester (2012) and Alotaibi & Moussa (2016), who conducted a study among staff nurses; they found that there is a presence of an association between work practice environment and nurse burnout. This means that issues in the practice environment influence burnout among staff nurses.

Also, this result was supported by the study of Guirardello (2017) entitled "impact of critical care environment on burnout, perceived quality of care and safety attitude of the nursing team," whose research findings showed a significant correlation between work environment and burnout; he indicated that lower levels of staff nurses' burnout are a result of control over work practice environment.

Furthermore, this result was congruent with the study of Gasparino and Guirardello (2015) entitled "Professional practice environment and burnout among nurses," whose results indicated that nurses who have greater control over the work environment presented minimal levels of emotional exhaustion, depersonalization, and reduced personal accomplishment. They added that practice environments where nurses perceive the presence of favorable conditions for their professional practice have lower burnout levels.

In addition to the previous studies, several studies supported this result as Aiken et al. (2011), Tucker, Weymiller, Cutshall, Rhudy & Lohse (2012), (Kutney, Wu, Sloane and Aiken, 2013) and Hugh and Wage (2014) these studies reported an association between work practice environment and burnout. They mentioned that working many hours in a week, long shifts, inadequate nurses staffing, and job demands were found to contribute to nurses' burnout.

Moreover, the study showed no statistically significant correlation between nurses' burnout and their decision-making ability. This may be explained as those nurses who worked in the intensive care unit had special attributes as they critical thinking, autonomous and greater self-awareness. This result inconsistently with the result of Maria (2012), who reported that stressors as burnout impacted nurse's decision-making ability. Nurses in need of more involvement in work decision-making processes. Stressors can disrupt their contributions and ability to make decisions. Also, this result is contradicted to the result of Gok and Astan (2016), who found that nurses' decision-making ability is affected by stress and burnout. When nurses are exposed to emotional fatigue and stress, they cannot gather information and make decisions appropriately.

In relation to the correlation between work practice environment and decision making, the study findings indicated a statistically significant correlation between practice environment and nurses' decision-making ability. This could be due to a work environment that contains extraneous factors that are out of nurses' control. This finding was supported by the study of Smith, Higgs, and Ellis (2018), who found that participants' decision-making is not separated from the context in which it occurred. They found an interaction between the work practice environment and participants' decision-making.

Furthermore, this result was consistent with the study of Medina, Garza, and Cheín (2013) and the study of Ceschi, Demerouti, Sartori, and Weller (2017), whose results reported that decision making is a dependent variable that is influenced and impacted by work practice environment more strongly either positively or negatively. They added that the workplace environment and decision-making are interrelated, and both of them affect nurses' performance.

Also, from the investigator's point of view, it's necessary that the work environment help nurses to enhance their decision-making ability by providing them the information they need and raising their awareness toward the decisions

they can participate in. This will allow nurses to be satisfied and committed to work.

As regards the correlation between demographic characteristics of the study sample and burnout, the study findings revealed no statistically significant correlation between staff nurses' ages, gender, and their educational level and burnout. This finding is congruent with the study of Sadati, Hemmati, Rahnavard, Lankarani, and Heydari (2016), who found that age had no association with emotional exhaustion, depersonalization, and total burnout. Also, there was no relationship between gender, education, and total burnout.

While this result was inconsistent with the study of Alhajjar (2013) and the study of Cishahayo, Nankundwa, Sego, and Bhengu (2017), who reported that gender and level of education of nurses were associated with burnout, also it was incongruent with the study of Meltzer and Huckabay (2018) who demonstrated that burnout has a relationship with the age and educational level of nurses.

In addition, Ashrafi, Ebrahim, Khosravi, Navidian, and Ghajar (2018) added that there is a relationship between burnout and nurses' educational level. They reported that nurses with higher educational levels have lower burnout. Also, they found that gender didn't have a significant relationship with burnout.

The present study demonstrated a statistically significant correlation between the study's sample marital status and burnout. This result was consistent with the result of Cishahayo, Nankundwa, Sego, and Bhengu (2017), whose results indicated an association between nurses' marital status and burnout. But this result was contrasted to the result of Sadati, Hemmati, Rahnavard, Lankarani, and Heydari (2016) entitled "The Impact of Demographic Features and Environmental Conditions on Rates of Nursing Burnout" they found no relationship between marital status and total burnout.

Moreover, the study represented no statistically significant correlation between study sample years of experience and burnout. This result was incongruent with the study of Sadati, Hemmati, Rahnavard, Lankarani, and Heydari (2016), whose results showed a significant relationship between both emotional exhaustion and reduced personal accomplishment with nurses' amount of work experience.

Regarding the relationship between nurses' decision-making ability and their age, years of experience in nursing, and years of experience at ICU, the study findings reported a statistically significant correlation between study sample age and decision-making ability. While there is no statistically significant correlation between the study sample years of experience in nursing and years of experience at ICU and decision-making ability. This was contrasted by a study by Kyalo (2008), who found that age in this study did not have a significant relationship with decision making.

Study results showed no significant correlation between study sample gender and educational level and their decision-making ability. This result was incongruent to the result of Sladek, Bond, and Phillips (2010) and the result of Bjørk and Hamilton (2011), whose results indicated that there is an association between participants' gender and educational level and decision-making ability.

VI. CONCLUSION

The present study concluded that there is a statistically significant correlation between critical care practice environment, nurses' burnout, and nurses' decision-making ability. While there was no statistically significant correlation between nurses' burnout and nurses' decision-making ability. Healthy ICU work environments need to be generated to decrease nurses' burnout, improve their decision-making ability and ultimately improve nurses' performance and patients' quality of care.

VII. RECOMMENDATIONS

1. More research is required to investigate the impact of the work practice environment on other variables as nurses' commitment and their intention to stay at their organization.
2. Hospital administrators must implement strategies that enhance the work practice environment to overcome nurses' burnout and improve their decision-making ability.
3. Managers should create and maintain a practice environment that fosters and supports nurses' decision-making ability.
4. Administrators and health policymakers must review current organizational policies to reduce barriers in the work practice environment to facilitate opportunities for the provision of nursing-based decisional support.
5. Healthcare professionals who are working at ICU should be taught how to recognize burnout risk factors and how to call for assistance when necessary.

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