

## Self-efficacy for Critical Care Nurses in Al-Muthanna Governorate

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### ABSTRACT

**Objectives:** To assess the level of self-efficacy of critical care nurses at Al- Muthanna governorate hospitals.

**Methods:** The Self-efficacy of Critical Care Nurses in Al-Muthanna governorate were measured using a descriptive analytic design. A non-probability, purposeful sample of 95 nurses who work in hospital ICU and CCU units (Al-Hussein Teaching Hospital and Al-Khader General Hospital and Rumaitha General Hospital and Al-Shahid Youssef Najm Hospital). The data for this study were analyzed with SPSS 26 (version) to get the results.

**Results:** self-efficacy among nurses; the mean scores indicate moderate to high self-efficacy in which the items 2, 3, 5, 6, and 8 show moderate level while items 1, 4, 5, 7, 9, and 10 show high level. 55.2% of nurses are showing moderate level of self-efficacy while 43.7% of them are showing high self-efficacy.

**Conclusions:** The findings showed that more than one half of nurses are moderate level of self-efficacy.

**Keyword:** Self-efficacy, Critical Care, Nurses

### INTRODUCTION

Self-efficacy is one of the most important factors that has a big impact on how much stress and anxiety a person feels. People who are skilled in different areas are better able to deal with life's challenges<sup>(1)</sup>.

Self-efficacy indicates to one's confidence in one's own talents and has a stronger predictive influence over one's behavior than one's real skills. In other words, self-efficacy has an impact on how people apply their knowledge and skills, ultimately impacting how engaged they are in completing specific tasks<sup>(2)</sup>.

Nurses thought styles, problem-solving skills, emotional wellness, decision-making, and stress and depression coping are all influenced by their self-efficacy beliefs. Nurses' beliefs about their abilities to manage motives, cognitive resources, and control specific events are influenced by their self-efficacy. The conviction that one can influence one's life by regulating one's behaviors is one of the most fundamental characteristics of self-efficacy. Having a sense of control is helpful in dealing with varied situations, especially when dealing with pressures<sup>(3)</sup>.

An optimistic sense of personal efficacy is required for human achievement and good well-being after a series of failures or setbacks, self-doubt can set in rapidly. The essential factor is not whether obstacles cause self-doubt, which is a natural reaction, but how quickly perceived self-efficacy recovers from difficulties<sup>(4)</sup>.

Nurses with higher levels of self-efficacy are more likely than those with lower levels of self-efficacy to make an effort to promote positive change in difficult situations<sup>(5)</sup>.

### METHODOLOGY

**Design of the study:** A descriptive analytic design was conducted on measurement of the Self-efficacy and Job satisfaction for Critical Care Units in Al-Muthanna governorate.

**The Setting of the Study:** This study was conducted in hospitals in the province of Muthanna, one of these hospitals is located in the center of the Muthanna governorate, which is Al-Hussein Teaching Hospital, and it contains ICU and CCU units', and Al-Khader General Hospital, located in Al-Khader district, and it contains a CCU unit, and Al-Rumaitha General Hospital, located in Al-Rumaitha District, and it contains a CCU unit, and the Al-Shahid Youssef Najm Hospital for Epidemiology, which contains an ICU unit, and is adjacent to Al-Hussein Teaching Hospital, it was newly built at the beginning of the Corona pandemic and receives Corona virus patient only.

**Sampling of the Study:** A non-probability, purposive sample of (95) nurses working in ICU, CCU units in hospitals (Al-Hussein Teaching Hospital and Al-Khader General Hospital and Rumaitha General Hospital and Al-Shahid Youssef Najm Hospital) was intentionally selected in Muthanna Governorate, and the sample was subjected through a structure interview and self-report

between the researcher and the nurses. (87) nurses participated in filling out the forms from 95 nurses, where 2 forms were neglected due to their incompleteness, and (6) nurses refuse to fill out the forms.

**Study Instrument:** The study instrument was designed to meet the objectives of the current study, which was consisting of four parts: the first part includes demographical data for nurses; the second part includes occupational information for nurses; the third part the general self-efficacy (1995) scale: it consisted of 10 items measuring nurses' self-efficacy in critical care units; the fourth part includes the job satisfaction scale: it consisted of 20 items measuring nurses job satisfaction in critical care units. And the research instrument then being revised and evaluated by number of experts, from and out the current nursing college.

The researcher adopted the questionnaire for the present study with some modifications, the instrument was composed of four parts, which are:

**Part 1 :**The nurse's demographic information consists of (8) elements, including gender, age, marital status, education level, Monthly income, number of family, housing ownership, place of living.

**Part II:** The nurse's occupational information consists of (10) elements, including: training courses inside of Iraq, training courses outside of Iraq, desire to development of information, desire to work in nursing profession, desire to work in critical care units, experience in nursing profession, experience in critical care units, workplace, working time and working hours.

**Part III:** Self-efficacy for critical care nurses (General Self-efficacy Scale) developed by (Schwarzer & Jerusalem, 1995)<sup>(6)</sup>.

It consists of 10 items and evaluate the self-efficacy of nurses. Likert scale was used for self-efficacy scale items and rang from 1 to 3 as follows: always=3, sometime =2, never =1.

**Rating and scoring of the scale:** Scores of the items on General Self-Efficacy score were classified as low (10-16.66), moderate (16.67-23.33), and high (23.34-30).

**Data collection:** The data was gathered throughout the utilization of the report questionnaire 'Arabic version' and as a means for data collection (January 20th, 2022 to March 20th, 2022), and through the structure of interviews with nurses. They have been selected the nurses who work in critical care units, the method of choosing the answer to the parts of the questionnaire was explained and placing one answer in the space provided, and that it was neglected for more than one answer, the questionnaire by structured interview. The use of the questionnaire takes about (20-40) minutes.

Where the answers of the nurses were taken while there were no patients or during their break in the place designated for them to rest for the morning and evening shifts. A section of the questionnaires was distributed to nurses in the evening shift while they came early to work questionnaires for some of them and the

second part during their shift and during their rest period so that it does not affect the progress of work, and the researcher attended almost daily most of the time.

The researcher was present in the targeted critical care units to collect samples throughout the week. Scales translated into Arabic, ready-made from the scales author, were used.

**Statistical Analysis:** This study's data was analyzed with IBM SPSS version 26.0, a statistical software package for social science.

**RESULTS:**

Table 1: Distribution of the Nurses According to their Socio-demographic Characteristics

List	Characteristics	f	%	
1	Gender	Male	53	60.9
		Female	34	39.1
		Total	87	100
2	Age (year) M±SD= 29.80±5.615	20 – 29	52	59.8
		30 – 39	27	31
		40 ≤	8	9.2
		Total	87	100
3	Marital status	Unmarried	19	21.8
		Married	65	74.7
		Divorced	2	2.3
		Separated	1	1.1
		Total	87	100
4	Nursing qualification	Secondary school	23	26.4
		Diploma	28	32.2
		Bachelor	36	41.4
		Total	87	100
5	Monthly income	Insufficient	20	23
		Barely sufficient	59	67.8
		Sufficient	8	9.2
		Total	87	100
6	Family number	2 – 4	35	40.2
		5 – 7	43	49.5
		8 – 10	9	10.3
		Total	87	100
7	House ownership	Owned	55	63.2
		Rented	20	23
		Other	12	13.8
		Total	87	100
8	Residency	Urban	65	74.7
		Rural	22	25.3
		Total	87	100

f: Frequency, %: Percentage, M: Mean, SD: Standard deviation

This table shows that 60.9% of nurses are males and 39.1% of them are females.

The average age for nurses refers to 29.80±5.615 years, in which 59.8% of them are with age group 20 – 29 years.

The marital status refers that 74.7% of nurses are married and 21.8% of them are still unmarried.

The nursing qualification for nurses shows that 41.4% of them are graduated with bachelor degree in nursing, 32.2% are graduated with diploma degree, and 26.4% are graduated from nursing secondary school.

Regarding monthly income, 67.8% of nurses are perceived barely sufficient monthly income and 23% of them perceive insufficient monthly income.

The number of family members refers to 5-7 among 49.5% of nurses and 2-4 among 40.2% of nurses.

The house ownership shows that 63.2% of nurses have owned house and 23% are living in rented house.

Regarding residency, 74.7% of nurses are resident in urban while 25.3% are residents in rural.

This table reveals that 29.25 of nurses are training more than three times inside country about critical care nursing and 21.8% are training for two times. While those who trained outside country, only 4.6% of nurses are trained for one time.

Most of nurses reported they have willed to develop their information about their work (96.6%).

More of nurses reported they are working in nursing profession by their wish (81.6%) and 92% of them are working in critical care units by their wish.

Table 2: Distribution of the Nurses According to their Occupational Characteristics (N= 87)

List	Characteristics	f	%	
1	Number of training course inside country	None	26	29.9
		1	16	18.4
		2	19	21.8
		3 +	26	29.9
		Total	87	100
2	Number of training course outside country	None	83	95.4
		Total	87	100
3	Developing information in your work?	No	3	3.4
		Yes	84	96.6
		Total	87	100
4	Working in nursing profession as your wish?	No	16	18.4
		Yes	71	81.6
		Total	87	100
5	Working in critical care units as your wish	No	7	8
		Yes	80	92
		Total	87	100
6	Years of experience in nursing (years) M±SD= 6.70±5.777	1 – 5	47	54
		6 – 10	14	16.1
		11 – 15	12	13.8
		16 – 20	13	14.9
		20 ≤	1	1.1
7	Years of experience in critical care unit (years) M±SD= 3.82±3.301	Total	87	100
		1 – 5	63	72.4
		6 – 10	17	19.5
		11 – 15	6	6.9
		15 ≤	1	1.1
8	Workplace	Total	87	100
		ICU	43	49.4
		CCU	44	50.6
9	Work Shift	Total	87	100
		Morning	62	71.3
		Evening	25	28.7
10	Work hours	Total	87	100
		6	62	71.3
		18	25	28.7

f: Frequency, %: Percentage, M: Mean, SD: Standard deviation ICU: Intensive Care Unit, CCU: Cardiac Care Unit.

The average years of experience in nursing refer to 6.70±5.777 years, 54% of them are seen with 1-5 years of experience in nursing.

The average years of experience in critical care units refer to 3.82±3.301 years, 72.4% of them are seen with 1-5 years of experience in critical care units.

Regarding workplace, 50.6% of them are working in CCU and 49.4% are working in ICU.

The work shift refers that 71.3% of nurses are working during morning shift and 28.7% of them working during evening shift.

The work hours for nurses refers that 71.3% of nurses are working 6 hour and 28.7% of them working 18 hours.

Table 3: Assessment the Levels of Self-efficacy among Nurses Working at Critical Care Units N= 87

Self-Efficacy	f	%	M	SD
Low	1	1.1	23.17	1.936
Moderate	48	55.2		
High	38	43.7		
Total	87	100		

f: Frequency, %: Percentage, M: Mean, SD: Standard Deviation  
Low= 10-16.66, Moderate= 16.67 – 23.33, High= 23.34-30

This table indicates that 55.2% of nurses are showing moderate level of self-efficacy while 43.7% of them are showing high self-efficacy.



Figure 1: Levels of Self-Efficacy among Nurses working at Critical Care Units (N=87)

This figure indicates that 55.2% of nurses are showing moderate level of self-efficacy.

## DISCUSSION

### Discussion the findings of socio-demographic characteristics of study

**Gender:** The result of the study shows that more than one half (60.9%) of study sample are males and only (39.1%) of them are females (table 1).

In general, in recent years, it has shown a large demand for males to study nursing because the appointment in this field is central (researcher).

**Age:** The results of the study show that more than one half (59.8%) of nurses is with age group 20-29 years and age group 30-39 are (31%) and age group 40-49 are (9.2 %) and the mean of age (29.80) and standard deviation are (5.615) (table 1).

Generally speaking, these findings of age agreed and support and with the findings of the present study, this is due to the central appointment, as 100% as many nursing colleges and institutes lead to youth Preferred nursing job and thus rise their number in hospitals (researcher).

**Nursing education:** The results show that the majority (41.4%) of the nurses are graduated with bachelor degree in nursing, (32.2%) are graduated with diploma degree, and (26.4%) are graduated from nursing secondary school (table 1).

The majority of the study sample are having a bachelor's degree in nursing, because the critical care units in the hospital give priority to university nurses according to the law of the Iraqi Ministry of Health (researcher).

**Family number:** The results of the study refer to 5-7 among the majority (49.5%) of nurses and 2-4 among (40.2%) of nurses and 8-10 among (10.3%) of them (table 1).

These results are due to the economic situation that Iraqi society suffers from it. Most of the individuals live with their families because the salary that nurses receive is hardly enough for them (researcher).

**House ownership:** The result of the study shows that more than one half (63.2%) of nurses have owned house, (23%) living in rented house, and (13.8%) of them are living in another house (table 1).

The reason of the majority of them own houses are from inheritance of their fathers, as well as some of them live with their fathers, and some of them have the ability to buy a house (researcher).

### Distribution of the Nurses According to their Occupational Characteristics:

**Number of training course inside country:** The result of the study reveals that only (29.9%) of nurses are training more than three times inside country about critical care nurses and (21.8%) are training for two times, (18.4%) training for one time and (29.9%) of the nurses did not participate in any course inside the country (table 2).

These findings consistent with Iraqi study which indicated that more than one half (59%) of nurses was participated in courses inside the Iraq<sup>(7)</sup>.

**Developing information in your work:** The results of the study show that the most (96.6%) of nurses reported they have willed to develop their information about their work and only (3.4%) of them did not want to improve their information (table 2).

In general, nurses' acquisition of information helps them develop their work, improve their practices, and provide quality health care to the patient (researcher).

**Working in nursing profession as your wish:** The results of the study indicate that the more (81.6%) of nurses reported they are working in nursing profession by their wish and only (18.4%) of them was did not want to work in nursing profession (table 2).

These results supported by Iraqi study which reported that more than tow third (74%) of nurses are work in nursing profession by their choices<sup>(7)</sup>.

**Years of experience in nursing:** The results of the study show that the average years of experience in nursing refers to  $6.70 \pm 5.777$  years, more than one half (54%) of them are seen with 1-5 years of experience in nursing, (16.1%) with 6-10 years, (13.8%) with 11-15 years, (14.9%) with 16-20 years, and (1.1%) of them with 20-25 years (table 2).

These findings consistent study that reported in their study that the most (26.2%) of nurses are have 1-3 years of nursing experience<sup>(8)</sup>.

**Years of experience in critical care unit:** The results of the study that the average years of experience in critical care units refer to  $3.82 \pm 3.301$  years, more than tow third (72.4%) of them are seen with 1-5 years of experience in nursing, (19.5%) with 6-10 years, (6.9%) with 11-15 years, and only (1.1%) of them >15 years' experience in critical care units (table 2).

These findings agreement with study that indicated that the majority (32.1%) of nurses are have 1-3 years' experience in critical care units<sup>(7)</sup>.

**Work hours:** The results of the study refer that more than tow third (71.3%) of nurses are working 6 hour and only (28.7%) of them working 18 hours. The results of study indicated that the mean of working hours in 1 week was 48.31 hours<sup>(9)</sup>.

Since most of the results are morning shift, the number of working hours of them are 6 hours (researcher).

### Assessment the Levels of Self-efficacy among Nurses

**Working at Critical Care Units:** The results of the study indicates that more than one half (55.2%) of nurses is showing moderate level of self-efficacy while (43.7%) of them are showing high self-efficacy (table 3).

These results agreement with Hodges, who reported that a moderate level of self-efficacy among the sample of study<sup>(9)</sup>.

The researcher believes that the majority of nurses in the present study are nursing college graduates and have excellent knowledge, so they choose the current work by desire that led to increase self-efficacy.

## CONCLUSION

The findings showed that more than one half of nurses are moderate level of self-efficacy.

Regarding to socio-demographic characteristics, the results show tow third of nurses are male, forty-one percentage of nurses are graduated bachelor degree, tow third of nurses are with age group 20-29.

Regarding to occupational information, more of nurses reported they are working in nursing profession by their wish (81.6%) and 92% of them are working in critical care units by their wish, more than one half of them is seen with 1-less than 5 years of experience in nursing, 72.4% of them are seen with 1-less than 5 years of experience in critical care units.

**Recommendation:** The researcher recommends the ministry of health for follow up of the nurses to include training courses to improve self-efficacy among them.

The researcher recommends the hospitals to increase motivation for the nurses to increase job satisfaction.

The researcher recommends hospitals to grant bonuses like promotion at work to increase nurses job satisfaction.

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