

Health Care Workers Awareness Of Ethical And Legal Issues In Critical Care Unit

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Abstract:

Background: Ethics is the branch of philosophy that examines the differences between right and wrong. Simply ethics is the study of the rightness of conduct. **Aim of the study:** to assess health care workers' knowledge, practice regarding ethical and legal issues in critical care unit. **Research design:** A descriptive exploratory design was utilized. **Subjects:** include all available health care workers' working in critical care units at Makkah Hospitals, 40 health care workers' from both genders, with different ages, and at different educational levels and years of experience were selected for this study. **Tools:** (1) health care workers' ethical and legal issues awareness questionnaire. (2) Ethical and legal observational checklist. **Results:** About two thirds of studied health care workers' had unsatisfactory level of knowledge, more than three quarters of them had unsatisfactory practice regarding ethical and legal issues in critical care units. **Conclusion:** Nurses had unsatisfactory level of knowledge and practice regarding ethical and legal issues in critical care units. There was statistically significant relation between knowledge, practice, and their demographic characteristics as regards: age, level of education and experience years. **Recommendations:** Further studies to evaluate the reflection of educational program regarding health care workers' performance & consequently on the patient outcome. The study should be replicated on large sample & in different hospitals setting to generalize the results.

Key words: health care workers' awareness, ethical and legal issues, critical care units.

Introduction:

Nursing ethics constitute the values and ethical principles governing nursing practice, conduct, and relationships. Code of ethics¹ set the standard for professional conduct by acting legally, ethically and with integrity in all matters (**Basavan, 2014**). Ethics is concerned with the norms of right and wrong, of what is thought good or bad, of ought and ought not, in respect to values and behaviors between persons. Values are at the heart of ethics; they govern how we treat each

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other and the systems we create to bring about the care of one another (**Berlinger, 2016**).

Ethical directives sometimes are not clearly evident and people often disagree about what is right and wrong. These factors lead some people to believe that ethics can be based merely on personal opinions. However, if nurses are to enter into the global dialogue about ethics, they must do more than practice ethics based simply on their personal opinions, their intuition, or the unexamined beliefs that are proposed by other people. It is important for nurses to have a basic understanding of the various concepts, principles, approaches, and theories used in ethics throughout history and to identify and analyze ethical issues and dilemmas that are relevant to nurses in the 21st century (**Jonsen, 2014**).

Ethical decision-making is an exercise in ethical reflection, because in the process of questioning one seeks to understand values and varying perspectives on issues. As registered nurses we strive to understand the meaning that these experiences hold for each person. Through questioning and understanding, it is expected that ethical actions become clearer, and possibilities for actions become reality (**Barsky, 2016**).

Law is the system of binding rules of action or conduct that governs the behavior of people in respect to relationships with others and with the government (**Gaudine, 2016**).

Health care workers' need to familiarize themselves with the law and legal system for several reasons. First, the law authorizes and regulates nursing practice. Health care workers' practice acts of the individual states describe both the activity of nurses and the boundaries of nursing. Second, the legal system controls nursing actions and omissions. The profession is in a dynamic state of change (**Griffiths, 2015**).

Critical care health care workers' are performing complex and vital tasks; staff nurses are caring for older and sicker patients. The nurse must have basic knowledge about law and the legal process. This knowledge will help ensure that nurses' actions are consistent with legal principles, and will help to protect them from liability. Knowledge of legal principles is a necessary component of ethical decision making; in order to make informed choices (**Parker, 2015**).

Critical health care workers' are confronted regularly with ethical quandaries such as disputes about withdrawal of life-sustaining therapies, lack of adequate informed consent, and conflicts about access to care or resource allocation. When confronted with ethical questions, critical health care workers' can enhance their personal integrity and advocacy by using a systematic framework in thinking about how to respond (**Meisel, 2016**).

Significance of the study:

Since the 21st century, a big number of ethical and legal conflicts rise worldwide due to the increasing rate of unnatural deaths and ethical dilemmas in the critical care setting. It is not only a severe shortage of trained critical care personnel in critical care units, but also the employment of inexperienced nurses who are expected to care for critically ill patients. Insufficient knowledge can lead to patient neglect and malpractice, which in turn lead to medico-legal court cases.

Aim of the study:

This study aims to assess level of health care workers' awareness regarding ethical and legal issues in critical care unit through:

1. Assessing health care workers' knowledge regarding ethical and legal issues in critical care

unit

2. Assessing health care workers' practice regarding ethical and legal issues in critical care unit.

Research questions

1. Do the health care workers' have adequate knowledge regarding ethical and legal issues in critical care unit?
2. Do the health care workers' consider ethical and legal issues during their practice in critical care unit?

Technical design

The technical design includes; the settings, subjects, and tools for data collection used in the study.

Research Setting:

The study was conducted in critical care units at Makkah hospital.

Subjects:

The subjects of the present study included all the available health care workers' as a convenience sample, including 40 health care workers' from above mentioned setting from both sexes and age, after obtaining their consent to participate in the study.

Tools of data collection:

Two tools were used in the current study as the following:

1) Self-administered health care workers' Questionnaire Tool of ethical and legal awareness in critical care units (Appendix I): it is self-administered questionnaire administered to the health care workers' was developed by the researcher in English language based on review of relevant recent literature, it was used to assess nurses' level of knowledge regarding the ethical and legal awareness in critical care units and it is divided into two parts:

A-Demographic characteristics of health care workers': the studied subjects' characteristics include age, gender, level of education, years of experience and previous courses.

B- health care workers' knowledge: It deals with assessment of health care workers' level of knowledge. It was developed by the researcher based on reviewing of scientific literature. The sheet consists of 64 questions, in the form of multiple choice questions (MCQs) and answer the questions. The 64 questions are divided into 2 parts namely: Nursing awareness about critical care nursing ethics and Nursing awareness about critical care nursing legal issues.

➤ Scoring system:

Classified as follows; correct responses were given a score of 1 mark and incorrect were

given a score of 0 mark. A total score for questionnaire was 130 marks. Score less than (110 marks) 85% was considered unsatisfactory and the score equal or more than (110 marks) 85% considered satisfactory.

II)- health care workers' practice Observational Checklist Ethical and legal questionnaire for health care workers' in critical care unit(Appendix II): It was developed by the researcher based on reviewing recent literature to assess the health care workers' practice in Ethical and legal issues in critical care units. It comprised 64 questions covering the following: health care workers' awareness about patient and family ethical practice, health care workers' awareness about legal practice, Ethical and legal issues in dealing with others in hospital and Patient bill of rights.

Scoring system:

Classified as follows; done correctly step was given a score of 1 mark or done incorrectly was given a score of 0 mark. A total score for the checklist was 64 marks. Score less than (54 mark) 85% considered unsatisfactory. The score equal or more than (54 mark) 85% considered satisfactory.

- **Validity and reliability:**

Content validity was done. **Reliability** of the study tools was done by alpha Cronbach test (0.823).

Ethical considerations:

Approval of the study protocol was obtained. The researcher clarified the objective and aim of the study to the health care workers' included in the study. The researcher assured maintaining anonymity and confidentiality of the subject data. Nurses were informed that they allowed choosing to participate or not in the study and that they have the right to withdraw from the study at any time without giving any reasons.

Pilot study:

A pilot study was carried out on (10%) four health care workers' from the study subjects to test the clarity, applicability, feasibility and relevance of the tools used and to determine the needed time for the application of the study tools. The health care workers' who were included in the pilot study were included to the sample because no modification was done after conducting pilot study.

- **Field work:**

The purpose of the study was simply explained to the health care workers' who agree to participate in the study prior to data collection. The actual work of this study started and completed within six months from **March, (2022)** and was completed by the end of **September,(2022)**.

Administrative Design:

To carry out this study, the necessary approval was obtained from hospital director.

Statistical analysis:

Data were analyzed using Statistical Program for Social Science (SPSS) version 21.0. Quantitative data were expressed as mean \pm standard deviation (SD). Qualitative data were expressed as frequency and percentage.

The following tests were done:

- Chi-square (X^2) test of significance was used in order to compare proportions between two qualitative parameters.
- The confidence interval was set to 95% and the margin of error accepted was set to 5%. So, the p-value was considered significant as the following:

– Considered insignificant.

Results:

Table (1): showed that (47.5%) <30 years, (57.5%) were male, (77.5%) were Muslims, (6 %) weren't influenced by religious beliefs, (75%) were working in ICU, (57.5%) have bachelor degree, (80%) have formal education in nursing ethics and (35%) have experience (5-10 years).

Demographic characteristics	No.	%
Age (years)		
<30 years	19	47.5
30-<40 years	18	45
40-45 years	3	7.5
Mean±SD	31.81±6.03	
Gender		
Male	23	57.5
Female	17	42.5
Religion optional		
Muslim	31	77.5
Christian	9	22.5
Religious beliefs		
Yes	14	35
No	26	65
Job		
ICU	30	75
ER	10	25
Qualification		
Diploma	15	37.5
Bachelor	23	57.5
Master	2	5
formal education		
Yes	32	80
No	8	20
Experience (years)		
<5 years	13	32.5
>5-10 years	14	35
>10-15 years	8	20
>15 years	5	12.5

Table (2): showed that (35%) of the study sample were satisfied and (65%) of the study sample

were unsatisfied regarding health care workers' knowledge about critical care nursing legal issues.

health care workers' awareness about critical care nursing legal issues		
	No.	%
Satisfactory	14	35
Unsatisfactory	26	65
Total	40	100

Table (3): showed that (30%) of the study sample were satisfied and (70%) of the study sample were unsatisfied regarding health care workers' practice about ethical and legal issues in critical care units.

Total practice	No.	%
Satisfactory	12	30
Unsatisfactory	28	70
Total	40	100

Table (4): showed that the relation between health care workers' demographic characteristics and total satisfaction of health care workers' knowledge about critical care nursing ethics. The result found that there was statistically significant difference between satisfied and unsatisfied regarding qualification, formal education in nursing ethics and years of experience.

care workers' knowledge about critical care nursing ethics					Chi-square test	
	unsatisfactory (n=15)		satisfactory (n=25)		x²	p-value
	No.	%	No.	%		
Demographic characteristics						
Gender						
Male	11	73.3%	12	48.0%	2.462	0.117
Female	4	26.7%	13	52.0%		
Age (years)						
<30 years	10	66.7%	9	36.0%	3.671	0.160
30-<40 years	4	26.7%	14	56.0%		
40-45 years	1	6.7%	2	8.0%		
Religion optional						
Muslim	13	86.7%	18	72.0%	1.157	0.282
Christian	2	13.3%	7	28.0%		
Religious beliefs						
Yes	6	40.0%	8	32.0%	0.264	0.608
No	9	60.0%	17	68.0%		
Qualification						
Diploma	4	26.7%	11	44.0%	6.111	0.028*
Bachelor	9	60.0%	14	56.0%		
Master	2	13.3%	0	0.0%		
Formal education						
Yes	15	100.0%	17	68.0%	6.212	0.014*
No	0	0.0%	8	32.0%		
Experience (years)						
≤5 years	7	46.7%	6	24.0%		
>5-10 years	5	33.3%	9	36.0%		

>10-15 years	2	13.3%	6	24.0%	2.688	0.442
>15 years	1	6.7%	4	16.0%		

Table (5) showed that there was statistically significant relation between total health care workers' knowledge about legal issues in intensive care units, gender, qualification and years of experience.

Total nurses' knowledge about critical care health care workers' legal issues					Chi-square test	
Demographic characteristics	Satisfactory (n=14)		Unsatisfactory (n=26)		x ²	p-value
	N.	%	N.	%		
Gender						
Male	11	78.6%	12	46.2%	3.913	0.048*
Female	3	21.4%	14	53.8%		
Age (years)						
<30 years	8	57.1%	11	42.3%	2.059	0.357
30-<40 years	6	42.9%	12	46.2%		
40+ years	0	0.0%	3	11.5%		
Religion						
Muslim	10	71.4%	21	80.8%	0.455	0.501
Christian	4	28.6%	5	19.2%		
Religious beliefs influencing decision making						
Yes	7	50.0%	7	26.9%	2.130	0.144
No	7	50.0%	19	73.1%		
Qualification						
Diploma technical health institute	2	14.3%	13	50.0%	7.536	0.023*
Bachelor	10	71.4%	13	50.0%		
Master	2	14.3%	0	0.0%		
Formal education about ethics or legalities						
Yes	13	92.9%	19	73.1%	2.225	0.136
No	1	7.1%	7	26.9%		
Experience (years)						
≤5 years	3	21.4%	10	38.5%	7.135	0.025*
>5-10 years	3	21.4%	11	42.3%		
>10-15 years	3	21.4%	5	19.2%		
>15 years	5	35.7%	0	0.0%		

Table (6): showed a statistically significant relation between total health care workers' knowledge about ethical and legal issues in intensive care units and, age formal education in nursing ethical and legal issues and years of experience. showed a statistically significant relation between total health care workers' practice about ethical and legal issues in intensive care units and religious believe influence decision making, qualification, and years of experience.

Total health care workers' Knowledge					Chi-square test	
Demographic characteristics	Unsatisfactory (n=14)		Satisfactory (n=26)		x ²	p-value
	N.	%	N.	%		

Gender						
Male	10	71.4%	13	50.0%	1.710	0.191
Female	4	28.6%	13	50.0%		
Age (years)						
<30 years	10	71.4%	9	34.6%		
30-<40 years	3	21.4%	15	57.7%	5.259	0.042*
40+ years	1	7.1%	2	7.7%		
Religion						
Muslim	12	85.7%	19	73.1%	0.833	0.361
Christian	2	14.3%	7	26.9%		
Religious beliefs influencing decision making						
Yes	5	35.7%	9	34.6%	0.005	0.945
No	9	64.3%	17	65.4%		
Qualification						
Diploma technical health institute	3	21.4%	12	46.2%		
Bachelor	9	64.3%	14	53.8%	5.370	0.068
Master	2	14.3%	0	0.0%		
Formal education about ethics or legalities						
Yes	14	100.0%	18	69.2%		
No	0	0.0%	8	30.8%	5.385	0.020*
Experience (years)						
≤5 years	2	50.0%	11	23.1%		
>5-10 years	4	35.7%	10	34.6%	5.307	0.023*
>10-15 years	4	7.1%	4	26.9%		
>15 years	4	7.1%	1	15.4%		

Table (7): showed a statistically significant relation between total health care workers' practice about ethical and legal issues in intensive care units and religious believe influence decision making, qualification, and years of experience.

Total health care workers' Practice	Demographic characteristics				Chi-square test	
	Dissatisfactory (n=12)		Satisfactory (n=28)		x ²	p-value
	N.	%	N.	%		
Gender						
Male	7	58.3%	16	57.1%	0.005	0.944
Female	5	41.7%	12	42.9%		
Age (years)						
<30 years	7	58.3%	12	42.9%		
30-<40 years	5	41.7%	13	46.4%	1.752	0.417
40+ years	0	0.0%	3	10.7%		
Religion						
Muslim	9	75.0%	22	78.6%	0.061	0.804
Christian	3	25.0%	6	21.4%		
Religious beliefs influencing decision making						
Yes	1	8.3%	13	46.4%	5.358	0.021*
No	11	91.7%	15	53.6%		
Qualification						
Diploma technical health institute	0	0.0%	15	53.6%		
Bachelor	10	83.3%	13	46.4%	7.346	0.015*
Master	2	16.7%	0	0.0%		

Formal education about ethics or legalities						
Yes	11	91.7%	21	75.0%	1.458	0.227
No	1	8.3%	7	25.0%		
Experience (years)						
≤5 years	0	16.7%	13	39.3%	6.346	0.036*
>5-10 years	4	58.3%	10	25.0%		
>10-15 years	3	25.0%	5	17.9%		
>15 years	5	0.0%	0	17.9%		

Discussion:

Regarding to health care workers' age, the present study showed that less than half of the studied sample were young adults (less than thirty years old). This explains that most of those health care workers' were newly graduated, young and still in early stage of their professional life. While health care workers' above 40 years old represent the lowest percentage, this finding agree with **Abdel-Mageed, (2014)** who conducted a study about "nurses' knowledge and practices regarding implantable cardiac devices.

As regards to health care workers' total knowledge level about critical care nursing ethics, the current study revealed that nearly two thirds of the studied sample had unsatisfactory knowledge level regarding nursing knowledge about critical care nursing ethics, this finding is in agreement with **Amsale, (2005)** who conducted a study about "introduction to professional nursing and ethics", and revealed that three quarters of the study had unsatisfactory knowledge level regarding nursing knowledge about critical care nursing ethics.

Concerning health care workers' legal practice level, the current study revealed that most of the studied health care workers' had satisfactory practice level regarding trying to be familiar with nursing laws and accepting only responsibility that is within the scope of their this result might be from the investigator point of view because nurses trying to prevent any problems that affect their career negatively, this finding is in the same line with **Griffiths, (2015)** who stressed the importance of the legal frame work which protect nurses and their patients.

Concerning health care workers' knowledge about ethical and legal issues in critical care units and their demographic characteristics, the current study revealed a statistically significant relation between total nurse's knowledge regarding ethical and legal issues, age, formal education about nursing ethical and legal issues and years of experience. This finding disagrees with **Azab & Negm, (2013)** who found that the nurses' age had no statistically significant relation with nurses' knowledge.

Conclusion:

Based on findings of the current study, it can be concluded that:

About two thirds of studied health care workers' had unsatisfactory knowledge regarding ethical and legal issues in critical care units; more than two thirds of them had unsatisfactory practice regarding ethical and legal issues in critical care units. There was statistically significant relation between total knowledge, total practice, and their demographic characteristics as regards: age, level of education and years of experience

Recommendation:

- Importance of implementing an educational training program for health care workers' in ethical and legal issues in critical care units.
- The study should be replicated on large sample and in different hospitals setting to generalize the results.
- Self-learning module should be implemented in critical care units to evaluate nurses regarding ethical legal issues.
- Further studies to assess nurse level of knowledge and nurses' level of practice regarding ethical and legal issues in critical care units.
- Protocol regarding ethical and legal issues should be implemented in critical care units to guide nurses in dealing with such concepts

Reference:

- **Abdel-Mageed, A.H. (2014):** Nurses' knowledge and practices regarding implantable cardiac devices at El-Manial university hospital, P. 68.
- **Amsale, C.; Ato M. and Tsehay S. (2005):** Introduction to Professional Nursing and Ethics, Ethiopia Public Health Training, Addis Ababa University, 2015; pp 25-31.
- **Azab, S.M.S. and Abu Negm, L. (2013):** Use of Physical Restraint in Intensive Care Units (ICUs) at Ain Shams University Hospitals, Cairo, Journal of American Science, 9 (4), Pp. 230-240.
- **Barsky, A. (2016):** A conflict resolution approach to teaching ethical decision making: Bridging conflicting values. Journal of Jewish Communal Service; pp 164–169.
- **Basavan, T. (2014):** Nursing administration, Ethical aspect of nursing, 4th ed, Sana printers; pp. (832-835).
- **Berlinger, N. (Eds.) (2016):** Nurses at the table: Nursing, ethics, and health policy, special report, Hastings Center Report; pp 8: 11.
- **Gaudine, A.; LeFort, S.M.; Lamb, M. and Thorne, L. (2016):** Ethical Conflicts with Hospitals: The Perspective of Nurses and Physicians. Nursing Ethics; pp 756: 766.
- **Griffiths, D. and Forrester, K. (2015):** Essentials of law for health professionals, (6th ed.), Mosby, Sydney; pp 188:196.
- **Jonsen, A.R. (2014):** Bioethics beyond the headlines: Who lives? Who dies? Who decides? Lanham, MD: Rowman & Littlefield; pp 18: 21.
- **Meisel, A.; Cerminara, K.L. and Pope, T.M. (2016):** **The Right to Die: The Law of End-of-Life Decision-making**, 3rd ed, Wolters Kluwer, New York; pp 151: 166.
- **Parker, M.; Willmott, L.; White, B.; et al. (2016):** Withholding or withdrawing life-sustaining medical treatment? Empirical findings on attitudes of doctors. J Law Med; pp

24: 342.