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ASSESSMENT of HEALTH STAFF KNOWLEDGE ABOUT ENDOTRACHEAL INTUBATION COMPLICATIONS at INTENSIVE CARE UNIT in AL-AMARAH HOSPITALS

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ABSTRACT

Background and objectives: Intubation are the process of inserting a tube, called an endotracheal tube, through the mouth and then into the airway. This is done so that a patient can be placed on a ventilator to assist with breathing during anesthesia, sedation, or severe illness. Objectiv To assess health Staff Knowledge about Endotracheal Intubation Complications in the Intensive Care Unit. To find out the relationship between health Staff Knowledge and their socio-demographic Characteristics (age, gender, education level, experience….).

Methods: A descriptive study was conducted to (assessing the knowledge of health staff about the complications of endotracheal intubation in the intensive care unit in Amarah Hospitals), where 30 participants were included in this study. The study was conducted from January 19th, 2021 to June 26th, 2021.

Results: The age group most present in the research sample whose ages ranged between (26-30) as well as those whose ages ranged between (31-35) and by percentage (33.3%) for each one of them. As for the number of males in the sample compared to the number of females, it was males as a percentage (63.3%). The educational level of the sample in question showed that most of the ICU staff are holders of a diploma, with a percentage of (73.3%). As for the years of experience in the field of intensive care, the sample showed that participants who have experience from three to four years are the most members of the sample surveyed with a percentage (46.7%). The surveyed sample showed through the questionnaire that the intensive care unit staff in Al-Sadr Teaching Hospital are more than the staff in the intensive care units in Al-Zahrawi Surgical Hospital, and by a percentage (73.3%).

Conclusions: There is a statistically significant relationship between the study variables (educational level) and knowledge questions about the complications of endotracheal intubation and the Dimension of complications while the During remain intubation only.

Keywords: knowledge, endotracheal tube, complication, ICU staff.

Intubation is the process of inserting a tube, called an endotracheal tube (ET), through the mouth and then into the airway (Kabrhel, 2007). This is done so that a patient can be placed on a ventilator to assist with breathing during anesthesia, sedation, or severe illness(Majeed, 2017). The tube is then connected to a ventilator, which pushes air into the lungs to deliver a breath to the patient (Hyzy, 2017). . Intubation is done because the patient cannot maintain their airway, cannot

breathe on their own without assistance, or both (Szmuk, 2008). They may be going under anesthesia and will be unable to breathe on their own during surgery, or they may be too sick or injured to provide enough oxygen to the body without assistance (Polansky, 1996). Many people with severe COVID-19, the respiratory conditions caused by the pandemic coronavirus, must spend weeks intubated and receiving oxygen via ventilation machines(Kochgaven, 2021) Endotracheal intubation, which is one of the most commonly performed procedures in the ICU, is associated with a high incidence of complications because of the precarious hemodynamic and respiratory status of critically ill patients (Salih, 2018). The incidence of life-threatening complications associated with endotracheal intubation severe hypoxemia, cardiovascular collapse, cardiac arrest, death) in ICU patients ranges from 25 to 39%. Endotracheal intubation in the ICU is a high-risk procedure, resulting in significant morbidity and mortality (Myatra, 2016). Up to 40% of cases are associated with marked hypoxemia or hypotension. Many complications associated with oral endotracheal tubes (ETTs) occur during or immediately following initial placement. However, ETTs are also associated with complications following placement that can occur during the ensuing days to weeks of intensive care unit (ICU) admission (Grotberg, 2021).

PATIENTS AND METHODS

A descriptive study was conducted, where 30 participants who working in the intensive care unit divided into three duty. The sample of the study has been selected with the criteria, Inclusion Criteria all participants are among the workers in the intensive care units only, Male and female participants were selected. The sample was selected from ages ranging from 20 to more than 36 years. The instrument designed and developed by the researcher was used for data collection and measuring the variable under the study. The final instrument consists of two parts: The first part includes the covering letter to obtain the agreement of the respondents and their demographic variables, and the second part is related to ICU personnel knowledge assessment, The second part of the questionnaire includes complications of tracheal intubation through four axes, each axis asks a set of questions, and based on published research (M. Polansky. 1996)

STATISTICAL ANALYSES

The data of the current study is used through the application of the descriptive and inferential statistical procedures by using the computer program of Statistical Package for Social Science (IBM SPSS) version 20.0. The statistical procedures that is used are described below:

Frequency (F), Percentage (%),Chi-square test (χ^2), Mean of Score (M.S), Standard Deviation. Alpha Correlation Coefficient (Cronbach's Alpha) The result of the reliability of the questionnaire is excellent (r = 0.91).

Table (1): Distribution of the Sample according to the Socio-demographic characteristics (n=30):

RESULTS

Variables	Groups	Sample n=30	
		F	%
Age	20-25 years	7	23.3
	26-30 years	10	33.3
	31-35 years	10	33.3
	More than 36 years	3	10.1
Gender	Male	19	63.3
	Female	11	36.7
Level of Education	Diploma	22	73.3
	Bachelor	6	20
	Higher educated	2	6.7
Experience in ICU	1 – 2 years	8	26.7
	3 – 4 years	14	46.7
	More than 5 years	8	26.7
Work place	Al-Sadr teaching hospital	22	73.3
	Al-Zahrawi surgical hospital	8	26.7

F. = Frequency. % = Percentage. n = sample number.

Table (2) Results of the relationship between the variables by Chi-square

Demographics data	Dimensions of the study / Sig.				Statistical sig.
	D-I	***D-RI***	***D-E***	***A-E***	
Age	0.544	0.074	0.336	0.176	Non sig.
Gender	0.400	0.379	0.101	0.047	Sig. only in after extubation
Level of education	0.829	0.022	0.509	0.328	Sig. only in during intubation
Experience	0.525	0.393	0.387	0.530	Non sig.
Hospital	0.661	0.245	0.877	0.375	Non sig.

***sig=0.05, **sig=0.01**

Through the previous table, we note that the relationship between the characteristics of the demographic sample and their level of knowledge is low, except for the educational level, as it showed a statistically significant relationship in the

Dimensions (during remaining of the endotracheal tube in the trachea).

Figure 1.

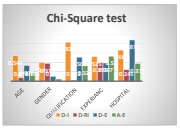

Figure 1: Chi-Square Test to find out the relationship between the variables.

DISCUSSION

The current study matches a previous study, which is entitled Assessment of knowledge and practices of intensive care unit nurses about endotracheal suctioning for adult patients in Baghdad teaching hospitals, Iraq. The results of the two studies were similar in terms of the age group between (20-29) years, with a percentage of 33.3%.

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