



Knowledge Assessment Regarding Anesthesia among Saudi Community

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Abstract: Anesthesia is putting the patient in a state of loss of consciousness so that the surgeon to perform the surgical operation, anesthesia is an aid in the field of surgery and not a therapeutic method, which serves to spare the patient a sense of pain and thus spare the surgeon to exert more effort so as not to cause more pain to the patient. The current study aims to assess the knowledge level regarding anesthesia among the Saudi community through the distribution of a semi-structured questionnaire on a randomly selected sample (N=117). Study findings had indicated that despite the good knowledge level about the possible risks of anesthesia on patients suffering from chronic diseases and the presence of various types of anesthesia, still there is a lack of knowledge in different anesthesia aspects such as the role of the anesthesiologist and the nature of the anesthesia process. The study recommended that an intensive awareness campaign aiming to educate people about anesthesia and the role of the anesthesiologist should be performed under the supervision of the Saudi health authorities.

To cite this article

[Alhussain, W. S. (2018). Knowledge Assessment Regarding Anesthesia among Saudi Community. *The Journal of Middle East and North Africa Sciences*, 4(3), 1-4]. (P-ISSN 2412- 9763) - (e-ISSN 2412-8937). www.jomenas.org. 1

Keywords: Anesthesia, anesthesiologist, knowledge.

1. Introduction:

Modern anesthesia began as a medical issue in the 1840s when the use of ether gas and nitrous oxide gas were introduced in the united states for the purpose of anaesthesia during surgery. Throughout human history, there have been numerous attempts to alleviate aches through the use of certain plants (such as opium) or certain chemicals (such as alcohol). These methods were not sufficient to overcome severe pain during complex surgeries that caused patients great suffering. Since the second half of the 19th century, to this day, the need for anaesthesia has increased. The development of methods and new drugs in the field of anaesthesia, as well as the evolution of pollution theory in the 19th century, have been the most important foundation of modern surgery (Robinson and Toledo, 2012).

Different type of anaesthesia can be distinguished; such as 1. General anaesthesia: the patient is sleep, does not feel pain stimuli and his muscles are relaxed. 2. Regional anaesthesia, the patient loses sensation in a specific area Of his body, and his muscles in that region are relaxed. The most widely known and widespread model of this type is epidural anaesthesia, which is only spread in the lower part of the body. 3. Local anesthetic, a small part of the body is anaesthetized, the area where the procedure is performed (Yilmaz, 2016).

General anaesthesia can be achieved by inhalation of anesthetic substances, which have many effects including anti pain, sleep, muscle relaxation and others (Whiting et al., 2015).

The area of anaesthesia today is not confined to preventing or controlling pain during surgery. The anesthesiologist prepares the patient for the operation, recommends the necessary tests and builds an integrated preparation program that includes giving or stopping certain drugs before the operation, in order to prepare the patient for the operation in the most efficient and least disturbing way (Ribeiro et al., 2015).

During the operation, the anesthesiologist, in addition to analgesia, also provides the patient with oxygen, respiratory and circulatory processes as well as other essential functions in the body.

Anaesthesia does not end even after the operation, not even after the patient has waking up. An Anaesthesiologist continues to take care of the patient until his/her situation stabilizes in the operation room, and then in the recovery room or in the intensive care unit (ICU). Even after the patient has been transferred to the appropriate department, the pain can continue to be treated if left by a pump injecting analgesic drugs, by monitoring the patient himself according to the anesthetist's instructions (Mohan et al., 2017).

As a part of treating pain, and as an essential part of the field of anesthesia, a field has also been developed to treat chronic pain, including pain in different areas of the body, resulting from damage of the nerves caused by malignant diseases or others. In this type of treatment, it is very important to influence both the body as a whole, the location of the pain and its source, or the nerves that



transmit pain to the brain, where the pain informed. In the course of this treatment, the patient is given oral medication or intravenous injection, or next to the spine. Sometimes, a concentrated and determined injection into specific nerves along with the neurolexus. Never alerts are performed in physical ways to prevent the transmission of pain alert and to accelerate healing (Hadzic, 2017).

2. Methodology:

A cross-sectional descriptive study had been performed on a randomly selected sample from the Saudi community, in the period between December 2017 and January 2018. The study sample was composed of 117 individuals from various social and educational backgrounds.

A semi-structured questionnaire composed of 9 closed-ended questions had been distributed to the participants. The study questionnaire was composed of two parts: Part I which investigated the participants' demographic characteristics, and Part II which investigated the level of knowledge regarding anesthesia among the study participants.

Data were harvested, tabulated, coded and analyzed using the Statistical Package of Social Sciences (SPSS) software (IBM Corp. v. 23.0) descriptive statistics, frequencies, and percentages were calculated for the study participants' responses.

Approvals had been obtained officially from the responsible authorities to carry out the study, and the ethical considerations of the research committee were maintained during and after the study is completed. The study was performed by the institutional research and ethics committee for King Saud Bin Abdul-Aziz University.

3. Results:

Results presented in table (1) show the study participants' characteristics. Participant's age statistics indicated that individuals ranging in age between 25 and 35 years were the highest represented category and constituted 41.9%, followed by participants who were ranging in age between 36 to 45 years who constituted 30% and those whose age was less than 25 years which constituted 15.4%. The least represented category was participants older than 46 years who constituted 12.7%.

Male participants had constituted 62.4% while females were representing 37.6% of the total study sample count.

Investigating the study participants' educational background had revealed that bachelor degree holding participants had constituted 53%, graduate degree holding participants was 26.5%. The least represented categories were those who had a diploma or secondary school or less education and constituted 15.4% and 5.1%, respectively (Table 1).

Table 1: Study sample distribution according to their demographic data

Characteristic	Frequency (N)	Percentage (%)
Age	Less than 25	18 15.4%
	25 – 35	49 41.9%
	36 – 45	35 30%
	More than 46	15 12.7%
Gender	Male	73 62.4%
	Female	44 37.6%
Education	Secondary school or less	6 5.1%
	Diploma	18 15.4%
	Bachelor	62 53%
	Graduate studies	31 26.5%

Participants were asked if there is any risk of anesthesia on patients suffering from any chronic diseases, the majority of the participants (78%) had responded positively while 22% of them had pointed that there is not any risk on these patients.

Two-thirds of the study participants (67%) had reported that there are several types of anesthesia, while 33% showed no knowledge about the types of anesthesia. Regarding the role of an anesthesiologist, 23% of the study participants had reported that the anesthesiologist is a specialized physician. On the other hand, 77% did not consider the anesthesiologist as a physician.

Concerning the anesthesiologist role, after the surgery is accomplished, 47% of the study participants had agreed that its role continues after the completion of the surgery, while 53% did not.

Investigating the general idea/opinion of the study participants regarding anesthesia had revealed that 11.2% of the participants had no idea, 14.5% considered anesthesia as "Making area numb", 58.9% responded that anesthesia is "Putting to Sleep", and 15.4% reported that anesthesia is "Making unconscious". Exploring the source of the participants' information about anesthesia had shown that the most frequent source was Media (30.8%), followed by Relations (29.1%), self-exposure (24.7%) and no idea (15.4%). Surgeons and anesthetists had no role in supporting the participant's knowledge.

Half of the participants (50.4%) had reported that they have no fears related to anesthesia, while 18.8% had shown fears of death, 11.9% fear of being no ability to move, 7.7% fears of becoming unconscious, 7.7% fears of

not waking up, and the least reported fears were fears of pain (3.5%).

About 83% of the study participants had agreed that it is important to meet anesthesiologists before the surgical procedure while 17% had shown no importance for this step.

Finally, the majority of the study participants (87%) responded positively that patients should follow certain preoperative instructions including anesthesia related instructions, while 13% had considered that as a non-important procedure (Table 2).

Table 2: Study Sample Responses to the Questionnaire Items.

Risk during anesthesia increases if the patient is suffering from any disease, such as diabetes and cardiovascular diseases		
	Frequency (N)	Percentage (%)
Yes	92	78%
No	25	22%
There are several types of anesthesia		
Yes	79	67%
No	38	33%
The anesthesiologist is a specialized physician		
Yes	27	23%
No	90	77%
Anesthesiologists' role continues after the surgery is accomplished		
Yes	55	47%
No	62	53%
What is your idea/opinion about anesthesia?		
No idea	13	11.2%
Making area numb	17	14.5%
Putting to sleep	69	58.9%
Making unconscious	18	15.4%
My source of information about anesthesia		
No idea	18	15.4%
Media	36	30.8%
Relations	34	29.1%
Surgeons	0	0
Anesthesiologist	0	0
Self-exposure	29	24.7%
Fears related to anesthesia		
No fears	59	50.4%
Feeling pain	4	3.5%
Becoming unconscious	9	7.7%
Not waking up	9	7.7%
Not able to move	14	11.9%
Death	22	18.8%
Do you think it is important to meet anesthesiologist before the surgical procedure?		
Yes	97	83%
No	20	17%

Patients should follow certain preoperative instructions including anesthesia related instructions		
Yes	102	87%
No	15	13%

4. Discussion:

Anesthesia is the process of using drugs that are able to block the sensation of pain, and some other sensations in the field of medicine. It includes analgesics (which relieve or prevent pain), temporary paralysis of the body muscles (Muscle relaxation), loss of memory and loss of consciousness. A patient who is under the influence of narcotic drugs is referred to as an anesthetic.

Anesthesia is not a direct mean of treatment, but it allows others to do things to cure, diagnose or cure a disease that can be painful or have complications. The best anesthetic is a drug that achieves the best results required to complete the medical procedure, with least degree of risk to the patient.

The current study aimed to assess the level of knowledge regarding anesthesia among the Saudi community through selecting a random sample composed of 117 individuals and distributing a semi-structured questionnaire that was designed for that purpose.

Study findings had revealed that there is a good knowledge level among the participants regarding the risks of anesthesia on patients suffering from specific diseases, such as diabetes, cardiovascular diseases ...etc. Moreover, study participants possess a satisfied level of knowledge regarding the types of anesthesia, but shown poor knowledge regarding the anesthesiologist, either if he/she is a physician or his/her role after the surgery.

The dominating general idea among the study participants was that it is a process of putting the patient to sleep, which indicates a poor level of knowledge regarding the main aim of the anesthesia process.

Media means were the most frequent source of information utilized by the study participants from whom they get their information about anesthesia, which indicates that there is a significant lack of information sources that should educate people regarding anesthesia and the role of the anesthesiologists.

There was a remarkable agreement among the study participants regarding the importance of meeting the anesthesiologist before starting the surgical procedure.

Study findings are consistent with Jindal et al. (2009), who found that there are a widespread ignorance and misconceptions about anesthesia and anesthesiologists.

Furthermore, results of the current study are in accordance with Naod (2015) who had reported that there is a poor knowledge among patients regarding anesthesia, especially in relation to the role of the anesthesiologist.

In conclusion, study findings had revealed that despite the good knowledge level in few aspects related to anesthesia process, still there is a remarkable weakness in



several other sides, such as the role of the anesthesiologist and the nature of the whole anesthesia process.

Based on the previously introduced findings, the researcher would recommend that there is an urgent need for an awareness campaign that should be performed under the supervision of the Saudi health authorities and aims to increase the public awareness and knowledge level of the Saudi community regarding the various aspects of anesthesia process.

Financial Support and Sponsorship:

No funding sources.

Conflicts of Interest:

There are no conflicts of interest among authors.

Acknowledgements:

The author acknowledges the unlimited support and encouragement of the colleagues in the college of medicine in King Saud Bin Abdulaziz University for their unlimited support and help to perform the current study.

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Received January 30, 2018; revised February 05, 2018; accepted February 07, 2018; published online March 01, 2018