

A Survey on Jazan Public Awareness about The Role of The Anesthesiologists

Ahmad Ali Mohajer, Ali Yehya Matiri, Ahmed Ali Jaafari, Naif Ayidh Almalki,
Abdulaziz Mohammed Alfaqih, Abdulrahman Hussain Gosada, Hussein Ahmed Sanba ,
Khamis Abdu Khamis , Rayan Thabet Shayani
Faculty of Medicine, Jazan University

ABSTRACT

Background: anesthesiology has been considered as a behind the scene specialty. Most patients lack the knowledge about the anesthetist's role and there are few who know about anesthesia, but still considered having poor knowledge. People thought that anesthetist plays a secondary role in surgery and the role assigned to the anesthesiologist remains inaccurate for most of them.

Aim of the work: our study aimed to assess the society's perception in Jazan area of Saudi Arabia about anesthetist's role and duties in surgery and their knowledge about anesthesia.

Method: a total of 744 responded to the questionnaire. Out of the responders, 445 (59.8%) were males, and 299 (40.2%) were females. 432 (58%) participant considered having sufficient knowledge about anesthesia, while 312 (42%) still didn't have sufficient knowledge about it. 514 (69%) responders admitted that anesthesia is safe, while 230 (31%) responders thought that it's not-safe.

Results: 744 participated in our study, out of which 445 (59.8%) were males and 299 (40.2%) were the participated females. 432 (58.1%) of the sample study had sufficient knowledge about anesthesia, while 312 (41.9%) didn't having sufficient data. Our study also showed a correlation between the education level and the knowledge about anesthesia and anesthetists.

Conclusion: our study revealed the poor knowledge of Jazan inhabitants about anesthesia, anesthetists and pre-operative care. The poor knowledge may be due to the limited interaction between the anesthetist and the patient, thus the anesthetist has the duty to visit the patient before surgery.

Keywords : Anesthesia , Awareness , Jazan , Saudi Arabia.

INTRODUCTION

Anesthesia is unique in because it is not a direct mean of treatment and rather it allows other physicians to do things that may treat, diagnose, or cure an ailment which would otherwise be painful or complicated.

There are three main categories of anesthesia, each having many forms and uses ⁽¹⁾.

They are:

- **General anesthesia**, the patient becomes unconscious. He does not feel any pain and would not remember the procedure afterwards. There are a number of general anesthetic drugs; some are gases or vapors inhaled through a breathing mask or tube and others are medications introduced through the vein.
- **Regional anesthesia**, the anesthetist makes an injection near a cluster of nerves to block pain in an area of the body that requires surgery. The patient may remain awake, or may be given a sedative, either way he doesn't see or feel the actual surgery taking place. There are several kinds

- of regional anesthesia; the two most common are spinal anesthesia and epidural anesthesia which is often used during childbirth.
- **Local anesthesia**, the anesthetic drug is usually injected into the tissue to numb just the specific location of your body requiring minor surgery. You stay awake and alert.

An anesthesiologists or anesthetists are physicians trained in anesthesia and perioperative medicine. They have a wide range of knowledge about medicines and care for diseases. They know how the human body works and how it responds to the stress of surgery. Anesthesia specialists are responsible for making informed medical decisions about your care. They provide comfort and maintain vital life functions, while you are getting anesthesia and during recovery ⁽²⁾.

More than half of patients are unaware of the fact that anesthesiologist have medical degrees and have completed internships. Although anesthesiology is one of the fastest growing

branches in medicine and has made immense development in the last thirty years, anesthesia for most of the patients is one of the most mysterious branches of medicine. The patient doesn't exactly know what the anesthetist is going to do, or how anesthesia will be done, but he put himself in the anesthetist hands willingly^(3,4).

Anesthesia is still a major concern for patients, although the anesthetic complications have decreased significantly. It has been considered as a behind the scene specialty, in which the main actor is the surgeon and the anesthetist has only a secondary role⁽²⁻⁴⁾. Most Patients lack the knowledge about the anesthetist's role in intensive care unit, as well as in pain relief and only few have very limited knowledge about the specialty⁽⁵⁾.

Many studies has been conducted showing the poor public knowledge regarding anesthesia in developing^(6,7) and developed countries^(8,9).

Therefore our study aimed to assess the society's perception in Gazan area of Saudi Arabia about anesthetist's role and duties in surgery and the participant's knowledge about anesthesia.

MATERIAL AND METHOD

This prospective cross sectional study focused on studying the awareness of people living in Gazan area of Saudi Arabia about anesthesia and the role of anesthetist in surgery.

Seven hundred and forty four were the number of participants involved in our study including both males and females. A structured questionnaire of 10 questions was distributed to the participants,

which included demographic data, their knowledge about anesthesia, their choices about different anesthesia techniques and reasons for preferring one type over another. The questionnaire was originally constructed in Arabic, the mother tongue of the participants. The answers collected were uploaded to an EXCEL database (Microsoft Office 2010) and exported to the statistical package IBM SPSS Statistics version 19.0 for processing and analysis. The respondent's knowledge and awareness was assessed, analyzed and compared using chi-square.

P-value less than 0.05 were considered as a statistically significant.

The study was done after approval of ethical board of Jazan university.

RESULTS

744 participated in our study, out of which 445 (59.8%) were females and 299 (40.2%) were participated males. Socio-demographic data was presented in **table 1**. Our study covered the age range (18-66), where 433 (58.2%) were aged less than 30 and 311 (41.8%) were above 30 years. Of the participants, 723 were Saudis and 21 (2.8%) were non-Saudis. Regarding the educational level of the participants, 586 (78.8%) had high education level, while 158 (21.2%) had low educational level. 166 (22.3%) occupy medical professionals, 334 (44.9%) were occupying non-medical professionals, 137 (18.4%) were students, 94 (12.6%) were housewives and 13(1.7%) were not working. 432 (58.1%) of the sample study had sufficient knowledge about anesthesia, while 312 (41.9%) didn't have sufficient knowledge about it.

Table 1. The socio-demographic data of the whole studied sample

Variables	Description (n=744)
Age	
<i>Range</i>	18 – 66
<i>Mean ± SD</i>	31.6 ± 9.9
≤ 30 years	433 (58.2)
> 30 years	311 (41.8)
Sex	
Male	445 (59.8)
Female	299 (40.2)
Educational level	
Low	158 (21.2)
High	586 (78.8)
Occupation	
Medical professionals	166 (22.3)
Non-medical professionals	334 (44.9)
Students	137 (18.4)
House wife	94 (12.6)
Not working	13 (1.7)
Nationality	
Saudi	723 (97.2)
Non-Saudi	21 (2.8)
Smoking	
Current smokers	124 (16.7)
Ex-smokers	19 (2.6)
Non-smokers	601 (80.8)
Physical activity	
Active	404 (54.3)
Inactive	340 (45.7)
Anesthesia Knowledge	
Sufficient (≥ 80%)	432 (58.1)
Insufficient (< 80%)	312 (41.9)

SD= standard deviation

Upon assessing knowledge about anesthesia, 693 (93.1%) knew about anesthesia, while 51 (6.9%) didn't know about it. 650 (87.4%) of the participants knew that physicians are responsible for anesthesia, while 94 (12.6%) don't know that. Asking about whether anesthesia is safe or not, 514

(69.1%) considered it safe, while 230 (30.9%) didn't think its safety. Of the participants, 604 (81.2%) know that there are different types of anesthesia and 140 (18.8%) didn't think so. 160 (21.5%) didn't know about the previous consent before anesthesia, while 584 (78.5%) knew that

there is a consent before being anesthetized. 485 (65.2%) of the participants think that it's beneficial to visit anesthesia room before surgery, and 259 (34.8%) didn't think this is beneficial or important. Out of the 744 participant, 684 (91.9%) knew that there are pre-operative precautions before anesthesia, while 60 (8.1%) didn't know about that.

508(68.3%) of the whole sample study answered that all types of pain would be treated with anesthesia, while 236 (31.7%) thought that the anesthetist participate only in the operation room. Out of the 299 participating females, 268 (89.6%) preferred labor without pain through anesthesia and 31 (10.4%) didn't prefer it through anesthesia.

Table 2. Description of questionnaire used for assessing knowledge

Variables	Description (n=744)
Knowing anesthesia	
Yes	693 (93.1)
No	51 (6.9)
Physicians are responsible for anesthesia	
Yes	650 (87.4)
No	94 (12.6)
Anesthesia is safe	
Yes	514 (69.1)
No	230 (30.9)
There are different types of anesthesia	
Yes	604 (81.2)
No	140 (18.8)
Previous consent before anesthesia	
Yes	584 (78.5)
No	160 (21.5)
All pain types treated with anesthesia	
Yes	508 (68.3)
No	236 (31.7)
Benefits from visiting anesthesia room	
Yes	485 (65.2)
No	259 (34.8)
Pre-operative precautions	
Yes	684 (91.9)
No	60 (8.1)
Labor without pain through anesthesia for females only (n=299)	
Yes	268 (89.6)
No	31 (10.4)
Labor without pain is preferred for females only (n=299)	
Yes	214 (71.6)
No	85 (28.4)

Table 3 showed comparisons between participants regarding awareness about anesthesia.

Regarding age of the participants, 271 (62.7%) of those aged less than 30 years had sufficient knowledge about anesthesia, while 162 (51.9%) didn't have sufficient knowledge about it; those aged above 30, 161 (37.3%) had sufficient knowledge about anesthesia and 150 (48.1%) didn't (p-value 0.003).

Of the 432 participant that had sufficient knowledge about anesthesia, 225 (52.1%) were males and 207 (47.9%) were females. While, of the 312 participant had not sufficient knowledge, 220 (70.5%) were males and 92 (29.5%) were females.

417 (96.5%) of the Saudi participant had sufficient knowledge about anesthesia, while 306 (98.1%) of the Saudi participant didn't have enough knowledge about it. Of the 21 non-Saudi participant, 15 (3.5%) had sufficient knowledge

about anesthesia, while 6 (1.9%) didn't. Regarding educational level, 77 (17.8%) of the low educated participants had sufficient knowledge about anesthesia, while 81 (26%) didn't. Of the highly educated participants, 355 (82.2%) had sufficient knowledge, 231 (74%) didn't have sufficient knowledge.

Regarding occupation, of the 166 who occupied medical professionals, 133 (30.8%) had sufficient knowledge, while 33 (10.6%) were not. Of those who occupied non-medical professionals, 160 (37%) had sufficient knowledge, 174 (55.8%) didn't have sufficient knowledge. Of the participating students, 77 (17.8%) had sufficient information about anesthesia, while 60 (19.2%) didn't have sufficient data. 57 (13.2%) of the participating housewives had sufficient knowledge, while 37 (11.9%) didn't have.

Table 3. Comparisons regarding awareness about anesthesia

Anesthesia Knowledge				
	Variables	Sufficient (n=432)	Insufficient (n=312)	P value
Age	Mean ± SD	30.7 ± 9.3	32.8 ± 10.6	0.004#
	≤ 30 years	271 (62.7)	162 (51.9)	0.003*
	> 30 years	161 (37.3)	150 (48.1)	
Sex	Male	225 (52.1)	220 (70.5)	<0.001*
	Female	207 (47.9)	92 (29.5)	
Educational level	Low	77 (17.8)	81 (26)	0.008*
	High	355 (82.2)	231 (74)	
Occupation	Medical professionals	133 (30.8)	33 (10.6)	<0.001*
	Non-medical professionals	160 (37)	174 (55.8)	
	Students	77 (17.8)	60 (19.2)	
	House wife	57 (13.2)	37 (11.9)	
	Not working	5 (1.2)	8 (2.6)	
Nationality	Saudi	417 (96.5)	306 (98.1)	0.264*
	Non-Saudi	15 (3.5)	6 (1.9)	
Smoking	Current smokers	58 (13.4)	66 (21.2)	0.010*
	Ex-smokers	9 (2.1)	10 (3.2)	
	Non-smokers	365 (84.5)	236 (75.6)	
Physical activity	Active	241 (55.8)	163 (52.2)	0.371*
	Inactive	191 (44.2)	149 (47.8)	

*Chi square test, #Independent sample t-test

DISCUSSION

Results of our study showed that there was poor knowledge about anesthesia and anesthetist upon participants from Gazan area of Saudi Arabia. Only 58.1% had sufficient knowledge about anesthesia. Same results were seen in a study conducted by **Kadri et al.** in Pakistan⁽¹⁰⁾ and another study was conducted by **Eyeladeet al.** in Nigeria⁽¹¹⁾. On the other hand, in studies conducted in developed countries such as United Kingdom⁽¹²⁾ and Hongkong⁽¹³⁾, the rate of awareness was the highest, i.e. 78% and 70% respectively.

Anesthetist plays a vital role inside as well as outside the operation room, 508(68.3%) of the participants involved in our study stated that all pain types would be managed by the anesthetist and that his role isn't limited to the operation room only. While, 236 (31.7%) of our sample study thought the anesthetist's role is limited to the operation room and no more, this was much more less than results done in another study conducted by **Kadri et al.** in Pakistan⁽¹⁰⁾ where 71.4% stated that the operation room is the only working place for the anesthetist. Also our results were less than results seen in studies done by **Ayddinet al.**⁽¹⁴⁾ and **Calman et al.**⁽¹⁵⁾ Our study showed that 650 (87.4%) of the whole sample stated that the anesthetist is a medical physician. This was similar to summarized data in a review article which reported that 65 to 78% of patients in British hospital thought that their anesthesiologist was a doctor^(8,12,16). Also, the level of education in our study was positively correlated with the knowledge about anesthesia and anesthetists. This was similar to results of another study done by **Bhattacharai et al.**⁽¹⁷⁾ in Nepal as well as results seen in a study conducted by **Calman et al.**⁽¹⁵⁾ where patients with better education level were found to have better knowledge about anesthesia and the medical specialty.

CONCLUSION

Our study revealed the poor knowledge of Gazan inhabitants about anesthesia, anesthetists and pre-operative care. The poor knowledge may be due to the limited interaction between the anesthetist and the patient, thus anesthetist has the duty to visit the patient before surgery and talk about the type of anesthesia that would be used in the surgery as well as the post operative

consequences of the anesthesia upon waking up after surgery. Therefore awareness programmers and lectures should be held to highlight and increase the knowledge about anesthesia and anesthetists and realize their vital role in operation room as well as in pain management.

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