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A survey Study to Evaluate the Awareness and Perception of the Role of Anesthesia Technologist among Applied Medical Science Students at KSAU-HS in Riyadh, Saudi Arabia: Cross-Sectional Study.

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Abstract

Introduction and aim: Anesthesiology is a very specialized part of medicine that dedicated to pain relief before, during, and after surgery which practiced by highly trained staff. Anesthesia care team consisting of anesthesia technologist and anesthesia technician working under the supervision of a consultant physician anesthesiologist who had MD in anesthesia. The consultant anesthesia provides high-quality anesthesia care to all patients and supervises anesthetists of lower grades. Due to the limited awareness of the role of anesthesia and anesthesiologists. We aimed to conduct this study to find out the knowledge level about the role of Anesthesia technologists among applied medical science students.

Method: The survey was conducted at KSAU-HS in Saudi Arabia from Jan 2020 to Dec 2020. The population was a group of third- and fourth-year

students from the Department of Applied Medical Sciences Female Section. The study design is a quantitative cross-sectional study. The sample size was 167 students. The data was collected using a structured questionnaire with closed-ended questions distributed through Email among students. The collected data analyzed through SPSS version 22.

Results: The results of this study found that 94% of them believe that the Anesthesiologist, Anesthesia Technologist, and Anesthesia Technician have different roles, while 42.5% believed that the role of the Anesthesia Technologist may differ from hospital to another. Also, the results indicated the need for more awareness of the role and tasks of the anesthesia technologist and their difference from other individuals in the anesthesia team.

Conclusion: In conclusion, the student's awareness of the importance of the anesthesia technologist's job was high, but their knowledge of the tasks in detail at each stage of treatment varied, although it was relatively good. The study confirmed that the educational level of the individual has a great impact on his knowledge of the tasks of the anesthesia technologist

Introduction

Anesthesiology art is a very specialized part of medicine that was practiced by highly trained persons. In American Society of Anesthesiologists was defined as "the practice of medicine dedicated to the relief of pain and total care of surgical patients before, during, and after surgery.[1] The anesthesia team provides patients requiring anesthesia care at the hospital and utilizing the services of highly trained staff and the use of the latest in anesthesia technology, and provide a comprehensive pre-anesthesia evaluation, intra-operative care and post-operative follow-up. Anesthesia care team consisting of no physician providers (anesthesia technologist and anesthesia technician) working under the supervision of a consultant physician anesthesiologist who had MD certificate in anesthesia. Practicing Anesthesia as MD required a lot of dedication with the continuous study of many years in comparison to other fields[2]. The consultant anesthesia's provides high-quality anesthesia care to all patients and also supervise anesthetists of lower grades; with assisting staff physicians who teach and supervise residents in the Anesthesia Residency Program. Anesthesia technologist who is holding a bachelor's degree with different job descriptions and responsibilities. Anesthesia Technologist is an individual who successfully completed Certified Anesthesia Technologist Examinations per the requirements of the levels of training and experience. Assisting the anesthesia provider with intra-operative fluid management including volume resuscitation and operating the auto-transfusion equipment also play an important role in maintaining current basic cardiac life support (BCLS), advanced cardiac life support (ACLS), and pediatric advanced life support (PALS) [3]. The anesthesia technician is a person who has a diploma degree in anesthesia technology and works under the supervision of the anesthesia care team. The anesthesia technician is an integral member of the anesthesia patient care team. He provides support for routine surgical cases by assisting in the preparation and maintenance of patient equipment. There are limited studies on the same topics, so we depend on other studies on the same topics with different parameters. First, in 2007, V Marulasiddappa, mentioned that most of the patients were not aware of the role of anesthesia and anesthesiologists. Although this could be attributed to their lower level of education, the anesthesiologists have to educate patients and surgeons about the role of

anesthesia [4]. In another research published in 2018, Upasna Vineet stated that there should be involvement of electronic and print media in educating the general population, irrespective of their educational status; anesthesiologists need to spend more time during PAE with their patients explaining in detail their roles peri-operatively, techniques, complications, risks and lastly taking the consent.[5] Furthermore, another study was published in 2017 by Abdullah S. Alqefari. He stated that most of the patients in this study had good knowledge about anesthesiologist and most percentages of positive answers were high. No association between awareness of patients and gender was found. And patients had good and acceptable knowledge about the role of an anesthesiologist.[6] The rationale of conducting this study is finding out the knowledge level about the role of Anesthesia technologist among applied medical science students It is important especially in our countries to spread the awareness and knowledge about anesthesia technologists, so in this study, we assess the public knowledge about the role of anesthesia technologists.

Methodology

The survey would conduct at King Saud University for Health Science- Riyadh, Saudi Arabia which under the umbrella of the Ministry of National Guard. University for Health Sciences (KSAU-HS) is a governmental university specialized in health sciences. The area of our survey included female Applied Medical Science Students. The study duration was from Jan 2020 to Dec 2020. The target population of this research would be Applied Medical Science-Female Section students in this survey. The inclusion criteria were Applied Medical Science- Female Students. Senior and junior batches. The exclusion criteria were Applied Medical Science- Female Anesthesia senior and junior batches. Applied Medical Science- all male students, Non applied medical science - female and male students, and Interns. The survey study design would be a quantitative cross-sectional study. According to the data from KSAU HS there are 260 female students of Applied Medical Science-program. With a margin of error of 5% and 95% confidence level the required sample size was calculated as a minimum of 156 by used check market software for online sample size calculation. The sampling technique was non-probability convenience. Students selected according to their availability and accessibility. The date was collected by using a structured questionnaire with closed-ended questions. The collected variables of the students were done by using a survey collection sheet, to measure awareness and knowledge about anesthesia technologist assigned duties and responsibilities. The variables were collected from Applied Medical Science- Female senior and junior batches in KSAUHS by used survey. The survey was divided into two sections: the first concerned the demographic characteristics of the respondents, while the second part consisted of seven closed-ended questions, and the answers were (Yes/No/Not sure). After finishing the survey, it was published through Email among students. The collected data was entered by using excel and analyzed through SPSS version 22. Mean and standard deviation (SD) were used for continuous and normally distributed variables. However, if the used variables were continuous but not normally distributed median and IQR would be used, and percentage (frequency) would be used if the variables were categorical.

Results

Descriptive Statistics: In this section the descriptive statistics of the demographic's information of the respondents are described, they are containing Mean, SD, Median, and IQR values for the non-normal distrusted data. Frequency and Percentage for questions answers and categorical variables. For gender variable, the study was specifically applied to female students, and their number was 167 students. and their ages ranged from 16 to 24 years, where the value of the median for their age was 21 years with IQR (20, 21) since the data is skewed (not normally distributed). respondents' school years distribution was 49.7% third year and 50.3% the fourth year, as the following table is shown.

Table 1: respondents' current year

Current Year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Third year	83	49.7	49.7	49.7
	Fourth year	84	50.3	50.3	100.0
	Total	167	100.0	100.0	

The following figure shows the distribution of respondents' current year:

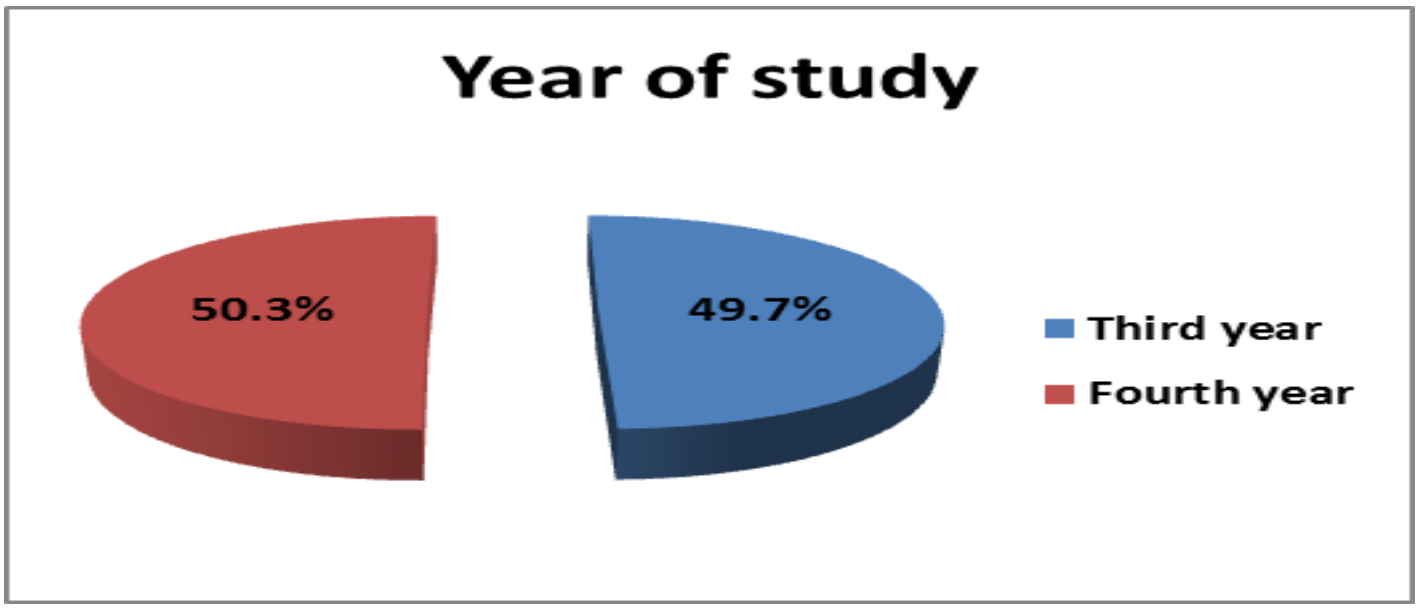

Figure 1: Year of study of subjects

As shown in the previous figure and table, the highest percentage of respondents' study year was (fourth year) by 50.3%, while the third-year percentage was 49.7%. The specialization of the respondents', it was distributed among the following specialties (EMS, RT, OT, CLAB, CLNS, ECVT, RADS), and the percentages for each major were (21%, 11.4%, 19.8%, 9%, 9.6%, 18.6%, 10.8%) respectively. The following table shows the frequency of these majors and the total percentages for each major.

Table 2: The specialty frequencies and percentage of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	EMS	35	21.0	21.0	21.0
	RT	19	11.4	11.4	32.3
	OT	33	19.8	19.8	52.1
	CLAB	15	9.0	9.0	61.1
	CLNS	16	9.6	9.6	70.7
	ECVT	31	18.6	18.6	89.2
	RADS	18	10.8	10.8	100.0
	Total	167	100.0	100.0	

The following figure shows the distribution of respondents' specialization percentages:

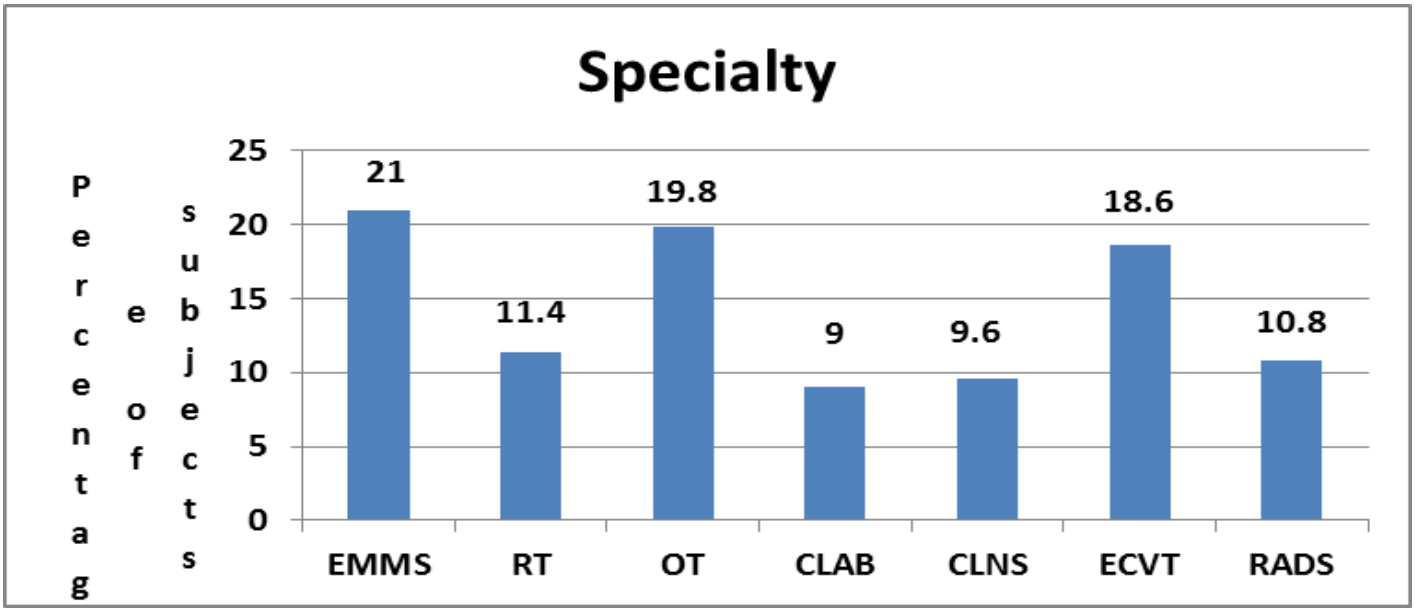

Figure 2: Distribution of respondents' specializations

As shown in the previous figure and table, the highest percentage of respondents' specialization was (EMMS) by 21%, while the lowest specialization was (CLAB) by 9%.

Inferential Statistics

In this section, results related to inferential statistics discussed, in order to test the hypotheses of the study and to achieve its objectives. In this part of the research, the questionnaire questions analyzed using Fisher's exact test, to find the p-value, in a manner to determine the importance of these questions and axes accordingly. If the p-value is greater than 0.05 (significance level), then the axis does not bear any statistical significance, while if the value of P is less than 0.05, this means that it has a statistical value.

The following table shows the results of applying Fisher's test to the first question "**Is there a difference**

between Anesthesiologist, Anesthesia Technologist, and Anesthesia Technician?":

Table 3: Fisher exact test on the 1st question

Crosstab

			Current Year		Total
			Third year	Fourth year	
Q1	Not sure	Count	1	3	4
		% within Current Year	1.2%	3.6%	2.4%
	No	Count	4	1	5
		% within Current Year	4.8%	1.2%	3.0%
	Yes	Count	78	80	158
		% within Current Year	94.0%	95.2%	94.6%
Total		Count	83	84	167
		% within Current Year	100.0%	100.0%	100.0%

Fishers exact chi square= 2.606 p value= 0.286

As shown in the previous table, when applying the Fisher test to the answers to the first question for all respondents, as is evident, the number of students who answer this question with (Not Sure) are 1 from the third year and 4 of the fourth year, i.e. a total of 5 people, while 4 students from the third year and one from the fourth year were answered with No answer (their percentage 3%). While the number of students who answered with yes converged between the third year (83 students) and the fourth (84 students), with a percentage of 94.6%, this means that the majority of students were aware of the difference between Anesthesiologist, Anesthesia Technologist and Anesthesia Technician, the p-value for this question was 0.286, which is greater than 0.05, which means that the question has no statistical significance. The following table shows the results of applying CHI square test to the second question for the questionnaire "Is the role of Anesthesia Technologist important in anesthesia team":

Table 4: Chi square test on the 2nd question

Crosstab

			Current Year		Total
			Third year	Fourth year	
Q2	Not sure	Count	2	2	4
		% within	2.4%	2.4%	2.4%

	Yes	Current Year			
		Count	81	82	163
		% within Current Year	97.6%	97.6%	97.6 %
Total		Count	83	84	167
		% within Current Year	100.0%	100.0%	100.0 %

Chi square is zero

As shown in the previous table, when applying the Chi square test to the answers to the second question for all respondents, as is evident, the number of students who answer this question with(Not Sure) are 2 from the third year and 2 of the fourth year, i.e. a total of 4 people, while no students were answered with (No answer). While 163 students answered with yes, they converged between the third year (81 students) and the fourth (82 students), with a percentage of 97.6%, which means that the majority of students were aware of the role of Anesthesia Technologist important in the anesthesia team, the value of P was 0.0, which is less than 0.05, meaning that this question has a statistical significance. The following table shows the results of applying CHI square test to the third question for the questionnaire “Is the job of Anesthesia Technologist is only to preparing the tools and equipment for the case?”:

Table 5: Chi square test on the 3rd question

Crosstab

			Current Year		Total
			Third year	Fourth year	
Q3	Not sure	Count	23	29	52
		% within Current Year	27.7%	34.5%	31.1%
	No	Count	26	20	46
		% within Current Year	31.3%	23.8%	27.5%
	Yes	Count	34	35	69
		% within Current Year	41.0%	41.7%	41.3%
Total		Count	83	84	167
		% within Current Year	100.0%	100.0%	100.0%

Chi square=1.483 p value= 0.476

As shown in the previous table, when applying the Chi square test to the answers to the third question for all respondents, as is evident, the number of students who answer this question with (Not Sure) are 23 from the third year and 29 of the fourth year, i.e. a total of 52 people, while 26 students from the third year and 20

from the fourth year were answered with (No answer) (their percentage 27.5%). While the number of students who answered with yes converged between the third year (34 students) and the fourth (35 students), with a percentage of 41.3%, this means that the half of students were believed that the task of the Anesthesia Technologist was limited to providing tools and devices for the surgical operation only, p-value for this question was 0.476, which is greater than 0.05, meaning that this question had no statistical significance meaning.

The following table shows the results of applying CHI square test to the fourth question for the questionnaire: "**Does the Anesthesia Technologist have a direct communication with patient in preoperative period?**"

Table 6: Chi square test on the 4th question

Crosstab

			Current Year		Total
			Third year	Fourth year	
Q4	Not sure	Count	12	12	24
		% within Current Year	14.5%	14.3%	14.4%
	No	Count	9	20	29
		% within Current Year	10.8%	23.8%	17.4%
	Yes	Count	62	52	114
		% within Current Year	74.7%	61.9%	68.3%
Total		Count	83	84	167
		% within Current Year	100.0%	100.0%	100.0%

Chi square= 5.044 p value= 0.080

As shown in the previous table, when applying the Chi square test to the answers to the fourth question for all respondents, as is evident, the number of students who answer this question with (Not Sure) are 12 from the third year and 12 of the fourth year, i.e. a total of 24 people, while 9 students from the third year and 20 from the fourth year were answered with (No answer) (their percentage 17.4%). While the number of students who answered with yes converged between the third year (62 students) and the fourth (52 students), with a percentage of 68.3%, this means that the majority of students were believed that the Anesthesia Technologist have to do direct communication with the patient in the preoperative period, p-value for this question was 0.08, which is greater than 0.05, meaning that this question had no statistical significance meaning.

The following table shows the results of applying CHI square test to the fifth question for the questionnaire "Do you think that Anesthesia Technologist stay with patient throughout the procedure?":

Table 7: Chi square test on the 5th question

Crosstab

			Current Year		Total
			Third year	Fourth year	
Q5	Not sure	Count	15	15	30
		% within Current Year	18.1%	17.9%	18.0%
	No	Count	8	9	17
		% within Current Year	9.6%	10.7%	10.2%
	Yes	Count	60	60	120
		% within Current Year	72.3%	71.4%	71.9%
Total		Count	83	84	167
		% within Current Year	100.0%	100.0%	100.0%

Chi square= 0.053 p value= 0.974

As shown in the previous table, when applying the Chi square test to the answers to the fifth question for all respondents, as is evident, the number of students who answer this question with (Not sure) are 15 from the third year and 15 of the fourth year, i.e. a total of 30 people, while 8 students from the third year and 9 from the fourth year were answered with (No answer) (their percentage 10.2%). While the number of students who answered with yes converged between the third year (60 students) and the fourth (60 students), with a percentage of 71.9%, this means that the majority of students were believed that Anesthesia Technologist should stay with the patient throughout the procedure, p-value for this question was 0.974, which is greater than 0.05, meaning that this question had no statistical significance meaning.

The following table shows the results of applying CHI square test to the sixth question for the questionnaire "Dose the role of the Anesthesia Technologist differs from one hospital to another?":

Table 8: Chi square test on the 6th question

Crosstab

			Current Year		Total
			Third year	Fourth year	
Q6	Not sure	Count	25	38	63
		% within	30.1%	45.2%	37.7%

			Current Year		
		Count	19	14	33
	No	% within Current Year	22.9%	16.7%	19.8%
		Count	39	32	71
	Yes	% within Current Year	47.0%	38.1%	42.5%
		Count	83	84	167
Total		% within Current Year	100.0%	100.0%	100.0%

Chi square= 4.124 p value= 0.127

As shown in the previous table, when applying the Chi square test to the answers to the sixth question for all respondents, as is evident, the number of students who answer this question with (Not Sure) are 25 from the third year and 38 of the fourth year, i.e. a total of 36 people, while 19 students from the third year and 14 from the fourth year were answered with (No answer) (their percentage 19.8%). While the number of students who answered with yes converged between the third year (39 students) and the fourth (32 students), with a percentage of 42.5%, this means that the half of students were believed that the role of the Anesthesia technologist differs from one hospital to another, p-value for this question was 0.127, which is greater than 0.05, meaning that this question had no statistical significance meaning.

The following table shows the results of applying CHI square test to the seventh question for the questionnaire "**Is the Anesthesia Technologist responsible for the recovery of the patient in operating room?":**

Table 9: Chi square test on the 7th question

Crosstab

			Current Year		Total
			Third year	Fourth year	
Q7	Not sure	Count	22	34	56
		% within Current Year	26.5%	40.5%	33.5%
	No	Count	10	17	27
		% within Current Year	12.0%	20.2%	16.2%
	Yes	Count	51	33	84
		% within Current Year	61.4%	39.3%	50.3%
Total		Count	83	84	167
		% within Current Year	100.0%	100.0%	100.0 %

Chi square= 8.238 p value= 0.016 (statistically significant)

As shown in the previous table, when applying the Chi square test to the answers to the seventh question for all respondents, as is evident, the number of students who answer this question with (Not Sure) are 22 from the third year and 34 of the fourth year, i.e. a total of 56 people, while 10 students from the third year and 17 from the fourth year were answered with(No answer) (their percentage 16.2%). While the number of students who answered with yes converged between the third year (51 students) and the fourth (33 students), with a percentage of 50.3%, this means that the half of students were believed that the role of the Anesthesia Technologist differs from one hospital to another, p-value for this question was 0.016, which is smaller than 0.05, meaning that this question had statistical significance meaning.

Discussion and conclusion

Discussion

This research is based on conducting a cross-sectional survey to assess the awareness and perception of the role of the anesthesia technologist among female students of applied medical sciences third and fourth years, at King Saud bin Abdulaziz University in Riyadh, and this study sought to estimate the awareness of the anesthesia technologist tasks, and compare the role of the anesthesia technologist, the anesthesia consultant, and the anesthesia technician. Using a questionnaire which was attached at the end of this paper.

When analyzing the answers to the questionnaire of this study, it was found that 97.6% of students believe in the important role of anesthesia technologist in the anesthesia team, and 94% of them believe that the Anesthesiologist, Anesthesia Technologist, and

Anesthesia Technician have different roles, and 42.5% of them believed that the role of the Anesthesia Technologist may differ from hospital to another. The results showed that 41.3% of students limit the Anesthesia Technologist's job to providing tools and equipment for the case only, while 68.3% of students believe that the anesthesia technologist should have direct contact with the patient in the preoperative period, while 71.9% of them believe that the anesthesia technologist To stay with the patient throughout the operation, and finally 50.3% of these students believed that the Anesthesia Technologist is responsible for the patient's recovery in the operating room.

By comparing these results with previous studies' results, those mentioned above, it is found that the study is consistent with previous studies that there is no link between the respondent's consciousness and their gender, it is also found there is no link between the respondent's study year and specialization with the provided answers, since the answers of the both years students (the third and the fourth) are very close, and the diversity of specializations among them did not make any differences in the answers, therefore, we can say that there is no link between the respondent's specializations and their awareness about the role of anesthesia technologists.

However, the fact that all respondents are students, this corresponds to the respondent's higher perception of the role of the anesthesia technologist, it is importance and duty is closely related to their educational level, as mentioned in a study (Marulasiddappa, 2007). The results also indicated the need for more awareness of the role and tasks of the anesthesia technologist and the importance of differentiating between him and the anesthesiologist by using different media, as previously confirmed by a study (Abdullah S. Alqefari, 2017) and the study of (Upasna Vineet et al, 2018), where they suggested to use electronic and printed media in educating people the importance of anthologist.

This study aims to fill a gap in the literature with regard to measuring the awareness and perception of people in general, and students of applied medical sciences in particular, of the role and tasks of the anesthesia technologist and their difference from other individuals in the anesthesia team. This study complements the results presented by previous studies and agrees with them about the importance of educating the public and matters affecting their awareness, this study needs to expand its application to include more individuals from other specialties and different hospitals around the kingdom and to examine other new variables.

Conclusions

This survey was conducted on a group of third- and fourth-year students from the Department of Applied Medical Sciences at KSAU-HS in Saudi Arabia. This study sought to measure the students' awareness and perception of the role and tasks of the anesthesia technologist in the hospital. Where the research sample was 167 students, and the questionnaire tool was used to achieve the goal of this study. The questionnaire was divided into two parts: the first concerned the demographic characteristics of the respondents, while the second part consisted of seven closed-ended questions. These questions measured the extent to which the respondents know the importance of the job of an anesthesia technologist, what is different from the anesthesiologist, and other individuals in the anesthesia team, and what are the tasks assigned to him, whether before, after or during the operation and treatment procedures. The answers of the questionnaire were extracted using an excel program and analyzed using the SPSS 22 program. The results concluded that the

students' awareness of the importance of the anesthesia technologist's job was high, but their knowledge of his tasks in detail at each stage of treatment varied somewhat, although it was relatively good. Also, it is confirmed that the educational level of the individual has a great impact on his knowledge of the tasks of the anesthesia technologist, since the respondents to the questionnaire were students in the Department of Applied Medical Sciences, the results were high, and the awareness was also high. While the year of study or the student's major and even his gender did not make any difference to the results. Based on all of this, this study is a good source, and a cornerstone for any researcher who will study awareness about the importance of the anesthesia technologist's job, the study needs to be expanded and more research done by increasing the research sample and choosing new standards for measurement, such as taking A broader research sample that includes both genders and students from more academic years, from different universities and hospitals around the Kingdom. The study also needs to add other criteria such as the respondent's social level, place of residence, family level of education, etc.., the new studies may suggest new solutions to increase awareness such as seminars and workshops and studying the impact of each of them.

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Appendix No

1. Copy of the IRB approval memo
2. If applicable: Copy of the Consent form (Arabic), Questionnaire or Data collection sheet (English).

Kingdom of Saudi Arabia
Ministry of National Guard - Health Affairs

المملكة العربية السعودية
وزارة الحرس الوطني - الشؤون الصحية

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Study site(s): **Central Region**

Dear **Dr. Nour Mohamed Abdelathim**
Lecture Anesthesia College of Applied Medical Science(CAMS), KSAU-HS
Ministry of National Guard – Health Affairs

Sub-investigators: Salem Alshammari, Nourah Alawad, Winnie Philip, Hadeel Aldosaimani, Shahad Alshahrani, Rahaf Aldossari, Reema Althaqil and Nawal Alshammari.

After reviewing your submitted research proposal/protocol and related documents, the **IRB has APPROVED** the submission. The approval includes the following related documents:

Document/Title	Version	Date
Research Proposal	01	04 June 2020
Data Collection Form	01	04 June 2020
Inform Consent	01	04 June 2020

The approval of the research study is valid for **one year** from the above approval to expiration date.

Terms of Approval:

- **Annual Reports:** An Annual report must be submitted for approval to avoid termination/suspension of your research.
- **Financial report:** If your study is funded project, details financial report should be submitted with the scientific report.
- **Final Report:** After completion of the study, a final report must be forwarded to the IRB.
- **Retention of original data:** The PI is responsible for the storage and retention of original data pertaining to the project for a minimum of five years.
- **Reporting of adverse events or unanticipated problems:** The PI is responsible to report any serious or unexpected adverse events or unanticipated problems, which could involve any risk to participants or others, or any event on incidents that may have impact on the research or participants.
- **Biological samples:** No biological samples to be shipped out of the Kingdom of Saudi Arabia without prior IRB approval.
- **Participant incentives:** No financial compensation or gifts to be given to participants without prior IRB approval.
- **Storage of biological samples:** All biological samples collected for the purpose of this research must be stored in the KAIMRC related repository.
- You will need to resubmit the proposal to the IRB for review and re-approval before implementing any changes to the approved proposal.
- It is possible that the IRB may decide that the proposed new changes may exclude the proposal from being accepted for exempt review.
- It is your responsibility to safely store the data collected.
- Note that phone based surveys are not permitted.
- No MRN can be included in any statistical analysis, results or manuscript.

09 JUN 2020

Prof. Abdullah Al Sayyari
Chairman, Institutional Review Board (IRB)
Ministry of National Guard - Health Affairs

AS/HZ/AJ

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Research Unit
(CAMS 411 & 412 Research Methodology I & II)

Research Title: Awareness and perception of the role of Anesthesia Technologist
Questionnaire study to evaluate the awareness and perception of the role of Anesthesia Technologist among applied medical science students

SI NO.	I. Demographic Data	
1	Gender	□ Male □ Female
2	Age	
3	Specialization	□Emergency Medical Services □ Respiratory therapy □Clinical Laboratory Sciences □Occupational Therapy □Clinical Nutrition □ Radiological Sciences □Cardiovascular Technology

II. Awareness and perception of the role of Anesthesia Technologist.				
SI NO.	Question	Yes	No	Not Sure
1	Is there a difference between anesthesiologist, Anesthesia technologist and Anesthesia technician?			
2	Is the role of Anesthesia technologist important in anesthesia team?			
3	Is the job of Anesthesia technologist is only to preparing the tools and equipment for the case?			
4	Does the Anesthesia technologist have a direct communication with patient in preoperative period?			
5	Do you think that Anesthesia technologist stay with patient throughout the procedure?			
6	Dose the role of the Anesthesia technologist differs from one hospital to another?			
7	Is the Anesthesia technologist responsible for the recovery of the patient in operating room?			

Thank you for taking the time to complete the survey, your input is valuable to us.

جامعة الملك سعود بن عبد العزيز للعلوم الصحية
كلية العلوم الطبية التطبيقية
وحدة البحث
(منهج البحث العلمي CAMS 411 & 412 I & II)

استبيان يقيس مدى معرفة الطلاب بمهمة اخصائيين التخدير في الفريق الطبي

1. البيانات الاجتماعية والديموغرافية		
1	الجنس	□ ذكر □ أنثى
2	العمر	
3	التخصص	□الخدمات الطبية الطارئة □علاج تنفسي □علوم المختبرات الإكلينيكية□علاج وظيفي □ التغذية الإكلينيكية □علوم الأشعة□ تقنية القلب

موضوع البحث: توعية حول دور اخصائي التخدير

2 . قياس مدى معرفة الطلاب بمهمة اخصائيين التخدير في الفريق الطبي.

	السؤال	نعم	لا	لست متأكدا
1	هل دور اخصائي التخدير مهم في فريق التخدير؟			
2	هل هنالك فرق بين استشاري التخدير واخصائي التخدير وتقني التخدير؟			
3	هل مهمة اخصائي التخدير محددة ضمن تجهيز الادوات والاجهزة للعملية الجراحية؟			
4	برأيك هل اخصائي التخدير له تواصل مباشر مع المريض؟			
5	هل تعتقد ان اخصائي التخدير يبقى مع المريض حتى وقت انتهاء العملية؟			
6	من خلال توقعاتك هل مهمة اخصائي التخدير تختلف من مستشفى لأخر؟			
7	هل اخصائي التخدير مسؤول عن افاقة المريض في غرفة العلميات؟			

Informed Consent for Cross Sectional Surveys	إقرار موافقة للمشاركة بدراسة مقطعية

Study Title: **Awareness and perception of the role of Anesthesia Technologist.**

Study No.:

Principal Investigator: **Ms. Nour Mohamed Abdelatim.**

KAIMRC APPROVED IRB

You are requested to participate in research that will be supervised by Ms. Nour Mohamed in KSAU-HS. This study is about evaluation the awareness and perception of the role of Anesthesia Technologist. Your participation is voluntary, and you have the right to not complete this survey without giving any reason and this will not affect your current or future medical care in MNG-HA. You do not have to sign this information sheet only you can choose to agree/disagree; your acceptance to complete the survey will be interpreted as your informed consent to participate. Your responses will be kept anonymous. However, whenever one works with email/the internet there is always the risk of compromising privacy, confidentiality, and/or anonymity. Despite this possibility, the risks to your physical, emotional, social, professional, or financial well-being are considered to be 'less than minimal'. If you have any questions about the research, please contacts. Nour Mohamed: mohammedno@ksau-hs.edu.sa In case you have any enquiries related to your rights as a research subject you can contact the Institutional Review Board on Tel 8011111 Ext. 14572.	أنت مدعو للانضمام طواعية لدارسة بحثية سوف تشرف عليها أ. نور محمد في جامعة الملك سعود بن عبدالعزيز للعلوم الصحية. هذه الدراسة تهدف إلى قياس مدى معرفة الطلاب بمهمة اخصائيين التخدير في الفريق الطبي. إن مشاركتك في هذه الدراسة اختياري ولك الحق التام في عدم قبول تعبئة الاستمارة أو الانسحاب في أي وقت تشاء بدون إبداء الاسباب ولن يؤثر ذلك على العناية الطبية المقدمة لك حالياً أو في المستقبل في الشؤون الصحية بوزارة الحرس الوطني. لا يجب عليك التوقيع على ورقة المعلومات هذه، فقط عليك الاختيار موافق / غير موافق فمجرد قبولك تعبئة هذا الاستبيان يعتبر بمثابة إقرارك بالموافقة على المشاركة في هذا البحث. سنبقي الردود على الأسئلة سرية ومع ذلك، فإن العمل عن طريق البريد الالكتروني والانترنت يبقى هناك احتمال اختراق خصوصية البيانات وسرية المعلومات ولكن بالرغم من هذه الاحتمالية تبقى الأخطار البدنية والعاطفية والاجتماعية والمهنية والمالية المترتبة عليك ضمن الحد الأدنى من الخطورة. إذا كان لديك أي اسئلة حول هذا البحث، يرجى التواصل على أ. نور محمد:mohammedno@ksau-hs.edu.sa في حال كان لديك الاستفسارات المتعلقة بحقوقك كموضوع بحث يمكنك الاتصال بمجلس المراجعة المؤسسية على هاتف 8011111 تحويلة 14572
Agree to participate ☐ Disagree to participate ☐	☐ موافق على المشاركة ☐ غير موافق على المشاركة
Version Date:	

King Saud bin Abdul-Aziz University for Health Sciences
College of Applied Medical Sciences