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ISSN No: 2319-5886

International Journal of Medical Research & Health Sciences, 2019, 8(12): 104-109

Attitude and Practice of Surgical Informed Consent among the Surgical Team in a Teaching Center: A Cross-Sectional Study

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ABSTRACT

Background: *Surgical informed consent is an essential part of a surgical procedure that is based on good communication between patients and physicians. Informed consent is an important part of medical practices worldwide that goes beyond just a signature; it equips patients with knowledge that helps them in making decisions.* ***Aim:*** *We aimed to evaluate the surgical team's role and level of knowledge of informed consent for an upcoming procedure.* ***Methods:*** *Between May 2018 and June 2018, we conducted a cross-sectional study among 255 doctors at King Abdulaziz University Hospital, Jeddah, Saudi Arabia to evaluate their experiences of obtaining patient consent. Data for this research were collected using a 14-point questionnaire and entered into Microsoft Excel. Statistical analysis was performed with SPSS, version 21. Descriptive statistics and a chi-squared test were applied to analyze the data.* ***Results:*** *Of the 188 participants who returned the questionnaire, 95.2% had experience obtaining surgical consent. Approximately 35.5% of interns, 78.9% of junior residents, 87.5% of senior residents, and 54.5% of specialists mentioned that they always take consent from patients; 37.2% reported knowledge of "all" steps of surgical procedures. Seventy-seven participants claimed to know "all" the risks of surgical procedures. Interns were the least comfortable while taking consent.* ***Conclusion:*** *SIC is an essential ethical skill and an integral part of any surgical procedure. Senior doctors, who are the most eligible and qualified, usually facilitate the SIC process. Nevertheless, SIC is also facilitated by a non-negligible number of unqualified junior doctors.*

Keywords: Surgical consent, Informed consent, Surgical team, Junior doctors

INTRODUCTION

Informed consent is a process through which capable patients are given all information about their medical condition so they can make their own health care decisions [1]. It is an essential ethical skill that is based on the fundamental principles of autonomy and human rights, which are occasionally overlooked. Surgical informed consent (SIC) is an integral part of any surgical procedure and it has become a vital part of current medical practice [2]. It should be based on proper communication between patients and health care providers. A thorough understanding is essential for doctors to be able to appropriately explain the specific procedures, inform their patients about minor and major complications they might encounter, and dispel any unrealistic outlooks [3].

The amount of content in the consent form depends on the potential risks of the procedure. Surgeries have the highest anticipated risks in medical practice. Thus, the consent form for surgical procedures must be more detailed than other general, medical care consent forms and even more details should be included in places with limited resources due to the increase in the anticipated risk [4,5]. Recent guidelines state that physicians obtaining consent must either have received special training in educating patients about the procedure or be qualified to perform the procedure [6].

In a broader context, there is a relatively small body of literature that is concerned with informed consent. In Canada,

some investigators evaluated how informed consent was taught and assessed in an internal medicine residency program, and the authors concluded that there was no consistent approach to teaching or evaluating informed consent skills [7]. Although residents effectively communicated information on procedural indications, techniques, and general risks to patients during the informed consent process, they failed to completely explain the serious risks associated with specific procedures. This highlighted the need for efficient training in informed consent skills [7].

Heaney, et al. [8] suggested that lack of supervision and senior guidance played a role in the inadequacy of SIC. Out of 60 surveyed interns, 96.7% had obtained SIC. Of these, 10.3% stated that they had absolute knowledge of the steps of the procedure. A small proportion of interns (8.6%) reported awareness of all the risks related to the consented procedures, and 43.0% stated that occasionally, senior colleagues had explained the risks of the surgical procedures [8].

Furthermore, a study was conducted in 2011 to evaluate patients' and physicians' perceptions of the SIC process. Physicians claimed that they gave detailed information and obtained SIC; however, only 11% of the patients reported receiving details about their disease and upcoming medical procedures [9].

Much of the research on informed consent has tended to focus on patients' perceptions of the SIC and little focus has been placed on physicians' attitudes and practice of SIC. Up to now, few kinds of research and contributions on SIC have been reported from different geographical areas but limited attention has been paid to this matter in Jeddah, Saudi Arabia [8]. This study was conducted at an academic center to evaluate the surgical team's role and level of knowledge on providing informed consent for procedures.

METHODS

Sample Frame

This study was approved by the institutional review board of King Abdulaziz University (KAU), Jeddah, Saudi Arabia. This cross-sectional study targeted surgical team members, including interns, residents, specialists, and consultants. Every part of the ethical standards (i.e., informed consent, no harm, etc.) was strictly followed in this research process, and all included members of the surgical team were satisfactorily informed about the study.

Recruitment Methods

This study was conducted at the Department of Surgery, King Abdulaziz University Hospital (KAUH), Jeddah, Saudi Arabia, from May 2018 to June 2018. A 14-point questionnaire involving a series of questions with multiple answer choices was distributed among 255 participants. Participants included surgeons, residents, and interns who had completed their surgery rotation. Verbal consent was acquired from all participants prior to their inclusion in this study.

Data Collection and Analysis

Statistical analysis was performed using SPSS version 21 software package. Frequencies and chi-squared tests were applied to analyze the data. A p-value ≤ 0.05 was considered statistically significant.

RESULTS

Of the 255 surgical team members who were invited to participate in this survey, 188 respondents completed the questionnaire, representing a response rate of 73.7%. Among the respondents, 90 (47.9%) were interns, 57 (30.3%) were junior residents (first three years of training in a surgical specialty), 8 (4.3%) were senior residents (final years of residency), 11 (5.9%) were specialists, and 22 (11.7%) were consultants. The specialty with the highest number of responses was general surgery (57.4%). The vascular surgery team was the least represented in the sample, with only one respondent (Table 1).

Most of the participants (95.2%) had experience obtaining surgical consent, and 4.8% reported that they had never tried to obtain consent from a patient before a surgical procedure. The proportion of respondents who always sought informed consent varied based on the level of practice or training and was as follows: 87.5% for senior residents, 81.8% for consultants, 78.9% for junior residents, 54.5% for specialists, and 35.5% for interns. Approximately 58.8%

of interns, 21.1% of junior residents, and 12.5% of senior residents stated that they occasionally sought informed consent for procedures. Only 5.6% of interns said they never did.

When asked the question, "Do you know the steps of the procedures for which you obtain consent from patients?", 37.2% of the participants answered "All of them." Approximately 28.2% of the respondents answered "Most of them," and a slightly smaller proportion (27.7%) answered "Some of them." Very few (6.9%) answered "None of them," most of which were interns and only one was a junior resident (Table 1). Also, when asked about their awareness of the potential risks of the procedures for which they obtained consent, 77 participants answered "All of them." Among those who answered "All of them," only 10 were interns. Sixty answered, "Most of them," 48 answered "Some of them," and only three, who were all interns, selected "None of them" (Table 1).

Most interns (n=47) responded that they participated in some of the procedures for which they had sought informed consent from patients. Thirty-three junior and senior residents reported they had seen most of the procedures, whereas all specialists and consultants had seen all of them (p-value $\leq$ 0.001).

Does the Level of Comfort Vary among our Participants?

A question that described participants' comfort level of obtaining consent from patients revealed that interns were less comfortable than residents, specialists, and consultants in taking informed consent. Further analyses showed that the knowledge level of the participants, and seen the procedure, significantly affected their comfort level (p-value $\leq$ 0.001).

Questions Directed to Interns and Junior Residents

1. Have you ever been supervised while taking consent?

There were 142 responses to this question (missing n=5). Eighty-four respondents had never been supervised when taking consent from patients (p-value=0.047)

2. Were the risks of the surgical procedures explained by seniors?

There were 141 responses to this question (missing n=6). Ninety-one participants reported that the risks of the procedures were explained to them by a senior colleague (p-value=0.133)

3. Who should obtain informed consent from patients?

Figure 1 shows that a large proportion of the participants reported that senior residents and the person performing the surgery should be responsible for obtaining consent from patients

Table 1 Summary of responses to the survey questions

Responses	Frequency	Percent (%)
Do you know the steps of the procedures for which you are obtaining consent from patients?		
All of them	70	37%
Most of them	53	28%
Some of them	52	27.7%
None of them	13	6.9%
Do you know the risks of the procedures for which you are obtaining consent from patients?		
All of them	77	41%
Most of them	60	31.9%
Some of them	48	25.5%
None of them	3	1.6%

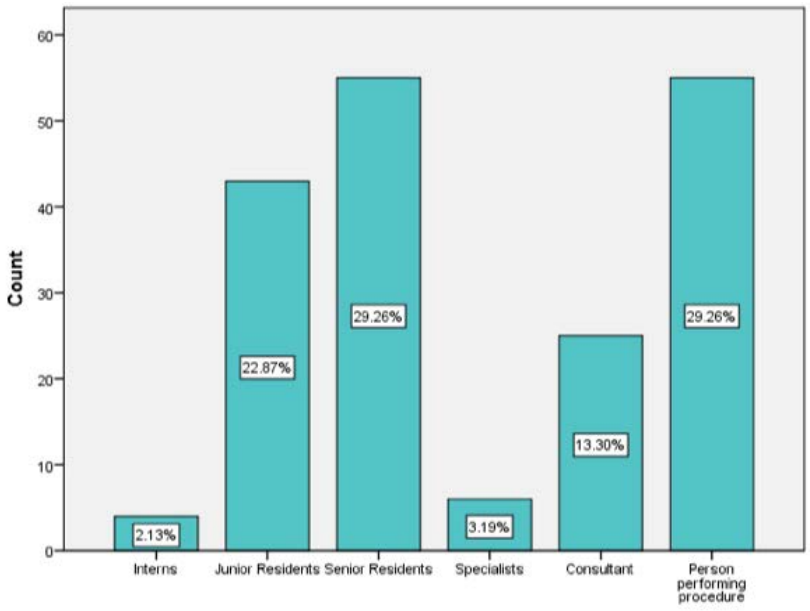

Figure 1 Participants' opinions regarding who should obtain informed consent from patients

DISCUSSION

In this study, we aimed to evaluate surgical teams' role and their level of knowledge on providing informed consent for procedures and further determined whether the practice of obtaining consent varied with training and professional levels. The process of obtaining consent for surgical procedures is a critical part of the surgery that should be given meticulous attention and conducted in a satisfactory manner. In current practice, adequate knowledge of the material information, proper documentation, and communication with patients are required [10].

Our respondents were at different professional or training levels (consultants, specialists, senior residents, junior residents, and interns), with interns comprising 47.9% of the sample. A possible explanation for this might be that interns generally take fewer responsibilities than senior doctors. Therefore, they are always available in-house. Regarding specialty, the proportion of general specialist is greater than that of subspecialist doctors [11], and in our study, general surgery participants provided the highest number of responses to the survey questions (53.2%).

Our results show that most of our surveyed physicians have experience in obtaining informed consent for a surgical procedure; only 4.8%, who were all interns, had never been tasked with providing informed consent. One of the reasons behind this could be that interns are less knowledgeable about the consent process, which in turn affects their level of confidence. Another plausible reason was that some interns were less interested in surgical specialties; thus, they hardly took the initiative to practice the elements of informed consent.

One unanticipated finding in this study was that senior doctors were the main physicians taking informed consent from patients. This finding is contrary to that reported by Ochieng, et al. who found that SIC was not taken by surgeons but was rather taken at admission or later in surgical units by nurses [12]. Other studies from the UK indicated that junior doctors' participation in the informed consent process ranged from 62.5 to 99.0% [13,14]. This discrepancy between our results and those of previous studies may be attributed to the fact that junior doctors are still learning and observing for the purposes of achieving enough experience and knowledge so that they can take consent confidently.

The fourth and fifth questions in this research were concerned with the knowledge of surgical procedure steps and risks. The results showed that most interns knew "some of them," whereas junior residents knew "most of them," and senior doctors knew "all of them." This finding is consistent with that of Temidayo, et al. who found that junior doctors were more skilled in informing patients about the benefits of the surgical procedure than in giving information about potential risks or alternative treatment of the planned procedures [15]. The lack of erudition of the steps and risks of surgical procedures highlights the need for better training of our interns and raises a question as to whether or not they should be engaged in the consent process. Lack of knowledge about basic elements of the informed consent process

can lead to an ineffective doctor-patient relationship. This has been confirmed in many studies that showed the rise in medicolegal claims in the surgical specialties was due to poor communication [16].

When assessing competency, we found that the interns in our study were least exposed to observing surgical procedures than other surgical team members. In addition to having explicit knowledge of performing surgical procedures, tacit knowledge carries the same significance as merely reading procedure steps, and risks without practical training and observing would not result in successful, efficient operations. This finding is also supported by prior studies that have noted the importance of increasing the exposure of junior doctors to operating rooms [17,18].

Our results regarding the comfort level while taking consent among participants revealed that interns (20%) were the least comfortable among residents, specialists, and consultants. This finding was expected, as our interns had completed only four months rotation in surgical specialties. Consistent with our findings, a study conducted in Ireland found that only 15% of interns said they were quite comfortable when obtaining patient consent for surgical procedures; this was correlated with the short duration of surgical training [8]. Most participants who felt comfortable while taking SIC were either specialists or consultants. Consultants, specialists, and some senior residents were the most knowledgeable, experienced, and trained about the steps and risks associated with surgical procedures. We believe that the more knowledge and experience the surgical team members had, the more comfortable and adequate they were in obtaining consent.

The interns and junior residents are the first line of healthcare providers worldwide [19]. One of the questions in this survey was directed at interns and junior residents to determine whether they were ever supervised while taking informed consent. When compared to other members of the surgical team with a higher practice or training level, junior doctors had the least knowledge. Yet, more than half of them (59.1%) had never been supervised while taking consent from patients. Consequently, errors may occur because an intern or junior doctor did not explain the potential risks or alternative treatment options of the planned procedures. Thus, a dearth of supervision could affect the patient's understanding of the details of the surgery and possible outcomes.

According to guidelines published by the United Kingdom Department of Health, physicians obtaining consent must either have received specialized training in clarifying the procedures to patients or be qualified to perform the procedures themselves [20]. Most junior doctors who had reported obtaining consent in our study did not fulfill the above-mentioned criteria. All doctors were asked, "Who should take consent?" The results showed the equivalence between "the person performing the procedure" (29.3%) and "senior residents" (29.3%).

The limitations of this study warrant discussion. Although this study is one of very few on SIC conducted in Saudi Arabia, it was conducted in a tertiary hospital; thus, the results cannot be generalized beyond the sample and setting. This study was also limited in that it included a relatively small sample of senior doctors. A larger sample of participants is needed to draw relevant conclusions.

CONCLUSION

Our analyses showed that senior doctors, who are the most eligible and qualified, usually facilitate the SIC process. Nevertheless, SIC is also facilitated by a non-negligible number of unqualified junior doctors. If junior doctors are to continue doing so, supervision by a senior doctor is recommended. Moreover, we propose that surgical departments in university hospitals should consider making it mandatory for undergraduate students to observe surgical procedures to enhance their competency in obtaining SIC.

DECLARATIONS

Ethics Committee Approval

The Institutional Review Board of King Abdulaziz University, Jeddah, Saudi Arabia.

Conflicts of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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