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Patient Safety in the Surgery: An Investigation of the Near-miss Cases Encountered by the Surgical Team While Applying the Surgical Safety Checklist

Cerrahide Hasta Güvenliği: Cerrahi Ekibinin Güvenli Cerrahi Kontrol Listesini Uygularken Karşılaştığı Ramak Kala Olayların İncelenmesi

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ABSTRACT

Objective: The study was conducted as a descriptive study in order to investigate the near-miss events that surgical team members encountered during the use of the Surgical Safety Checklist (SSC).

Methods: The research was carried out between June 25, 2018 and September 7, 2018 in the surgical services and operating theaters of three public hospitals in Ankara. The sample of the study (n=387) was consisted of surgical team members working in the surgical services (n=94) andin the operating room (n=293) (anesthesiologist, nurse, surgeon, surgical technician, anesthesia technician). Data were obtained with the individual data sheet and SSC application form. Chi-square test and Mann-Whitney U test were used for statistical analysis ($p<0.05$).

Results: As a result of the research, it was determined that 27.1% of the surgical team members working in surgical service and operating rooms did not receive training on the SSC. It was found that 72.9% of surgical team members received training on SSC and 37.0% said that there were near-miss cases and medical errors that were prevented with the use of SSC. Although 90.2% of the participants knew the near-miss definition and 37.0% encountered them, the rate of those reporting the event was determined as 7.8%. The near-miss cases most commonly encountered by the participants in the study were found to be absence of side marking in 26.0%, not removing jewelry in 23.0%, and being full of the patient (eating before surgery) in 18.0%. In addition, carelessness in 26.2%, crowd

ÖZ

Amaç: Araştırma, cerrahi ekip üyelerinin Güvenli Cerrahi Kontrol Listesi'nin (GCKL) kullanımı sırasında karşılaştığı ramak kala olayları incelemek amacıyla tanımlayıcı olarak yapılmıştır.

Yöntemler: Araştırmanın katılımcılarını, 25 Haziran 2018-07 Eylül 2018 tarihleri arasında Ankara ilinde bulunan üç kamu hastanesinin, cerrahi servisleri (n=94) ve ameliyathanede çalışan (n=293) cerrahi ekip üyeleri (anestezi uzmanı, hemşire, cerrah, cerrahi teknisyen, anestezi teknikeri) oluşturmuştur (n=387). Veriler Bireysel Bilgi Formu ve GCKL Uygulama Formu ile elde edilmiştir. Veriler değerlendirilirken ki-kare testi ve Mann-Whitney U testi kullanılmıştır ($p<0,05$).

Bulgular: Araştırma sonucunda, cerrahi servis ve ameliyathanelerde çalışan cerrahi ekip üyelerinin %27,1'i GCKL ile ilgili eğitim almadığı belirlenmiştir. Cerrahi ekip üyelerinin %72,9'unun GCKL ile ilgili eğitim aldığı, %37,0'ının ise GCKL'nin kullanımı sırasında bu uygulamanın önlediği ramak kala olaylar ve tıbbi hatalar olduğunu ifade ettiği bulunmuştur. Ramak kala olayı %90,2'sinin bilmesine ve karşılaşanların oranın %37,0 olmasına karşın, olay bildirimi yapanların oranı %7,8 olarak saptanmıştır. Araştırmaya katılanların en çok karşılaştığı ramak kala olaylar %26 ile taraf işaretlemenin olmaması, %23 ile takıların çıkarılmaması, %18 ile hastanın tok gelmesi olarak saptanmıştır. Ayrıca tıbbi hata oluşum nedeni olarak %26,2 oranında dikkatsizlik, %10,1 oranında yoğunluk ve %14,8 oranında bilgi eksikliği bildirilmiştir.

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in 10.1%, and lack of information in 14.8% were reported as the causes of medical errors.

Conclusion: As a result of the study, it was determined that surgical team members, especially nurses with high rates of use faced with near-miss cases during the use of SSC. Early detection of these errors will prevent the occurrence of preventable medical errors. Increasing training and making positive feedback to surgical team members will increase the use of SSC form and event notifications.

Keywords: Surgery, SSC, patient safety, near-miss case

Sonuç: Araştırma sonucunda, cerrahi ekip üyelerinin, özellikle kullanım oranı yüksek olan hemşirelerin GCKL'yi kullanımı sırasında ramak kala olaylar ile karşılaştığı belirlenmiştir. Önlenebilir tıbbi hataların erken saptanması bu hataların oluşumunu engelleyecektir. Konu ile ilgili eğitimlerin artırılması ve cerrahi ekip üyelerine olumlu geri bildirimler yapılması GCKL formunun daha çok kullanımını ve olay bildirimlerinin artmasını sağlayacaktır.

Anahtar Sözcükler: Cerrahi, GCKL, hasta güvenliği, ramak kala olay

Introduction

The concept of patient safety has emerged with the reporting of medical errors. With the Institute of Medicine report, which was the institution where human errors and adverse events were reported in the United States and England since 2000, hospital records in the USA, Australia and the United Kingdom were examined and it was stated that the average error rate was 10%. According to this result, the subject of patient safety in health services has been put into practice. Thus, patient safety has become a permanent part of health policy (1). With these developments in patient safety, a patient safety culture has been tried to be created in healthcare professionals. Various studies have been carried out for this purpose and the knowledge, clinical practice styles, attitudes and perceptions of the surgical team about patient safety have been evaluated. In this way, it is aimed to reduce medical errors (2). The main purpose of the surgical team in health services is expressed as maximizing the patient's safety and well-being through evidence-based practices, effective communication and cooperation, and thus optimizing people's quality of life (3-5).

The approach to patient safety is applied according to the "find and fix" model. When a situation that threatens patient safety is detected, the aim is not to stigmatize or judge, but to identify the steps where things go wrong and to minimize the number of errors as much as possible. In order to achieve this, it is necessary to facilitate work flexibility and try to increase the quality of service, to appreciate success and increase motivation, and to raise awareness to avoid undesirable results and medical errors (6). In order to improve the quality of medical services, instead of blaming the people associated with the error, it is necessary to focus on identifying the factors underlying human error, these factors are expressed as device error, environmental factors, inappropriate institutional policies, physical workload, and lack of information (7,8).

It has been determined that there is a need for safety reporting systems (SRS) in order to reduce medical errors in the health system and to take safety precautions (9). The Agency for Healthcare Research and Quality states that the "name, blame and judge" approach is not effective in medical errors (9). It is stated that in the security reporting system, the understanding of de-identification, that is, anonymization, is an important element for the increase of medical error notifications, and approaches to the reporting of medical errors in health systems focus on the error itself, not who has caused the error. It has been determined that the failure to provide adequate de-identification conditions at the error reporting stage prevents the formation of the reporting system (10). In the event and near-miss event notification, the events in which the patients and employees have been harmed or the events that are detected without causing harm are reported. For example, events such as stab wounds, falls, wrong side marking, lack of patient preparation for surgery, incomplete testing and lack of identity verification are events that should be reported (11,12).

Near misses are often ignored and not reported. However, if it is taken seriously and if it is known that it has parallel consequences with medical errors, possible medical errors can be prevented. The idea of reporting undesirable events and negative results has been considered as a situation accepted by many sectors for many years. In the aviation industry, in 1975, errors or "near misses" that should be reported without blaming individuals and with giving them confidence were defined as events that did not cause harm, even though they were close (13). Notifications made by the employees to prevent the reoccurrence of the events experienced are important in terms of shedding light on the measures to be taken in the future. A hospital employee who sees or experiences all kinds of events (near misses or undesired events) that may threaten patient and employee safety is responsible for reporting (14,15).

In Turkey, SRS was put at the disposal of health institutions in 2016 in order to report errors that occured in the pharmaceutical, laboratory and surgical processes. With the completion of the development of the patient safety module, patient safety errors can also be entered into the system on August 31, 2016. It was reported that a total of 74383 error notifications were made to the SRF in 2016. Of these, 93.8% were found to be laboratory errors, 1.5% to patient safety errors, 1.6% to surgical errors, and 3.1% to medication errors. These reported errors are used to develop Quality Standards in Health, and as a result, it is aimed to prevent errors related to the health care process (16). As a result of Sheikhtaheri's study in Iran in 2014, it was determined that reporting of medical errors increased the number of successful practices in error management as well as identifying weaknesses (17). The hesitations in the reporting system and the lack of error reporting are important risks in terms of patient safety, and

the number of surgical interventions in the world is too high to be underestimated. It is stated that 234.2 million invasive procedures and interventions are performed every year in the world (18). Considering the high rate of worldwide surgical interventions and high mortality and morbidity rates, it has been determined that the lack of safe surgical steps is an important health problem and cannot be neglected (18).

With the World Health Organization (WHO) motto "Safe Surgery Saves Lives", the Safe Surgery Checklist (SSC) was created on February 9, 2009, and the WHO Guidelines for Safe Surgery was chaired by Professor Atul Gawande. Its purpose has been to provide a simple, effective set of priority controls to improve teamwork and communication and to encourage active consideration of patient safety for every operation performed. Professor Gawande's team observed over 3000 patients prior to implementation of the checklist and approximately 4000 patients after implementation of the checklist. It was reported that the total mortality rate was 1.5% before the initiation

Table 1. The results of the surgical team members' information and notification regarding near-miss events (n=387)

Features	Doctor (n=82)		Nurse (n=277)		Other** (n=28)		Total		Analysis (n=387)	
	n	%	n	%	n	%	n	%	x²*	P
The state of knowing near miss event										
Yes	77	93.9	247	89.2	25	89.3	349	90.2	1.6	0.443
No	5	6.1	30	10.8	3	10.7	38	9.8		
Near-miss event reporting status										
Yes	6	7.3	23	8.3	1	3.6	30	7.8	0.8	0.662
No	76	92.7	254	91.7	27	96.4	357	92.2		

*Chi-square test, p<0.05 **Surgical technician, anesthesia technician (n=28)
Table 2 shows the results of the relationship between the situations of encountering near-miss events and the unit where they worked. As a result of the research, it was determined that 37.0% of the surgical team members encountered a near-miss event

Table 2. Results on the relationship between the situations of encountering near misses and the profession (n=387)

The situation of encountering a near-miss event in the use of SSC	Doctor		Nurse		Other**		Total		Analysis*	
	n	%	n	%	n	%	n	%	x²	P
Yes	25	30.5	109	39.4	9	32.1	143	37.0	2.47	0.291
No	57	69.5	168	60.6	19	67.9	244	63.0		
Total	82	100.0	277	100.0	28	100.0	387	100.0		

*Chi-square test, p<0.05 **Surgical technician, anesthesia technician
Table 3 shows the situations where the surgical team members encountered near-miss events. Near-miss events encountered by the surgical team were not confirming the site of surgery in 26.0%, not removing jewelry and prostheses in 23.0%, and being full (eating before surgery) of the patient in 18.0%

Table 3. Distribution of findings related to near misses encountered by surgical team members (n=100)

Near-miss events	Doctor (n=21)		Nurse (n=71)		Other** (n=8)		Total (n=100)	
	N	%	n	%	N	%	n	%
Allergy	1	4.8	4	5.6	4	50.0	9	9.0
Deficiencies in preparation for surgery	0	0.0	3	4.2	0	0.0	3	3.0
Anticoagulant use	0	0.0	1	1.4	0	0.0	1	1.0
Missing examination	0	0.0	1	1.4	0	0.0	1	1.0
Being full (eating before surgery) of the patient	2	9.5	16	22.5	0	0.0	18	18.0
Incorrect blood transfusion to the patient	0	0.0	0	0.0	1	12.5	1	1.0
Not authenticating	2	9.5	8	11.3	0	0.0	10	10.0
Lack of consent	0	0.0	3	4.2	0	0.0	3	3.0
Lack of counting and pathology control	1	4.8	1	1.4	1	12.5	3	3.0
Inappropriate sterilization	0	0.0	2	2.8	0	0.0	2	2.0
Failure to remove jewelry and prosthesis	10	47.6	13	18.3	0	0.0	23	23.0
Not confirming the site of surgery	5	23.8	19	26.8	2	25.0	26	26.0
Total	21	100	71	100	8	100	100	100

*Chi-square test, p<0.05 **Surgical technician, anesthesia technician (n=28)

of SSC and decreased to 0.8% after SSC application, while inpatient complications decreased from 11% to 7% after using SSC (19-21). All these studies show that safe surgery saves lives in order to ensure patient safety (20,21). The WHO's SSC was approved by nearly 246 institutions in more than 40 countries in the America, Europe, Africa and Asia. The WHO estimates that five hundred thousand deaths per year can be prevented with the application of SSC (22-25). In order to ensure patient safety, prevent and reduce medical errors; the International Joint Commission included the prevention of wrong-sided surgery and surgery on the wrong patient within the scope of the patient safety targets of the year 2014 (26-29).

The purpose of developing SSC is to help reduce the number of errors in surgical practice, strengthen accepted safety practices, and improve interdisciplinary communication and teamwork. The SSC is designed as a tool for use by clinicians to increase the safety of their operations and reduce unnecessary surgical death and complications. Its use has been significantly associated with significant reductions in complication and mortality rates and improvements in basic care standards (29-31). SSC is a process that should start from the moment the patient is admitted to the service. The list was renewed by the Ministry of Health with the permission of WHO of "Every institution can regulate SSC according to its needs and procedure" and it was published in 2011 under the name of "Safe Surgery Checklist TR". SCC, which consists of three stages in accordance with WHO's own needs, includes the clinical process with the idea that "the surgical process begins in the clinic" in our country and consists of four stages (32,33).

As a result of the researches, there are studies examining the application and functionality of SCC (19,34-36). In these studies, who used the SCC more, usage rates, whether it was applied correctly, the rate of application, and missing aspects that could not be applied were examined (34-38). However, near-misses during the use of GCKL have not been studied. Based on this requirement, our study was conducted to describe the near-miss events encountered during the application of GCCL in the operating room and surgical wards by the surgical team. It is thought that this research will reveal the importance of the use of the form by revealing the near misses that the use of GCKL prevents, as well as eliminating this deficiency.

Methods

Sample of the Research

This research was planned as a descriptive study to examine the near-miss events encountered by surgical team members (nurses, surgeons, anesthesiologists, anesthesia technicians and surgical technicians) working in surgical units while performing SCC. The population of the research consisted of 560 surgical team members working in the surgical wards and operating room units of three public hospitals in Ankara. In this study, the sample selection was not made, and the whole universe was tried to be reached. It was planned to include all surgical team members in the study. The sample of the study consisted of 387 surgical team members who voluntarily agreed to participate in the study and completed the questionnaire. One hundred twenty surgical team members who were not on active duty in these hospitals due to various reasons (maternity leave, assignment, etc.) at the time the research was conducted, and 53 surgical team members who did not complete the questionnaire and did not agree to participate in the research were not included in the study.

Ethical Aspect of Research

Ethics committee approval was obtained from the Ankara Yıldırım Beyazıt University Social and Human Sciences Ethics Committee for the research (decision number: 36, date: 23.02.2018). Written institutional approval was obtained from three public hospitals to implement the study. Participation in the research was on a voluntary basis, and an Informed Consent Form was signed by the healthcare professionals within the scope of the survey, which contained information about the purpose and content of the research.

Data Collection Forms

Data collection form consisting of two parts, based on the literature review, was used to collect the research data. In the first part, there is the "Individual Information Form" consisting of 10 questions, which includes the individual characteristics of the surgical team members working in the surgical units. In the second part, the "Safe Surgery Checklist Application Form" consisting of 45 questions used by the surgical team members working in the surgical units, including SCC and near-miss event reporting, was used (2,18,23,33,39-41). The data collection form was prepared after being submitted to the opinion of two experts working in the Surgical Diseases Nursing program of two different universities and started to be implemented.

Application Phase of the Research

Between the dates of the research, a total of 440 surgical team members working actively in the public hospital were reached. Data collection form consisting of two parts, based on the literature review, was used to collect the research data. In the first part, there was the "Individual Information Form" consisting of 10 questions, which included the individual characteristics of the surgical team members working in the surgical units. In the second part, the "Safe Surgery Checklist Application Form" consisting of 45 questions used by the surgical team members working in the surgical units, including SCC and near-miss event reporting, was used (2,18,23,33,39-41). The data collection form was prepared after being submitted to the opinion of two experts working in the Surgical Diseases Nursing program of two different universities and started to be implemented. After obtaining institutional approvals, the purpose of the study was explained to 440 surgical team members working in the surgical wards and operating room units, and their written and verbal consents were obtained, and the data collection form was delivered in a personalized sealed envelope. Information was given about making the data collection form individually and it was applied on condition that it was received two weeks later. The data were collected by the closed envelope method between

June 2018 and October 2018, and 387 participants who applied the forms were included in the application.

Analysis of Data

The data obtained in this study were analyzed with the SPSS 21 package program. Number, percentage, mean, standard deviation, minimum and maximum values were used to represent the descriptive variables. In the data obtained, Mann-Whitney U test was used for two-group mean comparisons and chi-square analysis was used for dependency tests of categorical variables. In statistical analysis, the level of significance was accepted as $p<0.05$. The non-parametric Mann-Whitney U test was used in case the data did not show normal distribution. $P<0.05$ was used as the significance level, and it was stated that there was a significant difference in the case of $p<0.05$, and no significant difference in the case of $p>0.05$.

Results

Of the participants in the study, 76.7% are women. Of the participants, 75.7% worked in the operating room and 24.3% in the surgical service. Of the employees in the operating room participating in the research, 67.52% were nurses. The number of surgical service personnel participating in the research was 94, and 90 of 94 personnel were nurses. Of the nurses participating in the research, 61.7% had a bachelor's degree and 14.8% had a master's degree. There was no significant difference between occupational groups in terms of age ($p>0.05$). While the duration of the profession was significantly longer in nurses, the longest duration in the unit was again in nurses ($p<0.05$). The average tenure of the nurses participating in the study was 11.12 years. Nurses had the longest tenure in the unit they worked, with an average of 6.41 years. It was determined that 93.9% of the surgeons participating in the study had information about the near miss event on the wrist, and 89.2% of the nurses had information about the near miss event. While surgeons reported 6 events, nurses reported 23 events.

Discussion

The research was carried out to examine the near-miss (avoidable) events encountered by surgical team members working in surgical units and operating rooms during the use of SSC. In the literature, obstacles related to the application of SSC, changes in surgical error rates, changes in morbidity rates, changes in mortality rates, and team cohesion were evaluated. There are a limited number of studies showing that it prevents many errors during the use of the form before surgical errors occur. For this reason, the results of the research were discussed by comparing with the studies and literature information (41-44).

The SSC was first defined by WHO between 2007 and 2008, drawing attention to patient safety with the "Safe Surgery Saves Lives" campaign. Thanks to this campaign, many application guides were created and revised according to usage over time (42,43,45,46). Delgado Hurtado et al. (45) showed that 93.80% of healthcare professionals (surgeons, anesthesia, nurses, assistants) had knowledge about SSC. In our study, this rate was 94.57%. The results of our study were parallel to the results of other studies. The reason for this may be supporting the training of health workers with seminars, congresses, training and interpersonal communication and keeping the issue up to date with SRS audits.

When participation in scientific studies, evaluation of health personnel who supported the study, and participation in patient safety issues were evaluated Carvalho et al. (47), it was determined that nurses' perception of participation in scientific studies and patient safety was 60%. The participation rate of the nurses in our study among the health personnel working in the surgical units was determined as 71.58%. It is thought that in-service training should be increased in order for the whole team to have patient safety awareness.

In the systematic review study of Weieser et al. (48), it was concluded that the patients received surgical care, but the measurement of safety and quality of care was not a priority, and the safety criteria should be evaluated systematically. Parallel to this, in our study, it was determined that the surgical team members were knowledgeable about the reporting of a near-miss event, but the reporting rate was low despite encountering a near-miss event. Surgical team members should be guided and supervised regarding event notification recording systems.

In a study, 3301 surgical applications selected from 63 hospitals in Sweden were analyzed. Near-miss events encountered in these surgical patients were analyzed and it was concluded that adverse events were common and preventable in surgical care (49). In our study, parallel to this study, healthcare professionals thought that medical errors could be prevented with SSC. Near misses have parallel results with medical errors, and sharing these data with the surgical team will increase awareness about reporting.

In the study published in Brazil in 2019, nurses' perspective on the use of SSC was evaluated. As a result of the questionnaire administered to 220 nurses via e-mail, it was determined that the nurses were committed to the surgical intervention goals, but failure was identified in the prevention of events (50). In our study, although it was observed that healthcare professionals gave importance to safe surgery, failure was found in reporting. Undeclared events will not be resolved as long as they are limited to the knowledge of the individuals and will cause new errors to occur.

In the study published by Ramsey et al. (52) in 2019, significant decreases were found in mortality rates due to the use of SSC in 2000s. Since the implementation of the checklist, there has been a reduction in perioperative deaths as part of an overall national safety strategy (51). In our study, the most important causes of medical errors were found to be carelessness and crowd. SSC is seen as a safety step that helps to reduce the rate of medical errors and mortality that may increase in inattention and crowd.

Schwendimann et al.'s (52) study on the global use of the WHO Surgical Safety Checklist to ensure patient safety during surgery demonstrated that extensive local expert interviews and individual, procedural, and contextual variables influenced the

implementation of the checklist. Facilitating factors included well-informed experts advocating the use of the checklist and teams focused on the intended process and content of the checklist. In contrast, factors such as staff distrust, a generally negative attitude towards the checklist, lack of teamwork, and hesitation to complete the checklist prevented its implementation (52). In our study, there were findings parallel to this result. Crowd and lack of time were thought to affect usage. Instead of seeing SCC as a workload, it should be considered as an indispensable part of surgery and inspections should be increased.

In the meta-analysis study in which the effect of the use of SCC and the complications it prevented were investigated; 9 studies showed an increase in the rate of patient identification, an increase in the rate of surgery side marking, and a decrease in the rate of reoperation (40,43). The results we found in our study also showed parallel results with the literature. Near-miss events encountered during the use of SCC were wrong surgery side in 14.91% and unconfirmed surgery side in 8.71%. These parallel results reveal the importance of using SCC.

In order to contribute to the creation of safe hospitals in the study of Moy et al. (53), a questionnaire was applied to a total of 290 participants including 50 or more personnel from occupational groups directly involved in patient care and service processes. Of the participants, 96.90% stated that they knew what a near-miss event was, 91.03% of them stated that they defined a near-miss event related to patient safety, 81.72% of them correctly defined a near-miss event, 16.90% of health workers stated that they experienced/observed a near-miss event, but it was shown that 69.77% of those events were not reported (53). In the study of Kaplan et al. (54), malpractice cases were examined between 2003 and 2008 and it was reported that midwives caused injury to the newborns due to their carelessness and inexperience while applying the phenylketonuria test (54). In the study of Karagözoğlu et al. (55), the rates of encountering and reporting medication errors of 204 nurses were evaluated. As a result, it was reported that although 62.30% of them encountered medication errors, 80.40% did not report any errors, and the most common medication error was incorrect medication administration. In that study, it was concluded that the majority of the nurses had a lack of knowledge about error reporting and a negative opinion about the attitude of the management about medical errors was dominant (55). Although 37.0% of the near-misses were encountered in our study, the reporting rate was 7.8%. As a result, studies should be carried out to increase the reporting of near miss incidents related to patient and employee safety, analysis results and measures taken should be shared with employees in order to ensure that reporting and near-miss notifications play a role in preventing errors. These shares will contribute positively to the creation of a safe hospital environment.

When we looked at the number of notifications in the surgical field among a total of 74,383 notifications made to the SRS in 2016, the followings were reported; not marking the surgical site in 346, not confirming identity, surgery site and procedure in 130, not removing make-up, prosthesis and valuables in 104, not shaving the operation area in 54, not being a healthcare worker during patient transfer in 52, not checking consent in 50, not checking the side in 45, not getting the consent of the patient in 38, not checking the marking in 32, and not confirming preoperative fasting in 27 (56). Parallel to the results of SRS, in our study, the rate of near miss during surgery side verification was the highest with 14.69%. This result shows that near misses and medical errors have parallel consequences. As a result, reporting near-miss events as medical errors will reduce the rate of medical errors. Restricting this information to the person will not be beneficial in terms of patient safety, which will lead to a vicious circle. The importance of revealing the defect in the system, not by whom the mistake has been made, should be emphasized and the possible concerns of the members of the surgical team should be addressed. Encouraging the reporting of near misses through studies will increase the number of notifications and raise awareness.

Study Limitations

Since the research was conducted in three public hospitals in Ankara, its findings could not be generalized.

Conclusion

In line with the results obtained from our study, in-service training on the use of SCC and raising awareness of patient safety should be increased. Controls related to the application part should be increased. Education should be provided on how near-miss event reporting reduces the occurrence of surgical errors. It should be ensured that the awareness of healthcare professionals working in surgical units is provided to prevent medical errors rather than revealing errors and punishing the employee. It is recommended to implement SCC, which improves team members' communication, cooperation and patient safety in the perioperative process.

Ethics

Ethics Committee Approval: Ethics committee approval was obtained from the Ankara Yıldırım Beyazıt University Social and Human Sciences Ethics Committee for the research (decision number: 36, date: 23.02.2018).

Informed Consent: Participation in the research was on a voluntary basis, and an Informed Consent Form was signed by the healthcare professionals within the scope of the survey, which contained information about the purpose and content of the research.

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Authorship Contributions

Concept: H.T., Design: H.T., Analysis or Interpretation: S.B., H.T., Literature Search: S.B., Writing: S.B., H.T.

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