

Original Research Paper

Analysis of factors related to the implementation of the *surgical safety checklist*

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Submitted: January 20, 2024

Revised: February 30, 2024

Accepted: April 25, 2024

Abstract

One of the indicators of service quality to patients is patient safety, where hospitals must create a system that reduces and even prevents incidents that threaten patient safety. The operating room is the part of the hospital that most often has problems with patient safety. The 2020 National Committee for Patient Safety (KNKP) report stated that hospital patient safety incidents in West Sumatra Province reached 5%. The purpose of this study is to find out the dominant factor in the implementation of a surgical safety checklist (SSC) in the operating room of Padang Hospital. This study uses a Cross-Sectional quantitative design with a sample of 25 operating room officers. The results showed that there was no relationship between officers' education factors and SSC implementation compliance (p-value = 0.163), there was a relationship between officers' knowledge factors and SSC implementation compliance (p-value = 0.083), there was a relationship between officers' attitude factors and SSC implementation compliance (p-value = 0.002), there was a relationship between officers' working life factors and SSC implementation compliance (p-value = 0.093) and there was a relationship between officers' motivation factors and SSC implementation compliance (p-value = 0.093) value = 0.000). It is hoped that the hospital will always be active in carrying out program strategies to increase officers' compliance with the Surgical Safety Checklist (SSC) by the standards for implementation in the operating room.

Keywords: attitude; education; knowledge; motivation; surgical safety checklist; working period

1. Introduction

One indicator of service quality to patients is patient safety. Hospitals must create a system that reduces and even prevents incidents that threaten patient safety. These events consist of Unexpected Events, Almost Accidental Events, or Potential Injury Events. (Tutiany et al., 2017). The operating room is the part of the hospital that most often has problems with patient safety. According to a study by the University of Maryland in the United States, it was found that actions that have the potential to endanger patient safety in the operating room include infection complications (26%), burns (11%), communication or teamwork (6%), foreign objects (3%), flow or traffic in the operating room (4%), misadministration of medication (2%), room noise (2%), surgical safety check (1%) (Hogan et al., 2015).

The National Committee for Patient Safety (KNKP) reports that every year a large number of patients are harmed or die due to unsafe health services, thus creating a high burden of death and disability worldwide, especially in low- and middle-income countries. On average, it is estimated that one in 10 patients experience side effects while receiving hospital treatment in high-income countries. Patient Safety Incidents (PSI) that occurred in Indonesia based on the results of the report are known that there were 7,465 cases in 2019, consisting of 171 deaths, 80 serious injuries, 372 moderate injuries, 1183 minor injuries, and 5659 no injuries (Rumah Sakit Cempaka Putih, 2023). In Indonesia, data on patient safety incidents in the operating room has not been well documented. Therefore, health workers

on duty in the operating room, especially nurses, must be able to display professional behavior. One form of professional behavior in the operating room is how to apply the Surgical Safety Checklist (SSC) which is the standard procedure for patient safety in the operating room (Prakoso & Rosa, 2019). According to the National Committee for Patient Safety (KNKP) in 2020, it is stated that Patient Safety Incidents (PSI) of hospitals in West Sumatra Province reached 5%. The reported data showed an increase of 2.3% from the previous year (Nurhayati & Suwandi, 2019).

The use of SSC, according to WHO, is associated with improvements in patient care by nursing process standards, including the quality of work of the operating room nurse team (Ramkumar et al., 2018). SSC provides benefits in reducing incidents that endanger patient safety. SSC is a form of patient safety behavior that must be applied in the operating room. For the use of SSC to be effective, consistency is needed in implementing and maintaining a patient safety culture in each operating room team (Cullati et al., 2014). Errors that often occur when filling out SSC are not filling in drugs such as prophylaxis, not filling in the estimated duration of the operation and the estimated amount of blood loss during the operation in the intranesthesia room while in the sign-out phase many do not fill in the confirmation of the type of surgical action and completeness of the number of instruments, gauze and surgical needles (El Boghdady 2016). The role of nurses in the implementation of SSC will help reduce the incidence rate. All of these incidents indicate that the implementation of SSC has not been implemented optimally. Patient safety, especially in the operating room, is the biggest problem because during surgery such as an incision error on the surgical side due to not doing a skin marker, the patient's skin is burned due to improper placement of the neutral negative cable, missing a foreign object in the body cavity due to inconsistent tool calculations, so it can be said that patient safety depends entirely on the handling of medical personnel and nurses in the operating room. (van Zyl et al., 2023).

The application of SSC, will be influenced by many factors, namely education, knowledge, attitudes, behaviors and motivation of nurses. According to research conducted by Hasri et al., (2012) Found out of the 3 stages of SSC implementation (Sign In, Time Out, and Sign Out), then Sign out phase, which is mostly not performed by nurses in emergency surgery and elective surgery. Meanwhile, the research Ernawati et al. (2018) said that several factors such as education, knowledge and motivation affect the implementation of SSC, especially in the Time Out Phase by nurses. According to Notoatmodjo (2018) Education is a process in a series of influencing and thus will cause a change in behavior in oneself because it is undeniable that a person's education is higher the easier it is for a person to receive health information and also vice versa if one's education is low, it is undeniable that it will hinder a person's development or the receipt of information about health along with new values that are introduced. Individuals with high education will also have broader knowledge, making it easier for them to make decisions. However, not always a person's knowledge can prevent him from unwanted events, for example, officers with good knowledge do not always carry out patient safety well because all actions taken are at risk of mistakes (Gul et al. 2022).

According to Wähle et al., (2020) The officer's knowledge of SSC in the operating room shows that the higher the level of education, the better the absorption of information becomes. In addition, the higher the level of education, the better the mindset will also be so that it will cause a person to have better analytical skills. Officers who have a high level of education tend to have a good level of knowledge. Behavior that is not based on knowledge and awareness will not last long. An officer's knowledge varies depending on the level of education he has. This is related to the development of nursing, the depth and breadth of science will affect the ability of nurses to think critically in performing nursing actions. This means that the higher the nurses' knowledge level, the more compliance in the implementation of SSC in the operating room will also increase. The knowledge of officers is also inseparable from the development results of training. This training and knowledge go hand in hand, and training will affect a person's knowledge. Training such as basic life support and basic surgery is an

absolute requirement for a health worker in the operating room. Basic surgical training teaches officers how the preparation process, surgical activities, effective communication, and patient safety all the training provided is the basis for officers to carry out patient safety (Gong et al. 2021).

The reason for this low SSC filling is the lack of prior training and lack of cooperation among the operations team members. The success of the SSC depends on staff training to improve knowledge and compliance. It cannot be assumed that the automatic introduction of SSC will lead to better results. In addition, communication with staff is essential to improve compliance (Ayabe et al. 2017).

The results of the preliminary study observations, researchers at Rasidin Hospital and Dr. Reksodiwiryo Level III Hospital, with the number of operating room nurses as many as 67 people. The average operation in a month is 450 - 630. These two hospitals already have standard operating procedures (SPO) standards that implement SSC, and all of them contain SSC items in the WHO, consisting of sign-in, time-out, and sign-out phases. However, some officers still do not do the sign-out phase. Interviews with 8 health workers consisting of nurses and arrangers stated that they had not carried out SSC filling, especially in the time-out phase, the reason was because 2 nurses said that nurses' knowledge was still lacking, 6 nurses and arrangers were still educated with diplomas, 6 nurses and arrangers said that there was a lack of training, especially in training in the operating room, and four nurses said that the workload of nurses was heavy. This study aims to discover the factors related to the implementation of SSC (Surgical Safety Checklist) in the Operating Room.

2. Research Methods

This type of research is quantitative research with the research design being Analytical. The approach used in this study is a cross-sectional research design, a design used in the study where independent and dependent variables are measured simultaneously. The variables measured were education, knowledge, attitude, work period, motivation, and compliance with implementing the Surgical Safety Checklist. The sample in this study was taken using the total sampling technique, where all nurses and anesthesiologists on duty filled out the Surgical Safety Checklist sheet in the hospital operation room consisting of Rasidin Hospital and Level III Hospital Dr. Reksodiwiryo. The sample criteria were nurses/circulatory managers at the Central Surgical Installation of Semarang Private Hospital which amounted to 25 respondents. Data collection was carried out with a questionnaire instrument. This study used a questionnaire adapted from WHO, 2016 about surgical safety checklist to obtain data related to the implementation of SSC in the operating room which has been changed to Indonesian. During the questionnaire filling, respondents may ask questions that are not understood. Alpha Cronbach obtained the results of the validity and reliability test for the surgical safety checklist (0.812), knowledge (0.834), attitude (0.791), and work motivation (0.828), and the instrument was reliable. The researcher made a contract with the respondents regarding the days and hours when filling out the questionnaire and made observations until the officer was aware of the implementation and filling out the SSC sheet. Chi-square bivariate analysis is used to see if there is a relationship between independent and dependent variables. Chi-Square's decision was made using a p-value of <0.05, so it is said to be significant.

3. Results and Discussion

In this chapter, the results of the research and discussion will be described. General data displayed the characteristics of respondents based on age, education, knowledge, attitude, working period and motivation of operating room officers. Meanwhile, the special data is data on the implementation of the surgical safety checklist document in the operation room.

3.1.Result

3.1.1. Univariate Data

3.1.1.1. Characteristics of respondents based on age, education, knowledge, attitude, working period, motivation, and completeness of documents

In this study, the results of the questionnaire data collection distributed in the research object can be seen in the frequency table of respondents at Rasidin Hospital and Level III Hospital Dr. Reksodiwiryo Padang City as follows:

Table 1. Distribution of respondent frequencies based on age, education, knowledge, attitude, working period, motivation, and completeness of documents in the application of the Surgical Safety Checklist in the operating room

Characteristics	f	%
Age		
Early Adult 26-35 Years	9	36,0
Late Adult 36-45 Years	12	48,0
Early Elderly 36-45 Years Old	4	16,0
Education		
DIII/DIVCtreatment	7	28,0
S1 Nursing	18	72,0
Knowledge		
Good	18	72,0
Enough	4	16,0
Less	3	12,0
Attitude		
Agree	21	84,0
Disagree	4	16,0
Disagree	0	0
Working Period		
> 10 Years	14	56,0
6 – 10 years	4	16,0
< 6 Years	7	28,0
Motivation		
Good	16	64,0
Enough	5	20,0
Less	4	16,0
Document Completeness and Application		
Complete	13	52,0
Complete Not Done	8	32,0
Incomplete Not Done	4	16,0

Source: Primary Data, 2023

Based on Table 1 above, data was obtained that most respondents were adults aged 36-45 years, namely 12 respondents (48.0%). In contrast, the level of education most of them had S1 Nursing education, which amounted to 18 respondents (95.6%), and most of the good knowledge level was 18 respondents (72.0%). In contrast, the attitude of most of the respondents in the category as many as 21 respondents (84.0%), based on the working period of more than half of the 10-year working mass repension, namely 14 respondents (56.0%), based on most of the good respondent motivations, namely 28 respondents (62.2%), and based on the completeness of the Surgical Safety Checklist documents, more than half of the respondents completed as many documents, namely 13 respondents (52.0%).

3.1.2. Bivariate Data

After knowing the general data in this study, the following results related to the study will be displayed with special data regarding factors related to the implementation of the surgical safety checklist (SSC) in the operating room at Rasidin Hospital and Dr. Reksodiwiryo Level III Hospital Padang City.

3.1.2.1. The Relationship Between Educational Factors and the Completeness of the Implementation of the Surgical Safety Checklist

Table 2. The Relationship Between Educational Factors and the Completeness of the Implementation of Surgical Safety Checklists in the Operating Room

Education	SSC Document Completeness						Total		P-Value
	Complete done		Complete No Performed		Incomplete Not Done		f	%	
	f	%	f	%	f	%	f	%	
D III/IV	3	12,0	4	16,0	0	0,0	7	28,0	0,163
S1	10	40,0	4	16,0	4	16,0	18	72,0	
Total	13	52,0	8	33,0	4	16,0	25	100	

Source: Primary Data, 2023

Table 2 shows that the education of nurses is mostly undergraduates, namely 18 people (72.0%), implementing the complete implementation of the Surgical Safety Checklist (SSC) is carried out, namely 10 people (40.0%), complete documents are not carried out as many as four people (16.0%) and incomplete documents are not carried out, namely as many as four people (16.0%). The results of the Chi-Square statistical test showed that the $p\text{-value} = 0.163 > \alpha = 0.05$, meaning that it was concluded that there was no relationship between the nurse's education factor and the completeness of the Surgical Safety Checklist (SSC) implementation document at Rasidin Hospital and Dr. Reksodiwiryo Level III Hospital, Padang City.

3.1.2.2. The Relationship Between Knowledge Factors and the Completeness of the Implementation of the Surgical Safety Checklist

Table 3. The Relationship Between Knowledge Factor and the Completeness of the Implementation of Surgical Safety Checklists in the Operating Room

Knowledge	SSC Document Completeness						Total		P Value
	Complete done		Complete No Performed		Incomplete Not Done		f	%	
	f	%	f	%	f	%	f	%	
Good	11	44,0	6	33,0	1	4,0	18	72,0	0,083
Enough	2	8,0	1	4,0	1	4,0	4	16,0	
Less	0	0,0	1	4,0	2	16,0	3	12,0	
Total	13	52,0	8	32,0	4	16,0	25	100	

Source: Primary Data, 2023

Table 3 shows that the knowledge of most officers have a good level of knowledge, namely 18 people (72.0%) carry out the implementation of the complete Surgical Safety Checklist (SSC), which 11 people (44.0%), six people (33.0%) do not complete documents and incomplete documents are not carried out, namely one person (4.0%). The results of the Chi-Square statistical test showed that the $p\text{-value} = 0.083 > \alpha = 0.05$, meaning that it was concluded that there was no relationship between the officer's knowledge factor and the completeness of the Surgical Safety Checklist (SSC) implementation document at Rasidin Hospital and Dr. Reksodiwiryo Level III Hospital, Padang City.

value = 0.083 < α = 0.05, meaning that it was concluded that there was a relationship between the nurse's knowledge factor and the completeness of the Surgical Safety Checklist (SSC) implementation document at Rasidin Hospital and Dr. Reksodiwiry Level III Hospital, Padang City.

3.1.2.3. The Relationship Between Attitude Factors and the Completeness of the Implementation of the Surgical Safety Checklist

Table 4. The Relationship Between Attitude Factors and the Completeness of the Implementation of Surgical Safety Checklists in the Operating Room

Attitude	SSC Document Completeness						Total		P Value
	Complete done		Complete Not Done		Incomplete Not Done		f	%	
	f	%	f	%	f	%			
Agree	13	52,0	7	28,0	1	4,0	21	84,0	0,002
Disagree	0	0,0	1	4,0	3	12,0	4	16,0	
Disagree	0	0,0	0	0,0	0	0,0	0	0,0	
Total	13	52,0	8	32,0	4	16,0	25	100	

Source: Primary Data, 2023

Table 4. It shows that the attitude of the officers mostly agree with the completeness of the surgical safety checklist document, which is good, namely 21 people (84.0%) carried out the implementation of the complete Surgical Safety Checklist (SSC), which is 13 people (52.0%), 7 people (28.0%) do not complete documents and incomplete documents are not carried out, namely 1 person (4.0%). The results of the Chi-Square statistical test showed that the p-value = 0.002 < α = 0.05 means that it was concluded that there was a relationship between the officer's attitude factor and the completeness of the Surgical Safety Checklist (SSC) implementation documents at Rasidin Hospital and Dr. Reksodiwiry Level III Hospital, Padang City

3.1.2.4. The relationship between the working period factor and the completeness of the implementation of surgical safety checklists in the operating room

Table 5. The relationship between the working period factor and the Completeness of the Implementation of the Surgical Safety checklist in the operating room

Length of Service	SSC Document Completeness						Total		P Value
	Complete Performed		Complete Not Done		Incomplete Not Done		f	%	
	f	%	f	%	f	%			
< 6 Years	3	12,0	4	16,0	0	0,0	7	28,0	0,093
6-10 Years	4	16,0	0	0,0	0	0,0	4	16,0	
> 10 Years	6	24,0	4	16,0	4	16,0	14	56,0	
Total	13	52,0	8	32,0	4	16,0	25	100	

Source: Primary Data, 2023

Table 5. shows that the length of service of officers is mostly above 10 years, namely 14 people (56.0%) who carry out the implementation of the complete Surgical Safety Checklist (SSC), which is 6 people (24.0%), 4 people (16.0%) who do not complete documents, and 4 people (16.0%) who do not have incomplete documents. The results of the Chi-Square statistical test showed that the p-value = 0.093 < α = 0.05, meaning that it was concluded that there was a relationship between the factor of the

length of the officer's work and the completeness of the documents for the implementation of the Surgical Safety Checklist (SSC) at Rasidin Hospital and Dr. Reksodiwiryo Level III Hospital, Padang City.

3.1.2.5. The relationship between motivational factors and the completeness of the implementation of surgical safety checklists in the operating room

Table 6. The relationship between the motivation factor and the Completeness of the Implementation of Surgical Safety checklists in the operating room

Motivation	SSC Document Completeness						Total	P Value
	Complete Performed		Complete No Performed		Incomplete Not Done			
	f	%	f	%	f	%		
Good	13	52,0	2	8,0	1	4,0	16	64,0
Enough	0	0,0	5	20,0	0	0,0	5	20,0
Less	0	0,0	1	4,0	3	12,0	14	16,0
Total	13	52,0	8	32,0	4	16,0	25	100

Source: Primary Data, 2023

Table 6. shows that most of the officers have good motivation, namely 16 people (64.0%) who carry out the implementation of the complete Surgical Safety Checklist (SSC), namely 13 people (52.0%), 2 people (8.0%) do not complete documents and 1 person (4.0%) do not complete documents. The results of the Chi-Square statistical test showed that the $p\text{-value} = 0.000 < \alpha = 0.05$ meant that it was concluded that there was a relationship between the motivation factor of the officer and the completeness of the Surgical Safety Checklist (SSC) implementation document at Rasidin Hospital and Dr. Reksodiwiryo Level III Hospital Padang City

3.2. Discussion

The results of the study showed that most of the undergraduate education, namely 18 people (72.0%), carried out the implementation of the complete Surgical Safety Checklist (SSC), which was carried out by 10 people (40.0%), complete documents were not carried out as many as 4 people (16.0%), and incomplete documents were not carried out, namely 4 people (16.0%). The results of the Chi-Square statistical test showed that the $p\text{-value} = 0.163 > \alpha = 0.05$, meaning that it was concluded that there was no relationship between the nurse's education factor and the completeness of the Surgical Safety Checklist (SSC) implementation document at Rasidin Hospital and Dr. Reksodiwiryo Level III Hospital, Padang City. The results of this study are in line with research conducted by Yuliati et al., (2019) which stated that the education of nurses in the operating room for Batam hospitals, most of whom are S1 academic nurses with more than some nurses having received related training, shows that operating room nurses are quite good in terms of higher education and have met the requirements to become nurses in the operating room. The results of the study showed that the indigo $p\text{ value} = 0.142$ so there was no relationship between education and compliance with the implementation of surgical safety checklists in the operating room

However, in working as a nurse, not only formal education the basis for nurses, but must be equipped with training and motivation Education is a formal process of training an intellect and the development of an individual including intellectual, spiritual, moral, creative, emotional and also physical activities. In this case, the level of education will be a predisposing factor in a nurse is performing a better action. In addition, the existence of motivation will create awareness in officers of the importance of implementing a Surgical Safety Checklist in the operating room to improve patient

safety. According to Irwadi et al. (2022a) The various education that a person experiences include fields, both habit formation, knowledge formation, attitudes and interests. Education is a means to get quality human resources because education can affect the behavior and mindset of nurses in doing their work. A person's employability is closely related to the level of education that has been determined for a person to pursue as a health worker. The level of education affects the level of knowledge, health knowledge will affect behavior as a medium-term result (Intermediate Impact) from health education, then health behavior will affect the increase of public health indicators as an output of health education (Sukasih & Suharyanto, 2012).

The results of the study showed that the knowledge of most officers had a good level of knowledge, namely 18 people (72.0%) carried out the implementation of the complete Surgical Safety Checklist (SSC), which was carried out by 11 people (44.0%), complete documents were not carried out as many as 6 people (33.0%) and incomplete documents were not carried out, namely 1 person (4.0%). The results of the Chi-Square statistical test showed that the $p\text{-value} = 0.083 < \alpha = 0.05$, meaning that it was concluded that there was a relationship between the knowledge factor of the nurse and the completeness of the Surgical Safety Checklist (SSC) implementation document at Rasidin Hospital and Dr. Reksodiwiryo Level III Hospital, Padang City. This research is also in line with the research conducted by Sudiby, (2020) with the research title "The Relationship between Nurses' Knowledge Level and Compliance in the Implementation of Surgical Safety Checklist in the Operating Room of Orthoped Hospital I Prof.Dr.R. Soeharso Surakarta", which was obtained almost entirely with good knowledge, namely as many as 39 people (92.9%) carried out the implementation of the complete Surgical Safety Checklist (SSC).

According to Notoatmodjo, (2018) A person's knowledge of an object has different intensity or level, but the higher the level of one's education, the more information he receives, and the higher the level of knowledge according to Irwadi et al. (2022b). Formal education factors influence knowledge and is very closely related. It is hoped that with higher education, the knowledge will be broader. However, people who are poorly educated are not necessarily poorly educated. Knowledge improvement is not absolutely obtained from formal education alone, but can also be obtained from non-formal education. The domain of knowledge comes from knowledge to evaluation. The domain of knowing is interpreted as remembering the material that has been studied before. New facts or information obtained will form knowledge, examples of nurses who obtain information Surgical Safety Checklist (SSC) through training or socialization provided and can explain the types and benefits. According to Wæhle et al., (2020) The officer's knowledge of SSC in the operating room shows that the higher the level of education, the better the absorption of information becomes. In addition, the higher the level of education, the better the mindset will also be so that it will cause a person to have better analytical skills.

The results of the study show that the attitude shows that the attitude of officers mostly agrees in the application of completeness of the documentation Surgical Safety Checklist 21 people (84.0%) who implemented the Surgical Safety Checklist (SSC) carried out completely, namely 13 people (52.0%), complete documents were not carried out as many as 7 people (28.0%) and incomplete documents were not carried out, 1 person (4.0%). The results of the Chi-Square statistical test showed that the $p\text{-value} = 0.002 < \alpha = 0.05$, meaning that it was concluded that there was a relationship between the officer's attitude factor and the completeness of the application documents Surgical Safety Checklist (SSC) at Rasidin Hospital and Level III Hospital Dr. Reksodiwiryo Padang City. In line with the research conducted Pauldi (2021) who also mentioned other factors that affect the implementation of SSC, one of which is the attitude ($p\text{-value} = 0.048$) of officers who have a sense of responsibility and care in assessing patient safety from the beginning of admission to transfer to treatment.

According to Notoatmodjo, (2018) attitudes consist of several levels: accepting, responding, appreciating, and being responsible. The stages of forming an attitude will change a person's attitude from negative to positive. Attitude describes a person's likes or dislikes towards objects. Attitudes are often derived from one's experience or those closest to others. The attitude will be manifested in an action depending on the situation at that time, for example, an officer who wants to do a Surgical Safety Checklist (SSC) Every time the operation is performed, but at that time the situation of many patients if they have to fill everything Surgical Safety Checklist (SSC) will further prolong the time in providing services to patients so that services are disrupted (Sharma et al., 2020).

The results of the study showed that the length of work of most officers was above 10 years, namely 14 people (56.0%) who carried out the implementation of the complete Surgical Safety Checklist (SSC), as many as 6 people (24.0%), 4 people (16.0%) did not complete documents and 4 people (16.0%) did not complete documents. The results of the Chi-Square statistical test showed that the $p\text{-value} = 0.093 < \alpha = 0.05$, meaning that it was concluded that there was a relationship between the length of the officer's work and the completeness of the Surgical Safety Checklist (SSC) implementation documents at Rasidin Hospital and Dr. Reksodiwiryo Level III Hospital, Padang City. The results of this study are in line with Ni Luh Putu's analysis of factors that affect nurses in carrying out patient safety, the results were obtained that there was a relationship between the length of work and the implementation of patient safety in the operating room of Telogorejo Hospital Semarang, the value of $p\text{-value} = 0.013 < \alpha = 0.05$ (Ni Luh Putu, et al. 2018).

The working period is the time when a person starts working and is bound by an institution, work experience affects a person's performance, the longer a person's working period, the better the job will be in doing Borneo Student Research 194 because they have adjusted to their work and environment (Irwadi et al., 2021). The length of work is categorized into 2, namely the length of service in the new category ≤ 3 years and the length of work in the old category > 3 years (Notoatmodjo 2018) Meanwhile, according to Irwadi et al. (2022a) argue that people with a longer working time sometimes decrease their productivity because of boredom. The working period of operating room nurses is very meaningful with the application of SSC seen from the work experience and knowledge development gained through more advanced training training, This working period is the time when nurses start working as permanent employees of the hospital until now. Seniors will get more experience than those who have a short tenure. The longer a nurse works, the more specific cases are dealt with which further enhances the experience (thoughts and actions) (Ayabe et al. 2017)

The results showed that most of the officers had good motivation, namely 16 people (64.0%) who carried out the implementation of the Surgical Safety Checklist (SSC) was carried out completely, namely 13 people (52.0%), complete documents were not carried out as many as 2 people (8.0%) and incomplete documents were not carried out, namely 1 person (4.0%). The results of the Chi-Square statistical test showed that the $p\text{-value} = 0.000 < \alpha = 0.05$ means that it was concluded that there was a relationship between the motivation factor of the officer and the completeness of the application document Surgical Safety Checklist (SSC) at Rasidin Hospital and Level III Hospital Dr. Reksodiwiryo Padang City. Keep up with research conducted by Nurdiana (2018) which also mentioned a relationship between nurse motivation factors and implementation compliance Surgical Safety Checklist.

In theory, motivation is the process of influencing or encouraging the outside a person or workgroup so that they want to carry out the tasks given (Sandrawati et al. 2013). Motivation is associated with action because a great motive is ineffective without any action that is followed-up from these motives, nurses who have high work performance are often not aware because they have high motivation, on the contrary, those who have low motivation will have low work performance. This can affect the implementation of patient safety (Arimbi & Dhamanti, 2023). Motivation is the process of influencing or encouraging from the outside to a person or workgroup so that they want to carry out the tasks given

according to Irwadi et al. (2021) Motivation is associated with action because great motivation is not effective without evaluation and appreciation from superiors. From this motivation, health workers with high work performance are often not aware because they also have high motivation. On the other hand, those with low motivation will have low work performance. So that this can affect the implementation of patient safety. According to Firnanda, (2022) said that a person's motivation is related to compliance in the implementation of SSC at the Central Surgical Installation (IBS) because motivation is an energy that can encourage a person to be enthusiastic about carrying out their work to achieve the goals that have been set. Motivation can be in the form of incentives, rewards in the form of praise, awards and materials. This approach can attract a person to do something, so motivation arises.

4. Conclusion

Based on the results of research that has been conducted on factors such as education, knowledge, attitude, working period, and motivation that affect the implementation of surgical safety checklists in the operating room at Rasidin Hospital and Dr. Reksodiwiryo Level III Hospital in Padang City, it was concluded that the 25 respondents who were conducted in the age category of most of them were adults at the end of 36-45 years, the number was more than 12 respondents (48.0%), with the level of S1 Nursing Education, which is 18 respondents (95.6%), while the working period of officers is more than 10 years, namely 14 respondents (56.0%). The results showed that there was no relationship between the officers' education factor and SSC implementation compliance (p-value = 0.163), there was a relationship between the officer knowledge factor and SSC implementation compliance (p-value = 0.083), there was a relationship between officer attitude factor and SSC implementation compliance (p-value = 0.002), there was a relationship between officer tenure factor and SSC implementation compliance (p-value = 0.093) and there was a relationship between officer motivation factors and compliance with SSC implementation (p-value = 0.000). The results of this study need to be studied more closely related to the habits in the application of SCC in the operating room so that officers regularly check patient safety in accordance with standards. For further researchers, it is hoped that this research can be used as additional information to develop further research, by using a qualitative research method of case studies regarding the application of the Sign In, Time Out, Sign Out stage on the Surgical Safety Checklist sheet, with a sample of not only nurses but all members of the surgical team in the hospital surgical installation room.

Acknowledgments

Thank you to Baiturrahmah Padang University for funding the implementation of this research activity and to the partners of Rasidin Hospital and Level III Hospital Dr. Reksodiwiryo Padang City who have been willing to help facilitate and support us in the smooth research process until completion of this activity.

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