

Factors Relating to Nurses' Compliance in Implementing the Surgical Safety Checklist: A Scoping Review

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FACTORS RELATING TO NURSES' COMPLIANCE IN IMPLEMENTING THE SURGICAL SAFETY CHECKLIST : A SCOPING REVIEW

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Article Info:

Received: January, 2nd, 2024

Revised: June, 19th, 2024

Accepted: June, 20th, 2024

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DOI:

<https://doi.org/10.36720/nhjk.v13i1.623>

Abstract

Background: One component of Safe procedure Saves Lives is a surgical safety checklist (SSC), which serves as a tool for the surgical team to utilize in the operating room to ensure that the procedure is safe and of high quality, SSC compliance cannot be separated from the factors that influence it, therefore we need to know these factors to overcome SSC problems. This article aims to obtain comprehensive picture of the factors related to nurse compliance in implementing the Surgical Safety Checklist.

Design: This study uses the Arksey and O'Malley model to conduct the analysis.

Data Source: The analyzed literature consisted of Scholar, Science Direct, and Pubmed from January 2016 to June 2023. Identification and selection of literature used Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) Moher 2009.

Result: The results were 15 articles that were analyzed, consisting of 12 quantitative articles, two descriptive articles, and one literature review article. This article summarizes findings regarding compliance in implementing the Surgical Safety Checklist, including attitudes, perceptions, motivation, knowledge, time for operations, age, length of work, education, teamwork, and nurse compliance.

Conclusion: There is a relationship between 10 factors including attitudes, perceptions, motivation, knowledge, time for operations, age, length of work, education, teamwork, and nurse compliance. in the implementation of SSC.

Keywords: Factors, Compliance, Implementation of the Surgical Safety Checklist (SSC)

INTRODUCTION

A hospital is a health institution that provides total health services to individuals,

such as inpatient care, line care, and emergency care. Humanity, ethics, professionalism, efficacy, justice, equality of rights,

nondiscrimination, safeguarding of victims, and societal advantages are some of its tenets, which stem from Pancasila (Putri, 2019).

Surgery or surgery is an invasive medical treatment. Generally, this action is carried out by opening an incision, intended to diagnose or treat disease, injury, or abnormalities in the body that will damage tissue, which can cause physiological changes in the patient and affect the body's organs. However, the surgery can also cause complications that endanger lives (Murdiman et al., 2019).

One of the hospital areas that most often experience patient safety problems, namely medical errors, is the operating room. Studies on medical errors in hospitals in the United States recorded approximately 44,000 to 98,000 incidents per year, with the highest proportion of incidents occurring in the operating room (Tirzaningrum et al., 2022).

In Indonesia, incidents regarding patient safety in surgical rooms have not been well documented. It was recorded that in 2017, there were 140 million patients in all hospitals in the world; meanwhile, in 2019, information experienced an increase of 148 million people, while in Indonesia, in 2019, it reached 1.2 million people. A statement from the World Health Organization (2020) states that the total number of patients undergoing surgery has increased significantly every year. It is estimated that every year, 165 million surgical procedures are performed worldwide. It was recorded that in 2020, there were 234 million clients in all hospitals worldwide. Surgical procedures/operations in Indonesia in 2020 reached 1.2 million people. Surgery/surgery ranks 11th out of 50 diseases found in Indonesia; World Health Organization information shows that the main complications of surgery are disability and ongoing hospitalization; 3-16% of surgical sufferers are spread across developing countries. Globally, the post-surgical mortality rate is 0.2-10%. It is estimated that 50% of complications and deaths can be prevented if appropriate standards are implemented (Alamsyah & Munita, 2023).

The basic principles of patient safety in handling patient safety require compliance and caution. Patient safety is defined as being free from accidental injury or avoiding injury due to service actions (Dehora et al., (2019). According to the World Health Organization in Rusnoto & Cholifah (2022), the basic principle of health care is patient safety. Surgical safety checks or surgical safety checklists are one of the patient protection programs. In June 2008, WHO pioneered the launch of the surgical safety checklist (Rachmawaty et al., 2020). This program aims to reduce perioperative morbidity and mortality rates (Krisiyanto et al., 2020). According to the literature, the majority, or around 90%, of injury and disability treatments that have a risk of death are found in low and middle-income countries (Rachmawaty et al., 2020).

Krismanto and Jenie (2021) defined a checklist as a technique employed by healthcare professionals to enhance patient safety during surgical procedures and mitigate the occurrence of surgical fatalities and complications. The objective of developing and executing a surgical safety checklist is to minimize adverse incidents (KTD) within the operating theater. Additionally, recording of the surgical safety checklist serves to enhance collaboration and communication among the operating team, thereby ensuring that each item on the checklist is regularly completed to minimize and prevent patient harm. The surgical safety checklist consists of three distinct sessions, specifically the sign-in, time-out, and sign-out sessions.

Compliance is the level at which a person carries out a method or behaves according to what is recommended or imposed on him (Susanthy et al., 2022). indicators of the success of the surgical team in the hospital when treating patients in any health service setting, in providing services cannot be separated from the team's compliance, also defined as the nurse's behavior as a professional towards a recommendation, procedure, or rule that must be carried out or obeyed, so that compliance is required so that the surgical safety checklist is implemented properly (Astuti N, 2022).

METHODS

Design

This approach requires five steps: finding a clear and objective research question; finding relevant articles; selecting relevant literature and extracting data; organizing, summarising, and analyzing data; and reporting research results (Arksey & O'Malley, 2005).

Scoping review, namely a search for national and international quality literature from the online databases Science Direct, Scholar, and Pubmed.

Search Methods

Use the PICO search strategy to identify key concepts and questions defined. PICO will inform the search strategy that can be used, detail the question, and adjust to the inclusion and exclusion criteria. The author uses boolean connectors, namely AND and OR, to connect and focus article searches. The literature included in the search criteria is literature published in the last ten years, from January 2014 to November 2023, full-text articles containing abstract, title, and content.

Table 1. PICO Search Strategy

P	I	C	O
Factor	-	-	Results of correlation
And			
Obedience			
and			
Surgical			
Safety			
Checklist			

Search Outcome

Research question: "How is the analysis of factors related to compliance with the implementation of the Surgical Safety Checklist?"

Researchers got 14,706 articles. Components of attitude, perception, motivation, knowledge, operation time, age, length of work education, teamwork, and nurse compliance in implementing the Surgical Safety Checklist. According to the Big Indonesian Dictionary, implementation is a process, method, or act of

applying and putting into practice implementation. According to Usman (2002), application (implementation) is based on the activities, actions, actions or mechanisms of a system. Implementation is a planned activity to achieve goals. The results of article selection are depicted in the PRISMA MOHER 2009 diagram in Figure 1. After the process of eliminating duplicate articles and removing articles with exclusion criteria, EMR articles without including the role of nurses, 15 articles were found that matched the title and abstract, and the articles were reviewed. Two articles were from Indonesia, and nine were from abroad. For more details, we can see in Figure 1.

Data Abstraction

Data extraction is performed on selected literature collected from articles. The articles were subjected to data extraction in matrix format using Microsoft Word. The domains used in data extraction include the name of the researcher, year, country, article title, DVIA method (design, sample, variables, instruments, analysis), and the findings seen in Table 1.

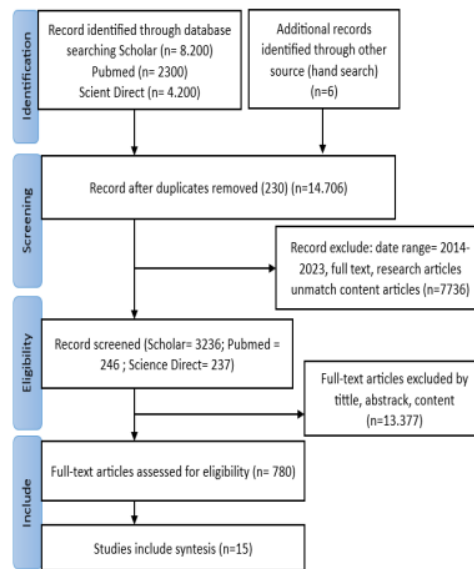


Figure 1: Prism Flow Diagram (Moher, 2009)

RESULTS

A total of 235 eligible articles from scholars, Science Direct, and published. Fifteen articles underwent extraction. Several articles were excluded because they were only abstracts, not full text; only discuss 27 and theories did not discuss nurses, and the articles were not related to the topic. Articles are limited to English and Indonesian. The results of the filtering of articles obtained two descriptive articles, one literature review article, and 12 quantitative articles. The population must include the role of nurses.

Of the 15 articles reviewed (Table 2), they can be classified as follows: this research is from various countries, including two journals from China, one journal from Italy, and 12 journals from Indonesia. 7 These articles provide a concise overview of the elements that influence compliance with the adoption of the Surgical Safety Checklist in hospitals, with a specific focus on the role of nurses in applying the SSC sheet. Set in the OKA room. The instrument used is a questionnaire that has been standardized 32 and modified. Several journals have tested the validity and reliability of the instrument.

DISCUSSION

Theme 1: Education on SSC compliance

Based on the review findings, individuals between the ages of 20-35 are considered to be in their productive years, characterized by a strong drive for personal growth and enhanced receptiveness to learning. A person's level of maturity and power in thinking and working increases with age. Research (Saputra et al., 2022) shows that a person's age will determine better performance productivity because age will influence physical and mental conditions, workability, and responsibility. The capacity to think clearly and grasp how to apply the Surgical Safety Checklist, as well as to exercise good judgment when putting the checklist into practice in central surgical installations, are both impacted by an individual's age. (Risanti et al., 2021). Generally, a person's age serves as an indicator

of their decision-making based on their past experiences. As an individual's age increases, their level of responsibility and expertise in accepting instructions and executing procedures also increases. According to Nurhayati and Suwandi (2019), as a person gets older, their thinking and behavior tend to become more mature. Age and maturity are strongly correlated. The progressive aging of an individual manifests the development of their soul, leading to enhanced wisdom in decision-making, rational thinking, tolerance towards established policies, emotional regulation, and greater receptiveness to alternative perspectives. As a person ages, their level of technical maturity progressively increases.

Theme 2: Motivation for compliance with SSC implementation

Risanti et al. (2021) conducted a research evaluation and discovered a correlation between motivation and nurses' adherence to applying SSC. The findings of this study align with the research conducted by Fimanda (2022), which establishes a correlation between motivation and nurse compliance in carrying out patient safety protocols in the operating room at Dr. Wahidin Sudirohusodo Makassar. Additionally, the research conducted by Rohman (2017) illustrates a correlation between intrinsic motivation and adherence to the Surgical Patient Safety protocol at Batam District Hospital's main surgical facility.

Theme 3: Attitudes on SSC compliance

According to the review's conclusions, attitude is defined as the state of being ready or eager to do action, rather than the actual carrying out of specific motives. Attitudes are separate from actions or activities; instead, they indicate a tendency to behave in a specific way. Attitude is a predefined response that is not open-ended. It entails being ready to react to things in a particular environment as a means of assigning value to the object (Notoadmodjo, 2012).

Table 2. Synthesis of Review Articles

No.	Writer, Year, Country	Title	Method (Design, Sample, Variables, Instruments, Analysis)	Findings
1.	Jie Tan, James Reeves Mbori Ngwayi, Zhaohan Ding, Yufa Zhou, Ming Li, Yujie Chen, Bingtao Hu, Jinping Liu and Daniel Edward Porter (2021)	Attitudes and compliance with the WHO surgeon safety checklist: A survey among surgeons and operating room staff in 138 hospitals in China	D: Prospective observational S: 846 operating room staff and surgeons from 138 hospitals V: independent: safety alert system, Attitudes and compliance with WHO surgical safety checklist, dependent: Compliance I: The questionnaire was designed to obtain authentic views regarding the WHO SSC A: analyzed using IBM SPSS® Statistics 26.0. Chi-square	The WHO SC remains a powerful tool for surgical patient safety in China. Cultural changes in nurse assertiveness, surgeon-led teamwork, and checklist ownership are key elements to improve compliance. Standardized audits are required to monitor and ensure checklist compliance.
2.	Vania Röhsiga, Rubia Natasha Maestrib, Mohamed Fayeq Parrini Mutlaqc, Aline Brenner de Souza, Artur Seabrae, Eliane Reus Fariasf, Elisiane Lorenzini (2020)	Quality improvement strategy to enhance compliance with the World Health Organization Surgical Safety Checklist in a large hospital: Quality improvement study	D: Cross-sectional S: 200 IGD health workers V: Independent: education, training, and empowerment of the nursing team, dependent: compliance I: surgical questionnaire A: analyzed using IBM SPSS® Statistics 26.0. Chi-square	It was found that the involvement of surgeons in evidence-based discussions and education, training and empowerment of nursing teams represents a promising, sustainable quality improvement strategy that increases WHO SSC compliance in the real world.
3.	Laltaksh Wangoo· Robin A. Ray· Yik-Hong Ho (2016)	Attitudes and compliance to the WHO Surgical Safety Checklist; a review	D: Literature review S: Extensive database search of Medline, PubMed and Cochrane uses certain keyword terms that do V: Independent (factors), Dependent (compliance) I: Search engine database. A: A literature review of neural networks	SSC compliance is highly dependent on staff perception, training, and effective leadership. Meanwhile, the surgical team has a positive attitude towards this SSC, and the resolution of key barriers will improve compliance across all phases of the SCC.

4. Rahmah Dyla Factors Associated with Nurse Compliance in Implementing the Surgical Safety Checklist in Central Surgical Installations Indonesia (2021).

D: Cross-Sectional
S:24 respondents
V: Education, years of service, motivation, attitude
Knowledge, gender, and compliance
I: Observation sheet and questionnaire sheet
A: Chi-square

This study uses univariate analysis and Chi-square for bivariate analysis. There is a significant relationship (p-value <0.05) between age (p = 0.005), education (p = 0.028), years of service (p = 0.039), motivation (p = 0.000), attitude (p = 0.005), and knowledge (p = 0.026) with nurse compliance in implementing the Surgical Safety Checklist. Meanwhile, there is no significant relationship between gender and nurse compliance in implementing the Surgical Safety Checklist (p = 0.808)

5. Sanfania Almendi Darmapan, Kadek Nuryanto, Yustina Ni Putu Yusniawati (2022). Indonesia

Compliance Of Anaesthesia In Implementing Documentation Using Surgical Safety Checklist In The Operating Room

D: cross-sectional
S: 102 respondents
V: Gender, length of service, and compliance
I: Anesthesia administrator compliance questionnaire in documentation using surgical safety
A: Descriptive

Stating that gender influences a person's commitment to the organization, the implementation of documentation is influenced by the length of service of health workers, which is a factor that has a very important influence on the security and safety of patients in hospitals.

6. Endang Yuliati, Hema Malini, Yulia Yasman (2019). Indonesia

Analysis of Factors Associated with the Implementation of the Surgical Safety Checklist in the Batam City Hospital Operating Room

D: cross-sectional
S:67 nurses
V: Knowledge, training, education, gender, and SSC compliance
I: Questionnaire sheet questionnaire adapted from WHO, 2016, regarding the surgical safety checklist
A: Descriptive Analysis

There is a very significant relationship between knowledge, training, and education when implementing SSC in the operating room. There was no significant relationship between gender, age, and the implementation of SSC in the operating room. Factors that have a relationship are knowledge and training

7. Irma Jiliana Ripa Jaya Sinambela, Rostime Hermayerni Simanullang, (2023). Indonesia

Compliance Level Of Nurses In The Implementation Of Surgical Safety Checklist Time Out At The Operating Theater Of Murni Teguh Hospital Medan

D: quantitative descriptive
S: 30 people.
V: Age and Level of education
I: Questionnaire sheet adapted from WHO, 2016 regarding surgical safety checklist.
A: Descriptive

Age 20-35 years is a productive age where a person's desire to progress and ability to receive information is easier.
A person's level of education also influences compliance when implementing the surgical safety checklist.

8. Fennelly et al., (2020) Ireland
 Successfully Implementing A National Electronic Health Record: A Rapid Umbrella Review.
 D: Correlational analytics
 S: 30 nurses
 IN: Nurse Motivation Training and regular obedience.
 I: Questionnaire and checklist sheet
 A: Chi-Square test
 The results showed that 19 nurses (63.3%) had high motivation. The Chi-Square test resulted in $p = 0.000$ where $p < 0.05$, so H_0 was rejected, which means a factor the most dominant one was Nurse motivation ($C=0.607$). Training and regular assessment of the use of a checklist can be recommended to maintain a positive attitude among operating room staff regarding the importance of this kind of safety device in improving patient safety.
9. Novia Purwanti, Candra Saputra, phani Dwi Guna, Bayu Azhar, Eka Malfasari, Putri Indah Pratiwi (2022). Indonesia
 Factors For Implementing The Surgical Safety Checklist In The Operating Room
 D: Cross-Sectional Study
 S: 28 nurses.
 V: knowledge
 workload and compliance
 I: Questionnaire and checklist sheet
 Model)
 A: Chi-Square test
 The results of this study concluded that the education factor was (Value = 0.021; $\alpha < 0.05$), the knowledge factor was (P Value = 0.000; $\alpha < 0.05$), and the training factor was (P Value = 0.009; $\alpha < 0.05$) is related to the implementation of the Surgical Safety Checklist in the operating room at Prima Pekanbaru Hospital. The workload factor was obtained (P Value = 0.075; $\alpha > 0.05$), which means that workload has no relationship with the implementation of the Surgical Safety Checklist in the operating room at Prima Pekanbaru Hospital.
10. Ratih Bayuningsih, Rina Rahmawati, Siti Aminah, Siti Devia Agustina (2019). Indonesia
 Factors Influencing Nurses' Compliance In The Implementation Of The Surgical Patient Safety Sign-Out Phase In The Central Surgical Room Of Karawang Rud
 D: Cross-Sectional Study
 S: 28 nurses.
 IN: age
 gender and compliance
 I: questionnaire
 A: Pearson correlation
 There is a relationship between age and nurse compliance in implementing the Surgical Patient Safety Sign Out Phase in the Central Surgical Room at Karawang Regional Hospital in 2019, with a value of $P = 0.000$, $OR = 0.017$, and $CI (0.02-0.135)$. There is no relationship between gender and female obedience.
11. Fransisca Mareta DA (2023).
 Nurse Workload and Compliance with Surgical Safety Checklist Implementation in Hospitals
 D: Cross-Sectional Study
 S: 21 nurses.
 IN: Workload and compliance
 I: questionnaire
 Based on the research results, it was concluded that there was a significant relationship between nurses' workload and compliance with the implementation of the surgical safety checklist. It is

			A: Spearman Rank correlation	hoped that nurses can increase compliance, 22 specially in implementing the surgical safety checklist, so that patient safety in the operating room increases and the risk of unwanted events decreases.
12	Ninik Sumarini ¹ , Asmuji, Siti Kholifah (2019). Indonesia	The Relationship Between The Time Of The Operation And The Compliance Of The Operations Team In Carrying Out The Operating Room Installation Rsd Balung Jember	D: Cross-Sectional Study S: 23 nurses. IN: Operation execution time and compliance I: questionnaire A: Spearman Rank correlation	The results of research using the Spearman rho test ($\alpha = 0.05$) showed a p-value = 0.003 with an r value = 0.353. This means that 31 there is a relationship between the time the operation is carried out and the compliance of the operation team in undergoing sign-out
13	Siti Chotimah, Leni Wijaya (2022). Indonesia	Long Relationship Nurses Work With Nurses' Compliance In Completing The Surgical Safety Checklist	D: Cross-Sectional Study S: 17 nurses. IN: length of service and compliance I: questionnaire A: Spearman Rank correlation	There is a relationship between length of work and compliance in filling out the surgical safety checklist at Musi Medika Cendikia Hospital, Palembang (p-value = $0.022 < \alpha 0.05$)
14	Ali Sodikin Raharjo Apriatmoko, Mona Saparwati	The Relationship Between Knowledge And Attitudes And Nurses' Behavior In Implementing Surgical Safety Checklist In Space Hospital Operations Dr. H. Soewondo Kendal	D: Cross-Sectional Study S: 35 respondents. IN: Knowledge, attitudes, and behavior I: questionnaire A: Spearman Rank correlation	1 There is a significant relationship between knowledge and attitude with nurse behavior with p values of 0.042 and 0.017 ($\alpha = 0.05$).
15	Jappy Roby Waladow, Martyarini Budi, Ita Apriliyani (2022)	Description of Nurses' Compliance Level in Carrying Out Preparations at GMIM Kalooran Amurang Hospital	D: Cross-Sectional Study S: 135 nurses. V: Nurse Compliance Level. I: checklist sheet. A: Spearman Rank correlation	There is a significant relationship between motivation and documentation compliance.

The review findings suggest a significant association between attitudes and nurse compliance in implementing the Surgical Safety Checklist. An individual's attitude is shaped by their knowledge, personal experiences, professional background, and understanding of the consequences that result from not following a guideline or policy. An individual's behavior can be shaped by their attitude. A good mindset will have a direct impact on one's actions and choices, leading to positive conduct. The nurse's adherence to the Surgical Safety Checklist will reflect their positive attitude towards its application. According to Notoatmodjo (2012), attitude is the degree to which responses to specific stimuli, especially emotional responses to social stimuli in everyday life, are suitable. An individual who has access to information and is influenced by external factors that provide support is more inclined to adopt a positive attitude towards something. Attitudes can be defined as evaluative predispositions that primarily shape individuals' conduct. Having an optimistic mindset will result in enhanced anticipated results. The nurses' proficiency in implementing the surgical safety checklist is directly proportional to their positive attitude towards it.

The knowledge domain refers to the cognitive capacity to retain and recall information that has been previously learned. Acquiring new facts or information leads to the production of knowledge. For instance, nurses who receive training or socialization on the Surgical Safety Checklist (SSC) can gain the ability to comprehend its various forms and advantages (Notoadmodjo, 2012). Following the respondent's acquisition of knowledge, the subsequent phase is comprehension, which refers to the capacity to elucidate the known entity and accurately interpret it. For instance, nurses can provide a detailed explanation of the particular ways in which the Surgical Safety Checklist (SSC) can enhance patient safety and minimize surgical complications. For instance,

nurses might utilize the established concepts of the Surgical Safety Checklist (SSC) while performing procedures (Yuliati et al., 2019).

Nurses with advanced education typically possess a strong level of expertise. Behavior devoid of knowledge and understanding is ephemeral. The extent of a nurse's knowledge is contingent upon their level of schooling. This pertains to the advancement of nursing science, as the extent and scope of information will impact the nurse's capacity to engage in critical thinking while doing nursing tasks. Consequently, there is a direct correlation between the nurse's level of expertise and the degree to which they adhere to adopting SSC in the operating room.

Theme 4: Knowledge of SSC implementation compliance

Based on the review findings, the area of knowledge ranges from "know" to "eva". The findings of the research conducted by Risanti et al. (2021) revealed a correlation between motivation and nurses' adherence to applying SSC. The findings of this study align with the research conducted by Firmanda (2022), which establishes a correlation between motivation and nurse compliance in carrying out patient safety protocols in the operating room at Dr. Wahidin Sudirohusodo Makassar. Additionally, the research conducted by Rohman (2017) demonstrates a connection between motivation and compliance with the implementation of Surgical Patient Safety in the central surgical installation of Batam District Hospital.

Theme 5: Training on compliance with SSC implementation

Proficiency in fundamental life support and rudimentary surgical techniques is an essential need for a nurse working in the operating room. Proficiency in utilizing emergency trolleys is acquired through fundamental life training. Nurses receive comprehensive training in basic surgical techniques, which includes instruction on preparing for surgeries, executing surgical

procedures, successfully communicating with others, and prioritizing patient safety. The training provided serves as the foundation for nurses to apply patient safety (Ongun & Intepeler, 2017).

Theme 6: Length of work on compliance with SSC implementation

The duration of work is a crucial determinant of patient safety in hospitals. The duration of work demonstrates a substantial correlation with the provision of secure nursing care for patients. Ni Luh Putu's research findings on the analysis of factors influencing nurses in implementing patient safety revealed a correlation between work duration and ensuring the well-being of surgical patients at Telogorejo Hospital, Semarang (Ni et al. et al. in Selano 2019). This duration refers to the period from when the nurse commenced employment as a full-time staff member at the hospital until the present moment. Individuals having longer tenures (seniors) will acquire a greater amount of expertise compared to those with shorter tenures. As a nurse's job duration increases, they gain experience by handling more specialized patients, which enhances their expertise in both thinking and acting. Based on current thinking, there is a positive correlation between the duration of work and the amount of productivity achieved. Nevertheless, numerous variables impact the execution of surgical safety checklist documentation. Factors that impact adherence to the implementation of the surgical safety checklist encompass the absence of a patient safety policy and the actual implementation of the checklist, insufficient dissemination of standard operating procedures (SOPs) among doctors and nurses, inadequate understanding of the checklist itself, limited awareness of its significance, a shortage of surgical room nurses, and the perception that completing the Surgical Safety Checklist adds to their workload. (Sandrawati, 2013).

Theme 7: Perceptions of compliance with SSC implementation

Every person has perceptions, and these perceptions can be different regarding what he sees, thinks, and feels. Perception is what determines a person's actions in fulfilling various interests, both interests for themselves and interests for other people, namely the family and the community environment where the person lives and interacts with other people.

A good understanding of the purpose and benefits of these checklists often leads nurses to have a good understanding about the importance of SSC. Nurses are more likely to implement SSC correctly if they realize that it can reduce medical errors and improve patient safety. Positive SSC perceptions can also encourage nurses to use them regularly Sa'di et al. (2023). A positive attitude and strong commitment to patient safety will encourage nurses to follow SSC procedures carefully. Good perception will also be supported by adequate training. Effective training on the use of SSC can increase the confidence of nurses in using it, which means improved quality of use. The current hospital safety culture also affects nurses' perceptions of SSCs. A working environment that ins patient safety and implements good safety practices will increase nursing's positive perception of the SSC Tan, 2021). Hospital management plays an important role in shaping the nurse's perceptions about SSC; if management provides full support and ensures that SSC is part of standard operational procedures, nurses tend to have a positive and more serious perception about its implementation. A good feedback system can help nurses strengthen their positive perception of SSC. By getting feedback about how effective SSC use is and how it affects patient safety, nursing can see real results from the implementation of these checklists.

Theme 8: Operation implementation time for compliance with SSC implementation

The scheduling of activities can impact the accessibility of resources necessary to sustain SSC. In situations when activities are

bound by time constraints, the acquisition of resources such as personnel, equipment, and materials may become challenging, therefore impeding the implementation of SSC. It is crucial to meticulously schedule the timing of the operation and guarantee effective coordination among the several parties participating in the implementation of the SSC. If the process of planning and coordination is not successful, it may lead to a disruption in compliance with the implementation of SSC. Operational timing can also impact human aspects, like fatigue and levels of focus. Performing operations at improper times or over an extended duration might heighten the likelihood of human error, hence diminishing adherence to SSC implementation. The timeliness of operations and compliance with SSC implementation may be affected by government or organizational legislation and policies. Instances of regulatory violations or failure to comply with policies might have a detrimental impact on SSC. Emergencies or time constraints may necessitate the execution of operations within a limited timeframe. If there is not enough time to comply with existing procedures and standards, this could have an effect on the compliance of SSC implementation. Often, the chosen timeframe for implementing operations needs to be modified to align with current requirements and limitations, while considering the effect on compliance with SSC implementation. To reach the desired degree of SSC implementation compliance, it is crucial to engage in meticulous planning, guarantee the availability of ample resources, and uphold effective communication and collaboration. level of SSC implementation compliance.

Theme 9: Workload on compliance with SSC implementation

Maharaja in Abdullah (2021) states that "nurses have high job demands, especially nurses who work in inpatient installations. This is because all nursing care is carried out 24 hours a day, thereby increasing the

responsibility of nursing care compared to nurses in other installations. These high job demands can disrupt nurses' health." Robbins (2010) states that "the positives and negatives of workload are a matter of perception. Perception is defined as a process by which individuals organize and interpret their sensory impressions to give meaning to their environment. This is because the perception of workload is closely related to a job, where individuals provide an assessment of several task demands or activities that require mental and physical activity that they must complete within a certain time, whether they have a positive or negative impact on their work." In this case, several factors influence workload, one of which is work stress, workload, and other factors, such as the results of research related to nurse compliance. Luciana Bjorklund de Lima's research in Samson (2020) demonstrates that the duration of care directly impacts the workload of nurses. Research indicates a substantial¹⁹ correlation between the nurse's workload and the length of stay in the recovery room, both during the post-anesthesia care unit and during the surgery. The research findings revealed a clear depiction of the workload in the operation room.

Theme 10: Teamwork towards SSC implementation compliance

According to Lewis Thomas and Elaine⁵ Johnson in Raeni Dwi Santy (2022), cooperation is a grouping that occurs between living creatures that we know. Collaboration or learning together is a team (group) process in which members support and rely on each other to achieve a consensus result. The classroom is an excellent place to build group (team) skills, which you need later in life. According to Kusnadi in Puspitasari (2022), "Collaboration refers to the coordinated and integrated efforts of two or more individuals working together towards a specific target or goal."

CONCLUSION

The Surgical Safety Checklist (SSC) is a communication tool utilized by surgical teams in the operating theater to enhance patient safety. The surgical team comprises an operator, physician, and various types of nurses, including instrument nurses, anesthetic nurses, and circular nurses. Each member of the surgical team must consistently perform every step of the surgical procedure, including the three phases of the operation: sign-in before anesthesia induction, time out before skin incision, and sign out before the patient leaves the operating room. This is done to minimize any potential risks.

1 **ACKNOWLEDGMENT**

Thank you to those who have helped in completing this manuscript.

DECLARATION OF CONFLICTING INTEREST

Nothing conflict

FUNDING

Private funding

AUTHOR CONTRIBUTION

Putra Ardhana: Conducting literature searches.

Haryanto: Providing guidance and direction in the research process.

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Cite this article as an Ardhana, P., & Haryanto (2024) Factors Relating to Nurses' Compliance in Implementing the Surgical Safety Checklist: A Scoping Review. *Nurse and Health: Jurnal Keperawatan*, 13 (1), 135-147. <https://doi.org/10.36720/nhjk.v13i1.623>

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