IMPLEMENTASI DISKUSI REFLEKSI KASUS (DRK) UNTUK MENINGKATKAN KEPATUHAN PERAWAT BEDAH DALAM MENCEGAH RETAINED SURGICAL ITEMS (RSI) DI RUANG BEDAH : STUDI KASUS

Implementation of Case Reflection Discussion (DRK) to Improve Surgical Nurse Compliance in Preventing Retained Surgical Items (RSI) in The Surgical Room: Case Study

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Abstrak

Pendahuluan: Insiden keselamatan pasien merupakan salah satu indikator yang menilai mutu suatu pelayanan Kesehatan. Dalam dua dekade terakhir, Retained Surgical Items (RSI) telah menjadi kejadian sentinel yang sering dilaporkan. Konsistensi, efektifitas merupakan hal yang harus dimiliki oleh petugas yang bekerja di ruang operasi. Praktik klinik yang efektif mampu memberikan pelayanan kesehatan yang profesional, dinamis, komprehensif dengan sistem pelayanan kesehatan yang terintegrasi dalam pemecahan masalah. Diskusi Refleksi Kasus (DRK) merupakan salah satu bentuk peningkatan profesionalisme tenaga kesehatan karena mampu meningkatkan kepatuhan perawat dalam menerapkan SOP untuk meningkatkan keselamatan pasien. Tujuan: Mengetahui penerapan DRK untuk meningkatkan kepatuhan perawat dalam pencegahan RSI dan faktor-faktor yang mendukung dan menghambat kepatuhan perawat dalam pencegahan RSI. Metode: deskriptif dengan studi pustaka dan studi kasus, pelaksanaan penelitian ini untuk mengkaji kepatuhan perawat dalam mencegah RSI sebelum dan sesudah melaksanakan DRK. Hasil: review artikel bermanfaat dalam meningkatkan mutu keperawatan, terdapat peningkatan kepatuhan perawat dalam mencegah terjadinya RSI setelah DRK dilaksanakan dengan faktor predisposisi SDM antara lain kepemimpinan, panutan, budaya kerja dan keterampilan, faktor pemungkin yaitu metode pencegahan RSI dan kebijakan penghitungan item bedah yang konsisten, faktor pendorong dengan pemantauan dan evaluasi berkelanjutan. Kesimpulan: Penerapan DRK meningkatkan critical thinking dan kemampuan subjek dalam mencegah RSI.

Abstract

Background: Patient safety incidents are one of the indicators that assess the quality of a health service. In 2021. In the last two decades, Retained Surgical Items (RSI) have become a frequently reported sentinel event. Consistency, effectiveness is something that must be owned by officers working in the operating room. Effective clinical practice is able to provide professional, dynamic, comprehensive health services with an integrated health care system in solving problems. Discussion Case reflection (DRK) is a form of increasing the professionalism of health workers because it is able to increase nurse compliance in implementing SOPs to improve patient safety. *Objective*: To identify the implementation of DRK to improve nurse compliance in preventing RSI and the factors that support and hinder nurse compliance in preventing RSI. Method: descriptive with literature studies and case studies, the implementation of this research is to assess nurse adherence to prevent RSI before and after implementing DRK. Results: article review useful in improving the quality of nursing, there is an increase in nurse compliance in preventing the occurrence of RSI after DRK is implemented with HR predisposing factors including leadership, role models, work culture and skills, enabling factors namely RSI prevention methods and policies for calculating surgical items that are consistent, driving factors with monitoring and ongoing evaluation. Conclusion: Implementation of DRK increases critical thinking and the subject's ability to prevent RSI.

PENDAHULUAN

Patient safety incidents are one indicator that can assess the quality of a health service. Every health service in Indonesia is required to carry out patient safety which is carried out by establishing a health service system that implements patient safety standards and goals in accordance with Minister of Health Regulation No.11 of 2017.

2021 The Joint Commission International (JCI) released 794 sentinel events and 95 sentinel events related to operating rooms. In the last two decades, Retained Surgical Items (RSI) has become a sentinel event that has been frequently reported to the Joint Commission International (JCI) since 2012. Many studies and policies have been carried out to increase attention to patient safety in operating rooms, including the use of technology to reduce RSI. But incidents still occur and RSI is the number one sentinel event of 2019.

Retained Surgical Items (RSI) are defined as events that should never occur (Never Event) during surgery because this can have major consequences for patients, service providers and the hospital. (Weprin et al., 2021). This RSI is actually a rare occurrence but has the potential to become a very serious problem.

The results of observations made in one of the hospitals showed that the performance indicators for operating room quality in the period January-November 2022 showed a decrease in the compliance rate for gauze and instrument counting in February from 100% adherence to 99.81% and in April from 100% to 99.85. The achievement of indicators for the quality of patient safety in the operating room itself is something that must be carried out by all staff on duty in the operating room. Therefore policies regarding the calculation of surgical equipment are needed in enforcing the process of preventing RSI events. Consistency and effectiveness are something that must be owned by officers working in the operating room. Hospitals and related professional organizations need to issue policies and issue additional recommended practice guidelines to prevent unwanted foreign body retention and improve the quality of operating room nursing services and effective clinical practice.

Case reflection has many benefits in increasing knowledge, critical thinking skills, practicing public speaking skills, open thinking and improving the ability to understand scientific articles. Case reflection also requires new knowledge and competence in clinical skills including positive behavior, continuous learning, evidence base practice and interdisciplinary collaboration so that it is expected to be able to increase the

professionalism of health workers.(Fatiyah et al., 2022)

Increasing the professionalism of nursing staff can be done with DRK as explained in the Decree of the Minister of Health of the Republic Indonesia No. of 836/MENKES/SK/VI/2005. DRK can also be said as " in service training " which is effective and efficient and increases nurses' awareness of their responsibilities towards themselves and their profession. With professionalism from each member of the profession, it can improve the performance of nurses according to standards in providing services meet quality to community expectations.

Case Reflection Discussion was able to increase nurse compliance in implementing Standard Operating Procedures in improving patient safety. This is influenced by several factors, namely knowledge and motivation. With the implementation of DRK, the knowledge and motivation factors of nurses in improving patient safety will increase. (Komang et al., n.d.). Case-based discussions are able to improve the quality of learning and provide feedback, the results of this study were reinforced by Chris Dawber showing that case reflection discussions carried out in groups can improve teamwork, improve critical thinking skills in interpersonal relationships and have a positive impact on clinical care by nurse.

Based on the benefits of DRK, it is hoped that by increasing knowledge, critical thinking skills of nurses will be able to build a positive work attitude which is expected to have an effect on patient safety and improve the quality of nursing services in the operating room. Therefore the authors are interested in conducting research related to DRK as a preventive effort to increase surgical nurse compliance in preventing RSI. This study aims to identify RSI prevention compliance in hospitals before and after DRK implementation, identify DRK implementation to increase nurse compliance in preventing RSI and identify what factors support and hinder nurse adherence in preventing RSI.

METHOD

The design of this study uses a descriptive case study which is carried out with an overview or description of the implementation of DRK as an effort to increase surgical nurse compliance in preventing and minimizing *retained surgical items* (RSI). With the inclusion criteria, nurses have worked in operating rooms for less than 3 years and have a role as *scrub nurses* and/or *circulating nurses* and have not attended basic operating room nursing training or are still

attending *in-house training* and the exclusion criteria are nurses who play roles other than *scrub nurses*. or *circulating nurse* (in charge of the shift, person in charge of the room, *reception nurse* and management nurse in the operating room), nurse on leave or study assignment.

The article search strategy was carried out using the *Google scholar search engine*, Pub Med, Cochrane Library, *The Joint Commission Journal on Quality and Patient Safety*. The keywords used are *Retained Surgical Item* AND *case reflection discussion*, the search for journals focuses on journals that apply the method of prevention *of retained surgical items* with a search time span for published articles between 2018 and 2022.

An assessment of the quality of each article was carried out using a standard format from *The Joana Briggs Institute (JBI)* for articles with the research design of *Quasi experimental studies (non-randomized experimental studies)*.

RESULT

The results of an article search using *Preferred Reporting Items for Systematic Reviews and Meta Analyzes*: The PRISMA Statement found 5 articles included in the review.

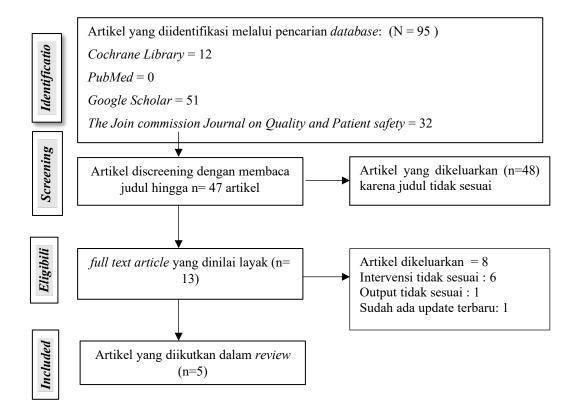


Figure 1. Prisma Statement

Review Artikel (table 1)

Title	Author/ year	Research purposes	Research Place	Types of research	Intervention	Results	Critical appraisal scores
The Effect of Case Reflection Discussion on the Implementation of Standard Operating Procedure for Falling Risk at Pasar Minggu Hospital in 2021	Hafidiah 2022	Knowing the effect of case reflection discussions on compliance with the implementation of fall risk SOPs	Pasar Minggu Hospital, Jakarta, Indonesia	Quasi experimental with pre and post test control group design research methods	Sampling using non-probability sampling technique with purposive sampling method. The number of respondents 36 respondents were divided into control and intervention groups. Statistical test using the Wilcoxon test.	There is an effect of the implementation of the DRK on the application of standard operating procedures (SOP) for patient safety in this study, namely the SPO for the risk of falling ($p \ value < 0.05$).	88.9%
Correlation Between Implementation Case Reflection Discussion based on the Graham Gibbs Cycle and Nurse's Critical Thinking Skills	Ardian et al 2019	Analyzing the relationship between the implementation of CRD (Case Reflection Discussion) or DRK based on the Graham Gibbs cycle on the ability of nurses to think critically	Depok, West Java, Indonesia	Quasi experimental which is divided into two parts, namely pre and post test without a control group.	The first part is training with DRK based on the <i>Graham Gibbs cycle</i> then an evaluation of the nurse's ability to think critically before and after DRK is carried out is carried out.	There was a significant increase in the ability of nurses to think critically, increase cognitive and innovation after DRK was carried out based on the <i>Graham Gibbs cycle</i> .	89%
Reflective case discussion to improve nurse compliance with the implementation of standard operating procedures for fall risk prevention	Ardani 2018	Proves an increase in nurse compliance with the application of SOPs for preventing fall risk after DRK activities are carried out	Semarang Indonesia	Quasi experiment with pretest and posttest with group control design	The study involved 32 nurses who were divided into 2 groups, namely 16 intervention groups and 16 control groups. Observation of nurses' adherence to the implementation of SPO for prevention of falls was carried out before DRK and 2 weeks after DRK. Data was tested with Wilcoxon prametric test	There was an increase in compliance in the intervention group by 100% with a z score; -3.355 and a p -value of 0.000. Whereas in the control group the increase was 43.75% with a z value: -0.404	100%
Reducing the risk of intended retained surgical sponges: a	Erica K Grant, 2020	The project is carried out to reduce	Miami, USA	QuasiExperiments One group by conducting pre-	The project is developed using innovation in an evidence base practice based service model.	There was a significant increase after education and training.	88.9%

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quality improvement project		unexpected cash gaps by increasing initiatives and service quality		intervention and post- intervention assessments followed by internal audits	Mandatory training and group discussions are carried out in 3 days according to the presence of staff based on shifts. Interventions include staff education, completing standard manual counting protocols. Case discussions were carried out after 3 days related to the process of calculating surgical items. Staff knowledge and skills were assessed pre and post intervention followed by an internal audit	Calculation error decreased from 4% to 0.8% The number of foreign objects left after surgery decreased from 2 to 0	
Guideline Implementation: Prevention of Retained Surgical Items	Jennifer Fencl, 2016	guideline was created with the aim of providing guidelines for the implementation of consistent prevention of retained surgical items (RSI) with a multidisciplinary approach. The focus is to facilitate and optimize patient safety services optimally	California, USA	Guideline (case reports) implementation in preventing retained surgical items (RSI)	A case scenario was created to carry out implementation related to RSI prevention at the Farmland Medical Center. The nurse on duty was observed regarding her duties and responsibilities in preventing RSI in accordance with the guidelines that have been made: preventing RSI, reducing noise and distractions and interruptions when calculating surgical items. Perform standardized processes for all calculations, resolve accounting discrepancies, and play an active role in improving compliance with RSI prevention. Afterwards, reflection and discussion was carried out on the cases prepared to discuss topics related to RSI prevention from all the teams involved	procedure for counting surgical items where the calculation must be carried out before surgery, each addition of items to the operating field, closing and final count. - The anesthesia team assists in maintaining a good environment, free of distractions, noise and interruptions so that calculations can be carried out correctly.	100%

30 (Kodariah, et al, 2023)

The results of the case study obtained data from 6 subjects, most of whom had worked for 2 years as operating room nurses (table 2). Compliance is considered 100% if it meets all predetermined criteria. Even though the increase in compliance only increased by 34%, in general nurses showed an increase in adherence to the implementation of RSI prevention after DRK was carried out (table 3).

Table 2. Distribution of subjects based on length of work in operating room (n=6)

Variable	N	Percentage
Length of workin	g	_
2 months	1	16.6 %
7 months	1	16.6 %
9 months	1	16.6 %
2 years	3	50 %
Amount	6	100%

Table 3 the level of compliance with the implementation of counting gauze, instruments, sharps during operations before and after DRK is carried out

	Befo	ore DRK	Aft	ter DRK
	obey	Not obey	obey	Not obey
Subject 1	-	√		√
Subject 2	-	✓		✓
Subject 3	-	✓	\checkmark	-
Subject 4	-	✓	\checkmark	-
Subject 5	-	✓		✓
Subject 6	-	✓		✓
Total	0	6	2	4

Table 4 Description of adherence to RSI prevention before and after DRK

	Before DRK	After DRK
Subject 1	 The initial and final abdominal gauze is counted X-ray gauze is counted initial and final is counted Needles are not counted (initial and additional). Only counted final Scalpel does not count (initial and additional). Only counted final Recording is not done on the blackboard Instruments are not counted (initial and final) The initial count was not witnessed by the circulating nurse 	 The abdominal gauze is counted initial, additional and final X-ray gauze is counted initial additional and final Needles are counted initial additional and final Scalpel counted final only Recording is not done on the blackboard (only on the DPKO sheet Instruments are not counted The counting is witnessed by the circulating nurse only when it is final
Subject 2	 The initial and final abdominal gauze is counted X-ray gauze is counted initial and final is counted Needles are not counted (initial and additional). Only counted final Scalpel does not count (initial and additional). Only counted final Recording is not done on the blackboard Instruments are not counted (initial and final) The initial count is only carried out by a scrub nurse without being witnessed by a circulating nurse 	 The abdominal gauze is counted initial, additional and final X-ray gauze is counted initial additional and final Needles are counted initial additional and final Scalpel counted final only Recording is done on the blackboard and DPKO sheets The instrument is still not calculated The initial count is only carried out by a scrub nurse without being witnessed by a circulating nurse. The final count is witnessed by the circulating nurse
Subject 3	 Initial, additional and final abdominal gauze are counted X-ray gauze is counted initial, additional and final is calculated 	 The abdominal gauze is counted initial, additional and final X-ray gauze is counted initial additional and final
	31	(Kodariah et al. 2023)

- Needles are not counted (initial and additional). Only counted final
- Scalpel counted (initial and final)
- Recording is not done on the blackboard
- Instruments are not counted (initial and final)
- Initial and final calculations are carried out by a scrub nurse witnessed by a circulating nurse
- Needles are counted initial, additional and final
- Scalpel counted initial, additional and
- Recording has been done on the blackboard and DPKO sheet
- The instrument has been calculated
- Initial and final calculations are carried out by a scrub nurse witnessed by a circulating nurse

Subject 4

- The initial and final abdominal gauze
- X-ray gauze is counted *initial* and *final* is counted
- Needles are not counted (initial and additional). Only counted final
- Scalpel does not count (initial and additional). Only counted final
- Recording is not done on blackboard
- Instruments are not counted (initial and final)
- The initial count is only carried out by a scrub nurse without being witnessed by a circulating nurse

- The abdominal gauze is counted initial, additional and final
- X-ray gauze is counted initial, additional and final
- Needles are counted initial. additional and final
- Scalpel counted initial, additional and final
- Recording has been done on the blackboard and DPKO sheet
- The instrument has been calculated
- Initial and final calculations are carried out by a scrub nurse witnessed by a circulating nurse

Subject

- In cases that do not open cavities, subjects do not use x-ray gauze (radiopaque).
- Not counting the number of needles
- Instruments are not counted
- The initial count was not witnessed by the circulating nurse
- Recording is only done on the DPKO sheet, not written on the counting board
- Have used X-ray gauze in all cases including those that do not open
- X-ray gauze, abdominal gauze has been counted initial and final only (additional not recorded)
- The instrument is calculated at the beginning only
- Needles still count at the end only (initial does not count)
- Recording has been done on the DPKO sheet and tally board

Subject

- X-ray gauze is counted initial and final Needles do not count (counts at final 6 only)
 - Registration is only on DPKO
 - The instrument is calculated initially
 - The initial count was not witnessed by the circulating nurse
- X-ray gauze is counted initial, additional and final
- Needles still not counted (counted at the final only)
- Recording has been done on the DPKO and tally board
- The instrument is calculated only at the beginning and at the end
- The initial count is still not witnessed by the circulating nurse

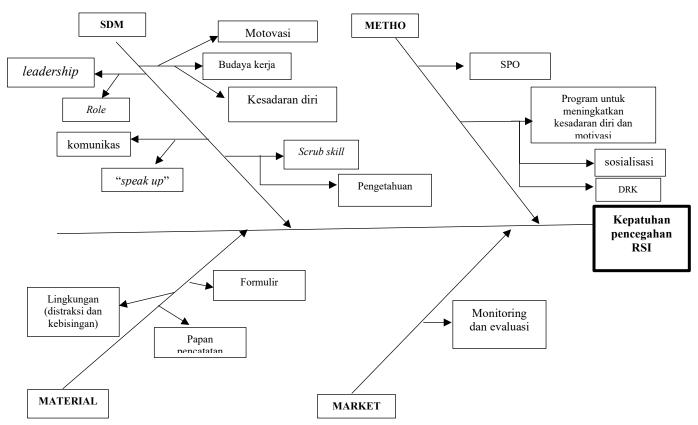


Figure 2. Factors that influence nurse compliance in preventing *Retained Surgical Items* (RSI)

Factors that influence nurse compliance in preventing Retained Surgical Items (RSI). These factor consist of (1) predisposing factors, namely human factors (man) including leadership that plays a role in providing role models, a supportive work culture in increasing the motivation of nurses to implement RSI prevention compliance, staff communication skills in expressing or "speak up" on things that are considered to violate the SPO and discrepancies in calculating surgical items. (2) f enabling factors (Enabling factors), consisting of *methods*, this is related to standard operating procedures (SPO) for RSI prevention, RSI prevention programs to form a good culture or culture in preventing RSI, Materials consist of environmental factors that Promote patient safety in operating rooms. Noise and distraction when counting *surgical* items can be one of the causes of errors in calculating surgical items. Other supporting facilities such as forms that are easy to use and understand and standardized blackboards in each operating room can help make it easier for staff to use. (3) Reinforcing factors which consist of monitoring and evaluation from the leadership on the consistency of nurses in preventing RSI.

DISCUSSION

In this study it was found that the calculation of *surgical items* carried out by the

subject before DRK only focused on counting gauze and abdominal gauze, even though the possibility of counting errors did not only occur on gauze. According to Fang, 2021 surgical needles are one of the items that are often wrong in the counting process (incorrect surgical counts) of 26.8% compared to 22.5% gauze. Surgical instrument counting has also not been fully carried out by operating room nurses even though surgical instruments are also items that often occur in counting errors, especially fragmented instruments, which is 33% (Fang, 2021). Therefore there must be a standard for calculating the same surgical items for all operating room staff starting from gauze, needles, sharp objects, surgical instruments and other objects that could potentially be left in the patient's body.

DRK which was carried out to increase nurse compliance in preventing RSI, there was an increase in adherence from previously 0%, an increase of 33.3%, although not all subjects were fully compliant, but for each subject there was an increase in behavior that led to compliance preventing RSI. This is proof that DRK can increase nurse awareness in implementing patient safety in the operating room, in this case preventing RSI from occurring. In line with research conducted by Ardani, 2018 that DRK can increase nurse compliance in implementing operating procedures related to patient safety.

The implementation of DRK also increases the nurse's initiative to have the courage to "speak up" when there is a discrepancy in the calculations or the SPO is not implemented. According to research from Ardian, 2019 DRK implementation can improve nurses' ability to think critically, maturity in cognitive terms and increase innovation.

Some of the factors that affect adherence to the implementation of RSI prevention are human factors such as low motivation and lack of self-awareness will form a work culture that is not good in improving patient safety. This will have an impact on the lack of desire from individuals to continue to increase knowledge which will cause individual skills to not develop. Reports from The Joint Commission that human factors as much as 29.2% are identified as the cause of RSI (Steelman et al., 2018). Kategori lain faktor manusia ini dilaporkan sebanyak 120 kejadian (8.4%; 120 dari 1430). Leadership and communication were also identified as contributing factors to the occurrence of RSI. Role models are needed in improving patient safety services and improving communication and teamwork is highly recommended to prevent RSI from occurring(Goldberg & Feldman, 2012).

A clear policy in preventing RSI as evidenced in the form of SPO that must be carried out by the entire surgical team. In accordance with recommendations from AORN regarding the need for standardization of policies to address discrepancies in calculations before operations end. Increasing programs to increase awareness and self-motivation of nurses such as the socialization of RSI prevention, carrying out programs to increase the knowledge, skills and critical thinking of surgical nurses, one of which is the DRK program. Research from Prima Ardian, 2019 states that DRK has a correlation with the critical thinking ability of a nurse.

A noisy environment can cause distraction from nurses in calculating *surgical items* which will have an impact on counting discrepancies. Fencl, 2016 states that distraction, noise and interruptions during the counting process must be minimized to prevent RSI from occurring. In addition to the facilities that must be made standard for each operating room in order to minimize confusion from staff if there are differences in applicable standards. (Steelman, 2018)

Monitoring and evaluation is one of the most important factors in preventing RSI. Duggan, 2018 in his research stated that actions in the form of monitoring and evaluation from superiors would change the focus or paradigm of staff from only doing calculations based on habits and would change their focus to focus on preventing RSI.

CONCLUSION

Implementation of a case reflection discussion (DRK) which discusses the prevention of retained surgical items (RSI) helps subjects obtain additional information and increases critical thinking and the subject's ability to carry out RSI prevention.

Factors supporting and inhibiting nurse adherence in preventing RSI include lack of motivation and staff concern for RSI prevention, unclear methods or policies for RSI prevention, material factors where distraction often occurs due to noise in the operating room and interruptions that disturb nurses during the surgical counting process. *items*. Monitoring and evaluation are also important factors in supporting the prevention of RSI.

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