FISHBONE ANALYSIS OF HANDOVER COMMUNICATION METHODS IN EMERGENCY DEPARTMENTARMY HOSPITAL IN JAKARTA

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Abstract
The handover and transfer of identification often experience weakness in its implementation and become global problems at the hospital. This study employed situation study analysis with a fishbone diagram approach that includes 5M (Man, money, material, method, machine) and 1E (Environment). Literature review and analysis were utilized to produce a recommendation for improving the quality of the ISBAR method implementation when conducting handover of nurses among shifts. Data were obtained from the existing-secondary data, previous research data and data sources from Jakarta Military Hospitals. Data were analyzed using fishbone, the data collected for the cause was the ISBAR method was not optimal when handover between nursing shifts. The causes of the problems identified can be prioritized no monitoring evaluation tools, no final monitoring evaluation team, no evaluation of monitoring the implementation of the handover of nurses in turns, hospitals do not have books on ISBAR, components in handover format are not optimal, and nurses do not understand ISBAR method correctly. To overcome the problem of implementing handover communication that is not optimal between shift nurses, six causes of this problem must be resolved immediately. To solve the problems, a follow-up plan is needed. Therefore, the authors provide recommendations as follows propose the ISBAR method of monitoring and evaluating the handover of nurses between shifts, the establishment of evaluation monitoring team about handover nurses between shifts, a draft evaluation monitoring tool, making a pocket book about the ISBAR method, the ISBAR component in the nurse handover format, and provide education and roleplay of the ISBAR method when handover of nurses between shifts.

Keywords: army hospital, emergency department, fishbone diagram, handover, ISBAR

1. Introduction

Hospital or healthcare facility is required to provide a qualified (1), safe, effective, and well-managed service (2) which agrees with the high expectations of society to get to prime health services of any health worker (3).

Legislation Number 44 of the year 2009 about the Hospital stated that as health care institutions, hospitals convene plenary in individual health service that provides inpatient, outpatient, and emergency. Institutions or health institutions such as hospitals

are required to evaluate patient safety culture to enhance safety, quality of service and patient. Safety culture is a concept that evolves and focuses on preventing medical errors and providing patient safety (4). In principle, patient safety culture is complex and abstract concepts (5) that determine the Organization's strength in health and reduce the risk of the patient (6).

Twelve dimensions of a culture of patient safety, aspects that are often weakened is the handover as well as the transfer of hospitals and the openness of communication (6,7). The handover and transfer of identification often experience weakness in its implementation and become global problems at the hospital. The handover and transfer for 46.1% were carried out in a hospital in Saudi Arabia (7). To overcome the same nurturing, (8) recommends that hospitals should develop a standard checklist handover by the documentation guidelines.

A study from Ms et al. (2018), suggests that open communication among officers of health service is one of the factors that potentially improve patient safety. On the contrary, the problems associated with communication can potentially threaten patient safety (8). However, according to Ammouri, Tailakh, Muliira, Geethakrishnan, and Al Kindi (2015) and Delgoshaei, Ravaghi, Abbasi, and Heyrani (2015), the best cooperation in the hospital becomes a key supporting the establishment of patient safety. ISBAR (Identify Situation Background Assesment Recommendation) is a communications or conversations technique, or how the method is used as a guide in a handover that quickly and precisely in the field of healthcare (1,10). Also, National Standards of Accreditation Hospitals on usual SKP 2 and Joint Commission International standards IPSG 2 require that hospitals must devise effective punctual, accurate, complete, and precise communication models to reduce information error 1,10).

Jakarta Army hospital is the highest referral hospital in the Indonesian armed forces and is a part of a government hospital which serves the public as well as conducted the hospital health research education and development (11,12).

The Emergency unit of Army Hospital has 42 nurses (4 armies, 33 civil servants, and five volunteer employees) and ten nurse assistants (8 nurses and two civil servant employees voluntarily) (13).

2. Objectives

To identify the causes of the less optimal implementation of the handover communication method between nursing shifts in army hospitals in Jakarta.

3. Methods

The study employed an analytical study of the situation with the fishbone diagram approach. The approach covered man, method, machine, material, money, and the environment to get the root of the problem regarding the implementation of the analysis method of ISBAR method to investigate shift handover of the nurse in army hospital Jakarta. The following steps were a literature review and analyzing the data to draw a recommendation for improving the quality of ISBAR implementation during nurse handover. The data were collected from the existing-secondary data, i.e., previous research data and data sources from the international army hospital. This study is an innovation legalized by a permit Number B/3846/IX/2018 to collect data and publish the research result conducted in International Army Hospital in Jakarta.

4. Results

The research results from Amri (2017) in the international army hospital in Jakarta are explained as follows:

4.1 Interview

The result of the interview shows that policies and standard operating procedures (SOP) for handover-related already exist and have been distributed to all staffs. Furthermore, nurses conduct a handover from night to morning because the number of nurses and patients is unequal, many nurses work late, and many of them argued for not being socialized with handover SOP or recognize its existence when handover supervisor visits

4.2 Observation

The observation data obtained from the implementations of handover shows not the optimal result. Furthermore, documentation activity of nurse handover among shifts is non-optimal since several rooms do not have handover SOP or do bedside handover; and the present SOP does not explain the steps of conducting handover.

4.3 Questionnaire

The questionnaire results distribution indicate that: 1) 54% of the nurses are not socialized with Standard operational procedure of handover; 2) 60% of them argue the absence of Standard operational procedure of handover in several rooms; 3) 60% of them do not conduct handover in accordance with the SOP; 4) 21% of them do not do bedside handover; and 5) 54% of them argue that the handover format does not cover the handover components.

Based on researchers' observations of 32 nurses while carrying out the ISBAR method when conducting handovers between shifts in Emergency Department, the majority of nurses did not apply identification methods, situation methods, background methods, assessment methods, and recommendation methods when they were handed over. Data were analyzed using fishbone, data obtained for the cause was not optimal ISBAR method when nursing handover between shifts.

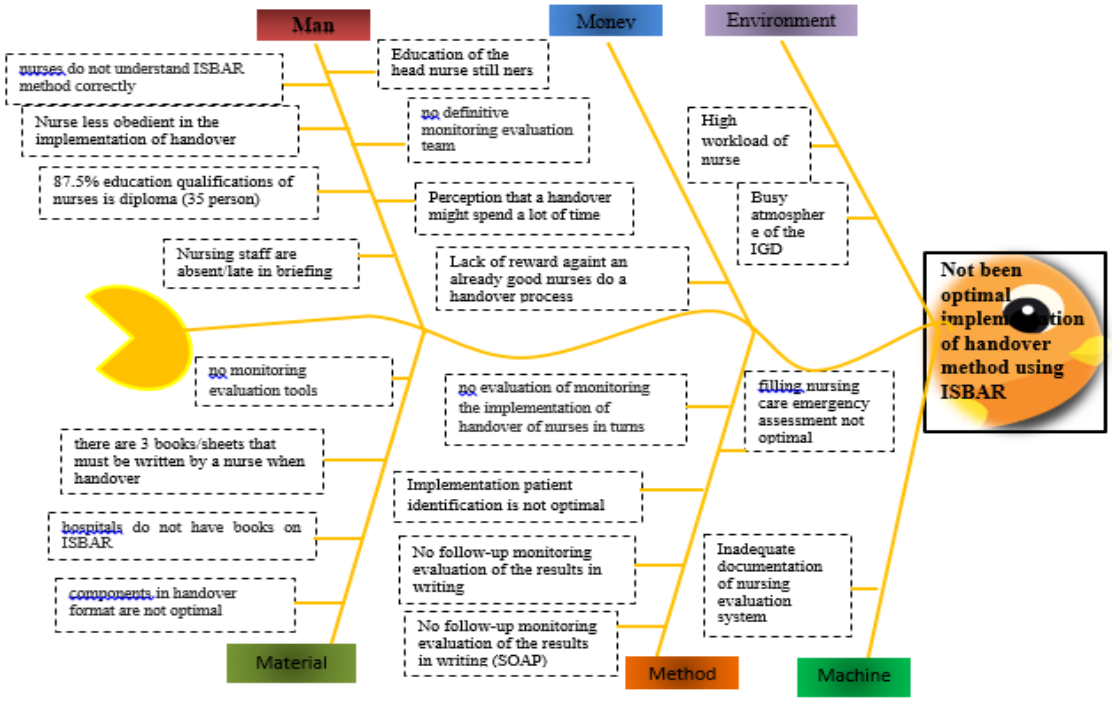

Figure 1. Fishbone Diagram

Figure 1 shows the nonoptimal implementation of ISBAR handover method influenced by **man**, namely nurses do not understand ISBAR method correctly, nurse less obedient in the execution of handover, 87.5% education qualifications of nurses is diploma, nursing staff are absent/late in briefing, education of the head nurse still need, no definitive monitoring evaluation team, and perception that a handover might spend a lot of time. **Money**, namely the lack of reward against already good nurses, do a handover process **Material**, i.e., no monitoring evaluation tools, three books/sheets must be written by a nurse when the handover, hospital do not have books on ISBAR, components in the handover format are not optimal. **Method**, no evaluation of monitoring the implementation of the handover of nurses in turns, filling nursing care emergency assessment not optimal, implementation patient identification is not optimal, no follow-up monitoring evaluation of the results in writing. **The machine** that is inadequate documentation of nursing evaluation system **— environment**, i.e., the high workload of nurse and busy atmosphere of the emergency department.

After known factors of the causes of the problem, the problem with priority weighting is done using weighting aspects as follows:

1. Magnitude (Mg)*:* often problems occur
2. Severity (Sv): big loss
3. *Manageability (Mn)*: unbreakable
4. *Nursing concern (Nc)*: focus on nursing
5. *Affordability (Af)*: availability of resources

Table 1. Priority weighting causes the problem of nursing in an army hospital in Jakarta

No	Causes	Mg	Sv	Mn	Nc	Af	Skor	Rank
1	Monitoring evaluation implementation of nurse handover within the shift	5	3	4	5	5	1500	III
2	There is no definitive monitoring evaluation team	5	5	4	5	5	2500	II
3	No tools monitoring evaluation	5	5	5	5	5	3125	I
4	Hospital has not been a paperback book about ISBAR	5	3	4	4	5	1200	IV
5	Components in the handover format not optimal.	4	3	4	4	5	960	V
6	The nurse has not been appropriately understood ISBAR method	4	3	4	4	4	768	VI

In assessing the cause of the problem, each value of each aspect is multiplied so that it gets the final value. Priority issue is the highest value.

Based on table 1, causes the problems identified can be prioritized as follows:

1. no monitoring evaluation tools
2. no definitive monitoring evaluation team
3. no evaluation of monitoring the implementation of the handover of nurses in turns
4. hospitals do not have books on ISBAR
5. components in handover format are not optimal, and
6. nurses do not understand the ISBAR method correctly

5. Discussion

Based on the Regulation of the Minister of Health Number. 11 Year 2017 About patient safety, article 5 subsection, patient safety goal comprises identify patients correctly, increase effective communication, enhance the security of drugs to look out for, ensure the correct surgical site, the proper procedure, surgery on patients, reducing the risk of infection due to health care, and reducing the risk of patient injury due to a fall (15).

In the patient safety standard at patient safety goals 2 and patient safety goals 2.2, health service facilities are required to carry out effective, timely, accurate, complete, clear communication. Also, it also has to be understood by the recipient, reduce errors, and improve patient safety. Discussion can be in the form of verbal, electronic, or written.

Bad communication enables to endanger patients. Communication tends to errors or sentinel events is when verbal orders or orders by telephone. Communication disruption can occur when handover of patient care can result in adverse circumstances. This is in line with the communication and education management standard 5. It states that communication and information exchange between and within clinical staff during work in shifts or between shifts is essential for the smooth running of the care process. Each hospital determines information to be communicated in a way and every information

should be transmitted from one clinical staff to another, one of which is about handover (1).

Hospital is one of the health service facility that aims to create better health recovery and maintenance. Health care in hospitals is meet the needs and demands of service users (patients) who expect quality healing and recovery and providing comfortable and safe health services. The quality of health services need to be supported by quality nursing services because the roles and responsibilities of nurses are so crucial in administering nursing services, 40% of the staff in the hospital are nursing facilities and 90% of services in hospitals are nursing services (14).

Nursing problems found by the author are not the optimal implementation of the ISBAR method when handing over between shift nurses at emergency departments at Army Hospitals in Jakarta. These results are supported by the results of the research Delrue (2013), who identified that the SBAR method was used only 3.7% for handover.

The results of the author's observation at the emergency department are that all nurses carried out the ISBAR method when the nurse handover was between shift, but it is not optimal. This means that the implementation between shift nurses' handover using the ISBAR method is potential to increase because the emergency department nurses want to apply the ISBAR method, but due to the lack of optimal monitoring and evaluation, it doesn't work consistently. Marquis & Huston (2013) stated that the purpose of implementing the handover method was to improve patient safety in the hospital by using a handover method standard to reduce the errors related to bad communication.

Handover between shifts (handover) is an activity that is very important in the clinical nursing service process, the ineffectiveness of handover can lead to incidents of patient safety (17). Handover of care from the practice of one nurse to another nurse is an integral part of the practice of nursing (18).

The result of Fishbone problem analysis is; the cause of the problem is the absence of a pocketbook on the ISBAR delivery method, there is no definite evaluation monitoring team, the components in the handover format are not optimal, nurses have not correctly understood the ISBAR method, no evaluation monitoring tools, no team definite evaluation monitoring, and the implementation of tracking of handover evaluation of nurses between shifts is not optimal. Therefore, nurses need a portable/practical document that can fit into a pocket and an example of the application of the ISBAR method when handover of nurses between shifts.

However, this implementation must be monitored and evaluated to determine the extent of understanding and application of ISBAR by nurses at the Army Hospital emergency department, so that the problems presented by Amri (2017) which states that 60% of nurses do handovers that is not by SOPs can be overcome.

According to Dunn (2017), an implementation standard is needed to ensure the smooth transfer of information, care and management of security of service (patients). This is supported by SNARS (2017), which states that service standards are prepared to improve the quality and safety of patients with a risk management approach at the Hospital. Based on the *Guidebook on the Implementation of Nursing Inter-Shift Handover at the Presidential Hospital Gatot Soebroto Hospital* (2018), the purpose of the guideline is to optimize, standardize, and civilize the handover process to all nurses at the Presidential Hospital Gatot Soebroto Hospital. In addition, it aim to carry out effective communication programs in patient handover activities, encourage nurses' understanding of the

importance of the implementation of handovers to continuity of care and patient safety (patient safety), carrying out handovers between shifts (handovers) nursing using handover forms, reducing the incidence of repetition of information at handover, avoiding delivery of irrelevant information, avoiding interruptions and facilitating nurses to complete work on time.

Based on the author's interview with the Nursing department, monitoring and evaluation of the implementation of the patient handover have not been carried out. This statement is in line with the fishbone analysis that the author made, that the execution of the handover did not work following hospital standards/regulations, one of which was due to the lack of optimal monitoring and evaluation from the relevant team. If this is not done, it will threaten patient safety such as medication errors, operating area errors, and even patient deaths (8,19).

6. Conclusion

To overcome the problem of implementing handover communication that is not optimal between shift nurses, six causes of this problem must be resolved immediately. To solve these problems, a follow-up plan is needed. Therefore, the authors provide recommendations as follows propose:

1. Monitor and evaluate the ISBAR method when handing over nurses
2. the establishment of evaluation monitoring team about handover nurses between shifts
3. a draft evaluation monitoring tool
4. making a pocket book about the ISBAR method
5. the ISBAR component in the nurse handover format
6. provide education and roleplay of the ISBAR method when handover of nurses between shifts

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