THE DEVELOPMENT OF PATIENT SAFETY SYSTEM - PART 1 (A FOCUS GROUP STUDY)

Diah Arruum[1] and Murniati Manik[2]

Lecturer of Fundamental Nursing Department, Faculty of Nursing/University of North Sumatra- Medan – Indonesia

ABSTRACT: *Patient safety is an effort conducted to prevent and overcome unexpected problems occurring in the hospital. Patient safety is the responsibility of nurses and doctors as health workers who give direct services to the patients. The objective of patient safety in this research is International Patient Safety Goals (IPSG). The purpose of this research is to develop the system of patient safety in the hospital. The study applied a qualitative design based on focus group discussion   with nurses and doctors working in hospital-consisting of 5 nurse-chives, 15 nurses and 5 doctors who worked in the patient room. The research location took place in one of the public hospitals which would run their services. This research showed that the identification, planning, implementation, monitoring, and support of the safety system development were based on input, process, and output. Identification and planning were the parts of input. Support was a part of the process for the implementation, and monitoring. Meanwhile, output was the repair of the system. The conclusions of this system development were identification, planning, implementation, monitoring, and support. Nurses and doctors were expected to be committed to apply the development of patient safety system to the patients in the hospital.*

KEYWORDS: Development System, Patient Safety, Health Workers, International Patient Safety Goals

INTRODUCTION

Background

As health professions, doctors and nurses have the responsibilities to increase the quality of health services. Clancy, Farquhar, and Sharp (2005) stated that nurses have roles in giving health services as comfortable as possible for patients. Moreover, as a part of multidiscipline services, nurses are expected to discover innovative solutions to increase the safety which eventually advantages the patients. In relation to the health services in increasing the patient safety in the hospital, the Accreditation Commission of Hospital (KARS) stated that the patient safety aim is a compulsory requirement which should be implemented in all hospitals concerning how important it is to maintain the patient safety. That aim refers to *Joint Commission International* (JCI), *Nine Life-Saving Patient Safety Solutions* from WHO *Patient Safety* (2007). The aim is utilized to enhance high-quality nursing education (Health Department of Republic Indonesia and KARS, 2011). The patient safety aim which is stated in KARS (2011) and JCI (2011) consists of 6 objectives. They are patient identification, increasing communication effectively, increasing the safety of the cautious medicine, certainty of accurate location, procedure accuracy, and patient-surgery accuracy, reducing the risk of infection related to health service, reducing the risk of dying patient.

Emslie, Knox, and Pickstone (2002) stated that the sentinel root-cause events is about 56% because of communication, 50% due to the patient assessment process, 43% caused by physical surroundings, 28% because of staff competency, and 26% caused by equipments. WHO declared the importance of conducting patient safety (World Alliance for Patient Safety Forward Programme) in relation to the data of unexpected incidents in hospitals in many countries which shows the level of 3-16%. These data should be put into cautious level. (WHO 2004, in PERSI, 2012). It means that the unexpected incidents in hospitals still take place, which disadvantages patients. Therefore, it is essential for hospitals to develop systems to get clinical risks. The types of mistake occurring in hospitals, e.g. service faults or mistaking in giving medication due to inaccuracy of patient examination, faults in giving medication due to Look-Alike Sound-Alike, service faults caused by ineffective communication among nurses or other health officials, and patient failure which causes injuries to under-treatment patients, and also infection caused by disobeying hand-washing manuals (Health Department of Republic Indonesia and KARS, 2011) Consequently, patient safety system should be developed in order to control the possible failures. The system is called as International Patient Safety Goals (IPSG). The research result of *hand hygiene five moments* which was conducted by Nurjannah and Arruum (2015) stated that there was 9,3% proper hand-hygiene applied and 90,7% for the false hand-hygiene. The objective of this research is to analyze the development of patient safety system in one of public hospitals in Medan.

METHODS

Method applied in this research is qualitative design, by gaining information by means of focus group discussion. It was conducted in the patient-treatment room in one public hospital with 15 nurses, 5 doctors, and 5 nurse chiefs. In conducting this discussion, each group was attentive to every shared information. The participants, doctors and nurses, were aged around 28 years old. They have equal understanding in patient safety related to IPSG (International Patient Safety Goals).

Group focus took place for about 40-60 minutes and approximately 4 times. It discussed the development of patient safety: IPSG. This focus group aimed at exploring the development of patient safety: the IPSG which would be applied in this hospital. The researchers monitored and led the discussion. Data analysis was based on the records taken from tape recorder which was transcribed in verbal form. The transcript was analyzed by using Weft-QDA.

RESULT

The followings are the results of the system development.

Identification of Patient Safety

Doctors and nurses stated that in order to avoid patient safety issues, a certain system should be applied. The initial step of the system is problem identification which aimed to avoid or solve problems. ("…..the problem may be risen because of unidentified causes and being neglected….") ("…..there should be clear standard…."). Nurses and doctors opined

Operational Procedure Standard was essential. It is the instrument to identify problems which may occur to patient safety, such as accuracy of patient examination, identification of doctor-nurse communication in delegating the tasks, identification of medication safety, identification of location-accuracy certainty, procedure accuracy, and accuracy of patient surgery, identification of infection occurrence, or identification of infection risk, identification of patient failure, or the causes of patient fall. Nurses and doctors need SOP which can be used in patient-treatment room including accepting the new patients, using patient-bangle identity, effective communication between nurses and doctors, high-alert medicine in the room, site marking SOP in the treatment room, washing-hand SOP and hand hygiene five moments, avoiding dying patient SOP, patient safety monitor SOP, SOP of reporting the failure to patient safety. They stated that SOP could assist to identify problems which will occur or have not occurred. Then, some nurses explained that based on their working experiences in the previous hospital, they still found doctors and nurses who did not obey the 6-step hand-wash and hand five moments high hygiene. Therefore, we need action to identify the problems.

Patient Safety Plan

Doctors and nurses stated that they needed to plan it well if there is a problem in patient safety. The plan is made based on the identified problems and based on needs of each room need so that it can be solved well. ("…nurses need to take place in planning") ("The stuffs or health tools are needed to support patient safety) (".. The standard of IPSG for patient room, the training plan for nurses and doctors). Nurses stated that they need to get involved in making the plan because they work for 24 hours in nursing tutoring.

Implementation of Patient Safety

Some nurses stated further that if it was already planned then it had to be implemented as a step to solve the identified problems,and it refered to SOP (….SOP is utilized to lead the action that we will make…)

Monitoring

In this group discussion, it is stated that in order to conduct patient safety, a control and supervision need to be done by the responsible health team, and nurses said that (" do not only do monitoring when there is a problem. If there is no good monitoring, then it is just the same."). Some of the nurses mentioned that monitoring is based on the accurate patient identification, the rise of effective communication, increasing the medication safety, location-accuracy certainty, procedure accuracy, and accuracy of patient surgery, reducing the risk of infection caused by health services, reducing the falling patients.

Support

The group discussion stated that in order to create the planned system, support, commitment, and role model are required ("…. In near future, a role model is expected to give a good example in each room..Not only for nurses and doctors..") Doctors said that the role model and commitment are the important support for all nurses and doctors who work in hospitals in order to keep the patient safe. The model of management system of patient safety is made based on implementation survey and focus group. Schematically, it looks like the following diagram.
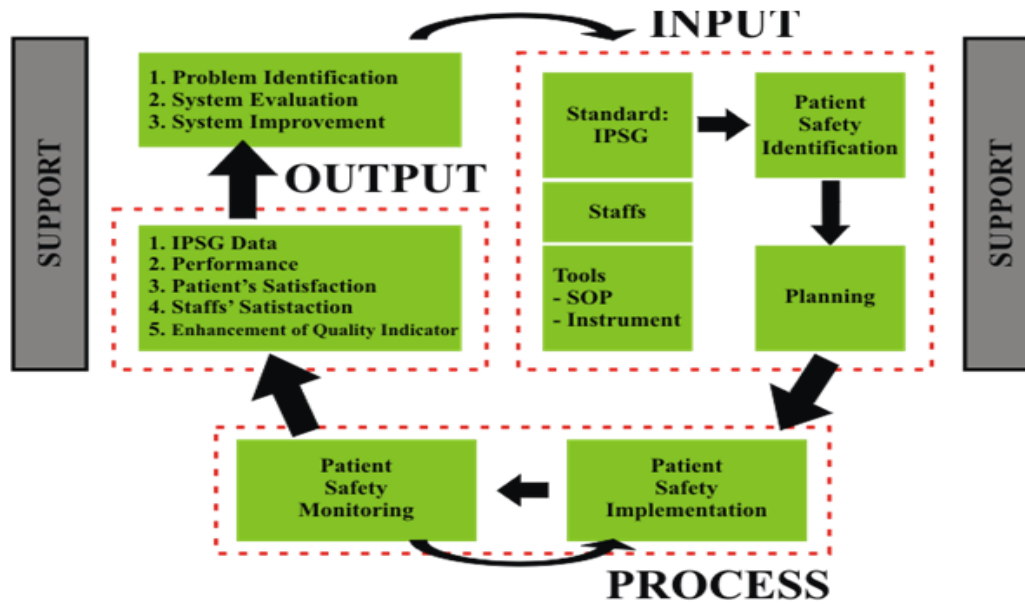
Picture 1. The System of Patient Safety In Hospitals

The schematic picture of the patient safety system shows input steps, process, and output. Input to be prepared covers the understanding of patient safety standard, nationally or internationally, preparing human resource in terms of quantity and quality, and preparing the Standard Operational Procedure (SOP) as the frame work. This step must be continuously carried out and overhauled as a preparation (pre-interaction) from health services and patients as the receiver of the services. In activity services, the patient safety system, as an input, starts from the result about data possibilities in assessment step, analysis and evaluation result, then make the decision that must be done based on the data. That assessment includes patient identification, improving communication effectively, enhancing medication safety, location-accuracy certainty, procedure, and accuracy patient operation, controlling infection, and reducing the risk of patient death. Based on the decision made, patient safety will be implemented and monitored by all the health service personnel. They are nurse chiefs, nurses in charge/on duty, even the doctors on duty.

Through monitoring function, it is certain that the patient safety system of patient with high risk is expected to not bring about unexpected circumstances. The success of avoiding this unexpected incident could impact positively towards other aspects. The direct impact of this system includes the accuracy of increasing patient identification, increasing effective communication, enhancing medication safety, location-accuracy certainty, procedure, and accuracy patient operation, controlling infection, and reducing patient failure. Other positive impacts that have been identified are improving working quality, boosting patients' satisfaction, increasing the health of human resources. Based on motoring survey and evaluation is used as the basic data to identify the problem for repairing and developing the new system for the next period. This process will continuously increasing the improvement. Schematically this increase process looks like:
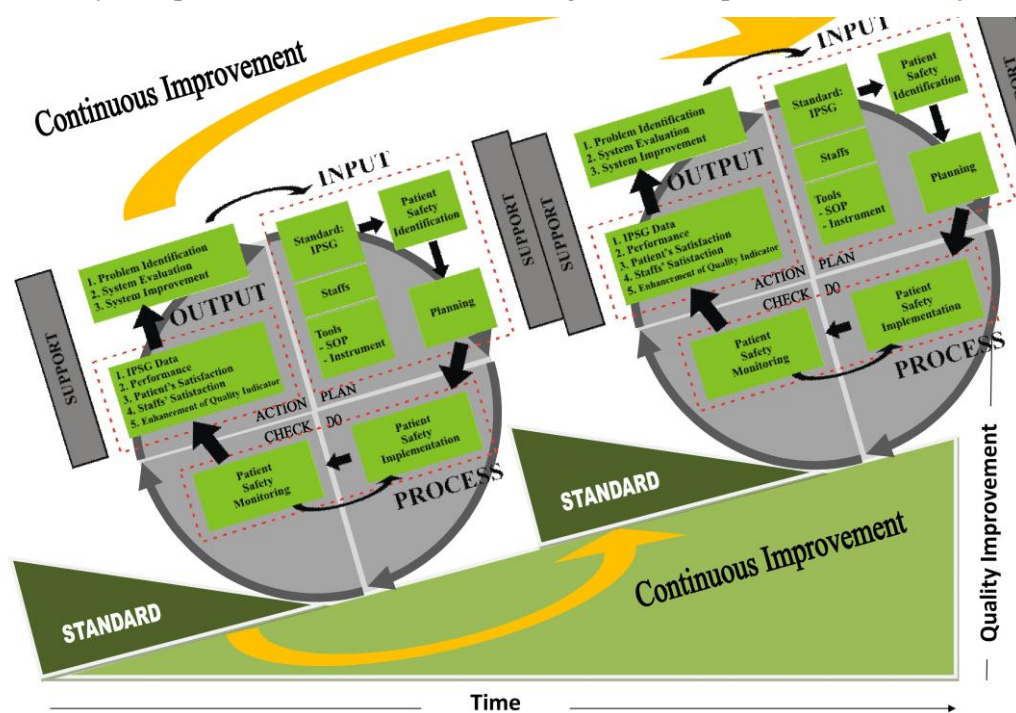
Picture 2: Model of the Patient System Safety in Hospital

DISCUSSION

Patient safety is one of those ways to overcome undesired events. The accreditation commission of hospital (KARS) stated that the object of patient safety is the requirement that must be implemented in all hospitals regarding how important the patient safety. That object refers to joint commission international (JCI), nine life-saving patient safety solutions dari WHO patient safety (2007) which is used by the committee of patient safety in hospital (KKPRS PERSI). Based on focus group discussion, a theme was agreed such as identification, planning, implementation, monitoring, and supporting. That theme will be used as a developing patient safety system, even though it still in the try-step and will be corrected again if it already done. Identification based on Australia standard/ standard New Zealand (2007) to identify the risk by identifying where, when, how something happens, reduces, postpones, or increases the object identification. stated by Clusif (2009) that the purposes of identification are 1) to analyze the malfunction process then identify, and do data 2) analyze the support which is built like information system, manufacturing, logistic, and communication, then control how the organization energy works, and do data exactly as the way to identify the risk.

Nurses and doctors mentioned that to identify, instrument is needed. Australia standard/ new Zealand standard (2007) stated that to do identification risk by doing using tools, brainstorming, focus group, assessing patient satisfaction. Based on focus group discussion, it is acquired that this hospital will develop the incident identification format and if the incident is found, that means the format will be equally for each room until there is no varying report. Caroll, Hoppes, Hagg-rickret, Youngberg, McCarthy, Shope, Kielhorn, & Driver (2014) mentioned that to do assessment is needed by reviewing the risk to watch the

equal risk that is written by each individual or unit, and if the identification result is found, it means that a plan can possibly be carried out like training for nurses and doctors, or seminar to increase the quality of nursing and doctor competence based on each room needs. Australia standard / new Zealand standard (2007) mentioned that the developing and implementation strategy and also intervention planning which will be conducted to increase the advantages and reduce the price till can increase the work efficiency.

The implementation that is conducted must be monitored until the incident comparison result of identification with the data after repairing is found. Next, the implementation needs to be conducted like monitoring to assure the changes by circumstances without priority. . Briner, M., Kessler, O., Pfeiffer, Y., Wehner, T., Manser, T. (2010) mentioned that to increase the quality toward patient need to use instrument in monitoring. The system of risk management which will be conducted consists of input, process, and output. Identification and planning are a part of input. Implementation, monitoring and support are parts of process, while repairing system is a part of output. Related to the support based on the research from Berland, Natvig, and Gundersen (2007) the result obtained is that social support is important to give the safety to the patients, where the aforementioned social support is to increase the work relation each health team. Besides, the patient safety is influenced by the working environment which is not comfortable and can turn into risks.

Some nurses stated that there is health team like doctors and nurses who do not obey the six steps of hand-washing and five moments of hand hygiene because action is needed to identify problems. Based on Erasmus, V, Brouwer W., Van beeck E.F, . Oenema, Daha, a.t. j., Richardus, , . Brug, J. H. J. (2009) in the result of the research it is learned that hand washing is important to avoid infection to happen. Even though the evidence supporting the effectiveness of hand hygiene for prevention of hospital-acquired infections is not strong. This research by Pristiwani dan Arruum (2014) about nurses jobs in handling nosocomial infection found that the majority of nurses jobs in category around 62.3%. This handling infection need assistance from nurse chiefs, the research done by Panjaitan dan Arruum (2013) mentioned that the managerial function of nurse chiefs in handling nosocomial infection is in 34.3% category. it means that the data showed the problem of patient safety in hospital is still happening and needs to be taken care of by health team to perform patient safety system well.

The explanation above is referred as the basis of the system which is the run on the implementation of patient safety, namely International Pasien Safety Goals (IPSG). The objectives of patient safety stated on KARS (2011) and JCI (2011) said that there were 6 objectives, namely the accuracy of patient identification, effective-communication improvement, the improvement of medication safety, the certainty of location accuracy, the accurate procedure, and the accuracy of patient surgery, decreasing infection risk due to health service, making the number of dying fall. Nowadays, the hospital is going to implement patient-safety culture. One of the ways is IPSG. Based on the result of *focus group* which was related to IPSG, nurses and doctors stated that what is needed in IPSG is the preparation of SOP and system. SOP which has been developed is SOP of welcoming new patients, SOP of fitting the wrist identity tag, effective communication SOP, the site marking SOP in patient treatment room, dying-patient SOP,   SOP of monitoring patient safety. This SOP is meant as the starting point to support the risk management system which is going to be run. According to Health Ministry and KARS (2011), IPSG is utilized to improve high-quality health treatment.

CONCLUSION AND RECOMMENDATION

This research showed that the identification, planning, implementation, monitoring, and support of the safety system development are based on input, process, and output. Identification and planning are the parts of input. Support is a part of the process for the implementation, and monitoring. Meanwhile, output is the repair of the system. The conclusions of this system development are identification, planning, implementation, monitoring, and support. Nurses and doctors are expected to be committed to apply the development of patient safety system to the patients in the hospital.

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