

EMPOWERMENT OF PATIENTS AND THEIR FAMILY IN IMPROVING THE PATIENT INCIDENT AND SAFETY REPORTING IN HOSPITAL

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Abstract

Objective: This research was carried out aiming to identify and describe the proof based on the current knowledge regarding the patients and their family-based incident report.

Method: This literature review was done by referring to the manual of Preferred Reporting Items for Systematic Review and Meta Analysis (PRISMA) 2015. In this case, the database employed to find the articles were PubMed, Google Scholar, ProQuest, and Science Direct through the website of National Library. The studies involved were those that met the eight criteria of quality assessment proposed by strengthening the Reporting of Observational Studies in Epidemiology (STROBE). Furthermore, 12 of 1040 articles met the inclusion criteria to be reviewed further.

Result: Patients' involvement through empowerment provided positive effect in improving the patients' safety. In this case, patients could report their condition during the treatment and provide feedback to the healthcare service provider to improve the patients' safety report. The instrument used to measure the patients' experience and incident reporting according to the patients' perception has been developed numerously to collect information from the patients.

Conclusion: Research on patients' empowerment and involvement is mostly conducted through Randomized Controlled Trial method using questionnaire. In this case, the invention mostly used is PRASE. Furthermore, patients and their family involvement is needed in reporting the patients' safety incident.

Keywords: Empowerment: patients safety, family involvement.

INTRODUCTION

Unexpected Event (KTD) becomes an important issue in healthcare service. Data issued by National Reporting and Learning System (NRLS) in England reported that the number of Unexpected Event case in England was at the average of 496 cases monthly (National Health Service (NHS), 2020).

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In this case, safety incident can cause injury and disability that further lead to the loss of patients' income and productivity as well as improving the social insurance payment. Government, governmental organization, and various hospital organizations in Indonesia have tried to improve the patients reporting and safety. However, there was no significant increase in the number of incident report after the patients' safety incident reporting was applied (Dhamanti et al., 2019). The low level of reporting further becomes the main issue in the perspective of patients' safety. It is affected by the cultural factors of blaming others and the abundant administrative tasks conducted by the health workers (Abeer M. Seada, D.N.Sc., Samah B. Mourd and A. Etway, D.N.Sc., 2020).

Therefore, efforts by involving patients and their family in reporting safety incident become interesting discussion topic. Research on the empowerment and model of measurement of patients' involvement has been developed before, especially in England (Lawton, 2017). However, the effect of patients' involvement in the healthcare system is still weak (Hatlie et al., 2020) and some studies have not shown any quality proofs that patients' involvement is beneficial for their own safety (Lawton, 2017). Hence, this literature review was done to identify and describe the proofs based on the recent knowledge regarding reports based on the patients and their family.

METHOD

Searching Strategy

This literature review was done based on the manual of Preferred Reporting Items for Systematic Review and Meta Analysis (PRISMA) 2015. Meanwhile, the literature sources were obtained from PubMed, Google Scholar, ProQuest, and Science Direct databases through the website of National Library. Other sources used were guidebook, manual, and reports. In this case, the searching involved all research in the world issued in 2014 to 2020. The articles collected from each database were then imported to Mendeley. Furthermore, the combination of keywords used in the searching was patient safety, patient reporting incident, patient empowerment, patient engaging, patient experience, and patients' participation, by using the Boolean operator of "AND" and "OR".

Inclusion and Exclusion Criteria

The inclusion criteria determined are (a) using English; and (b) issued in peer-review journal.

Data Extraction

All articles were imported to Mendeley and the duplication was checked. It was further continued by reading the title and abstract, thus the articles that were not suitable will be removed, while those suitable were selected further based on the inclusion and exclusion criteria. The articles were

then selected further by reading the whole content of the article. The final articles selected then were inputted to synthesis table.

Quality Assessment

Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) was employed to evaluate the studies reviewed. From 22 STROBE assessment items, 8 items were chosen, including: description of the amount of sample, description of sample method, calculation of response rate, measurement of results, description of statistical analysis, confounding control, description of study limitation, and research ethic. The category of research quality was calculated based on the number of item met. In this case, each item met was scored 1. All scores were then summed up to know the quality of the research. The study quality was further categorized as bad (0-3), moderate (4-6), and good (7-8) (Tahangnacca et al., 2020). Furthermore, the articles that were categorized as good will be assessed further.

RESULTS

As many as 1,040 articles were collected from four database. Furthermore, 962 articles were obtained when duplicates were removed. The stage of title reading then removed 726 articles. Meanwhile, 159 articles were also removed after the abstract reading stage. The remaining 77 articles were obtained, and their whole text were read to further remove 52 articles. Finally, 12 articles were obtained and reviewed to construct this literature review. Table 1 shows the research summary: 1 in Asia, 1 in America, 1 in Australia, and 8 in Europe. The sample size was in the range of 13 to 21,715 participants and all of the quality of the studies were categorized as moderate to good. The studies collected indicated that patients' involvement through empowerment provided positive effect in improving the patients' safety. Patients can report their condition during the treatment and provide feedback to the healthcare service provider in order to increase the reporting of patients' safety. In this case, the instrument used to measure the patients' experience and incident reporting according to the patients' perception has been developed numerously.

DISCUSSION

Review on Patients Empowerment

Patient empowerment is a method to help the patients finding and developing their capacity to be responsible with their life as well as to obtain authority over their disease management (Johansson et al., 2021). Patients empowered believe that they can actively participate in managing their health and make decision so that they have high control of their health management process.

Table 1. Summary of Studies Selected and Summary of Studies' Results

No	Writer, Year, Country	Sample	Study Design	Variable	Score	Conclusion
1	Jiang, S. & Street, R. L, 2019, Singapore	401 Chinese Adults	Survey and Hierarchical multiple regression analysis	Social, clinical, and media factors	8	The empowerment process varies across cultures. Empowering patients in a collectivist culture.
2	O'Hara, J.K., et al. 2018, England	2,471 inpatients	<i>Multi centre, waitlist design, cluster randomised controlled trial</i>	Classification of reports	8	Approximately 35% of reports were classified by physicians as patient safety incidents according to the standard definition. In this case, medication errors were the most frequently reported incidents. Patients can provide safety insights that complement patient safety measures, with the frequency of reported patient safety incidents equal to that obtained through review of case records.
3	O'Hara, Jane Kathryn., et al. 2017, England	9 wards, among 432 patients invited, 178 agreed to participate in the study	Exploratory experiment based on cluster randomization principle. Interview Paper-based forms Patient safety hotline	Mechanism of patients' reporting	8	The most preferred mechanism for reporting the patient concerns is interviews.
4	Taylor, N., et al. 2016, Australia	34 patients suffering from stroke, AMI, and hip bone fracture hospitalized in three wards	<i>Randomized Controlled Trial</i>	Acceptance of patients' perception	8	Accepting the patient's perception of care is important in improving patient safety. The revised PMOS is suitable for use by vulnerable elderly adults.
5	Kok, J., Leistikow, I., & Bal, R. 2018 Netherlands.	13 Dutch Hospitals. Research Participants (n = 18)	Semi-structured interviews that were done with the managers and incident investigators	Knowledge of practice and challenges in involving patients or family	8	The voices of patients and families are heard but their input is often underestimated and not used as an incentive for broader learning.
6	Serrano-Ripoll, M.J., et al. 2019, Spain	Stage 1: 40 Healthcare service facilities Stage 2: 10 PHC centers	This research was done in 3 stages: Stage 1 is developing the interventions Stage 2 is the intervention	Response level in implementing patients' safety	8	Patients have a positive perception of the implementation degree of patient safety. Nearly half of the patients reported safety problems and a quarter reported experiencing some degree of harm as a result of the health care received in the previous 12

No	Writer, Year, Country	Sample	Study Design	Variable	Score	Conclusion
		(500 patients, 260 providers) Stage 3: 1,248 professional PHC in 48 PHC centers	trial Stage 3 is evaluating the intervention			months.
7	Aoki, T., & Watanuki, S. 2020, Japan	1,474 inpatients who obtained primary treatment	<i>Cross-sectional multicentre study</i>	Cause of diagnostic mistake reported by the patients	8	Patients who reported experiencing diagnostic errors in primary care were lower than patients who were reported in previous studies in other countries. However, patients with multimorbidity were more likely to report diagnostic errors in primary care. Further research is needed to improve the diagnosis process in multimorbid patients.
8	Lawton R, O'Hara JK, Sheard L, et al. 2015 England	822 patients and 648 staffs from 33 wards in Hospital	<i>Randomized Controlled Trial</i>	Feedback: 1. <i>Patient perceptions of safety : The PMOS includes 44</i> 2. <i>Patient experience: The friends and family test</i> 3. <i>Staff: survey Patient safety culture (AHRQ)</i>	8	Feedback from patients concerning the safety of the care they receive can be used, in addition to data from staff in order to encourage the increase of safety in healthcare.
9	Scott, J., Waring, J., Heavey, E., & Dawson, P. 2014, England	Patients that have been sent home from 15 ward in four clinical areas (heart, elderly treatment, orthopedic, and stroke) for a year.	<i>Mixed method.</i> This study consisted of three components: 1) Patient safety experience related to treatment transfer, 2) Acceptance of patients to report their safety experiences, 3) Improvement of quality using patient	Patient safety report after transfer of care, that cover discharge, travel, and admission processes in the following ward.	8	This study concluded that patients' involvement is needed for their own safety. It can be addressed through patient reporting of safety issues or incidents so that organizations can learn from the patient's perspective.

No	Writer, Year, Country	Sample	Study Design	Variable	Score	Conclusion
			safety experience			
10	Southwick, F. S., et al. 2015 USA	696 patients and their families	Quantitative and qualitative survey posted on the Patient Empowerment Coalition (EPC) website	Patients' perspective regarding the harmful medical and surgical events	8	Injuries are often associated with diagnostic and therapeutic errors, followed by surgical complications, nosocomial infections, and medication errors. A qualitative analysis of 450 narratives revealed a lack of accountability, communication, and listening providers. The consequences can lead to death, post-traumatic stress, financial difficulties, and permanent disability. This condition causes a loss of patient trust in service providers. Patients and family members suggest preventive measures and emphasize the importance of joint decision-making.
11	Ricci-Cabello,I., et al. 2017 England	Random sampling from 6,736 patients	Questionnaire of <i>Patient Reported Experiences and Outcomes of Safety in Primary Care (PREOS-PC)</i>	Experiences reported by the patients and results of patients' safety	8	Priority areas for improving patient safety in general practice in the England include appointments, diagnosis, communication, coordination, and patient activation
12	S.J.Giles et al., 2019 England	490 adult patients in nine primary treatment practices	<i>Cross-sectional study</i>	Structure of factors and reliability of internal scale, discriminant validity, and convergent validity.	8	This research established a reliable and valid 28 items PMOS PC. This could improve or complement the data collection methods currently used in primary care to identify and prevent errors

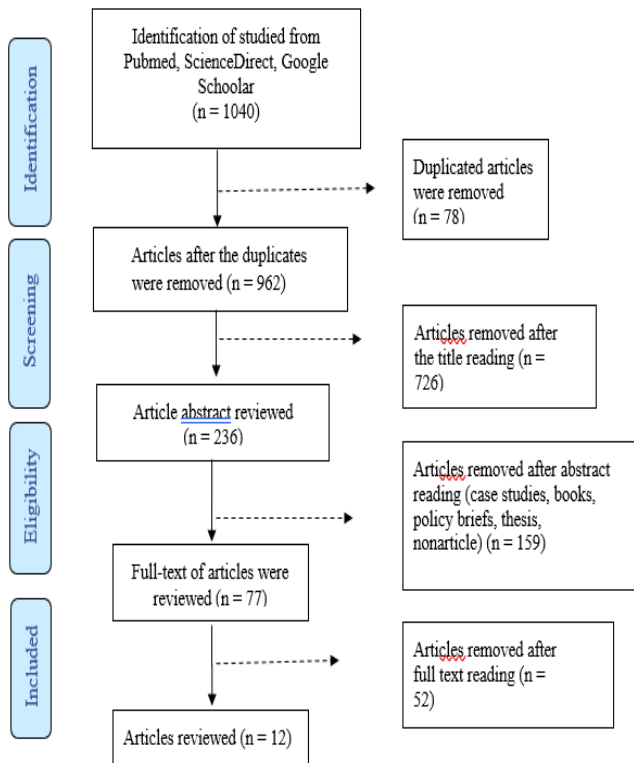


Figure 2. Flowchart Based on PRISMA Manual 2015

Intervention and Measurement Tool of Patients' Empowerment in Improving the Reporting of Incidents and Patients' Safety

Patients can identify and report their safety issues while in the hospital using the instruments that have been developed, including:

1. Patient Reporting and Action for a Safe Environment (PRASE)

PRASE is an intervention aiming to collect patients' feedback regarding their care safety to improve the service for the patients. This intervention used two tools that have been validated, those are Patient Measure of Organizational Safety (PMOS) and Patient Incident Reporting System Tool (PIRT) (Lawton, 2017). PMOS is the first instrument to evaluate the factors contributing to the patients' safety based on Yorkshire Contribution Factor Framework (YCFF) from the patients' point of view (Giles et al., 2013). Meanwhile, PIRT is a questionnaire that requires patients to report the safety incident they experienced or they saw, as well as other positive experiences during the care (Lawton, 2017). In this case, patients are asked to observe the care and medication process, as well as the physical environment. Such information can help the hospital to improve the patients' safety (Giles et al., 2013). Furthermore, patients can obtain insight regarding their safety that equipped the safety measure and provide unique perspectives on different hospital safety as well as add definition of the current patients' safety incident (O'Hara et al., 2016).

2. PRoSOC (Patient Reporting of Safety experiences in Organizational Care Transfers)

Scott and Kolega (2014) proposed PRoSOC that is a reporting tool to identify latent safety condition of the patients when they are transferred. This research studied the report of patients' safety after being transferred, which include the process of going home, travel, and arrival or entering the next unit. The patients' feedback regarding the safety directs to the improvement as well as related to the size and indicator of the security quality (Scott et al., 2014).

3. FFT (Friends and Family Test)

FFT is an instrument used so that patients and their family can report their experiences during being hospitalized (Coulter et al., 2014). This includes the topic of access and waiting time, information provided, communication with the professional or social treatment, quality of physical environment, involvement of decision, support of self-care, treatment coordination, health status, and quality of life (Coulter et al., 2014).

Research conducted by Sizmur et al reported that there was different response of emergency patients related to the age and gender. Female patients provide less positive response compared to male patients. In addition, positive response increases as the age increases, excluding in the oldest age (above 75 years old). Furthermore, regarding the method of provision, online response was significantly less than postcard response, and phone response was more positive as well compared to postcard response (Sizmur et al., 2015)

4. MISSCARE Survey

MISSCARE survey was developed to measure and determine the reasons of skipping the care. The care skipped is correlated with negative results on the patients, such as mortality and unexpected results (Bagnasco et al., 2018). Research carried out by Kalisch et al reported that the care which is skipped by the patients is mostly at basic care domain compared to communication and waiting time, including oral care, ambulance, helping the patients getting up from bed to chair, sharing information regarding the test/procedures, and taking a shower (Kalisch et al., 2014).

5. Transitional Incident Prevention Programme (TIPP) Survey Study; Transitional Risk and Incident Questionnaire (TRIQ)

Transitional Incident Prevention Programme (TIPP) is a program of preventing the transitional incident to improve the transitional patients' safety and prevent the incident in transitional period (van Melle et al., 2015). TRIQ can help identify safety incident as well as monitor the intervention effect of improving the safety (van Melle et al., 2019)

6. Empowered Patient Coalition (EPC) Questionnaire

Empowered Patient Coalition (EPC) is an organization established by patients advocate to help the community in

improving the quality and security of health care (“Safety Advocates for Health Care Issues: Empowered Patient Coalition,” n.d.). EPC questionnaire is a voluntary survey to evaluate the danger based on the patients’ personal and families experience that illustrate the harmful medical event (Southwick et al., 2015). Patients’ experience is important to identify the safety issue and reduce the hazard as well as to improve the patients’ safety.

7. OpenNotes Tool

OpenNotes is an innovation that invites the patients to read doctors note online so that it can improve the safety through documentation errors reported by the patients (Walker et al., 2019). Such innovation helps connect the patients and service provider in hospital visit, helping the patients to know the next step, and activate both patients and their family to report the undetected documentation error (Khan et al., 2016). Transparent note can further improve patients’ satisfaction, trust, and security.

8. The Nordic Patient Experience Questionnaire (NORPEQ)

NORPEQ contains main questions regarding the patients’ experience that can be used in cross-countries as well as has good proof that has been tested in four countries. In the research done by Groene et al using various questionnaire, one of them was NORPEQ that determined the predictor variable covering three strategies, those are maturity of hospital quality management system, patients’ involvement in quality management function, and healthcare strategy that focuses on patients. However, no substantial relationship was found among the three strategies towards the measurement of experiences reported by the patients (Groene et al., 2015).

9. PREOS-PC Questionnaire

This questionnaire aims to measure experienced and results related to patients’ safety in primary care. This instrument can collect information regarding patients’ experience and results from patients’ safety issues reported, as well as discrimination of various safety degree from time to time. In this case, research carried out by Cabello et al showed that patients have positive perception towards the degree of patients’ safety implementation level (Ricci-Cabello et al., 2017).

10. PC PMOS

PC PMOS is a tool used to identify the factors causing safety incident in primary care based on the patients’ perspective. This tool is developed through inductive and deductive approaches from accident factor theoretical model proposed by James Reason’s Swiss Cheese, qualitative questions (Hernan et al., 2015), literature related to patients’

perception related to safety (Rebecca Anhang Price PhD, Alan M. Zaslavsky, PhD, 2015), and direct descent line of hospital PMOS tool (McEachan et al., 2014).

11. Interview, Questionnaire, and Hotline

Interview is the most preferred reporting method and the most useful in reporting the patients’ health issues. This approach has the potential to provide healthcare service through systematic method so that the patients are able to contribute in various safety reviews (O’Hara et al., 2017). Patient or family member interviewed can identify factors that contribute to bad incident they experience (Etchegaray et al., 2016).

12. Patient-Reported Outcome Measures (PROMs) and Patient-Reported Experience Measures (PREMs)

Patient-Reported Outcome Measures (PROMs) is a questionnaire that measures the patients’ perceptions regarding the health status, while Patient-Reported Experience Measures (PREMs) is a questionnaire that measures the patients’ perceptions regarding their experience when receiving treatment (Kingsley and Patel, 2017). PROM is collected to measure the effectiveness of clinical test or to improve the patients’ health status through the functional, psychological, and social results (Pennucci et al., 2020). Meanwhile, PREM is developed to collect patients’ feedbacks regarding their experiences with the healthcare service provided and as a tool in improving healthcare service quality (De Rosis et al., 2020).

CONCLUSION

Research on the empowerment and involvement of patients in improving patients’ reporting and safety has been conducted numerously in England, USA, Netherlands, Australia, and Korea through Randomized Controlled Trial method using questionnaire as the research instrument. In this case, the intervention that is mostly used was PRASE consisting of PMOS and PIRT. The intervention that has been done has both strength and weakness to improve the reporting of patients’ safety, yet cultural aspect involvement has not been found.

Conflict of Interest

Writers declare no conflict of interest

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