

Interprofessional Collaboration Improves Patient Safety ; A review

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ABSTRACT

Patient safety is one of the indicators of the quality of health services in the hospital, for that it is necessary to have efforts from the hospital to create a system that can minimize the occurrence of errors and unexpected events that can harm patients, nurses as health workers who are the most numerous in the home. sick and with the patient for 24 hours, has an important role in maintaining patient safety. This study aims to explain how the role of nurses and cooperation between health workers in implementing patient safety measures in the hospital. The method used in this study is a literature review by analyzing and exploring relevant articles and focusing on interprofessional collaboration to improve patient safety. The articles used in this study were taken from 3 direct, proquest and Pubmed science databases published in the last 3 years, namely between 2019-2021, nurses as part of the health team are required to be able to work together with other health professionals in hospitals with various characteristics, including , education, gender, age, employment status and length of work, nurses are required to be committed to maintaining patient safety in the hospital.

Keyword : interprofesional collaboration, nurse, patient safety

Introduction

Patient safety is an important aspect in hospital services, many studies state that the incidence of medical errors and diagnostic errors still occurs in health care centers around the world including in developing countries (1), even though efforts to prevent patient safety incidents have been launched since the last two decades ago (2).

In the current era of globalization, hospitals are required to provide quality services to patients, where the quality of health services in hospitals is one of which is determined by patient safety in the hospital (3) (4). Patient safety will be carried out well if the hospital changes the old paradigm, which focuses on disease into a new paradigm, namely patient-centered care (5).

The Institute of Medicine (IOM) in 2001 established six dimensions of service quality in the 21st century, namely patient centered, effective, efficient, safe, equitable, and timely (6). Patient center care (PCC) is a service that turns patients into a service center where the hospital provides holistic services, coordination between health workers, patient involvement in care, evidence-

based action, use of information technology and appropriate service time and communication between service providers runs smoothly (7).

Patient safety is influenced by patient safety culture and the involvement of health workers (8), good teamwork will reduce the risk of medical errors (9), teamwork, communication between health workers and collaboration between health workers are important factors to improve patient safety (10) (11). Medical errors can occur due to incorrect doctor prescriptions, unsafe administration of drugs by nurses, lack of information on pharmacy knowledge from the health care team, and weak collaboration between professions, these can be prevented by increasing the implementation of interprofessional collaboration (12).

Interprofessional collaboration is an important component in providing health services to improve patient safety (13). This study aims to analyze the effect of interprofessional collaboration and the role of nurses on improving patient safety in hospitals.

Method

This research was conducted by conducting literature review of articles in the direct, proquest and pubmed science data base, with the keywords interprofessional education AND patient safety, articles were selected based on the limitations of the year they were published, namely between 2019-2021 with full text and using English. This review literature is based on Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). The articles found in the data base were then synthesized and analyzed using exclusion and inclusion criteria, the inclusion criteria in this review literature were the implementation of patient safety in the hospital, while the exclusion criteria in this review literature were articles about patient safety carried out in the community.

The initial literature search found 176 articles (scienc direct 17 articles, proquest 96 articles, and pubmed 63 articles) 170 potential articles met the criteria, after being selected based on similarity of articles to 165, after reviewing through abstracts there were 147 articles that were irrelevant and could not be accessed in full text So that it becomes 29 articles, out of 29 articles reviewed using the Joanna Briggs Institute (JBI) 10 full text articles meet the criteria.

Result

The results of 10 articles were obtained from the data base scienc direct, proquest, and pubmed with the keywords interprofessional collaboration AND patient safety, the results are as follows:

1. Article title : Inter-Professionalism in Health Care Post-graduate specialization: an innovative Laboratory. This article explains that Collaboration Between Professionals (IPC) is an important part of a health care system to run well. This is related to improved patient safety and case management, optimal use of skills of each member of the health care team and the provision of better health services. Inter-Professional Education (IPE) is one of the keys in developing positive behaviors that are beneficial to IPC. Methods: An Innovative Laboratory inspired by the Consensus Conference (CC) methodology on "Integrated

Narrative Nursing Assessment". Involves three Postgraduate specialization programs and gets different assignments in CC. Result: there is competency development in students, and acquiring collaborative skills between health professions. Conclusion: This experimental laboratory is useful for providing real IPC experiences to students. They are actually collaborating with different health professionals to achieve a common goal (13).

2. Article title: Inter-professional nursing education and the roles of swift trust, interaction behaviors, and creativity: A cross-sectional questionnaire survey. This article explains that increasing teamwork involving several health workers is one approach in facing today's challenges. Teamwork can be enhanced through interprofessional learning in nursing education. Behaviors that encourage collaboration and creativity in organizations include rapid trust, interactive behavior, and team creativity. Methods: A cross-sectional study was conducted with 210 nursing students in an inter-professional educational institution with an interdisciplinary team. Design: Three questionnaires assessed nursing students' perceptions of rapid trustworthiness, interactive behavior, and creativity: 1) fast trust measures both cognitive-based and affective-based domains; 2) interactive behavior measures the domains of constructive controversy, helping behavior, and spontaneous communication; and 3) team creativity measures collaborative ability. The scale score ranges from 1 to 5; higher scores indicate faster trustworthiness, better interactive behavior, and greater team creativity. Analysis with Pearson correlation coefficient. Results: Cognitive-based rapid confidence correlated positively with all three domains of interactive behavior ($p < 0.01$); All domains of interactive behavior were positively related to team creativity ($p < 0.01$). Interactive behavior mediates the relationship between cognitive-based rapid trust and team creativity. Discussion: Increasing cognitive-based rapid confidence and interactive behavior in interdisciplinary education for nursing students can enhance team creativity. Educational institutions engaged in interdisciplinary educational courses for nurses should encourage interactive behavior, which can promote cognitive-based rapid confidence among nursing students and increase collaboration and creativity. (14).
3. Article title: Safety attitudes and working climate after organizational change in a major emergency department in Sweden. The article explains that teamwork can affect the safety climate of staff, which in turn can affect patient safety. Purpose: This study aims to evaluate the effect of organizational change on the assessment process of interprofessional teams on staff perceptions of teamwork and safety attitudes in the ER. Methods: This prospective observational study used a cross-sectional design and measured the ED staff's perceptions of the patient safety-related domain at two time points (before and after organizational intervention), using a safety attitude questionnaire. Results: There are significant differences between before and after organizational changes for safety climate, working conditions, and stress recognition domains. Nurses and physicians showed different basic attitudes and different responses to the intervention between the two time points. Conclusion: The results

reflect an increase in positive attitudes despite differences in responses between nurses and doctors. Finding: improving attitudes among team members through defined organizational changes and learning from one another. Organizational changes can affect staff perceptions of the safety climate and interprofessional teamwork, which can improve the ER work environment (15).

4. Article title : Patient Participation in Patient Safety and Its Relationships with Nurses' Patient-Centered Care Competency, Teamwork, and Safety Climate. This study used a cross-sectional method. Data were collected from 479 nurses at two public hospitals in Seoul, Korea, using a questionnaire to collect data on patient participation in patient safety activities, PCC, perceptions of teamwork, and safety climate. Data analysis used descriptive statistics and multiple logistic regression analysis. Results: The mean score for patient participation was 2.76 ± 0.46 out of 4.0. The mean scores for PCC, teamwork, and safety climate were 3.61 ± 0.46 , 3.64 ± 0.41 , and 3.35 ± 0.57 of 5.0, respectively. Nurses who experienced high patient participation in patient safety activities (≥ 3.0) had higher PCC, teamwork, and safety climate scores. Multiple logistic regression analysis revealed that the PCC scores (OR = 2.31, 95% CI = 1.14–4.70) and safety climate (OR = 2.51, 95% CI = 1.09–5.78) were significant factors associated with patient participation. Conclusion: The level of patient participation in patient safety activities is not high. Nurse PCC, teamwork, and safety climate were positively related to patient participation. Enhancing the competence of nurses for patient-centered care and creating a strong safety climate can increase patient participation in safer health care (16).
5. Article title: Iranian Nurses' Attitudes Toward Nurse-Physician Collaboration and its Relationship with Job Satisfaction. Penelitian ini menyebutkan bahwa meskipun perawat dan dokter memiliki tujuan yang sama untuk meningkatkan kualitas pelayanan kesehatan, namun ada kesenjangan hubungan di antara mereka. Tujuan dari penelitian ini adalah untuk mengetahui sikap perawat Iran tentang kolaborasi dokter-perawat dan hubungannya dengan kepuasan kerja mereka. Metode: Dalam studi cross-sectional ini, sebanyak 232 perawat direkrut dari tiga rumah sakit pendidikan ilmu kedokteran Universitas Zanjan. Tiga kuesioner digunakan dalam penelitian ini; (a) Kuesioner data demografis, (2) Skala Jefferson Sikap terhadap Kolaborasi Dokter-Perawat (JSAPNC), dan (3) Kuesioner Kepuasan Minnesota. Hasil: Dalam penelitian ini, usia rata-rata peserta adalah 33,22 (SD = 6,13) tahun, 83,8% perawat berjenis kelamin perempuan, 90,8% memiliki gelar sarjana muda dalam bidang keperawatan, dan 82,5% memiliki shift kerja bergilir. Skor rata-rata kolaborasi dokter-perawat ditemukan menjadi 48,07 (SD = 8,95) (berkisar dari 15 hingga 60), dan skor rata-rata skala kepuasan kerja adalah 57,78 (SD = 14,67) (berkisar dari 20 hingga 100). Ada hubungan positif dan signifikan antara sikap terhadap kolaborasi dokter-perawat dan kepuasan kerja di antara perawat ($r = 0,59$, $P \leq 0.001$). Kesimpulan: Kolaborasi antara perawat dan dokter meningkatkan kepuasan kerja perawat yang bekerja dalam pengaturan

klinis. Oleh karena itu, perawat dan dokter harus mengembangkan budaya kolaborasi dengan tujuan yang sama yaitu pelayanan kepada pasien yang berkualitas tinggi. Selain itu, manajer pelayanan kesehatan harus menerapkan strategi yang dapat memperkuat pengembangan kolaborasi dokter-perawat (17).

6. Article title: Variables associated with interprofessional collaboration: A comparison between primary healthcare and specialized mental health teams. This study states that although nurses and doctors have the same goal of improving the quality of health services, there is a gap in the relationship between them. The purpose of this study was to determine the attitudes of Iranian nurses about doctor-nurse collaboration and its relationship with their job satisfaction. Methods: In this cross-sectional study, 232 nurses were recruited from three Zanjan University medical teaching hospitals. Three questionnaires were used in this study; (a) Demographic data questionnaire, (2) Jefferson's Scale of Attitudes towards Doctor-Nurse Collaboration (JSAPNC), and (3) Minnesota Satisfaction Questionnaire. Results: In this study, the mean age of the participants was 33.22 (SD = 6.13) years, 83.8% of the nurses were female, 90.8% had a bachelor's degree in nursing, and 82.5% have shifts working in shifts. The mean doctor-nurse collaboration score was found to be 48.07 (SD = 8.95) (range from 15 to 60), and the mean job satisfaction scale score was 57.78 (SD = 14.67) (range from 20 to 100). There was a positive and significant relationship between attitudes towards doctor-nurse collaboration and job satisfaction among nurses ($r = 0.59$, $P \leq 0.001$). Conclusion: Collaboration between nurses and doctors increases job satisfaction of nurses working in clinical settings. Therefore, nurses and doctors must develop a culture of collaboration with the same goal of providing high quality patient care. In addition, health service managers must implement strategies that strengthen the development of doctor-nurse collaborations (18).
7. Article title: Inter-professional collaboration of nurses and midwives with physicians and associated factors in Jimma University specialized teaching hospital, Jimma, south West Ethiopia, 2019: Cross sectional study. This article explains that collaboration between professionals between professionals is very important in health care where most of the activities are carried out in a team. The main objective of this study was to assess the interprofessional collaboration of nurses and midwives with doctors and related factors in the Jimma University teaching hospital from March 20 to April 8 2019. Methods: an institution-based cross-sectional study was conducted among 358 nurses and 52 working midwives. at the Jimma University Teaching Hospital using a structured self-administered questionnaire. The study unit was selected by simple random sampling using the random method. The results were summarized using descriptive statistics. Results: About two thirds, 66.7% ($n = 273$) of participants had satisfactory inter-professional collaboration with doctors and 238 (58.2%) had good relationships with doctors. Again 234 (57.2%) participants had attitudes that supported interprofessional collaboration with doctors. relationship between

participants and doctors ($p = 0,000$), experience of disruptive behavior ($p = 0,000$), attitudes towards interprofessional collaboration with doctors ($p = 0,000$) and employment status ($p = 0.001$). Conclusion: The majority of participants had satisfactory inter-professional collaboration with doctors. Nurses and midwives did not have a significant difference in their professional collaboration with doctors (19).

8. Article title : How to optimize integrated patient progress notes: A multidisciplinary focus group study in Indonesia. The study explains that hospitals in Indonesia are required to implement Integrated Patient Progress Notes (IPPNs), which are commonly referred to as "Integrated Patient Development Notes". The progress log contains all interactions between the patient and healthcare professionals, including doctors, nurses, pharmacists, dietitians and physiotherapists. However, since it was first launched in 2012, the obstacles in solving this integrated documentation are still national in nature. Objective: to identify health workers' perspectives on the barriers and problems of using IPPN and facilitators who can optimize its use. Method: Five focus group discussions (FGD) involving 37 participants. All FGDs were recorded, translated, and transcribed word for word. Thematic analysis is used to interpret the data. Results: Thematic analysis of the material revealed three main categories for each of the two topics; Topics 1. Problems hindering integrated documentation include lack of supervision, competence, workload; topic 2: perceived strategies for optimizing integrated documentation: organizational support, shared practice, integrating technology with IPPN. Conclusion: The results suggest that health professionals see the importance of using IPPN but only if applied with educational and organizational support and the use of electronic patient records may be more effective than paper records. IPPN implementation suggests educational and organizational support (20).
9. Article title: Interprofessional cooperation: An interventional study among Saudi healthcare teaching staff at King Saud university. This article describes that collaborative interprofessional practice improves health care. Interprofessional education (IPE) is very important in improving collaboration and quality of health services. This study explores the teaching staff's attitude towards interprofessional collaboration across various professions in the field of Health at King Saud University, Saudi Arabia. Methods: The pre-test post-test design was used with 53 lecturers from Health Colleges, King Saud University, before and after the interprofessional development workshop. The 12-item, 3-subscale version of the IEPS was used to evaluate changes in the 3-subscale "competence and autonomy", "perceived need for cooperation" and "perceptions of actual cooperation". Results: This study involved lecturers of medicine, nursing, pharmacy, dentistry, applied medical science and emergency medical services. The results showed positive attitudes towards IPE, including competence and autonomy, the need for cooperation, and perceptions of good cooperation. Conclusion: Interprofessional collaboration in health education is an important component of IPE, just as IPE is an integral component of collaborative interprofessional

practice. The findings also show that lecturers have a positive attitude towards interprofessional collaboration (21).

10. Article title: Piloting and evaluating feasibility of a training program to improve patient safety for inter-professional inpatient care teams - Study protocol of a cluster randomized controlled trial. This article explains that improving patient safety is a key goal in the health care system. Patient safety training has often focused on a single topic and profession. Therefore, there is a need for training among health team professionals. In this study, it aims to (1) pilot this training program by comparing two different training formats with the control group and (2) evaluate the feasibility of the intervention. Methods and analysis: (1) For intervention trials, cluster randomized controlled trials will be conducted in three study locations. Therefore, the e-learning group and the mixed learning group would be compared with a waiting control group at three assessment points; (2) The feasibility of the intervention will be evaluated using qualitative methods. We will conduct individual problem-focused interviews as part of the post-intervention measure to gather information on acceptance, implementation, drivers and constraints from a staff perspective. Discussion: This study puts forward a training program that has the potential to improve patient safety in hospitalization. Interprofessional inpatient care team members can receive systematic training in the three competencies that are at the core of patient safety management. development of optimal implementation strategies can encourage the implementation of interventions in health service practices. As a result, the interventions can be used continuously and comprehensively for the continued training of hospital staff (22).

Discussion

Patient safety merupakan salah satu indikator mutu pelayanan kesehatan di rumah sakit, pelaksanaan patient safety dapat dipengaruhi oleh adanya budaya keselamatan pasien di rumah sakit (23). Insiden keselamatan pasien di pelayanan kesehatan dapat berupa medical error karena adanya kesalahan resep oleh dokter, tindakan pemberian obat oleh perawat yang tidak aman, kurangnya pengetahuan tim kesehatan tentang farmasi, dan kolaborasi antar tenaga kesehatan yang kurang (12).

Keselamatan pasien dapat dilaksanakan dengan baik karena adanya kerja sama tim, adanya budaya keselamatan pasien yang baik, dan kompetensi perawatan yang berpusat pada pasien (16). Salah satu yang bisa dilakukan untuk meningkatkan keselamatan pasien adalah melaksanakan interprofessional collaboration (13) (24), dimana poin penting dalam interprofessional collaboration adalah komunikasi yang efektif dan kerjasama yang baik antar tenaga kesehatan (25). Kolaborasi antar tenaga kesehatan (perawat, dokter, bidan, ahli gizi, fisioterapis, apoteker) dapat meningkatkan kepuasan kerja tenaga kesehatan (19) (17).

Interprofesional collaboration dapat dilaksanakan dengan adanya dukungan dari pimpinan pelayanan kesehatan (18), salah satu bentuk interprofessional collaboration adalah penerapan catatan perkembangan pasien terintegrasi (IPPNS), catatan kemajuan berisi dokumentasi pasien

yang merupakan bentuk komunikasi dan interaksi antar tenaga kesehatan dalam memberikan pelayanan kepada pasien (26), dalam pelaksanaannya mengalami kendala, hal ini karena kurangnya dukungan dari organisasi, kurangnya pengawasan dan kompetensi serta beban kerja. Pelaksanaan IPPNs dapat ditingkatkan melalui dokumentasi elektronik dan adanya dukungan dari organisasi dan pendidikan kesehatan.

Interprofessional collaboration dapat diajarkan sejak para tenaga kesehatan masih di tingkat pendidikan (27) atau interprofessional education (IPE) (13), hal ini perlu adanya dukungan dari institusi pendidikan kesehatan (21). Para mahasiswa antar disiplin yang berbeda akan berinteraksi dan bekerjasama satu dengan yang lain, dapat meningkatkan kreativitas, meningkatkan kepercayaan diri dan adanya kepuasan antar tenaga kesehatan sehingga diharapkan mampu menyelesaikan masalah pasien, sehingga mereka akan memiliki pengalaman ketika mereka nanti bekerja di tempat pelayanan kesehatan (14).

Result

- Pelayanan kesehatan di abad 21 ini mengalami perubahan paradigma yaitu dari berpusat pada penyakit menjadi berpusat pada pasien.
- Keselamatan pasien dapat ditingkatkan dengan cara menerapkan interprofessional collaboration, dimana agar pelaksanaan interprofessional collaboration dapat berjalan dengan baik perlu adanya dukungan dari pimpinan pelayanan kesehatan, dan perlu diajarkan kepada mahasiswa kesehatan sejak masih di tahap pendidikan.
- Interprofessional collaboration yang dipraktikkan oleh mahasiswa kesehatan dapat meningkatkan kreativitas mahasiswa, meningkatkan kepercayaan diri dan meningkatkan kepuasan antar tenaga kesehatan.

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