Healthcare Providers' Perception of Patient Safety Scale by the Hospital Survey on Patient Safety Culture: A Literature Review

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Abstract

This literature review focuses on health care providers' perceptions and attitude of patient safety culture and the factors that may influence the patient safety climate.

Conclusion: The culture of patient safety using the HSOPSis widespread. Doing so minimizes reporting error and enhances the possibility of of improving measures where it is administered. Effective communication, feedback following reporting, engaged leadership, and environments focused on learning from errors are factors that can lead to improvement. Furthermore, prioritizing patient safety in hospitals along with encouraging event reporting and awareness of health care providers about errors and learning from errors, worldwide will enhance patient safety.

Keywords: Literature review, patient safety,

Literature review

This literature review focuses on health care providers' perceptions and attitude of patient safety culture and the factors that may influence the patient safety climate. Patient safety is a major component faced worldwide that encourages the World Health Organization to arrange a plan to solve harmful effects from unsafe care that leads to disabilities and death among the patients (WHO, 2021). A considerable amount of literature has been published to discuss patient safety among health care providers.

A global study was done by Prieto, Fonseca, and Zem-Mascarenhas (2021) to evaluate patient safety culture among Brazilian hospitals. The authors searched in multiple databases and explored thirty-six studies that explained areas of strength in nine studies such as: "teamwork within the units", "expectations of supervisor/boss and actions promoting safety", "organizational learning", "support of hospital management for patient safety" and "frequency of report of events". As a critical area, the dimension "non-punitive response to error" was evidenced in 30 of 36 studies (Prieto, Fonseca& Zem-Mascarenhas,2021).

Additionally, a descriptive cross-sectional study by AL-Mugheed et al. (2022) identified attitudes of patient safety from the perception of nurses and doctors in two private hospitals in Northern Cyprus. Moreover, the authors discussed some factors effect on patient safety such as workload, adverse events, and experiences with patient safety attitudes. As a result, the nurses and doctors had a negative perception in all patient safety domains. Furthermore, the researchers explored the highest and the lowest domains of patient safety. There is a positive perception in the work conditions domain, but the safety climate domain had the lowest perception rate among the participants in (AL-Mugheed et al, 2022). The study concluded that, a significant relationship between patient safety attitude and factors affect such domains as workload, adverse events, and experience (AL-Mugheed et al, 2022). The authors concluded that the quality of care can be enhanced by directors and policymakers at hospitals, and the most domains of patient safety that need to improve are education, management support, and institutional regulations (AL-Mugheed et al, 2022).

In addition, a comparative mixed methods study to explore patient safety culture in European hospitals was done by Granel-Giménez et al, (2022). The study collected data by using the Hospital Survey on Patient Safety Culture (HSOPSC) and qualitative date through in-depth interviews with nurses working in different countries in Europe (Granel-Giménez et al, 2022). The conclusion of the study showed the overall perception of safety culture for most dimensions was 'adequate' in Sweden and 'adequate to poor' in the other countries with discrepancies between survey results and qualitative data. Furthermore, teamwork within units was the most positive dimension across countries. The qualitative data did not consistently demonstrate support, respect, and teamwork as normative attributes in Croatia and Hungary (Granel-

Giménez et al, 2022). Moreover, staffing and workload were recognized as the main areas needing enhancement in these countries (Granel-Giménez et al, 2022).

In addition, a systematic review was done by Alsabri et al. (2022), to explain the effect of teamwork and communication training interventions on safety culture and patient safety in emergency departments. Sixteen studies concluded that in general, teamwork and communication training interventions enhance the safety culture in ED settings and may have positive influence on patient outcome (Alsabri et al, 2022). Furthermore, the application of safety culture programs lead to reduce incidence of medical errors and adverse events (Alsabri at el. 2022).

Moreover, a study conducted in Saudi Arabia by Aboufour and Subbarayalu (2022), stated the study purpose was to assess perception of patient safety culture among health care providers in the Ministry of Health hospitals in the Eastern province of Saudi Arabia. The authors collected data by using the Hospital Survey on Patient Safety Culture (HSOPSC) questionnaire. The HSOPSC tool consists of 42 items that assess twelve patient safety culture dimensions. Those dimensions include "communication openness", "feedback and communication about errors", "frequency of events reported", "handoffs and transitions", "management support for patient safety", "non-punitive response to error", "organizational learning and continuous improvement", "overall perceptions of patient safety", "staffing", "supervisor/manager expectations and actions promoting safety", "teamwork across units" and "teamwork within units". In addition, there are two outcome dimensions, the "overall patient safety grading" and the "number of events reported in the last 12 months". According to the study's findings, the overall composite positive score for all the 12 PSC dimensions was 67%. In addition, 79% of the HCPs graded the overall patient safety in MOH hospitals as "excellent" or "very good". More nurses have graded the overall patient safety as "excellent" or "very good" than physicians, other clinical staff, and administrative staff. Among PSC dimensions, "Teamwork within units" was the strength of the selected MOH hospitals, though communication openness, handoffs and transitions, staffing, and non-punitive response to error were identified as weaknesses (Aboufour & Subbarayalu, 2022).

Additionally, a local study by Kaud at el. (2022) searched in different databases to map the amount and nature of previous research on patient safety in Saudi Arabian hospitals and to identify gaps in this literature. Most of the previous studies focused on measuring and monitoring safety were categorised using the Measuring and Monitoring Safety Framework (Kaud et al. 2022). The study concluded that there is a small amount of evidence on actions to enhance safety in Saudi Arabia. This review has identified areas of strength, frequency, and gaps in patient safety research in Saudi Arabia. However, the findings also have impacts for the measuring and monitoring of safety in other healthcare systems (Kaud et al. 2022). Therefore, the current research focuses on evaluating perceptions

of patient safety culture among health care providers that help in the general understanding of the status of patient safety and factors that effect on patient safety.

Methods

The literature review method was conducted in this research. Numerous articles were defined through searches of four electronic databases: CINAHL, Google Scholar, PubMed, and Web of Science. Key words during the search process included safety culture, culture of safety, safety climate, patient outcome, adverse event, patient safety, quality, care quality, and quality of care. The most used key words in the health care literature was safety culture and safety climate (Groves, 2014), therefore, these terms were used during the search in databases as the key terms.

Most of the previous studies were included as they contained some inclusion criteria such as they investigated the correlation between safety culture and patient safety and/or quality of care outcomes in health care organizations, or included assessment of safety culture which acted as an independent variable, were published from 2010 to 2023 to evaluate progress in research on patient safety and quality of care, and (d) were written in English language locally and internationally. Studies were excluded if the results of these studies did not include clear correlations between safety culture and patient safety or quality of care outcomes in health care organizations, or included some specific diseases. Furthermore, overall studies were excluded if they were conducted by overseas health care organizations.

The literature search revealed 1,000 topics for initial investigating. After reviewing the topics for their overall topics related to our research and discarding unrelated topics and repeated titles, 55 topics remained for literature review. Furthermore, 38 studies were excluded from research because they did not align with inclusion criteria in our research. Also due to exclusion criteria, two more studies were excluded during full-text reading, yielding 15 studies for integrative review.

The strength of each study was assessed based on the validity and reliability of a tool that was used to assess patient safety culture (Cummings et al., 2010; Lee & Scott, 2016).

Discussion

The current literature review was conducted to select studies that used HSOPS and to assess the perception of patient safety culture in health care organizations internationally and locally. Some studies outlined aspects of patient safety culture that need vigorous attention to enhance quality of patient care in these placements. HSOPS was used as a tool to evaluate perception of patient safety culture among health care staff.
Most of the previous studies showed a low score in the dimension "non-punitive response to errors" and

"teamwork among the units" had a high score regarding the patient safety items in the survey. Also similar results were shown in a systematic review and meta-analysis of the HSOPS done to assess the patient safety culture in hospitals in Iran. This review covered Iranian surveys undertaken between 2000 and 2014 and used a writing tool as a method of depth evaluation, with calculation of meta-analysis using simple means of the domains (Azami-Aghdash et al, 2015).

The most vulnerable dimensions were those regarding communication issues and staffing, with the "non-punitive response to error" the lowest rated dimension (Azami-Aghdash et al, 2015). This may reflect a negative view of the culture of the hospitals but also a holistic problem. Therefore, this dimension has only adverse questions, which consists of misunderstandings and less reliability in the survey. Moreover, dimensions with lower scores may have reversed the wording and not the constraints in patient safety culture. Psychometric properties analysis showed analyses of HSOPS showed 'poor' and 'vulnerability' (M. A. Blegen et al, 2009).

Assessing perceptions of the culture of patient safety involves the formulation of a number of factors and criteria regarding health care settings (Taylor, N. et al, 2015). Some of these factors included management that is responsible for safety culture, active leadership support, efficient communication, adequate staffing, motivation to capacity-building, and multidisciplinary teamwork (Ammouri, A. A, et al, 2015). Some departments with unique features in terms of their constitution and organization (specialized intensive care units, emergency departments, surgical wards) existed in hospitals (D. S. Kringos et al, 2015)). Therefore, the perceptions of patient safety culture may be different between heath care professionals (Campbell, E. G., et al, 2010; Ballangrud, R., et al, 2012). In this review, considerable notes on the impact of the health care professionals are among some aspects. Therefore, to evaluate the perception of patient safety culture by questionnaire, the impacts of the context of each ward and various practitioners need to be included.

Previous studies that assessed the culture of patient safety have shown contrasting perceptions regarding patient safety in various health care providers. In addition, one study concluded that doctors had a low perception in comparison to nurses (Pronovost, P. J., et al, 2003), and another research showed more positive perceptions regarding the nursing staff (Makary, M. A., et al, 2006; Thomas, E. J., et al, 2003).

Some studies showed impact of continent on results of patient safety culture. Global, multi-center studies had the highest proportion that had positive rates shown in the US than elsewhere (Fujita, S., et al, 2013; Wagner, C., et al, 2013). Additionally, regarding the differences in culture, the HSOPS was developed in the US; therefore, this survey was used more frequently in that country. In addition, one factor that can have an effect on perception of patient safety culture was the larger number of nurses

in US hospitals compared to other countries. Therefore, it is very important to include the numbers of nurses, to their demand in each country (Wagner, Smits, Sorra & Huang, 2013).

Moreover, in one study conducted in Japan, Taiwan, and the U.S, the result showed proportion of participants with some experience of event reporting was highest in Japan. The attitude of constant enhancement in Japan and event reporting of near misses in Taiwan were rated as low. Otherwise, health care staffing had a high score in the US. The results of study that assess patient safety culture differs related to each country, and the cultural form of each country needs to pay attention in the formulation of effective intervention plans to enhance patient safety culture, Fujita, et al, 2013).

A considerable amount of research showed good methodological quality, that described no impact on the heterogeneity; it may be that it referred to the proportion of physicians and the type of place where the surveys were conducted (Okuyama, J. H. H., Galvao, T. F., & Silva, M. T., 2018).

The statistical tests illustrated that the effect of a few studies was present and publication bias which may have affected the results. Furthermore, studies published in scientific conferences and in other gray literature were not covered and the limitation of only publications in Portuguese, English, and Spanish confirmed this impact. Therefore, the researchers should include all sample size and practitioners to enhance the usability and applicability of the HSOPS, which impacted the high heterogeneity (Okuyama, J. H. H., Galvao, T. F., & Silva, M. T., 2018).

According to a psychometric tool, HSOPS adaptation French versions had issues because inconsistencies related to language and cultural properties (Boussat, B., et al, 2021). A previous validation of the tool did not have inclusion criteria in our literature review. This may have exaggerated or disregarded our findings and possibly contributed to the high variance. On the other hand, HSOPS showed greatest psychometric features of safety culture when evaluated by authors who developed its questionnaire (S. N. V. Sorra, 2004). As well as other questionnaires, the correlation between the community culture and patient safety may be considered as an issue and it is preferred that it be described as qualitative evaluation.

The methods of this literature review were dependant on national and international recommendations. Therefore the reviewers acted on the inclusion, evaluation, and data reproduced process. HSOPS is a new tool tool in some countries. Accordingly, with a global tendency towards patient safety in the health care organizations, this literature review may strengthen its use as HSOPS particularly as a huge number of studies worldwide used HSOPS.

Conclusions

The culture of patient safety using the HSOPSis widespread. Doing so minimizes reporting error and enhances the possibility of of improving measures where it is administered. Effective communication, feedback following reporting, engaged leadership, and environments focused on learning from errors are factors that can lead to improvement. Furthermore, prioritizing patient safety in hospitals along with encouraging event reporting and awareness of health care providers about errors and learning from errors, worldwide will enhance patient safety.

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