LR and Gap analysis sample work

The Effect of Educational Intervention on Operating Theatre Nurses' Perceptions of Patient Safety Culture in the Operating Room

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LITERATURE REVIEW

Ammouri et al[1], in 2015, carried out a cross sectional study to examine the attitude of the nursing staff towards patient safety culture and to recognize the factors that can be emphasised to promote the culture of safety among nurses. The authors performed a survey, which involved 414 nurses, who worked in government hospitals across Oman, by means of the self-reported questionnaire; English version of the hospital survey on patient safety culture (HSOPSC). The results of the study showed that the dimensions of HSOPSC which displayed the maximum positive scores were the dimensions of teamwork within a unit (83.4%), continuous improvement and organizational learning (81.1%) and communication and feedback regarding errors (68.7%). The dimensions that displayed the lowest scores were non-punitive response to errors (21.4%), support from the hospital management (25.2%) and from the staff (27.0%). The study also reported the factors associated with the frequency of reported events. The nursing staff, who had a perception of greater teamwork and feedback and communication regarding errors, presented with increased frequency of reported events. Concurrently, nursing staff with improved learning and improvement opportunities at the organisational level, with increase support from the management and teamwork across various units in the hospital, presented with less frequency of reported events. The study concluded that measures are required to improve teamwork, error reporting, response to adverse events and communication.

Carvalho et al[4] in 2015, performed a descriptive, quantitative, cross sectional study, in order to ascertain the safety culture perception among healthcare professionals in the operating room of a public hospital, using the translated Safety Attitudes Questionnaire (SAQ). The study involved 226 professionals, including physicians, nurses, nursing assistants, dentists, surgeons and anaesthetists. Among the six domains of SAQ, stress perception and job satisfaction displayed satisfactory results with scores of 74.5 and 70.7, respectively. Scores, below the minimum

recommended scores were displayed by the domains of environment of teamwork and security with scores of 59.1 and 48.9, respectively. The lowest scores were displayed by the domains of hospital and unit management perceptions and work conditions with scores of 34.9, 44.5 and 41.9, respectively. The study results also displayed a variation in scores as per the category of occupation, with the highest scores being attributed to the administrative staff and environmental support staff, with scores of 74.6 and 62.9, respectively. The lowest scores were associated with resident physicians and nurses with scores of 50.4 and 51.1, respectively. The results of the study showed that, according to the perception of healthcare professionals, the skills, attitude, behaviour and values, which regulate the culture of safety, exhibited weakness.

Khater et al[20], in 2015, performed a study to evaluate the culture of patient safety in hospitals in Jordan, from the perspective of nursing staff. The study was of a descriptive, quantitative and cross sectional nature, used the self-reported questionnaire, HSOPSC for data collection and involved 658 study subjects. The maximum observed frequency of the dimensions of patient safety was exhibited by the dimension of teamwork and the lowest frequency was exhibited by the dimension of non-punitive error response. The maximum frequency was related to the outcome variable of the reporting of adverse events. According to the study, the areas that require improvement at the unit-level is the fear among staff that the occurrence of adverse events will be held against them and will be recorded in their files, while the area that need improvement at the hospital level were patient safety requirements. The authors stated that a constructive patient safety culture in hospitals is necessary to deliver patient care safely and avoid harm, which contributes the key principles of patient safety. The authors concluded that the study had implications in policy making, clinical practice, and research and curriculum levels and in the area of administration.

Saleh et al[7], in 2015, carried out an explorative study in order to assess the perception of safety culture among nurses and to analyse the relation between the safety culture and certain outcomes. The study involved 242 nurses and used the self-reported questionnaire, HOSPSC, for data collection. The results showed the proportion of positive responses for patient safety perception and frequency of reporting events as 43.3% and 37%, respectively, while the mean proportion of positive responses for the subscales varied from 34.7% to 47.5%. The rating of the grades of safety

in hospitals were expressed as acceptable by half the subjects, while 3.3% of subjects gave a grading of failing hospital safety. Also, 45.9% of subjects submitted adverse event reports, within the past one year. The results of the study showed a positive correlation between the perception of patient safety and the support provided by the hospital management and the ease of communication. Also, the frequency of event reports was positively correlated with the safety culture subscales such as openness in communication, feedbacks and communications on errors, non-punitive responses, support provided by the hospital management and continuous learning and improvement, while the number of events reported was negatively correlated with teamwork within units, transitions and handoffs and positively correlated with organizational learning or continuous improvement. The authors concluded that the responsibility to project patient safety as a subject of high priority lies on the administrators, policy makers, healthcare professionals and educationalists. Also, the study suggested several methods to improve the safety levels like the development and implementation of efficient policies regarding safety, improving safety culture, avoiding placing the blame on individuals and development of preventive measures to avoid future events and the inclusion of education regarding patient safety in the nursing curriculum.

Güneş et al[2] in 2016, conducted a cross sectional survey to study the safety culture among nurses in four Turkish hospitals, which encompassed a total of 1442 beds. The study involved 54 nurses, who worked in medical, surgical and intensive care units and emergency services. The method of data collection was self-reported questionnaires using HSOPSC. The results of the study showed that nurses who had more than ten years of experience and the nurses working in intensive care units had better patient safety culture scores, compared to others. The study found no association between the safety culture perception among the subjects and gender, age, working hours per week, type of hospital of the level of education of the subjects. The authors suggested that the study subjects had not received any education regarding the improvement of patient safety and healthcare quality and this might have adversely affected their perception of patient safety. The work experience of the nurses was observed to have a positive impact on the scores of patient safety culture, with an increase in total scores, corresponding to an increase in the years of experience. As experience increased, the awareness of safety measures undertaken in the institution improved. The study concluded that evaluation of safety culture perceptions is necessary to improve the scenario of patient safety and the nursing leaders are in a unique position to bring about changes.

Elsous[18] et al, in 2017, undertook a study to examine the perception of nurses towards patient safety culture and to detect any association between the aforesaid perception and the age, position, working hours or working experience of the subjects. The study was of descriptive, cross sectional nature and involved 210 nurses and used the Arabic version of SAQ for data collection. The study observed better positive attitudes towards safety culture in clinical nurses, nurses whose working hours were approximately thirty five per week, nurses who had more than twelve years of experience and nurses older than thirty five years. 73.1% of study subjects stated that the climate of teamwork was good and had coordination between the physicians and nurses. Among the study subjects, three fourth felt that the suggestions and opinions stated by them were received well by their colleagues. 35.3% of subjects stated that the environment at work was not supportive of learning and felt it was tough to converse on the subject of errors. 29.1% of subject felt that the professional environment was not supportive to allow gaining of knowledge from errors. The proportion of subjects who liked the job, proud to be employed in a hospital and felt safe in being a patient in the hospitals of employment were 78.2%, 71.5% and 64.7%, respectively. Nurses who has a cooperative attitude towards other healthcare professionals, presented with more positive attitudes towards patient safety. The study concluded that the major factors that affect perception of safety were satisfaction at the job, teamwork and the attitude of hospital management.

Magill et al[21], in 2017, performed a study to evaluate the effect of postoperative debriefing on the safety culture in the operating room. The study included 231 operating room personnel, including neurosurgeons, anaesthetists and nurses. Data was collected using SAQ. In order to analyse the influence of the debriefing initiative on safety culture, data was collected before the start of the initiative and eighteen months afterwards. The results of the study showed that after the beginning of the initiative, the proportion of debriefing in neurosurgery cases increased from values of 51% to 81%. On the initial baseline survey, before the initiative, the neurosurgeons displayed a positive perception of safety in the operation theatre compared to nurses or other personnel. On the second survey, eighteen months after the initiative started, the overall perception of safety in the operating room was observed to improve among all the operating room personnel. Additionally, the second survey showed no significant difference between the neurosurgeons and nursing staff. The authors reported that the debriefing assisted in the prevention of adverse events. Some of the issues

identified were with handling of specimens, problems with mistakes in laboratory orders and the identification of defective equipment, which may cause harm. The major findings of the study were that debriefing can improve the interpersonal communications and improve safety attitudes, it can improve the safety culture in the operating room, can aid in the identification of issues related to efficiency and adverse events or near misses and that motivation in the residents can result in enhancement of the safety culture in the operating room.

Alquwez et al[5], in 2018, carried out a study to determine the safety culture among nurses, in three hospitals in Saudi Arabia. The study was cross sectional and descriptive in nature, involving 351 nurses, and utilised a self-reported questionnaire, HSOPSC. Among the HSOPSC composites, two were perceived as strong points, which were teamwork within a unit and continuous improvement and organisational learning. The general patient safety perception, transitions, directness in communication, staffing, the frequency of reporting events, and non-punitive error response were perceived as weaknesses. The patient safety in hospitals was graded as excellent, acceptable and poor by 67%, 31.6% and 1.4% of subjects, respectively. Nurses who had greater work experience presented with poor perceptions, compared to nurses with less work experience. Moreover, nurses who performed administrative functions or were in direct contact or interacted directly with patients presented with better perceptions of safety than nurses who had no direct contact with patients. The study concluded with an emphasis on the fact that further interventions are required to improve the status of safety culture.

Huang et al[19], in 2018, performed a study to analyse the safety perceptions of physicians and nurses and to determine the difference between them. The study included 376 subjects and data was collected using an online survey within the organisation. The study showed that as the teamwork among the healthcare professional improves, the patient safety also gets improved. Also, the study stated that the attitudes towards the management and emotional fatigue are factors that influence patient safety. Both physicians and nurses perceived the work conditions as the worst dimension related to patient safety. Nurses reported a negative relation between stress recognition and work conditions. The study reported that nurses exhibited more stress and faced more challenges due to shortage of staff and multitasking nature of work, compared to physicians. The authors suggested

that hospitals should implement interventions to make working conditions less stressful to bring about more favourable attitudes towards recognition of the issues related to patient safety.

Ingvarsdottir, E., & Halldorsdottir, S[6], in 2018, performed a study to determine methods to improve patient safety in the operating room, from the perception of nursing staff. The study involved eleven participants, including experienced operation theatre nurses and the method of data collection was personal interviews. The study projected that in the opinion of experienced operation theatre nurses, during the time period of a surgery, the nurses should be focused on management of risks and prevention of patient harm; which should be a persistent effort. As per the opinion of the subjects, in order to improve patient safety, four major areas of concern should be addressed; these include a respect towards the patient's vulnerability, safe navigation of the perioperative processes, possessing the skills essential for an operation theatre nurse and providing contributions to a safety culture ,within the operating room. The study emphasised the important role played by the nursing staff in the operation theatre, to enhance patient safety and stated that nurses act as navigators, who identify potential risk factors and work to prevent harmful events and strive towards the safe navigation of perioperative procedures.

Wang et al[22], in 2019, performed a study to analyse the influence of the quality of management on the attitude towards patient safety among nurses. The study involved 492 participants, and followed a cross sectional, hospital based survey design, using self-reported questionnaires. The results of the study showed that the total quality of management had a significant relation to the patient safety culture attitude, which was mediated through the variables of the quality of work and employee satisfaction. The authors concluded that the generation of a positive attitude towards patient safety involves work value in a major role. The mangers should focus on the aforementioned factor and strive to improve the work values among nurses, especially when new employees join the organisation. The authors advised the managements to coach nurses, in order to enhance communications, train nurses to identify safety issues and enhance their safety perceptions. Nurses, who possess a positive attitude towards safety culture, can improve the standards of care, thus permitting the patients access to the optimal quality of care. Finally, the work values affect the quality of care provided by nurses and the authors suggested that future research on the subject is mandatory to reach a consensus.

Salamat et al[23], in 2019, performed a study to analyse the patient safety culture from the perception of nurses who work in the intensive care unit and critical care unit. The study was cross sectional and descriptive in nature and involved 200 subjects. Data was collected using patient safety culture questionnaires. The results from the study showed that the average score for patient safety culture, from the nurses' perception was 144.33±10.98. The maximum and minimum score among the dimensions were observed to be related to non-punitive responses to errors and expectations of management or supervisor, along with actions that promote patient safety, with scores of 67.5% and 28%, respectively. The subjects revealed that 60% of them did not report an adverse event or error in the past one year. A majority of subjects (63%) graded the hospitals of employment as acceptable, in relation to safety culture levels. The authors also found statistically significant correlations between the demographic variable of gender and patient safety culture. The authors concluded that an assessment of the factors of management or supervisor expectations and measures to promote patient safety is necessary. Moreover, they suggested that policy makers and managers should be aware of the elements in safety culture and provide a supportive environment for error reporting in hospitals.

Önler, E., & Akyolcu, N[24], in 2019, carried out a study to assess the attitudes of operating room personnel towards safety, based on certain attributes of professional and personal nature and the relationship among the subjects. The study included 290 operating room personnel, including nurses, surgeons and anaesthetists. The surgical specialities included general surgery, paediatric surgery, neurosurgery, otorhinolaryngology, cardiovascular and thoracic surgery, obstetrics and gynaecology, ophthalmology, orthopaedics & traumatology, plastic surgery and urology. The study was descriptive in design and data was collected using the operating room version of the safety attitudes questionnaire and employee information form. The average overall score of SAQ was 59.22 ± 13.22. The average scores for the subscales of stress recognition, climate of teamwork, satisfaction with job, climate of safety, working conditions, and perception of the management were 64.09 ± 14.28, 63.21 ± 22.40, 55.99 ± 15.66, 48.42 ± 21.18 and 45.18 ± 22.96, respectively. The mean scores were observed to be higher in professionals who were older and had more work experience. The scores of teamwork were the lowest for working with surgeons, compared to other professionals. Based on the results of the study, surgeons and anaesthetists were more satisfied

with teamwork, compared to nurses. The authors concluded that the hospital managements should support and encourage activities that enhance patient safety and modify the workload to complement the characteristics of their staff. Moreover, interdisciplinary programmes to enhance learning to improve teamwork and safety culture should be encouraged with mandatory participation by all personnel, in order to develop efficient operating rooms, provide ideal healthcare and enhance staff satisfaction.

Kwon et al[25], in 2019, carried out a study to assess and compare the attitudes of doctors and nurses towards the patient safety, performance of surgical time outs and recognising count errors, in the operating room. The study included 171 operating room personnel, including nurses, surgeons and anaesthetists, with a cross sectional design of study and used the SAQ questionnaire for data collection. The average score of the entire study sample for the patient safety attitude was 3.40+/_0.47. The maximum score was observed on teamwork and the lowest score was observed on stress recognition, with scores of 3.64+/_0.58 and 2.08 +/_0.90, respectively. On comparison of the results from doctors and nurses, the doctors showed higher scores, compared to nurses in the aspects of teamwork, management, work conditions and stress recognition. The study observed a positive correlation between the attitude towards patient safety and performance during time out, in the nursing staff. Based on the results obtained, the authors suggested that further research is necessary to analyse the attitude of the operating room personnel towards patient safety, with focus on the reasons behind the dearth of cooperation between doctors and nurses; development of educational tools, protocols and measures for team management to minimise count errors and the development of regulated tools to ensure efficient performance during surgical time outs.