Prehospital Emergency Care: Literature Review

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Emergency care is often perceived to be in a hospital setting. In many situations, emergency care starts before hospital arrival. It usually is implemented in an unpredictable environment when emergency medical service (EMS) personnel arrive on the scene of an accident, providing emergency care for accident victims or arrive at a patient's home (Torabi et al., 2018). Other prehospital clinicians include doctors and nurses who work at primary medical care facilities and clinics. EMS personnel and prehospital clinicians often face difficult decisions. Emergency medical services and prehospital personnel are the first levels of health care provided to a patient. Adequate assessment of the urgency and severity of health care problems contributes to unnecessary emergency department visits (Breckner et al., 2021). EMS personnel face ethical dilemmas and must perform assigned tasks and consider the patient's values and dignity. Prehospital care providers also must weigh legal consequences before making decisions that affect patient care. Prehospital healthcare workers must guarantee the quality of prehospital emergency care. It is relevant for continuing education to improve the level of emergent care in the prehospital setting (Abelsson & Lundberg, 2018). Evaluated in the following literature review, the expansion of knowledge of prehospital emergency care

Trauma Simulation in Prehospital Emergency Care

An essential requirement for high-quality prehospital trauma care is a well-educated ambulance staff. The basis of this study was to examine participation in a trauma simulation and how nurses handled certain prehospital trauma situations. Providing an environment where individuals train in a real-life simulated situation can help provide realistic care and help individuals better prepare for different situations in an actual clinical setting. A cost-effective way to improve trauma patient outcomes is by improving the ambulance staff's knowledge and

skill set. The quantitative design of this study allowed collected data from participants performing simulated trauma care. In this study, 61 nurses participated. There were three statements that participants were asked to rate before the first simulation and again after the last simulation. By creating a realistic experience, the participants expressed that the simulation of severe trauma was beneficial (Abelsson & Lundberg, 2018).

Millions of people every year are injured temporarily or permanently due to traumatic injuries caused by both blunt and penetrating mechanisms. Approximately 6 million people globally are killed by injury. Providing adequate prehospital emergency care reduces the severity of an injury. Early response care measures can improve the possibility of survival—a 30% decrease in the mortality rate of patients with life-threatening injuries occur with well-educated prehospital ambulance staff (Abelsson & Lundberg, 2018). The difficulty of care for patients affected by trauma necessitates responders to have relevant education. Up to date, continuing education of nurses in trauma care has shown to improve the outcome for trauma patients. However, there is no standard indication of how often to offer continuing education. A skill set frequently used may require little updating. Skills less frequently used need to be practiced more. All emergency care measures prehospital staff provide must be guaranteed (Abelsson & Lundberg, 2018).

Key Points

Many people die of injuries that they could survive by providing adequate prehospital emergency care, but the severity of the injury declines. Simulation is a suitable method for training prehospital personnel because it is not advisable to use actual patients for training purposes. This study examines how prehospital ambulance service personnel experienced involvement in a trauma simulation. The simulation patient scenarios consisted of typical

prehospital injuries such as closed pelvic fractures, penetrating abdominal wounds, and open extremity fractures. Learning through simulation allows the staff a learning environment that does not necessitate exposure to emergency care at accident sites. The simulated learning environment provides safety for the staff and the patient (Abelsson & Lundberg, 2018).

Sixty-one nurses participated in this quantitative designed study: on four different occasions, during a six-month time frame, data were collected by participants performing simulated trauma care. The participants were registered nurses with a bachelor's degree and specialist nurses with a master's degree in prehospital emergency care and work experience from a hospital-based emergency care facility. Simulation can provide learning theory and practical skills combined with existing skills. A Resusci Anne Basic mannequins are used when performing simulations, and all participants had previous experience in simulation training.

Before the first simulation and immediately after the last simulation, participants of the study rated three statements ranging from strongly agree, agree, neutral, disagree, and strongly disagree. The same questions were asked of the participants to strengthen the reliability of the study. The descriptive analysis describes the data where inferential analysis compared potential differences between the groups. There are statistically significant differences between the pre and post-test results regarding the statements. Simulation as a suitable method for educating on trauma care increased from the pre- to post-simulation statements by 38% when considering the outcome of the statistical analyses. (Abelsson & Lundberg, 2018). The simulation improved knowledge and practical skills and increased confidence in a critical care environment. A limitation possibly affecting the study results is that nurses who participated had varying experiences in the clinical setting with trauma patients.

Assumptions

A primary assumption of this study was that creating a simulated, controlled environment that gives a participant a realistic setting would better understand and handle prehospital trauma patients in a real-life situation. The simulated learning environment is also beneficial for the prehospital teaching staff to assist responders who lack certain skill sets. It provides an environment where responders can practice emergency care safely and effectively in a controlled situation. Being uncomfortable during a simulation has resulted in an obstruction of learning. Participants become motivated and more willing to prepare for future situations when they are more prepared (Abelsson & Lundberg, 2018).

Deficit/Conclusion

A simulation provides a learning environment to handle complex health care situations. A well-educated prehospital staff is necessary for high-quality prehospital trauma care. Simulation is a suitable method to train prehospital responders. Being involved in a controlled simulation, responders can focus on learning theories and practical knowledge and apply that information to the education and skills they already obtain. Provided simulations were able to help participants understand their level of anxiety. When participants feel uncomfortable, they focus on their anxiety instead of the learning process. By providing simulated trauma care, participants could better learn without being uncomfortable or experiencing anxiety. The outcome for trauma patients has improved due to higher education and continuing education of nurses in a trauma care environment (Abelsson & Lundberg, 2018). The experience of real-life situations in a simulation will better prepare participants for future events.

Enhancing Implementation of a Standardized Initial Assessment for Demand Management in Outpatient Emergency Care in Germany: A Quantitative Process Evaluation

This article reviews the factors contributing to unnecessary emergency department visits due to inadequate assessment of the severity of health problems in Germany. This study was designed to assess the implementation process of a software-based instrument for a standard initial assessment to support health care professionals. The Standardisierte medizinische Ersteinschätzung in Deutschland or in English the Standardized medical initial assessment in Germany (SmED) (Breckner et al., 2021). SmED's purpose is to send patients to a suitable source of care, reducing unnecessary emergency department visits. This software providers to reduce the quantity of unnecessary emergency department (ED) visits so that emergency department resources can be used for health conditions that require immediate medical treatment. This study evaluates the implementation process of SmED From the view of the software users for sustainable, successful implementation (Breckner et al., 2021).

Key Points

The increasing utilization of emergency departments is common in Western countries. An estimate of 20 to 40% of all visits to emergency departments are deemed unnecessary (Breckner et al., 2021). Lower patient age, lower education, and absence of family support are all factors related to unnecessary emergency department visits. Implementing complex interventions such as SmED Will help determine the accuracy and urgency of the presented health issue. Common barriers to implementing such interventions are challenging. Barriers often include interprofessional or individual context factors or organizational framework conditions (Breckner et al., 2021). Research has shown that innovations involving technology and healthcare often meet resistance from healthcare professionals. The lack of cooperation by healthcare professionals, in turn, impacts the success of the implementation process and how well the innovation is sustained. SmED is a certified medical product and is a computer-based decision

support system that health care professionals can utilize for an initial assessment in an outpatient emergency care service. A questionnaire for this study was developed at the department of general practice and health services research. A research team formulated the questions. The questionnaire focuses on characteristics of the patient such as age, gender, employment conditions, professional qualification, work setting, and professional experience. The questionnaire also focused on the provider's use of SmED (Breckner et al., 2021).

Assumptions

Younger professionals evaluated the intervention slightly higher. Participants of this study with more professional experience intended to evaluate the implementation of SmED slightly worse compared to the professionals with fewer years of experience. Information obtained indicates that professionals with fewer years of experience perceived an improvement in software implementation. Gender, age, and professional experience were all associated with using SmED. Health care professionals under the age of 29 evaluated factors concerning the effectiveness of the software slightly better compared to professionals with more experience. It is also assumed that health care professionals who identified as male or older perceive more disadvantages than advantages and that the software is not practicable or is too complex to operate (Breckner et al., 2021).

Deficit/Conclusion

The conclusion of the study provides valuable data for the implementation have a standardized medical initial assessment regarding outpatients' emergency care services in Germany. Younger healthcare professionals tend to evaluate SmED and the process of implementation better than healthcare professionals with more than five years of experience. Training of potential users prior to and during the implementation process is crucial. The author's

line of reasoning is acceptable. The involvement of health care providers in the implementation of SmED, particularly more experienced professionals, can help facilitate the sustainable implementation of the intervention. Training prior to and during the implementation process is crucial. Suppose nursing fails to accept this line of reasoning and does not train potential users prior to and during the implementation process. In that case, this software will not be appropriately utilized and could even hinder the assessment and severity of health problems contributing to unnecessary emergency department visits (Breckner et al., 2021).

Experiences of Prehospital Emergency Medical Personnel and Ethical Decision Making: A Qualitative Study

This article will provide information about emergency care providers in Iran and how they regularly deal with ethical dilemmas. Emergency medical service (EMS) personnel are faced with many decisions. As a result of the stressful, unpredictable, and often life-threatening nature of tasks that EMS providers must deal with daily, ethical decision-making (EDM) has become a challenge. Three main categories signify participants' experiences concerning ethical decision-making in EMS. This study will result in the emergence of three main categories, respecting patient values, professionally performing tasks, and personal characteristics subcategories are also discussed regarding EDM. (Torabi et al., 2018).

Key Points

Emergency medical services are the first level of care provided in the prehospital medical emergency departments. A person's care begins with the Medical Emergency System and continues from when the event occurred until the patient's rehabilitation and discharge. In Iran, EMS personnel consists of nurses, emergency medical technicians (EMTs), emergency medical experts, and other relevant academic disciplines. Emergency medical services aim to provide

care, immediate transfer to the proper facility, and reduce patient mortality. In certain situations, ambulance professionals are faced with decisions in which decision-making puts them under heavy pressure. Ethical challenges must be made at a minimum time in an emergent situation. In regards to decision-making conditions for EMS personnel, it holds different characteristics. Such characteristics include distance two resources, technical aids, and information. The information generated from this study our directly derived from raw data. 14 EMS personnel were identified by sampling (Torabi et al., 2018). The participants in the study had at least three years of professional experience in a prehospital medical setting. All information from interviews used in data collection was conducted individually in a private, quiet room. Three main categories have experiences of EMS personnel in (EDM). The three main categories were respecting s values, performing tasks professionally, personal characteristics, values and beliefs, and professional experiences. They protect the privacy and confidentiality of a patient in the sense that every adult person has his or her identity, independence, and dignity. It is essential in medicine, especially EMS, that a patient's privacy and rights be respected. Acknowledging a patient's opinions and beliefs and respecting patient wishes are essential parts of respecting a patient's values. Professional commitment, maintaining professional dignity, and performing tasks within the framework are crucial when performing tasks professionally. The inner values and beliefs, and professional experiences all provide data for the personal characteristic division of the study.

Assumptions

Assumptions of the study would be the credibility of the study's findings. The findings were established by participants' age, gender, and work experience. By performing a peer check, the results were given to two EMS personnel. They were asked to compare the results with their work experience. Codes and themes obtained from the data of this study were given to members

leading this study and were asked to improve the accuracy of the data with codes and categories. The concept and content concealed in the data of this study were extracted. Codes, classes, and categories emerged with the research team's critique, analysis, and assemblage of the codes (Torabi et al., 2018).

Deficit/Conclusion

Results from the data regarding participants' experiences show that EMS personnel have a specific agenda in performing prehospital care, especially when faced with ethical dilemmas. Respecting a patient's privacy is seen in two aspects: to maintain patient privacy in public and on scene by the public and to respect a patient's privacy by the emergency medical technicians. Respecting one's privacy is necessary to create an effective line of communication with the patient and maintain the calmness of this situation. In the study's results, despite the limitations, the participants maintained the patient's privacy unless it could not be maintained due to saving a patient's life. Results of this study showed that certain factors such as lack of workforce and physical space made it difficult to respect the patient's privacy. Iranian EMS personnel respect patients' privacy because of faith and religious beliefs. Their decisions were based on considering Gods satisfaction.

In the study, challenges such as a high patient level of expectation and demand, the presence of family members, and standards of the profession made it challenging to respect the patient's values and dignity. The line of reasoning of this author is accepted. The study showed various aspects of EDM and EMS personnel in the Iranian society, and their awareness helps improve that process and staff. According to the findings of this study, emergency medical services personnel are highly committed to performing their professional duties. Implications of this study are that professional commitment shares a provider's devotion to the profession and the

patient by following professional goals and values. This commitment shows they are proud of their profession and consider their career a vital part of their lives. If nursing fails the author's line of reasoning, the EMS personnel would not be sensitive to protecting privacy rights and respect for patient beliefs and wishes (Torabi et al., 2018).

Conclusion

In the conclusion of this literature review, emergency care is often perceived to be in a hospital setting. Emergency care often starts before hospital arrival. Well-educated ambulance staff is a requirement for high-quality prehospital trauma care. A simulation provides a good learning environment to handle complex healthcare situations. Provided simulations were able to help participants feel more comfortable and understand their level of anxiety.

Regarding patient outcomes and nursing practice, they understand the level of anxiety and can concentrate fully, so the care is focused on the patient, not the situation. Evidence of the study found that by providing simulated trauma care, participants can better learn without feeling uncomfortable or experiencing anxiety. The outcome for trauma patients has improved due to higher education and continuing education of nurses in a trauma care environment (Abelsson & Lundberg, 2018).

There are many contributing factors to unnecessary emergency department visits due to inadequate assessments. A software-based instrument for standard initial assessment (SmED) to support health care professionals was implemented in Germany. Quality improvement efforts provide helpful information for the implementation of a standardized medical initial assessment tool regarding outpatient emergency care in Germany. Provider outcome was the focus of this study. Implementing complex interventions such as SmED can help determine the accuracy and urgency of a presented health issue to help reduce emergency department visits. Reducing

unnecessary emergency department visits can provide more resources for critical patients who need immediate medical treatment (Breckner et al., 2021).

In Iran, emergency medical service personnel are often forced to deal with ethical dilemmas. As a result of the nature of EMS providers' tasks, ethical decision-making has become a challenge. Patient outcomes of this study offer EMS providers Information on how EMS providers deal with ethical dilemmas affecting patient care. Ethical challenges must be made quickly in time of an emergent situation. It was found that acting on patients' Opinions and beliefs and respecting patient wishes are all essential parts of respecting a patient's values by performing tasks professionally and maintaining professional dignity. The experiences provide A professional commitment that shows devotion to the profession and the patient (Torabi et al., 2018).

References

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