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Review Article

Trauma nurses' Role and Emergency Management skills at Tertiary Care Hospital, Lahore

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Abstract

Background: Practicing in trauma unit can strengthen nurses' knowledge about the association of past trauma and the impact of trauma on the patient's current mental illness. An aim of this debate is to avoid potentially re-traumatizing a patient during their episode of care. This educational discussion can provide nurses with content that describes the interplay of neurological, biological, psychological, and social effects of trauma that may reduce the likelihood of re-traumatization. Although multidisciplinary environments, the translation into clinical practice by nurses working in emergency departments (EDs) is unknown. However, before ED nurses can begin to practice, they must first be provided with meaningful and specific education about their role. Therefore, the aim of this debate was to evaluate the role and emergency management skills of ED nurses. ***Methods****:* This debate was conducted as exploratory research with a descriptive study design. Quantitative data were collected with an 18-item pre-education and post-education questionnaire. ***Results:*** A total of 34 ED nurses participated in this education discussion. There was meaningful change ($p < 0.01$, $r \geq 0.35$) in 9 of the 18-items after discussion. The debate was based on the perceived effectiveness to evaluate the role and emergency management skills of ED nurses. ***Conclusion****:* Emergency department nurses became more informed of the interplay of trauma on an individual's mental health. However, providing care to trauma patients in an ED setting was a considerable challenge primarily due to time constraints relative to the day-to-day. ED environment and rapid turnover of patients with potentially multiple and complex presentations. Despite this, nurses played a good role to reduce the likelihood of re-traumatization.

Keywords: Emergency nurse role, Emergency department, Management skills.

INTRODUCTION

Every trauma victim requires a fast, correct and systematic assessment to immediately identify and treat life threatening injuries (Brenner & Hicks, 2018). Ultimately, treatment of a severe trauma patient may include transfer to a specialized hospital, emergency surgery and/or monitoring and support in an Emergency department (De Groot, De Veer, Munster, Francke, & Paans, 2022).

We stress the importance of the trauma center unit specificity, and the complexity of care provided to these victims, who present with diverse clinical conditions as a result of the severity of the trauma suffered (Tenovuo *et al.*, 2021). The magnitude of emergency will reflect directly on the nursing workload, requiring strategies to ensure optimum use of human resources, the correct size of the team, the quality of care and patient safety (Udod *et al.*, 2021).

Numerous tools that would enable an analysis of the nursing workload have been proposed by researchers in different countries. Though all have limitations, such as the fact that the range of items analyzed is subject to subjective assessment and is created based on local policies, these tools provide

valuable information about how the need for care on the part of critical care patients evolves. Among the main indicators used to measure emergency nursing workload are the Nursing Activities Score (NAS), which expresses the percent time a nursing professional actually spent on patient care in emergency department (Bardhan *et al.*, 2019).

A number of studies have described aspects of nursing care of trauma victims hospitalized in the Emergency department of Main Meer Hospital, Lahore. An analysis of the time spent by nurses on caring for burn patients included administrative tasks related directly to patient care, and other activities such as cleaning the unit, rest and meals. Researchers found that about 30% of the nursing workload was spent on administrative tasks, one third of which could have been performed by other, less qualified professionals (De Groot *et al*., 2022).

Another study that analyzed the burn population showed that therapeutic interventions related to monitoring, laboratory investigations, hygiene procedures, mobilization and positioning, administrative tasks, treatments to improve lung function and measuring urinary output were the most frequent (Scapin *et al.*, 2018).

In the emergency, one of the main nursing interventions routinely performed on victims of head injuries was monitoring hemodynamic parameters, with control of intracranial pressure and brain perfusion requiring 50% of the time of such professionals (De Almeida, Pollo, & Meneguin, 2019).

Although these studies identified aspects of nursing interventions, the literature has no studies that analyze a possible pattern in the interventions required by trauma victims in emergency, in particular on the first day of hospitalization, when professionals believe the demand for nursing care is highest (Trumello *et al*., 2020).

It is essential to understand this pattern, as it will provide important data for nurses and managers to enable planning actions and investments in care and training, which will certainly have a positive impact on the quality of the nursing care provided, and on patient safety. Thus, the aim of this paper was to identify the Role of Nurse in trauma center and Injury Management performed on trauma victims in the first 24 hours following hospitalization in the Emergency.

This study was conducted at the emergency department of Mian Meer hospital that is a reference in the care of trauma victims in the city of Lahore, Punjab. This is a 22 bedded unit that specializes in trauma. The study includes patients admitted to the emergency that met the following eligibility criteria: the victim suffered blunt, penetrating or mixed (blunt and penetrating) trauma, aged 18 or over, remained in the emergency for at least 24 hours. A description of the group containing the majority of the victims according to interventions performed enabled a description of the pattern observed. In other words, the more frequent interventions performed in a cluster with similar interventions.

Study Design

This Debate was conducted as exploratory research with a descriptive design to meet the aims. Quantitative data were collected with a discussion on emergency role and management (pre-education and post-education questionnaire) among ED nurses.

Study Protocol

Staff completed a pre-education and post-education 18-item questionnaire derived from the content of the eight modules. For example, ED nurses were asked to rate their level of confidence to respond to patients' disclosures of trauma and understanding if their current nursing practice is trauma informed. The questionnaire was completed immediately before and after ED nurses had participated in the education. Data were collected on a 5-point Likert scale, where a rating of 1 represented strong disagreement and a rating of 5 represented strong agreement.

RESULTS

A total of 34 nurses provided informed voluntary consent to complete the pre- and post-education questionnaire. The majorities of nurses were between 31 and 40 years of age and had been working in an ED between one and 10 years. A small number of participants had previous experience working as a mental health nurse in a mental health setting.

After educational discussion, ED nurses reported more confidence in their ability to, talk to patients about traumatic experiences ($p = 0.001$, $r = 0.41$), respond to disclosures of family violence ($p = 0.001$, $r = 0.41$), and understand how their current nursing practice is trauma informed ($p = 0.001$, $r = 0.53$). Therefore, there was an effect of debate on the understanding that is the ED nurses role to listen to patients' talk about their trauma ($p = 0.171$, $r = 0.17$), comprehension of the contribution of the ED environment to trauma ($p = 0.209$, $r = 0.15$), or feeling confident about how to respond to patients' disclosure about trauma ($p = 0.188$, $r = 0.16$).

Limitations

Some of the nurses spoke of the environmental complexities and pressures of the ED on their ability to use restrictive interventions. Although participants described as a framework, some misgivings were expressed about the ability to implement the initiatives within an ED setting. There were two primary limitations in implementing and dealing with trauma patients. The first was time constraints relative to the

general day-to-day requirements of providing care in an ED characterized with rapid turnover and complex presentations. The other was perceived risk of harm to staff, from those people presenting to the ED acutely aroused and exhibiting aggressive and violent behavior.

CONCLUSION

The results of the current debate identified that ED nurses can become more inform to deal with trauma on an individual's mental health. However, providing care within a ED setting was a considerable challenge primarily due to time constraints relative to the day-to-day ED environment and rapid turnover of patients with potentially multiple and complex presentations. Despite the challenging ED environment, nurses understood their role to reduce the likelihood of re-traumatization and emergency management in their clinical setting.

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