# Importance of Nursing in the Emergency Department

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***Abstract:*** BACKGROUND:The emergency department plays a crucial role in providing acute care to patients. Nursing interventions in this setting are essential for improving the continuity of care, enhancing patients' self-care abilities, and reducing psychological symp-toms.

*AIM:*To evaluate the effect of nursing interventions in the emergency department on these indicators in an emergency department.

*METHODS*:A retrospective analysis was conducted on 120 patients admitted to the emergency department between January 2022 and May 2023. The patients were divided into two groups: The control group (conventional nursing intervention) and the observation group (conventional nursing intervention + emergency department nursing intervention). The two groups were compared regarding continuity of care, self-care ability, psychological symptoms, and satisfaction with care.

*RESULTS:*The emergency department nursing interventions significantly improved the continuity of care, enhanced patients' self-care abilities, and reduced psychological symptoms such as anxiety and depression.

**CONCLUSION:**Nursing interventions in the emergency department positively impact continuity of care, self-care, and psychological symptoms. However, it is important to acknowledge the limitations of this study, including the small number of studies, variable methodological quality, and the heterogeneity of the study population. Future research should address these limitations and further explore the effects of different types of nursing interventions in the emergency

department. Additionally, efforts should be made to enhance the application and evaluation of these interventions in clinical practice.

***Keywords:*** Nursing - Emergency Department

## *INTRODUCTION:*

The emergency department is crucial for providing treatment for acute illnesses and trauma. Nursing interventions in this setting are essential for improving the continuity of care, enhancing self-care abilities, and alleviating psychological symptoms[1-5]. Emerging evidence from clinical practice indicates that these interventions positively impact the patients' overall health status[6-9]. Therefore, conducting a comprehensive study of these effects can enhance the quality of care and improve patient outcomes.

Continuity of care in the emergency department involves providing uninterrupted care throughout the patient's stay, including monitoring their condition, implementing care measures, and assessing outcomes. It has been shown that good continuity of care can effectively reduce complications and improve patient outcomes[10-15]. Self-care refers to a patient's ability to independently perform activities of daily living (ADL) and self-care while in the emergency department. Nursing interventions can improve patients' self-care abilities, reduce their reliance on healthcare professionals, and enhance their quality of life[16-23]. Psychological symptoms such as anxiety, depression, and fear are common among emergency department patients. These symptoms can negatively affect patient recovery and prolong the hospital stay[24]. Targeted nursing interventions can help alleviate psychological symptoms and improve patients' psychological well-being.

## *MATERIALS AND METHODS:*

### *General information:*

We retrospectively analyzed the data of 120 patients admitted to our hospital's emergency department between January 2024 and May 2024. The inclusion criteria were as follows: (1) Age range: Patients in the emergency department were adults aged 18 years and older; (2) primary diagnosis: patients with acute illness, trauma, or other acute medical problems requiring emergency department nursing intervention; (3) self-care: patients had some ability to care for themselves and could understand and follow instructions for nursing intervention; and (4) consent to participate: patients or their legal representatives agreed to participate in the study and signed an informed consent form. Exclusion criteria were as follows:

(1) Age restriction: patients under the age of 18 years were excluded from the study;

(2) critical status: severe illness or trauma requiring urgent intensive care or surgical treatment;

(3) state of consciousness: patients with impaired consciousness or an unstable mental status who were unable to cooperate with the nursing intervention assessment;

(4) unable to provide informed consent: patients unable to understand, express, or sign an informed consent form; and

(5) previously received similar interventions: patients who had previously received an emergency department nursing intervention or a similar research intervention. The study design considered the feasibility, ethical requirements, and practicalities to ensure scientific validity and reliability.

The control group consisted of 60 patients who received conventional nursing intervention, whereas the observation group received both conventional nursing intervention and emergency department nursing intervention. The control group consisted of 30 males and 30 females, with an age range of 43-75 years (58. 41 ± 3. 17), and the length of hospital stay ranged from 7-20 d (10. 54 ± 2. 57). The observation group consisted of 29 males and 31 females, aged 44-77 years (58. 47 ± 3. 22).

The duration of hospitalization ranged from 8 to 22 d [(mean: 10. 68 ± 2. 61) d]. There were no statistically significant differences between the two groups in terms of sex, age, or duration of hospitalization ($P > 0.05$).

### *Methodology:*

In the control group, routine care was provided, including maintaining a constant room temperature, regularly opening windows and doors, providing a balanced diet based on the patient's preferences, guiding the patient to change positions, and providing psychological care.

In the observation group, emergency department nursing interventions were carried out in addition to conventional nursing care:

(1) Optimizing the nursing process: Improving the efficiency and quality of patient care by optimizing the nursing process and operational specifications in the emergency department. This includes the rapid assessment of patients, prioritization of treatment for critically ill patients, and prompt examinations and treatments;

(2) personalized care plans: developing personalized care plans based on each patient's specific situation and diagnosis. Considering the patients' conditions, needs, and preferences, nursing interventions were tailored to their individual situations; (3) nursing education: providing relevant health education and nursing guidance to patients and their family members.

This includes educating patients about the disease, treatment plans, and medication to help them better understand and cope with acute medical problems;

(4) psychological support: recognizing that patients in the emergency department often experience psychological symptoms such as anxiety, fear, and stress. Nursing staff can reduce patients' psychological burdens and provide positive psychological support through active listening, reassurance, and emotional support;

(5) pain management: effectively addressing and managing pain in patients with pain in the emergency department. The nursing staff assessed pain, managed medication, and provided physiotherapy to alleviate pain;

(6) critical care: providing close monitoring of patients in critical conditions, including continuous monitoring of vital signs, ongoing assessment of the patient's condition, and timely intervention to ensure patient safety and stability;

(7) rehabilitation and referral arrangements: Offering relevant rehabilitation advice and referral to other departments. Nursing staff can provide relevant rehabilitation advice, referral arrangements, and follow-up for patients who require rehabilitation care or need to be referred to other departments; and

(8) establishing a nursing team to summarize key considerations in nursing care and improve emergency care foresight by reviewing and summarizing nursing care.

## Materials and Methods

### Study Design

A qualitative method with a grounded theory (GT) analysis approach was utilised, it was chosen as it allows the researcher to use multiple data sources. The data were analysed using Charmaz and Glaser coding procedures which included open coding, focused coding and concepts or categories; and implemented constant comparative process, interpretations, theoretical sensitivity and theoretical sampling.[28,29]

### *Participants:*

The study was conducted from November 2017 to January 2019. Data were collected in 2018 in three EDs that are part of three general hospitals with different levels of facilities and resources located in three cities in West Java, Indonesia. The three EDs included one from a top referral hospital (class A) and two from class B hospitals. Purposive sampling was utilised, and the participants were recruited based on the following selection criteria: 1) Nurses who had been working in EDs for a minimum of 2 years; 2) Nurses who were willing to share their experiences regarding their activities and their perceived role as nurses working in the emergency care services and 3) Nurses willing to participate in a focus group discussion (FGD).

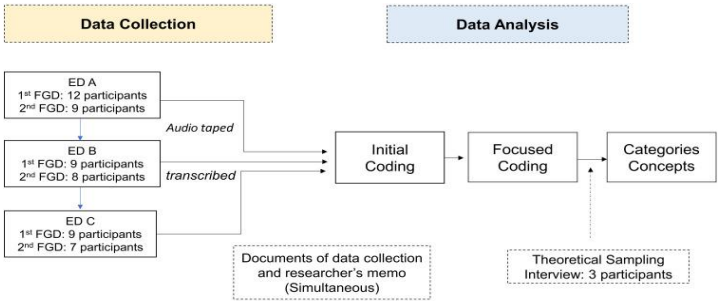
The exclusion criterion was nurses who had difficulty expressing and communicating opinions. A total of 54 emergency nurses were recruited from the selected EDs, and they sufficiently contributed. This ensured the full exploration of the phenomenon under research.

### *Data Collection:*

The data collection process included the FGD procedures with emergency nurses from three ED General Hospitals and interviews with the three relevant nursing directors. Permission to undertake this research was obtained from the three directors of the respective hospitals and three nursing directors. The researcher approached the three emergency nurses' managers and emergency nurses were invited to participate through the dissemination of information regarding this study by nurse managers at each ED and posters display.

All participants provided their written informed consent before the commencement of the FGD. The first FGD was conducted in ED hospital A with 12 participants, and a moderator was the principal investigator while other research members were observers and FGD minutes. The topic in each FGD included emergency nurses' daily practice activities, nurses' roles and emergency nurses' competencies. The process of the FDGs was written, audio-taped, then transcribed and then initial (open) coding commenced. The first FGD took 115 min. The second FGD involved nine participants and was undertaken in ED hospital A. The FGD process was conducted the same way as the first FGD. The research then moved to the ED at General Hospital B for the third and fourth FGDs and subsequently to the ED at General Hospital-C for the fifth and sixth FGDs, and all FGD processes were conducted the same way as in the previous FGD. The FGDs lasted on average of 100–120 min. The FGDs were conducted in a meeting room in the respective hospitals. This research simultaneously conducted data collection and analysis (Figure 1).

**Figure 1.**




**Simultaneous data collection and analysis process**.

Furthermore, semi-structured interviews with three directors of nursing were conducted during the theoretical sampling phase where the researcher experienced an information gap in the analysis. The interview duration ranged from 30 to 40 min.

The demographic information of the participants, such as sex, nursing education background and working experience, was collected using the demographic data sheet before the FGD process. The data generation process was determined to have been sufficient when a certain level or degree of completeness had been achieved in the obtained data.

***Data Analysis:***

The author performed the data analysis in this study, and a verbatim process began using the FGD results. The data were analysed using the Glaser and Charmaz frameworks, including the constant comparative, interpretation and coding procedures (initial coding, focused coding and categories).[28,29] The final results of this process were discussed with the whole research team.

The analysis process was initially conducted through the coding procedure as follows: the first FGD transcript was read and reread thoroughly to gain initial insight from the FGD transcription or data. The initial (open) coding commenced by the breaking down of data into analytic pieces, or a sentence that had meaning[29] and naming the data segment using significant words or meaning. The coding process refers to data segment categorisation and naming to identify the relationships among the data and produce initial codes.[28,30] The initial coding procedure involved the interpretation of the units of meaning, constant comparison, theoretical sensitivity and memo writing. The initial coding procedure was repeated for each of the other five FGD transcripts.

Focused coding was initiated after generating the initial codes from the sixth FGD transcripts. Focused coding refers to the more conceptual codes that were constructed through conceptually grouping the initial codes.[29] This study conducted focused coding by categorising the sets of initial codes that indicate similar issues related to the nurse's competencies in an emergency setting. Furthermore, the theoretical sampling phase was conducted once the focused codes and tentative concepts had been generated and the researcher identified any missing information. Theoretical sampling refers to the process of data generation guided by evolving concepts.[30] This was achieved through interviews with the three nursing directors.

Furthermore, at the concept development stage to produced categories, this included a constant comparative process of the codes against of all data and implementation of theoretical sensitivity and interpretation to produce the 2 concepts or categories.

***Rigour:***

The criteria for judging the rigour of this research were drawn from the concepts of work, relevance and modifiability and relationality and reflexivity.[29,31,32] Workability in this research was maintained by implementing the GT method.[28] Relevance was secured by ensuring conformity between the research question, research methodology and the theoretical perspectives that guided the conduct of this research. Modifiability was assured through the accomplishment of relevance and workability, which together ensured that the theoretical explanations produced in this study accurately depicted the phenomenon under study. Relationality was achieved through the FGD scheduling to be conducted based on participants' preferences and sharing understandings of key issues. Reflexivity was achieved by the researcher being engaged in the process of critical self-reflection by conducting reflective memo writing throughout the research process for making the researcher's values, beliefs and knowledge and biases transparent.

***Ethical Consideration:***

Ethics approval was obtained from the Health Research Ethics Committee in Indonesia (No. 839/UN6C.10/PN/2017) and from the director of each general hospital and the head of the EDs where the study was conducted. Each participant was provided both verbal and written research descriptions. All participants signed the informed consent form before the FGD process commencement. The authors confirmed that all participant's informed consent has included publication of anonymized responses.

***Results:***

The majority of study participants had an educational level of three years diploma in nursing followed by a professional degree (Bachelor of Science in Nursing). Participant characteristics are presented in Table 1.

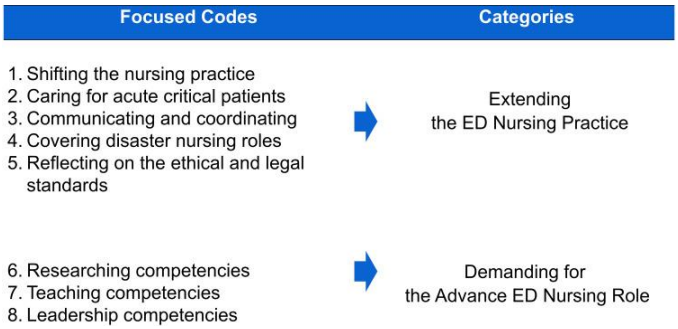
**Table 1.**

**Participants Characteristics**

| Participants Characteristics | Frequency (n) |
|---|---|
| Sex | |
| Male | 25 |
| Female | 29 |
| Working Experience | |
| 1–5 years | 15 |
| 5–10 years | 16 |
| > 10 years | 23 |
| Nursing Educational Background | |
| Diploma 3 in Nursing | 4 |
| Bachelor of Science in Nursing / Ners | 46 |
| Master of Nursing | 4 |
| Additional training | |
| Basic life-support | 54 |

The analysis processes produced eight focused codes that reflected critical issues in emergency nurses' core competencies in this research context, as indicated in Figure 2.

**Figure 2.**




**The concept development process.**

Furthermore, the eight focus codes were raised to eight tentative categories in the concept development process. In this case, the interrelationships of the 8-focus code have resulted in two categories (or concepts): extending ED nursing practice and demanding advanced ED nursing roles, as indicated in Figure 2.

***Extending ED Nursing Practice:***

The concept of extending the ED nursing practice explains the condition of widening the ED nursing practice to a more complex level of practice. This issue has pointed to the domain of emergency nurses' core competencies as indicated by emergency nurses. ED nursing competencies have been understood as required professional knowledge and skills, values and norms to conduct proper nursing practice in an ED context. The five-core competencies domains of emergency nurses' that are illustrated below will be subsequently discussed.

***Shifting the Nursing Practice:***

We engaged in activities such as patient condition monitoring, CPR (Cardio Pulmonary Resuscitation), wound care, suturing procedure, patient transport and other activities related to forensic nursing. (Participant/P1)

Advanced life support, oxygenation and ventilation management and primary and secondary survey (EWS/early warning score) and Triage. (P1)

Triage procedure is one of the emergency nurses' roles to promptly assess patient condition, and nurses must determine the severity level of patient' condition within 5 minutes and understand the patient's cases and condition. (P9)

'Most of the nurses are unaware of the following roles: collecting forensic data, documenting patient's data and documenting all the patient's items on the form.' (P22)

The knowledge and skills related to professional ED nursing practice are critical. However, our professional knowledge and skills still need to be improved. (P7)

Shifting the nursing practice to a more complex level indicated that the nursing practice in ED settings is often transferred to a more complex level of practice. The FGD indicated that the professional practice domain of emergency nurses has extended to a more complex level of practice (as indicated by the first participant [P1]). Furthermore, competencies, such as the triage procedure, are considered important to be mastered by emergency nurses (P9).

In this case, even in the daily practice of emergency nurses it often shifted to a more specialty practice level. However, their uncertainty of the legality of the triage procedure remained unclear. Moreover, the forensic nursing role was indicated as one area of professional practice where emergency nurses are often involved, and more than half of the emergency nurses explained that they often engage in such activity (P22).

The emergency nurses' role in forensic nursing is indicated when the nurses evaluate the patient condition. This extends to documenting evidence related to criminal issues and other cases. This is following the existing judicial scope.[33] This study revealed that nearly all participants expressed their need to improve their knowledge and skills (P7). Additionally, most of the emergency nurses still felt the importance of improving their knowledge and skills related to emergency nursing practice.[17]

The impact of emergency department nursing interventions on continuity of care, self-care, and psychological symptoms is an area of considerable research interest[25].

The literature review presented here highlights the fact that numerous studies have explored the impact of various emergency department nursing interventions on these aspects. In the cardiovascular field, interventions, such as home environment interventions and telephone support, have been found to enhance patient self-care and quality of life. These interventions empower patients to manage their condition better and provide them with support, thereby improving their understanding and ability to cope with their illness.

Additionally, studies have focused on emergency department nursing interventions for critically ill patients and those with heart failure, indicating the potential of these interventions in improving patients' self-care and psychological symptoms. In addition, for patients with heart failure and severe infections, the implementation of early fluid resuscitation in the emergency department has shown potential benefits in improving self-care and reducing psychological symptoms.

These interventions can improve the physiological status of patients and facilitate their recovery and rehabilitation. Taken together, emergency department nursing interventions have a

positive impact on the continuity of care, self-care, and psychological symptoms.

***CONCLUSION:***

Emergency department care can help patients improve their caregiving capacity, reduce psychological symptoms, and improve their quality of life through individualized nursing interventions, self-management support, and early interventions. However, further research is needed to explore the impact of different types of emergency department nursing interventions on diverse populations and conditions to provide more accurate guidance and best practices. This study has limitations in terms of sample size, diversity of interventions, and time constraints. Additionally, the complexity of the emergency department settings may introduce other uncontrolled interventional factors.

***ARTICLE HIGHLIGHTS:***

***Research background:***

The emergency department plays a crucial role in providing acute care to patients, and nursing interventions in this setting are essential for improving continuity of care, enhancing patients' self-care abilities, and reducing psychological symptoms.

***Research motivation:***

To evaluate the impact of nursing interventions in the emergency department on these indicators in an emergency department.

***Research objectives:***

This study examined various indicators of continuity of care, self-care, and psychological symptoms.

***Research methods:***

A retrospective analysis was conducted on 120 patients admitted to the emergency department between January 2022 and May 2023. The patients were divided into two groups: The control group (conventional nursing intervention) and the observation group, which received both conventional nursing and emergency department nursing interventions. Patients in both groups were compared in terms of continuity of care, self-care ability, psychological symptoms, and satisfaction with care.

***Research results:***

The emergency department nursing interventions significantly positively impacted various aspects. Specifically, these interventions improved the continuity of care, enhanced patients' self-care abilities, and reduced psychological symptoms such as anxiety and depression.

***Research conclusions:*** Additionally, the complexity of the emergency department settings introduces the possibility that other uncontrolled intervention factors may have an impact.

***Research perspectives:*** Emergency department nursing interventions have the potential to improve patients' self-care and psychological symptoms, suggesting their effectiveness. Furthermore, the implementation of early fluid resuscitation in the emergency department has shown potential benefits for patients with heart failure and severe infections, leading to improved self-care and reduced psychological symptoms. These interventions can improve the patient's physiological status and facilitate recovery and rehabilitation.

***Indicators of observation:***

(1) The observation indicators for continuity of care include re-attendance rate into the emergency department after a visit: This indicator assesses the frequency at which patients return to the emergency department within a certain period after their initial visit; hospitalization rate: This indicator assesses whether patients require hospitalization or not. Outpatient follow-up rate: This indicator measures the proportion of patients requiring further treatment or follow-up in the outpatient clinic; and (2) Self-care ability observation indicators include assessment of ADL (0-100 points, the higher the score, the stronger the ability): This assessment evaluates the patient's ability to perform daily activities, such as eating, washing, dressing, toileting, and walking; and self-assessment scales: Patients self-report their level of self-care ability through self-assessment scales, such as the Barthel Index and Lawton Self-care Ability Scale. The observation indicators for psychological symptoms include the Symptom Self-Rating Scale (SCL-90): This scale assesses the severity of the patient's psychological symptoms.

***RESULTS:***

The observed indicators of continuity of care were compared between the two groups of patients. Based on the data presented in Table 1, patients in the observation group demonstrated significantly lower rates of re-attendance at the emergency department after their initial visit than patients in the control group ($P < 0.05$). The ADL scores of both groups were compared before and after the intervention.

Furthermore, after the intervention, the ADL scores of the patients in both groups were significantly higher than those before the intervention (P < 0.05), and the ADL scores of the patients in the observation group were significantly higher than those in the control group (P < 0.05) (Table 2). The self-care abilities of the two groups were compared before and after the intervention. The Barthel index scores of the patients in the observation group were significantly higher than those in the control group (P < 0.05) (Table 3). After the intervention, there was a significant decrease in the SCL-90 scores for both groups compared to those before the intervention (P < 0.05) (Figure 1). Additionally, the SCL-90 scores of the patients in the observation group were significantly lower than those in the control group (P < 0.05). The SCL-90 scores of patients in the observation group were significantly lower than those in the control group (P < 0.05) (Table 4).

Table 1.

The observed indicators of continuity of care between the two groups of patients are compared

| Group | Re-visit rate | Hospitalization rate | Recurrence rate |
|---|---|---|---|
| Observation group (n = 60) | 10 (16.67) | 15 (25.00) | 20 (33.33) |
| Control group (n = 60) | 40 (66.67) | 50 (83.33) | 54 (90.00) |
| $\chi 2$ | 7.281 | 6.310 | 5.431 |
| P value | < 0.001 | < 0.001 | < 0.001 |

Table 2.

Comparison of activities of daily living scores between the two groups before and after the intervention

| Group | Pre-intervention | Post-intervention |
|---|---|---|
| Observation group (n = 60) | 44.37 ± 7.32 | 96.74 ± 9.91a |
| Control group (n = 60) | 43.28 ± 6.24 | 85.66 ± 8.78a |
| T value | 0.124 | 8.732 |
| P value | 0.938 | < 0.001 |

P < 0.05 vs pre-intervention group.

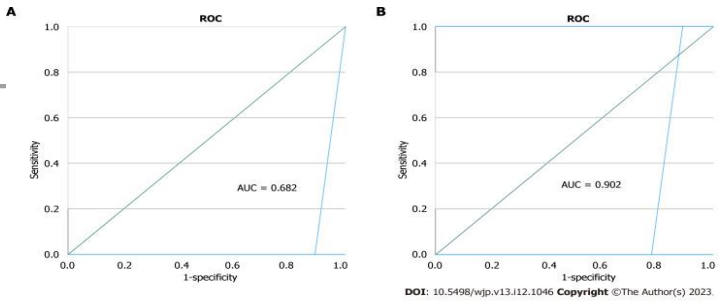
Table 3.

Comparison of self-care ability between the two groups before and after intervention (mean ± SD, points)

| Group | Pre-intervention | Post-intervention | Barthel index rating scale score difference |
|---|---|---|---|
| Observation group (n = 60) | 52.34 ± 6.85 | 78.63 ± 5.44a | 26.28 ± 6.62 |
| Control group (n = 60) | 52.00 ± 6.32 | 69.72 ± 5.81a | 17.72 ± 4.55 |
| T value | 0.209 | 6.330 | 6.032 |
| P value | 0.835 | < 0.001 | < 0.001 |

P < 0.05 vs pre-intervention group.

Figure 1.




Impact of emergency department nursing intervention on continuity of care, self-care and psychological symptoms. A: Before intervention; B: After intervention. ROC: Receiver operating characteristic; AUC: Area under the curve.

Table 4.

Comparison of Symptom Self-Rating Scale scores before and after the intervention in the two groups (mean ± SD, points)

| Group | Pre-intervention | Post-intervention | Poor SCL-90 score |
|---|---|---|---|
| Observation group (n = 60) | 234.69 ± 25.35 | 162.44 ± 15.48a | 72.25 ± 20.00 |
| Control group (n = 60) | 235.50 ± 26.29 | 187.41 ± 16.53a | 48.09 ± 17.45 |
| T value | -0.126 | 6.236 | 5.149 |
| P value | 0.900 | < 0.001 | < 0.001 |

P < 0.05 vs pre-intervention group. SCL-90: Symptom Self-Rating Scale.

***DISCUSSION:***

With global economic development, the overall quality of life has improved, leading to an increase in accidents and acute diseases. Consequently, the number of patients admitted to hospitals increased annually. Patients in the emergency department commonly present severe functional disorders of the limbs, including motor, sensory, and autonomic dysfunction. These impairments significantly reduce the patient's self-care ability and can result in complications such as autonomic reflex disorders, deep vein thrombosis, and pressure sores. These complications not only cause physical and psychological harm to the patients but also impose a significant economic burden on their families.

In the emergency department, the primary treatment principle is to save the lives of patients. Additionally, efforts would be made to prevent or minimize the loss of function, reduce the occurrence of complications, and achieve the best possible recovery in the shortest time to enhance the quality of life. Although most patients are generally stable after treatment, they still require long-term care. Studies have confirmed that emergency department nursing, in addition to routine nursing, can improve patients' motor functions, reduce the incidence of complications, and improve their quality of life.

Globally, the need for emergency care services is predicted to remain high as seen by the crowding phenomenon in emergency departments (EDs).[1,2] This has impacted the decreasing quality of both care and treatment, the increased adverse event rate and the increased mortality rate in EDs.[3–5] Some low- and middle-income countries are struggling while some high-income countries have been adaptive and developed some workarounds to solve these pressing concerns.[6]

Indonesia relates the high demand for emergency care services to the significant incidence of severe cases and the high population size. This disease burden has illustrated the high prevalence of severe cases linked to a significant need for emergency care services. This issues is indicated in seven cases of the top 10 leading causes of death in Indonesia in 2019 that is Stroke, Ischemic heart disease, COPD, Diabetes, Cancer, Hypertensive heart disease, Road traffic injury.[7,8]

Additionally, Indonesia's geographical conditions result in a high risk of experiencing natural disasters.[9,10] These conditions impact the complexity of the nursing work in EDs. Concurrently, this is reflected in the need for competent emergency nurses to support safe and quality health services provided in the form of daily emergency care services and their response in disaster situations. Nurses in an emergency care context, as the "backbone" of the healthcare system, are critical in reducing mortality and morbidity within emergency populations.[11]

The high number of ED visits indicated 2 million ED visits or 202 per 1000 people from 118 ED in Jakarta in 2020.[12] The majority of patients that attend hospital ED had general medical problems (63%), and 15.2% reported life-threatening conditions, such as trauma and cardiovascular diseases.[13] The average number of ED visits was 116.37 patients per day in a top referral hospital in West Java.[14] Nursing activities in the ED include triage, initial assessment, management of acute and critical patients as a team member and treating injuries that threaten a patient's life. This is echoed in some of the global settings.[15–19] A link was found between the complexity of the ED nursing practice and the competency needs of emergency nurses. Nurses working in ED are recommended to complete postgraduate studies to ensure safe practice and patient care quality.[20]

The additional emergency nursing training in the Indonesian education system is mostly focused on short courses, such as basic cardiac life support and basic trauma life support. The emergency nursing practice in Indonesia remained characterised by the presence of 3-year diploma nurses as part of their educational background. On average, only approximately 50% of emergency nurses are educated to professional levels or have a bachelor's degree.[18]

Therefore, safe and effective emergency care services have been linked to the availability of clear nurse competency.[21] Competencies are generally understood as a complex integration of knowledge, professional judgement, skills, abilities, attitudes and values, as well as special attributes that define the profession and professional skills.[22–26] A lack of attention to professional competencies can raise questions and problems in nursing activities.[21] The World Health Organization indicated the importance of strengthening nurses with relevant professional competency.[27] Clear competency for nurses who work in ED settings is critical as it describes the required essential abilities to accomplish the nurses' role in an emergency setting. It also provides direction for curriculum development and improves nursing education quality.[24] The core competencies of emergency nurses are linked to the scope of practice standards in each country.[20] Understanding emergency nurses' competencies and how they can address the demand of society is crucial. However, standard competencies and practices for emergency nursing in the Indonesian ED context remained lacking.[18,28]

Globally, the health care services need of each country and the scope of practice of emergency nurses vary although references regarded the core competencies of emergency nurses. Studies related to the core competency of emergency nurses in the Indonesian context have never been conducted, until now. Therefore, this study aims to explore the core competencies of emergency nurses, which are needed by society, as described in the context of ED in Indonesia to elucidate the apparent gap in knowledge.

***References:***


Abaalkhail FA, Al-Hamoudi WK, Khathlan A, Alghamdi S, Alghamdi M, Alqahtani SA, et al.(2021).SASLT practice guidelines for the management of hepatitis B virus - an update. Saudi J Gastroenterol 2021; 27: 115–126.

Abdelhaleem A, Dhayhi N, Mahfouz MS, Dafalla O, Mubarki M, Hamedhi F, et al.(2021).Diagnosis and causative species of visceral leishmaniasis in Southwest Saudi Arabia. Am J Trop Med Hyg 2021; 105: 654–659.

Abdullah SM.(2018).Prevalence of hepatitis B and C virus infection and their co-relation with hematological and hepatic parameters in subjects undergoing premarital screening in the Jazan Region, Kingdom of Saudi Arabia. Pak J Med Sci 2018; 34: 316–321.

Abuzaid AA, Aldahan MA, Helal MAA, Assiri AM, Alzahrani MH.(2020).Visceral leishmaniasis in Saudi Arabia: from hundreds of cases to zero. Acta Trop 2020; 212: 105707.

Ahmed AE, Salih OA.( 2019).Determinants of the early initiation of breastfeeding in the Kingdom of Saudi Arabia. Int Breastfeed J 2019; 14: 13.

Alanazi KH, Bin Saleh GM, Hathout HM, Shiha HR, El Sherbini SG, Al Saqer TA, et al.(2021).Investigation of varicella outbreak among residents and healthcare workers in psychiatric hospital- Saudi Arabia. Arch Environ Occup Health 2021; 76: 116–120.

Albasheer OB, Abdelmola AO, Alomaish A, Dallak A, Darraj K, hamzi M, et al.(2021).Knowledge, attitude and practice regarding dengue infection among Jazan inhabitants, Saudi Arabia 2019. Med Sci 2021; 25: 337–346.

Aljumah AA, Babatin M, Hashim A, Abaalkhail F, Bassil N, Safwat M, et al.(2019).Hepatitis B care pathway in Saudi Arabia: current situation, gaps, and actions. Saudi J Gastroenterol 2019; 25: 73–80.

Al-Mekhlafi HM, Madkhali AM, Ghailan KY, Abdulhaq AA,

Al-Nefaie H, Alsultan A, Abusaris R.(2022).Temporal and spatial patterns of dengue geographical distribution in Jeddah, Saudi Arabia. J Infect Public Health 2022; 15: 1025–1035.

Al-Raddadi R, Alwafi O, Shabouni O, Akbar N,Alkhalawi M,Ibrahim A, et al.(2019).Seroprevalence of dengue fever and the associated sociodemographic, clinical, and environmental factors in Makkah, Madinah, Jeddah, and Jizan, Kingdom of Saudi Arabia. Acta Trop 2019; 189: 54–64.

Alshabi A, Fatima N, Marwan A, Oraibi KG, Qubaisi EA, Arif HO, et al.(2021).Epidemiology screening and genotyping analysis for hepatitis B virus in Southwestern region of Saudi Arabia. J Infect Public Health 2021; 14: 187–192.

Alshabi A, Marwan A, Fatima N, Madkhali AM, Alnagai F, Alhazmi A, et al.(2022).Epidemiological screening and serotyping analysis of dengue fever in the Southwestern region of Saudi Arabia. Saudi J Biol Sci 2022; 29: 204–210.

Al-Tawfiq JA, Memish ZA.(2018).Dengue hemorrhagic fever virus in Saudi Arabia: a review. Vector Borne Zoonotic Dis 2018; 18: 75–81.

Brice SN, Boutilier JJ, Gartner D, et al. Emergency services utilization in Jakarta (Indonesia): a cross-sectional study of patients attending hospital emergency departments. BMC Health Serv Res. 2022;22(1):639. doi: 10.1186/s12913-022-08061-8.

Brysiewicz P, Scott T, Acheampong E, Muya I. Facilitating the development of emergency nursing in Africa: operational challenges and successes. Afr J Emerg Med. 2021;11(3):335–338. doi: 10.1016/j.afjem.2021.03.013.

Centers for Disease Control and Prevention. Viral hepatitis surveillance report 2020. [Updated 2020; accessed 2023 Jul 7]. Available from: https://www.cdc.gov/hepatitis/statistics/2020surveillance/index.htm

Chakaya J, Khan M, Ntoumi F, Aklillu E, Fatima R, Mwaba P, et (2021).Global tuberculosis report 2020 - reflections on the global TB burden, treatment and prevention efforts. Int J Infect Dis 2021; 113 Suppl 1: S7–S12.

Darraj MA,Abdulhaq AA, Yassin A, Mubarki S, Shalaby HM, Keynan Y, et al.(2021).Tuberculosis among people living with HIV/AIDS in Jazan Region, Southwestern Saudi Arabia. J Infect Public Health 2021; 14: 1571–1577.

Daulagala SWPL, Noordeen F.(2018).Epidemiology and factors influencing varicella infections in tropical countries including Sri Lanka. Virusdisease 2018; 29: 277–284.

Emirate of Jazan Province. Jazan Province. [Updated 2023; accessed 2022 Dec 18]. Available from: https://www.moi.gov.sa/wps/portal/Home/emirates/jeezan/

European Centre for Disease Prevention and Control. Salmonellosis - annual epidemiological report for 2020. [Updated 2022; accessed 2022 Jul 7]. Available from: https://www.ecdc.europa.eu/en/publications-data/salmonellosis-annual-epidemiological-report-2020

Fukada M. Nursing competency: definition, structure and development. Yonago Acta Med. 2018;61(1):1–7. doi: 10.33160/yam.2018.03.001.

General Authority for statistics of Saudi Arabia. General information about the Kingdom of Saudi Arabia. [Updated 2021; accessed 2022 Dec 17]. Available from: https://www.stats.gov.sa/en/page/259

Ghzwani AH, Zain KA, et al.(2021).Residual malaria in Jazan region, southwestern Saudi Arabia: the situation, challenges and climatic drivers of autochthonous malaria. Malar J 2021; 20: 315.

Hsu YC, Huang DQ, Nguyen MH.(2023).Global burden of hepatitis B virus: current status, missed opportunities and a call for action. Nat Rev Gastroenterol Hepatol 2023; 20: 524–537.

Indonesian Minister of Education and Culture. Regulation No. 3, 2020 National Higher Education Standard. Republic of Indonesia; 2020Winger J, Brim CB, Dakin CL, et al. Advanced practice registered nurses in the emergency care setting. J Emerg Nurs. 2020;46(2):205–209. doi: 10.1016/j.jen.2019.12.011.

Invest Saudi. Jazan Province. [Updated 2021; accessed 2022 Dec 18]. Available from: https://www.investsaudi.sa/en/meetTheKingdom/province/jazan

Municipality of Jazan. About Jazan. [Updated 2022; accessed 2022 Dec 17]. Available from: https://jazan.sa/ar/Pages/AboutJazan.aspx

Saudi Ministry of Health. National tuberculosis program manual 2021. [Updated 2021; accessed 2022 Dec 18]. Available from: https://www.moh.gov.sa/Documents/National-TB-program-1.pdf

Saudi Ministry of Health. Statistical yearbook. [Updated 2021; accessed 2022 Dec 17]. Available from: https://www.moh.gov.sa/en/Ministry/Statistics/book/Pages/default.aspx

Suba S, Scruth EA, New A. Era of nursing in Indonesia and a vision for developing the role of the clinical nurse specialist. Clin Nurse Spec. 2015;29(5):255–257. doi: 10.1097/NUR.0000000000000146.

Trisyani Y, Windsor C. Expanding knowledge and roles for authority and practice boundaries of emergency department nurses: a grounded theory study. Int J Qual Stud Health Well-Being. 2019;14(1):1563429. doi: 10.1080/17482631.2018.1563429.

Vand Tamadoni B, Shahbazi S, Seyedrasooli A, Gilani N, Gholizadeh L. A survey of clinical competence of new nurses working in emergency department in Iran: a descriptive, cross-sectional study. Nurs Open. 2020;7(6):1896–1901. doi: 10.1002/nop2.579.

Venkatesan P.(2022).Worrying global decline in measles immunisation. Lancet Microbe 2022; 3: e9.

Verjee MA.(2019).Schistosomiasis: still a cause of significant morbidity and mortality. Res Rep Trop Med 2019; 10: 153–163.

Wamai RG, Kahn J, McGloin J, Ziaggi G. (2020).Visceral leishmaniasis: a global overview. J Glob Health Sci 2: e3.

Woo BFY, Lee JXY, Tam WWS. The impact of the advanced practice nursing role on quality of care, clinical outcomes, patient satisfaction, and cost in the emergency and critical care settings: a systematic review. Hum Resour Health. 2017;15(1):63. doi: 10.1186/s12960-017-0237-9.

World Health Organization. Dengue and sever dengue. [Updated 2023; accessed 2023 Jul 7]. Available from: https://www.who.int/news-room/fact-sheets/detail/dengue-and-severe-dengue

World Health Organization. Global malaria programme. [Updated 2023; accessed( 2023). Jul 7]. Available from: https://www.who.int/teams/global-malaria-programme/elimination/countries-and-territories-certified-malaria-free-by-who

World Health Organization. Global Strategic Directions for Strengthening Nursing and Midwifery 2016–2020. World Health Organization; 2016..

World Health Organization. Global tuberclosis report 2022. [Updated 2022; accessed 2023 Jul 7]. Available from: https://www.who.int/teams/global-tuberculosis-programme/tb-reports/global-tuberculosis-report-2022/tb-disease-burden/2-1-tb-incidence

World Health Organization. Hepatitis C. [Updated 2022; accessed 2023 Jun 7]. Available from: https://www.who.int/news-room/fact-sheets/detail/hepatitis-c

World Health Organization. Leishmaniasis. [Updated 2023; accessed 2023 Jul 7]. Available from: https://www.who.int/news-room/fact-sheets/detail/leishmaniasis

World Health Organization. Malaria. [Updated (2023). accessed 2023 Jul 7]. Available from: https://www.who.int/news-room/fact-sheets/detail/malaria

World Health Organization. Measles. [Updated 2023; accessed 2023 Jul 7]. Available from: https://www.who.int/news-room/fact-sheets/detail/measles

World Health Organization. Schistosomiasis. [Updated 2023; accessed 2023 Jul 7]. Available from: https://www.who.int/news-room/fact-sheets/detail/schistosomiasis

World Health Organization. World malaria report. [Updated 2022; accessed 2023 Jul 7]. Available from: https://www.who.int/publications/i/item/9789240064898

Yang X, Quam MBM, Zhang T, Sang S.(2021).Global burden for dengue and the evolving pattern in the past 30 years. J Travel Med 2021; 28: taab146.

Yudiah W, Yudianto K, Prawesti A. Fatigue and work satisfaction of emergency nurses in Bandung, West Java, Indonesia. Belitung Nurs J. 2018;4(6):602–611. doi: 10.33546/bnj.558

Yusvirazi L, Sulistio S, Wijaya Ramlan AA, Camargo Jr CAJ. Snapshot of emergency departments in Jakarta, Indonesia. Emerg Med Australas. 2020;32(5):830–839. doi: 10.1111/1742-6723.13570

Zhang W, He Z, Li P, Zeng W, Feng J, Dong X, et al.(2023).The necessity for popularizing varicella-zoster virus vaccine programs worldwide: an age-period-cohort analysis for the Global Burden of Disease study 2019. J Infect Public Health 2023; 16: 1093–1101.

Zheng Y, Ying M, Zhou Y, Lin Y, Ren J, Wu J.(2021).Global burden and changing trend of hepatitis C virus infection in HIV-positive and HIV-negative MSM: a systematic review and meta-analysis. Front Med (Lausanne) 2021; 8: 774793.