

Hospital Triage Decision-Making Index Cues and Heuristics among Emergency Room Nurses in Selected Private Hospitals in 2nd and 3rd District of Laguna.

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Index Terms:

triage decision-making, emergency nursing, cues, heuristics, critical thinking, environmental conditions, time pressure, patient volume, workload

Abstract. Triage decision-making skills are crucial in nursing, where rapid decisions are needed under uncertainty. This study aimed to determine the level of triage decision-making skills among emergency room nurses in selected private hospitals in the 2nd and 3rd districts of Laguna, and the factors influencing the use of cues and heuristics in nursing practice. A quantitative descriptive-correlational method, involving 67 emergency room nurses as respondents of the study. Data were gathered using an adopted research questionnaire, the Triage Decision Making Inventory (TDMI), and research-made questionnaires based on the literature. The results indicated that respondents had very high levels of triage decision-making skills across all domains; most nurses rated themselves as very good to excellent. Environmental factors, workload, time pressures, and patient volumes were rated very high to extremely high as factors that influenced cues and heuristics use. Results revealed a significant positive correlation between triage decision-making skills and identified factors that influence cues and heuristics use, all of which were statistically significant at $p < .001$, with critical thinking being the strongest predictor of all. The findings indicate emergency room nurses had very high clinical decision-making skills; their use of cues and heuristics is also influenced by a range of factors, including those related to workload, time pressures, and environmental demands, highlighting the need for ongoing professional development and support systems to ensure accurate decision-making for emergency nursing practice. The study recommends emergency room nurses engage in continuing professional development programs focusing on triage prioritization and time management.

Introduction

Emergency departments (EDs) are among the most dynamic and unpredictable environments in healthcare, where nurses are required to deliver immediate care while making rapid and critical decisions regarding patient prioritization. As patient volume continues to increase and disease patterns evolve, the complexity of emergency care has intensified, particularly in developing healthcare systems such as the Philippines. Triage, which serves as the foundation of emergency care, involves the rapid and accurate classification of patients based on the urgency of their condition (Reay et al., 2020). However, beyond clinical assessment, triage decision-making is increasingly influenced by contextual and environmental factors present in emergency settings (Soola et al., 2022).

In high-pressure situations, emergency room nurses are expected to process limited information within seconds while managing multiple competing demands. Under such conditions, decision-making does not always follow a purely analytical process. Instead, nurses often rely on heuristics, which are cognitive strategies that simplify complex decision-making tasks and enable faster judgments (Seo et al., 2024). The use of heuristics can be advantageous, particularly in identifying patients who require immediate intervention. Studies have shown that experienced nurses utilize pattern recognition and intuitive judgment to enhance efficiency in triage (Raab and Gigerenzer, 2019). However, excessive reliance on these mental

shortcuts may also result in cognitive biases, leading to errors such as overtriage and undertriage, which may compromise patient safety and delay appropriate treatment (Agius et al., 2025).

Environmental and organizational factors further shape the way nurses make triage decisions. Factors such as time pressure, workload, patient volume, and environmental disruptions have been shown to increase reliance on heuristics, potentially reducing the consistency of systematic clinical assessment (Ko and Lee, 2023). These challenges are particularly evident in emergency departments experiencing overcrowding and resource limitations. In the Philippine context, reports from the Department of Health (2023) highlight persistent issues in emergency care, including insufficient staffing, high patient influx, and inconsistent adherence to standardized triage systems. Local studies also indicate that nurses' decision-making abilities vary, with experience and critical thinking identified as key determinants of accurate triage (Comia et al., 2023). Similarly, Madayag et al. (2024) found that Filipino emergency nurses often depend on observable cues, prior experiences, and familiarity with common clinical cases when making rapid decisions under pressure.

Despite the growing body of literature on triage competence, most existing studies focus primarily on knowledge, skills, and accuracy of triage decisions, with limited attention given to the underlying cognitive processes, particularly the use of cues and heuristics in real-world emergency settings. Furthermore, there is a scarcity of research conducted in provincial hospital settings in the Philippines, where contextual challenges may differ significantly from those in highly urbanized areas. This gap highlights the need to explore how emergency room nurses integrate cognitive shortcuts and environmental influences in their triage decision-making practices.

Therefore, this study aimed to examine the cues and heuristics utilized by emergency room nurses in triage decision-making in selected private hospitals in the 2nd and 3rd Districts of Laguna. Specifically, it sought to determine the perceived frequency of these cognitive shortcuts and analyze their relationship with nurses' triage decision-making skills and contextual factors such as time pressure, workload, patient volume, and environmental conditions. By investigating these relationships within a real-world provincial context, the study intends to contribute to the improvement of emergency nursing practice, enhance the accuracy and efficiency of triage decision-making, and support the development of evidence-based strategies for optimizing emergency department workflow systems.

Conceptual Framework

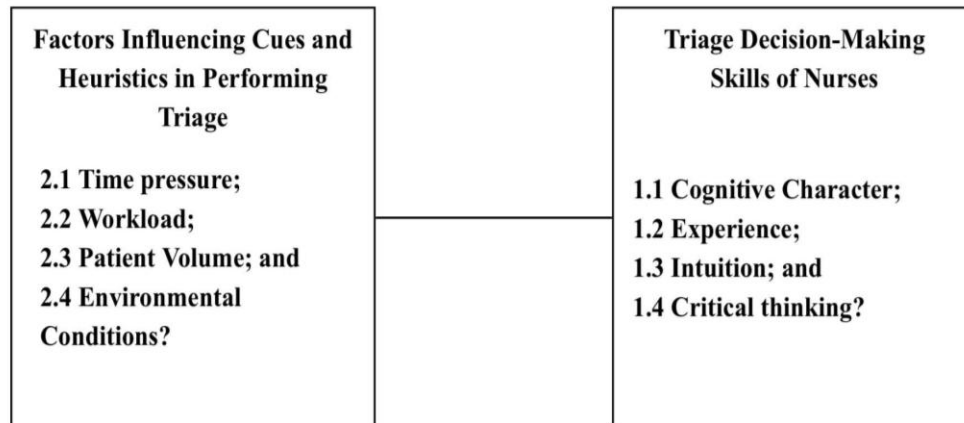


Figure No. 1. Conceptual framework between the factors influencing cue and heuristics and the triage decision-making skills of nurses

The diagram illustrates the relationship between the factors influencing cue and heuristics, specifically time pressure, workload, and environmental condition, and the triage decision-making skills of nurses, which include cognitive characteristics, experience, intuition, and critical thinking. It illustrates how these variables are associated within the emergency room settings.

Methodology

Research Design

This study used a quantitative descriptive-correlational research design to evaluate the level of triage decision-making and the factors that influence cues and heuristics among emergency department nurses in selected private hospitals in Laguna's second and third districts. Quantitative research was used to methodically collect and analyze numerical data, allowing for objective assessment and generalization of conclusions (Ghanad, 2023). The descriptive-correlational approach was used to describe the variables and determine the relationship between triage decision-making and affecting factors, with no modification. This design was judged appropriate since it enabled the researchers to investigate naturally occurring clinical procedures and identify significant connections between variables in real-world situations (Barooah, 2026).

Participants and Sampling Technique

The study included 67 emergency department nurses from private hospitals in Laguna's second and third districts, chosen through purposive sampling to ensure relevant triage experience. Participants had to be (a) Bachelor of Science in Nursing graduates, (b) licensed Registered Nurses, (c) actively working in the emergency room, and (d) have at least one year of ER experience. These respondents were chosen since they are directly responsible for the initial patient assessment and triage, making them suitable sources of data for the study.

Research Instrument

The study adopted a structured questionnaire with items produced by the researcher and used by others. To examine triage decision-making skills and affecting factors, it was divided into three sections: respondents' profile, the level of triage decision-making, and the factors influencing cues and heuristics. Part II employed the adopted questionnaire entitled "Triage Decision-Making Inventory (TDMI)", a 37-item questionnaire graded on a 6-point Likert scale developed by Professor Kelly Jo 20203Cone, Part III consisted of a 20-item questionnaire created by the researcher based on related literature (Soola et al., 2022; Agius et al., 2025; Seo et al., 2024; Ko & Lee, 2023), which likewise used a 6-point Likert scale. Prior to data collection, the instrument was validated by experts and tested in pilot mode, exhibiting satisfactory reliability.

Data Gathering Procedure

Data collection was conducted after obtaining ethical clearance, administrative approval, and permission to use the adopted instrument. The study utilized a face-to-face data gathering approach in selected private hospitals in Laguna's second and third districts. Coordination was first established with hospital administrators, human resources departments, chief nurses, and emergency room supervisors to schedule the collection of data in a way that minimized disturbance to clinical tasks. Eligible responders were selected and contacted either directly or through hospital HR support. The researchers explained the study's goal, obtained informed consent, and ensured confidentiality and voluntary participation. Questionnaires were then delivered and completed on-site under the supervision of researchers, HR officials, and chief nurses to guarantee correct administration and comprehension of the instrument. Data collection was conducted over a specified period aligned with hospital schedules, after which all responses were collected, encoded, and prepared for statistical analysis.

Data Analysis Procedure

This study used a quantitative descriptive-correlational design and applied both descriptive and inferential statistics. Frequency and percentage were used to define the respondents' profiles and summarize categorical data, while the mean was utilized to measure the level of triage decision-making skills and extent of influence of factors affecting cues and heuristics. The standard deviation was used to assess the variety and consistency of the respondents' responses. Inferential analysis used Spearman's Rho to determine the strength and direction of the link between triage decision-making skills and influencing factors. With regard to data quality, the research instrument was expertly validated to guarantee that the items' content was valid and relevant to the study variables. Prior to data collection, reliability was assessed through pilot testing, which resulted in satisfactory internal consistency.

Ethical Considerations

The study adhered to ethical principles by informing participants of the study's purpose, procedures, and voluntary nature, with informed consent obtained prior to participation. Respondents were allowed to withdraw at any time without penalty. Confidentiality and anonymity were ensured through coded responses, with all data securely stored in password-protected files in compliance with the Data Privacy Act of 2012 (RA 10173). To reduce response bias, participants were assured that their answers would not affect their employment and that there were no right or wrong responses. Ethical clearance and institutional approvals were secured before data collection, ensuring the protection of participants' rights and welfare throughout the study.

Results and Discussion

Level of Triage Decision-Making Skills of Nurses

Cognitive characteristics	Mean	Sd	Interpretation
1. I am knowledgeable about the different areas within the ED.	5.40	0.82	Excellent
2. I feel comfortable making decisions in the ED.	5.19	0.80	Excellent
3. I can work under pressure and remain organized.	5.31	0.72	Excellent
4. I can prioritize patient care and get the job done.	5.49	0.64	Excellent
5. I have confidence in my judgment to make good decisions that will improve my patient's outcome.	5.34	0.69	Excellent
6. If a patient arrests me, I will know what to do.	5.43	0.63	Excellent
7. I am someone that my co-workers can count on to make good decisions.	5.36	0.69	Excellent
Composite Mean	5.36		Excellent
SD	0.71		

Table No. 1.1 Level of Triage Decision-Making Skills of Nurses in terms of Cognitive Characteristics

Table 1.1 presents the level of triage skills of emergency department nurses in terms of cognitive characteristics. Overall, the respondents demonstrated an excellent level ($M = 5.36$, $SD = 1.06$) in triage decision-making in terms of cognitive characteristics. The highest indicator ($M = 5.49$, $SD = 0.64$) "I can prioritize patient care and get the job done," indicates that nurses are skilled in managing patient care priorities under pressure. This result is crucial as the process of prioritization ensures that patient who needs urgent care is attended to promptly during triage. While the lowest mean indicator ($M = 5.19$, $SD = 0.80$), "I feel comfortable making decisions in the ED," while rated as excellent, indicates that some nurses, despite their overall proficiency, may occasionally feel uncertain or under pressure when making decisions, possibly due to the high stakes of emergency care. The SD suggests that there is a moderate level of variability in this confidence, implying that some nurses may need further support or training to boost their decision-making comfort.

This finding is supported by literature emphasizing how cognitive characteristics affect the overall triage process. Topacio et al. (2025) emphasize that cognitive preparedness is a primary indicator of nurses in performing triage to provide immediate care and reduce overcrowding. Kapuralalage et al. (2025) highlight that uncertainty exist in performing triage, specifically during a fast-paced process under pressure.

Experience	Mean	Sd	Interpretation
1. I can count on my skills and judgment while working at triage.	5.39	0.67	Excellent
2. I send a lot of patients to the emergency area even when they may not need to go there because I am afraid of making a mistake.	3.99	1.51	Good
3. I don't know the right questions to ask at triage.	4.91	1.50	Very Good
4. I can make good judgments at triage.	5.09	0.87	Very Good
5. My past experience makes it easier to make decisions at triage.	5.16	0.77	Very Good
6. I feel confident in my skills to triage.	5.36	0.62	Excellent
7. I feel comfortable making decisions at triage.	5.30	0.67	Excellent
8. I know that I have the skills to make accurate triage decisions.	5.24	0.63	Excellent
9. I can differentiate between critical and subacute patients at triage.	5.27	0.66	Excellent
10. I know what questions to ask at triage to get the information that I need.	5.49	0.56	Excellent
11. I can talk to patients and get to the point about the reason that they came to the ED	5.34	0.69	Excellent
Composite Mean	5.14		Very Good
SD	0.83		

Table No. 1.2 Level of Triage Decision Making Skills of Nurses in Terms of Experience

Table 1.2 present the level of triage skills of emergency department nurses in terms of experience. Overall, the respondents demonstrated a very good level ($M = 5.14$, $SD = 0.83$) in triage decision makings in term of experience. The highest mean indicator ($M = 5.49$, $SD = 0.56$) "I know what questions to ask at triage to get the information that I need," indicates that nurses with more experience are highly competent in gathering critical patient information in performing triage for accurate decision making. While the lowest mean indicator ($M = 3.99$, $SD = 1.51$) "I send a lot of patients to the emergent area even when they may not need to go there because I am afraid of making a mistake," categorized as good suggest that

while some nurses may be more confident in their decisions, others may over triage due to fear of making an error, leading to inefficiencies in resource allocation.

Literature consistently supports this finding highlight the length of experience is vital on how it will aid emergency department nurses in performing triage under pressure. Seo et al. (2024) emphasize nurses with higher length of experience are more accurate in classifying. Soola et al. (2022) emphasizes that experience does not actually affect triage accuracy however it is a major contributory in frequencies of both "Over-triage" and "Under-triage" specifically with less experience nurses. This finding supports the current result on how experience affects triage decision making outcome and the disparities between nurses with higher length or lower length of experience

Intuition	Mean	Sd	Interpretation
1. When triaging a patient, I can get a good idea of how sick they are just by looking at them.	5.10	0.86	Very Good
2. When I am triaging, I get a gut feeling about critical patients.	5.25	0.82	Excellent
3. I can tell by a person's appearance whether or not they need immediate care.	5.37	0.67	Excellent
4. I can often tell when something detrimental is going to happen when I first assess a patient at triage.	4.69	0.84	Very Good
5. I get an inner feeling when something bad is going to happen.	4.49	1.09	Very Good
6. No matter what I've learned in books, I follow my gut feelings at triage.	4.24	1.23	Good
7. I have a sixth sense about critically ill patients.	4.48	1.25	Very Good
Composite Mean	5.14		Very Good
SD	0.83		

Table No. 1. 3 Level of Triage Decision Making Skills of Nurses in Terms of Intuition

Table 1.3 presents the level of triage skills of emergency department nurses in terms of experience. Overall, the respondents demonstrated a very good level ($M = 5.14$, $SD = 0.83$) in triage decision-making in term of intuition. The highest mean indicator ($M = 5.37$, $SD = 0.67$) "I can tell by a person's appearance whether or not they need immediate care," indicates that emergency department nurses are skilled in using intuition to assess the urgency of a patient's condition quickly in a fast-paced triage situation. The lowest mean indicator, "No matter what I've learned in books, I follow my gut feelings at triage," suggests that some nurses rely more on their instincts than on formal triage protocols, while others may prioritize evidence-based practice.

Thirsk et al. (2022) state that while intuition plays a vital role in performing triage, it should be balanced by complementing evidence-based guidelines to ensure accuracy and decrease the likelihood of potential cognitive biases. This supports the current findings on how intuition is used in triage decision-making and how it should be balanced with evidence-based practices

Critical thinking	Mean	Sd	Interpretation
1. I communicate well with patients at triage. *	5.55	0.56	Excellent
2. I get positive feedback about my triage decisions.	4.94	0.69	Very Good
3. I can narrow down the information that I need to make decisions about triage patients.	5.10	0.65	Very Good
4. I take responsibility for patients until they are taken to a treatment area.	5.43	0.70	Excellent
5. I can link together the patients' complaints and my assessment findings at triage.	5.15	0.63	Very Good
6. When triage is very busy, I can still maintain a calm focus.	5.07	0.72	Very Good
7. Triage is important because it provides the first impression the patient gets about my facility.	5.54	0.53	Excellent
8. I can reorganize my thoughts when it gets busy at triage to prioritize who should be seen next.	5.16	0.67	Very Good
9. I associate the mechanism of injury with the history given by the patient at triage.	5.12	0.66	Very Good
10. I can communicate well with the ED staff while working at triage.	5.40	0.65	Excellent

11. I can sort out the information that I don't need to make a decision at triage.	4.96	0.84	Very Good
12. I know the right questions to ask while I am working at triage.	5.51	0.59	Excellent
Composite Mean	5.25		Excellent
SD	0.66		

Table No. 1. 4 Levels of Triage Decision Making Skills of Nurses in Terms of Critical Thinking

Table 1.4 presents the level of triage skills of emergency department nurses in terms of experience. Overall, the respondents demonstrated a very good level ($M = 5.25, SD = 0.66$) in triage decision making in term of critical thinking. The highest mean indicator ($M = 5.55, SD = 0.56$) indicates that the emergency department nurses are effective in communicating with patients to gather accurate information, which is critical in triage to develop accurate interventions and identify signs and symptoms that cannot be identified solely by observation. The lowest mean indicator ($M = 4.96, SD = 0.84$) "I can sort out the information that I don't need to make a decision at triage," indicates that nurses may excel in critical thinking; they may still experience difficulty filtering out irrelevant information while performing triage in busy shifts.

Studies emphasize that critical thinking is a vital skill in performing triage as it allows nurses to develop a detailed assessment and an accurate intervention. Agongo et al. (2026) emphasize that communication in healthcare, specifically in the emergency department in relation to performing triage, where an excellent score indicates that nurses from the emergency department are able to provide comprehensive explanations and specific questions. Shin et al. (2024) and Oh & Jung (2024) highlight that clinical reasoning and interpretation of necessary information is an important skill under critical thinking, where having excellent scores implies that nurses are able to think quickly and accurately under pressure.

Level of Extent of Cues and Heuristics in Performing triage as influenced by Perceived Factors

Time pressure	Mean	Sd	Interpretation
1. I can quickly recognize life-threatening problems in the first minute of assessment.	5.00	0.78	Very High Influence
2. I can complete the primary triage assessment within the expected time frame (5-10 minutes) without rushing key steps.	4.78	0.95	Very High Influence
3. I can maintain an objective and professional attitude even when feeling rushed by high patient volume.	5.03	0.83	Very High Influence
4. I can manage my personal stress well and do not allow it to interfere with my objective assessment of the patient.	4.96	0.81	Very High Influence
5. I can recognize when I am stressed or tired and ask for a break after a difficult patient.	4.69	0.92	Very High Influence
Composite Mean	4.89		Very High Influence
SD	0.86		

Table No. 2.1 Perceived Level of Extent of Cues and Heuristics in Performing Triage as Influenced by Time Pressure

Table 2.1 presents the perceived level of extent of cues and heuristics in performing triage as influenced by time pressure. Overall, the respondents indicate a very high influence ($M = 4.89, SD = 0.66$) in extent of cues and heuristics in performing triage as influenced by time pressure. The highest mean indicator ($M = 5.03, SD = 0.83$) "I can maintain an objective and professional attitude even when feeling rushed by high patient volume," indicates that nurses can remain focused and professional, even under intense pressure. The lowest mean ($M = 4.69, SD = 0.92$) is "I can recognize when I am stressed or tired and ask for a break after a difficult patient," indicates that while nurses can recognize them to be stressed, they may not always take the necessary steps to manage it. Kapuralalage et al. (2025) suggest that nurses rely on heuristics in performing triage under high time pressure and time-constrained situations. Remaining focused and professional despite under pressure allows nurses to perform triage efficiently, allowing them to think clearly and less likely causing fear to the patient and its companion. Vehko et al. (2019) indicates poor stress management and burnout may lead nurses to have low levels of triage decision-making skills and abilities that compromise the quality of long-term care and increase staff stress

Workload	Mean	Sd	Interpretation
1. I do not assume the first diagnosis is correct and I consider all new information before finalizing the triage level.	4.84	0.85	Very High Influence

2. I ensure all essential information is documented, even after interruptions from calls or other staff.	5.15	0.78	Very High Influence
3. When I am unsure about a patient's risk, I actively seek immediate second opinions.	5.24	0.72	Extremely High Influence
4. I am able to switch attention between a critical patient and other necessary tasks without making errors.	4.93	0.80	Very High Influence
5. I provide a clear and structured endorsement of the patient's status to the treatment team.	5.15	0.87	Very High influence
Composite Mean	5.06		Very High Influence
SD	0.81		

Table No. 2.2 Perceived Level of Extent of Cues and Heuristics in Performing Triage as Influenced by Workload

Table 2.2 presents the perceived level of extent of cues and heuristics in performing triage as influenced by workload. Overall, the respondents indicate a very high influence ($M = 5.06$, $SD = 0.81$) in extent of cues and heuristics in performing triage as influenced by workload. The highest mean indicator ($M = 5.15$, $SD = 0.81$) "I ensure all essential information is documented, even after interruptions from calls or other staff," reflects that nurses effectively manage documentation despite interruptions. The lowest mean indicator ($M = 4.93$, $SD = 0.80$), "I am able to switch attention between a critical patient and other necessary tasks without making errors," suggesting that multitasking during heavy workload periods is still a challenge among emergency department nurses.

Supporting literatures suggest in performing triage nurses engages in the thinking process of triage decision-making process relies heavily on heuristics principles like representativeness, availability, and anchoring which is based on experience to gather all essential data Kapuralalage et al. (2025). Turen and Isik (2025) suggest that heavy workloads are primary influencers in performing triage decision making as well as multitasking.

Patient volume	Mean	Sd	Interpretation
1. I can assign the correct triage level, even for a patient with an unclear or non-urgent condition.	4.79	0.77	Very High Influence
2. I can accurately adjust the triage level when assessing children, adults, and elderly patients based on their needs.	4.90	0.82	Extremely High Influence
3. My final triage level is always supported by objective findings, not just by what the patient said.	4.87	0.83	Very High Influence
4. I never downgrade a patient's risk level and I assign them the correct triage level to reduce waiting time.	4.81	0.97	Extremely High Influence
5. I reliably check on patients in the waiting room who have waited longer than their triage level allows.	4.73	0.90	Very High Influence
Composite Mean	4.82		Very High Influence
SD	0.86		

Table No. 2.3 Perceived Level of Extent of Cues and Heuristics in Performing Triage as Influenced by Patient Volume

Table 2.3 presents the perceived level of extent of cues and heuristics in performing triage as influenced by patient volume. Overall, the respondents indicate a very high influence ($M = 4.82$, $SD = 0.86$) in extent of cues and heuristics in performing triage as influenced by patient volume. The highest mean indicator ($M = 4.90$, $SD = 0.82$) "I can accurately adjust the triage level when assessing children, adults, and elderly patients based on their needs," indicates nurses are skilled at adjusting triage priorities across different patient populations including children, adults, and older adults. The lowest mean indicator ($M = 4.73$, $SD = 0.90$) is "I reliably check on patients in the waiting room who have waited longer than their triage level allows," indicates nurses face difficulty in reassessing patient that causes delays in reassessment due to high patient volume.

Studies states that High patient volume and limited staffs significantly affect nurses to be able to reassess patient casing delay as a first form of patient care (Djagadou et al., 2025). While in the study of This support the present findings on how patient significant volume is a contributory factor in affecting the extent of using cues and heuristics.

Environmental conditions	Mean	Sd	Interpretation
1. I can take appropriate steps to reduce noise and distraction during the vital signs assessment or patient interview.	4.91	0.90	Very High Influence

2. I can ensure patient privacy and confidentiality are maintained, despite the environment.	5.34	0.77	Extremely High Influence
3. I effectively explain the expected wait time to patients and families, even when the department is loud and chaotic.	4.97	0.87	Very High Influence
4. I can maintain awareness of the safety and well-being of waiting patients and report any immediate concerns.	5.22	0.76	Extremely High Influence
5. I can identify high-risk patients and effectively move patients to quicker treatment zones (such as Fast Track).	4.96	0.89	Very High Influence
Composite Mean	5.08		Very High Influence
SD	0.84		

Table No. 2.4 Perceived Level of Extent of Cues and Heuristics in Performing Triage as Influenced by Environmental Conditions

Table 2.4 Table 2.3 presents the perceived level of extent of cues and heuristics in performing triage as influenced by environmental conditions. Overall, the respondents indicate a very high influence ($M = 4.82$, $SD = 0.86$) in extent of cues and heuristics in performing triage as influenced by environmental conditions. The highest mean indicator ($M = 5.34$, $SD = 0.77$) suggest that emergency department nurses are able to maintain professionalism and developing trust and safety through maintaining confidentiality and ensuring that there is privacy even in chaotic environment. The lowest mean indicator ($M = 4.91$, $SD = 0.90$) "I can take appropriate steps to reduce noise and distraction during the vital signs assessment or patient interview," indicates that nurses are challenged in assessing patients in a busy environment and find it difficult to minimize the distraction and noise inside the emergency department.

In the study of Fekonja et al. (2024) suggest that ensuring confidentiality between nurses and patient will be able to develop trusting relationship of which helps nurses to identify the real reason of admission. While in the study of Ko and Lee, 2023 found out that Interruptions such as noises are often linked to decreased information processing and increased risk of premature closure of clinical reasoning. These findings support the current findings indicating how privacy and confidentiality develop trust under environmental conditions.

Relationship between the level of triage decision making skills of Nurses and the perceived extent of factors influencing cues and heuristics in performing triage

Variables		R-value	Degree	p-value	Decision	Conclusion
Decision Making Skills	Cues					
Cognitive Character	Time	.565	Moderate	0.000	Reject the H_0	Significant
	Workload	.481	Moderate	0.000	Reject the H_0	Significant
	Patient Volume	.546	Moderate	0.000	Reject the H_0	Significant
	Environmental Conditions	.550	Moderate	0.000	Reject the H_0	Significant
Experience	Time	.569	Moderate	0.000	Reject the H_0	Significant
	Workload	.439	Moderate	0.000	Reject the H_0	Significant
	Patient Volume	.520	Moderate	0.000	Reject the H_0	Significant
	Environmental Conditions	.469	Moderate	0.000	Reject the H_0	Significant
Intuition	Time	.632	Strong	0.000	Reject the H_0	Significant
	Workload	.494	Moderate	0.000	Reject the H_0	Significant
	Patient Volume	.636	Strong	0.000	Reject the H_0	Significant
	Environmental Conditions	.531	Moderate	0.000	Reject the H_0	Significant

Critical Thinking Skills	Time	.774	Very Strong Positive	0.000	Reject the Ho	Significant
	Workload	.675	Strong Positive	0.000	Reject the Ho	Significant
	Patient Volume	.741	Very Strong Positive	0.000	Reject the Ho	Significant
	Environmental Conditions	.677	Strong Positive	0.000	Reject the Ho	Significant

Table No 3.1 Significant relationship between the level of triage decision making skills of Nurses and the perceived extent of factors influencing cues and heuristics in performing triage

Table 3.1 shows that all dimensions of triage decision-making skills including cognitive character, experience, intuition, and critical thinking have statistically significant relationships with the perceived extent of cues and heuristics including time pressure, workload, patient volume, and environmental conditions as evidenced by the *p*-values of 0.000 which are all below the 0.05 level of significance. This indicates nurses' decision-making skills are significantly associated with how they rely on cues and heuristics during triage.

Conclusion and Recommendations

This research furthers understanding of emergency nurses by demonstrating that the decision making processes inherent in triage among emergency nurses operating within their respective emergency departments are heavily influenced by both cognitive competence level and situational demands, rather than by technical nursing knowledge alone. These results reveal that critical thinking, cognitive character traits, clinical experience, and intuition work together to support nurses' ability to make accurate and timely triage decisions, especially in environments where rapid clinical assessments are performed while managing high workloads.

Moreover, the results of this research demonstrate that extrinsic factors associated with the work environment (e.g., time pressure, workload, patient volume, and environment) directly impact the use of cues and heuristics when performing triage. This indicates that decision-making in emergency environments is fluid and a result of context; therefore, emergency room nurses frequently utilize analytical reasoning, as well as rapid and instinctive reasoning in order to prioritize patients for immediate treatment. The strong statistical association between triage decision-making skills and both cues and heuristics suggests that the performance outcome of triage is ultimately influenced by both individual competency as well as the characteristics of the emergency department environment.

In clinical practice, this study emphasizes the need to improve emergency nurses' decision-making ability through ongoing professional development in critical thinking, clinical reasoning, and simulation-based training for triage. Hospitals and policy-makers should use these findings to implement staffing plans, improve workflow, and modify the environment to decrease excessive workload and time pressures, improving triage decisions and enhancing safety.

In nursing education, the study results support the integration of triage judgment, heuristic awareness, and high-pressure decision-making situations into pre-licensure and continuing education nursing curricula. In future research, these study results will provide a basis for conducting additional studies involving larger sample sizes, a variety of healthcare environments (e.g., public hospitals), and mixed-method or longitudinal designs to assess how triage decision-making changes over time.

This study's findings support the notion that effective triage decision-making is a multidimensional clinical competency affected by cognitive and environmental factors. Therefore, it contains a strong rationale for necessary improvements to emergency nursing, as well as the healthcare system, in order to ensure continued improvement in this patient care process.

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Competing Interests Statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this article.

Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study; all data used were obtained from previously published sources as cited in the reference list.

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Appendices

No appendices are attached to this study.