

Comments on “Triage Knowledge and Practice and Associated Factors Among Emergency Department Nurses”

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Abstract

It is to be hoped that much more attention should be drawn toward properly constructing scenarios to ensure the accuracy of the decisions made by triage nurses, because there is a history of poorly-constructed scenarios in previous research, leading to biases in their results. Consequently, scenarios are expected to meet the main criteria for a triage, such as demographic characteristics, major complaints, vital signs and accompanying symptoms, and physical examinations, to simulate what nurses might encounter in triaging a real patient. Moreover, further studies are suggested to report mistriage, including undertriage and overtriage rates.

Keywords

knowledge, practice, validity, scenario, triage

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Dear Editor,

The manuscript titled “*Triage Knowledge and Practice and Associated Factors Among Emergency Department Nurses*,” by AlShatarat et al. (2022), was reviewed with great interest. This study, investigating the levels of triage knowledge and practices as well as the associated factors among triage nurses, reveals that these individuals are endowed with high levels of knowledge and practice in this respect. Nevertheless, no significant relationship is spotted between triage experience and levels of knowledge and practice among them. It is noteworthy that some procedures implemented in this study might have been biased, calling for further clarification.

The first point to raise is that the levels of practice are extensively measured in triage studies, using real patients or written simulation scenarios, to evaluate clinical judgments made by nurses (Pishbin et al., 2019). Scenarios are accordingly developed to examine the validity and reliability of triage systems. Patient scenarios are thus utilized in order to indirectly assess nurses’ triage practices, so they can settle on triage categories in the simulated situations with reference to triage scales criteria and their clinical expertise. The bias detected in this study was that the statements regarding the levels of practice merely measured the levels of knowledge about triage in the nurses. In fact, statements cannot be

functional when there is no information including patient characteristics, chief complaint, vital signs, associated sign and symptoms and risk factors. Of note, the 14 statements related to triage practice in this study cannot be defined as a patient scenario. For example, “Triage reduces waiting time of patients in emergency units” suffers from lack of major components of a scenario including chief complaints, vital signs and associated symptoms, and a brief history. In fact, it gave the impression that the statements in the practice section simply measured the levels of knowledge. Therefore, significant positive relationship between triage knowledge and practice ($r = .486, p < .01$) may be interpreted as a significant positive relationship between two triage knowledge questionnaire.

The second point is that no relationship had been established between the levels of knowledge and practice and previous training in triage, qualifications, and additional emergency nursing training among the triage nurses in this

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study, because the practice scores had failed to show the levels of clinical expertise in these individuals. Numerous studies have reported a significant relationship between knowledge and work experience in the emergency department (ED) as well as clinical expertise among triage nurses, because the much more knowledge of major clinical criteria together with vital signs and accompanying symptoms give rise to a more accurate understanding of patient acuity (Considine et al., 2007). In this respect, a significant relationship between triage practice and work experience had been found in one study on 18,321 patients, wherein the nurses with the work experience of below 3 years had a tendency to overtriage, and those who had worked for over 13 years were likely to undertriage (Levis-Elmelech et al., 2022). Indeed, the mistriage made by nurses might not be the same, once their work experience is taken into account. These differences may arise from the effect of contextual factors on less experienced nurses. Studies have reported that contextual factors of triage nurses may interface with triage decision making of triage nurses (Mirhaghi et al., 2019). Therefore, it is expected that mistriage to be reported in the studies on nurses' practices. Of note, mistriage is a key issue in triage, and needs to be much more considered in further research.

Mistriage is here defined as the inappropriate assignment of patients to the categories of triage in the ED. In this line, a systematic review had confirmed that the mistriage rate could be significantly varied. As well, the undertriage and overtriage rates could range from 1% to 71.9% and 19% to 79%, respectively (Najafi et al., 2019). Therefore, it seems necessary to justify how the validity of triage scales interfaces with mistriage, and what factors might be strongly associated with high mistriage rates. Considering all these factors, mistriage is the main problem. Components of mistriage include overtriage and undertriage, giving patients in a generally good condition a more acute category they deserve, called overtriage, or receiving less acute category in those experiencing a critical condition, also called undertriage. Some studies have further reflected on the significance of mistriage.

It is to be hoped that much more attention should be drawn toward properly constructing scenarios to ensure the accuracy of the decisions made by triage nurses, because there is a history of poorly-constructed scenarios in previous research, leading to biases in their results (Mirhaghi and Shafae, 2019). Consequently, scenarios are expected to meet the main criteria for a triage, such as demographic characteristics, major complaints, vital signs and accompanying symptoms, and physical examinations, to simulate what nurses might encounter in triaging a real patient. Moreover,

further studies are suggested to report mistriage, including undertriage and overtriage rates.

Author Contribution

A.M. contributed to the design, concept of the study, performed data collection, contributed to the statistical analysis, wrote the manuscript draft, and critically revised and approved the manuscript.


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References

- AlShatarat, M., Rayan, A., Eshah, N. F., Baqeeq, M. H., Jaber, M. J., & ALBashrawy, M. (2022 Oct 3). Triage knowledge and practice and associated factors among emergency department nurses. *SAGE Open Nursing*, 8(1), 23779608221130588. <https://doi.org/10.1177/23779608221130588>
- Pishbin, E., Ebrahimi, M., & Mirhaghi, A. (2019 Aug). Do physicians and nurses agree on triage levels in the emergency department? A meta-analysis. *Notfall+ Rettungsmedizin*, 22(5), 379–385. <https://doi.org/10.1007/s10049-019-0580-6>
- Considine, J., Botti, M., & Thomas, S. (2007 Aug). Do knowledge and experience have specific roles in triage decision-making? *Academic Emergency Medicine*, 14(8), 722–726. <https://doi.org/10.1197/j.aem.2007.04.015>
- Levis-Elmelech, T., Schwartz, D., & Bitan, Y. (2022 Dec 1). The effect of emergency department nurse experience on triage decision making. *Human Factors in Healthcare*, 2, 100015. <https://doi.org/10.1016/j.hfh.2022.100015>
- Mirhaghi, A., Ebrahimi, M., Noghani-Dokht-Bahmani, M., & Heydari, A. (2019). Contextual factors interfacing with quality of care in the emergency department: A micro-ethnographic study. *Journal of Patient Safety & Quality Improvement*, 7(4), 145–154. <https://doi.org/10.22038/PSJ.2019.40868.1231>
- Najafi, Z., Abbaszadeh, A., Zakeri, H., & Mirhaghi, A. (2019 Oct). Determination of mis-triage in trauma patients: A systematic review. *European Journal of Trauma and Emergency Surgery*, 45(5), 821–839. <https://doi.org/10.1007/s00068-019-01097-2>
- Mirhaghi, A., & Shafae, H. (2019 Sep 1). Poorly developed scenarios may interface with reliability of triage scales. *Eurasian Journal of Emergency Medicine*, 18(3), 171–173. <https://doi.org/10.4274/eajem.galenos.2019.48403>