

Supplementary Data 1. References of studies included in the scoping review

- A1 Kim J, Choi MJ, Kim M. Effects of virtual reality-based disaster simulation education on nursing students. *PLoS One*. 2025;20(10):e0329563. <https://doi.org/10.1371/journal.pone.0329563>
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- A3 Emaliyawati E, Ibrahim K, Trisyani Y, Songwathana P. The effect of integrated simulation experiential learning disaster nursing for enhancing learning outcomes among undergraduate nursing students: a quasi-experimental study. *Adv Med Educ Pract*. 2025;16:311–321. <https://doi.org/10.2147/AMEP.S489163>
- A4 Seok Y, Park HR. Effects of disaster nursing education based on the Korean triage and acuity scale (KTAS): focus on competency in emergency patient triage, core competencies in disaster nursing, confidence in disaster nursing, and self-efficacy. *J Korean Soc Simul Nurs*. 2025;13(1):83–94. <https://doi.org/10.17333/JKSSN.2025.13.1.83>
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- A6 Choi EJ, Choi YJ. Development and effect of an interactive simulated education program for psychological first aid: a randomized controlled trial. *J Nurs Manag*. 2024;2024:8806047. <https://doi.org/10.1155/2024/8806047>
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- A10 Hu H, Lai X, Li H, Nyland J. Teaching disaster evacuation management education to nursing students using virtual reality mobile game-based learning. *Comput Inform Nurs*. 2022;40(10):705–710. <https://doi.org/10.1097/CIN.0000000000000856>
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- A12 Masoumian Hosseini M, Masoumian Hosseini T, Qayumi K, Baeradeh N. Game-based vs. case-based training for increasing knowledge and behavioral fluency of nurse students regarding crisis and disaster management: a quasi-experimental study. *Arch Acad Emerg Med*. 2022;10(1):e77. <https://doi.org/10.22037/aaem.v10i1.1739>
- A13 Kim HW, Choi YJ. A simulation-based nursing education of psychological first aid for adolescents exposed to hazardous chemical disasters. *BMC Med Educ*. 2022;22(1):93. <https://doi.org/10.1186/s12909-022-03164-6>
- A14 Chang CW, Lin CW, Huang CY, Hsu CW, Sung HY, Cheng SF. Effectiveness of the virtual reality chemical disaster training program in emergency nurses: a quasi-experimental study. *Nurse Educ Today*. 2022;119:105613. <https://doi.org/10.1016/j.nedt.2022.105613>
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