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Letter to the Editor

Revolutionizing Nursing Education: A Game-Changing Brain-Based Teaching Approach Takes Center Stage

Nader Aghakhani[1], Béatrice Marianne Ewalds-Kvist[2,3], Bestoon Nanakaly[4], Saeid Amini Rarani[5]

[1]Food and Beverages Safety Research Center, Urmia University of Medical Sciences, Urmia, Iran
[2]Department of Psychology, Stockholm University, Stockholm, Sweden
[3]Department of Psychology, University of Turku, Turku, Finland
[4]Department of Nursing, Hawler Medical University, Kurdistan Region, Iraq
[5]Student Research Committee, Nursing and Midwifery Care Research Center, Isfahan University of Medical Sciences, School of Nursing and Midwifery, Isfahan, Iran

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Dear Editor,

Brain-based teaching is an innovative and effective pedagogical approach that emphasizes the importance of understanding the brain's structure and functions to enhance the learning experience and improve student outcomes. By utilizing insights from neuroscience, especially the concept of neuroplasticity, this method offers students opportunities to participate in hands-on activities that encourage critical thinking, problem-solving, and creativity. This enables learners to process information more deeply, ultimately enhancing retention and comprehension (Lagoudakis et al., 2022).

This approach aligns with the natural learning processes within the brain. By addressing the emotional needs of students, brain-based teaching creates a positive classroom atmosphere that promotes social and emotional development. This supportive environment also provides opportunities for reflection and self-assessment, which are vital for personal growth. Additionally, the approach cultivates lifelong learning skills by fostering curiosity, creativity, and critical thinking, all of which are essential qualities for success in today's ever-changing world (Goldberg, 2022).

The effectiveness of brain-based teaching is particularly evident in nursing education. It has been recognized as a valuable method for improving critical thinking skills, knowledge retention, and clinical decision-making abilities. Nursing students who are exposed to this teaching approach are motivated to actively engage in their learning through hands-on activities and collaborative projects. This not only helps strengthen their understanding but also equips them to tackle real-world challenges in healthcare settings (Portela Dos Santos et al., 2022).

Another essential aspect of the brain-based teaching approach is the integration of technology into the learning process. By utilizing multimedia resources such as videos, podcasts, and interactive software, educators can significantly enhance the learning experience, making it more engaging and accessible to students. Additionally, creating a positive learning environment is central to this approach. This involves providing regular feedback, facilitating social interactions, and establishing clear expectations and goals for student achievement. By incorporating evidence-based strategies that align with the brain's natural learning processes, educators can create a more engaging and effective learning environment. Understanding how the brain functions

Corresponding author: Saeid Amini Rarani
E-mail: aminior20@gmail.com

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and applying this knowledge to teaching practices not only enhances students' learning experiences but also equips them with essential skills for clinical decision-making and future success (Mohd et al., 2022; Wang et al., 2020).

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References

Goldberg, H. (2022). Growing brains, nurturing minds—Neuroscience as an educational tool to support students' development as life-long learners. *Brain Sciences*, *12*(12), 1622. [CrossRef]

Lagoudakis, N., Vlachos, F., Christidou, V., & Vavougios, D. (2022). The effectiveness of a teaching approach using brain-based learning elements on students' performance in a biology course. *Cogent Education*, *9*(1), 2158672. [CrossRef]

Portela Dos Santos, O., Melly, P., Hilfiker, R., Giacomino, K., Perruchoud, E., Verloo, H., & Pereira, F. (2022). Effectiveness of educational interventions to increase skills in evidence-based practice among nurses: The EDITcare systematic review. *Healthcare*, *10*(11), 2204. [CrossRef]

Wang, P., Li, Q., Zhang, L., & Yu, Y. (2020). Application of brain-based teaching approach in undergraduate nursing education: A systematic review and meta-analysis. *Nurse Education Today*, *85*, 104111. [CrossRef]

Mohd, S. K., Saleh, S., Zulnaidi, H., Yew, W. T., & Yatim, S. A. M. (2022). Effects of brain-based teaching approach integrated with GeoGebra (BGeo module) on students' conceptual understanding. *International Journal of Instruction*, *15*(1), 327–346. [CrossRef]