

## Beyond the Rules of Thumb: The Need for Standardization of Brain Breaks in Medical Education

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I read with great interest the article by Ali et al. titled “*Perception of Medical Students about Brain Breaks; Identifying the Gap to Improve Learning as per Sustainable Development Goal-4*”, published in the September 2025 issue of the *Pakistan Journal of Public Health*. The authors have highlighted the importance of cognitive rest for medical students. In this study, more than half of the students indicated the need for a brain break after 45 minutes of academic activity. I am writing this letter to suggest that, even though it is a good starting point, further thorough research is needed to scientifically determine the optimal timings and durations of these brain breaks for medical students.

The authors also found that excessive brain breaks reduced the participants’ interest in the subject. This also points towards the existence of a “therapeutic window” for these brain breaks. Due to the intense academic environment of Pakistan, students face extremely high rates of burnout, affecting approximately 30% to 60% of medical students (1). This further highlights the need for more research to determine the optimal timings and durations of these very essential brain breaks.

Therefore, we must not rely on a mere rule of thumb and treat brain breaks as an essential and calculated educational tool. Future studies should focus on finding the “cognitive saturation point” for medical students. Experimental research should be done to compare knowledge retention between different types of brain breaks, such as “frequent short breaks versus longer spaced breaks” and “mental brain breaks versus physical brain breaks” (2). The frequency and duration of brain breaks should be determined by a proper scientific method, incorporating physiological data to assess the recovery from mental fatigue, such as functional connectivity in the brain (3).

I commend the authors for highlighting this important issue for medical students. To fulfill Sustainable Development Goal 4, the next step is to initiate evidence-based interventional trials, to standardize the frequency and duration of brain breaks, ensuring their effectiveness in improving medical education.

### References

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