

LETTER

# Learning styles for medical students: is it as simple as it seems? [Letter]

This article was published in the following Dove Press journal: Advances in Medical Education and Practice

Mustafa Saad Al-Khayat Munad-Ar-Rehman Mohammad Muhammad Yousuf Hayat

Faculty of Medicine, St. George's Hospital Medical School, London, UK

#### Dear editor

We read with great interest the article by Parashar et al<sup>1</sup> regarding learning styles. We would like to offer our reflections as medical students. The author highlighted that kinesthetic and aural forms of learning are preferred by early year medical students; it also concludes that a multimodal approach is best for enhanced learning. We agree that a multifaceted approach should be used, but how it is applied is where the discussion lies.

We feel it is important to discuss and highlight a number of salient points pertaining to learning styles. There are studies which show that, despite some effect, multimodal learning does not result in significantly higher grades than other learning styles.<sup>2</sup> We believe a cohort study where students experience different modes of learning with subsequent examinations to survey changes from baseline knowledge would be better suited to explored enhanced learning, rather than a cross-sectional study.

The study by Parashar et al<sup>1</sup> identified learning styles exhibited by students by using four distinct styles; there is little evidence to suggest that this model which attempts to categorize learners is educationally valid.<sup>3</sup> Instead, it is suggested that there are learning preferences exhibited by students, rather than a few, distinct styles.<sup>3</sup> It may also not be feasible for medical schools to accommodate for all learning preferences when covering the content outlined in the medical syllabus for extensive cohorts. Further consideration is required when addressing the method by which the effectiveness of teaching styles is established.

We hold the view that pedagogy should be classified in accordance to the topic being covered. In our experiences, different modules require different facets of teaching. As medical students, we have found that anatomy teaching is best aided by visual stimulation: images, labeled diagrams and cadaver teaching. We have benefitted from case-based learning, and this has been shown to improve understanding of concepts and academic performance.<sup>4</sup> Therefore, we believe that medical students will need to adopt more than one style of learning to successfully develop their clinical knowledge and expertise; this will be invaluable when facing challenges as future doctors.

We greatly value the study by Parashar et al, which brings light to the effect of different forms of learning styles on acquiring and processing information.

Correspondence: Mustafa Saad Al-Khayat Faculty of Medicine, St. George's Hospital Medical School, Cranmer Terrace, London SW17 0RE, UK Tel +44 777 972 7989 Email m.al-khayat@hotmail.co.uk

Al-Khayat et al Dovepress

With the evolution of medical teaching, further studies are required to investigate styles of learning that complement particular modules. The use of technology is being incorporated more in medical education and can be seen as a foundation for addressing obstacles that can be faced when delivering a new curriculum.<sup>5</sup> This is a huge step in progressing further to accommodate for millennial medical students in the future.

#### **Disclosure**

The authors report no conflicts of interest in this communication.

### References

- Parashar R, Hulke S, Pakhare A. Learning styles among first professional northern and central India medical students during digitization. *Adv Med Educ Pract*. 2018;10:1–5.
- Ojeh N, Sobers-Grannum N, Gaur U, Udupa A, Majumder MAA. Learning style preferences: a study of pre-clinical medical students in Barbados. J Adv Med Educ Prof. 2017;5(4):185–194.
- 3. Pashler H, McDaniel M, Rohrer D, Bjork R. Learning styles: concepts and evidence. *Psychol Sci Public Interest*. 2008;9(3):105–119. doi:10.1111/j.1539-6053.2009.01038.x
- 4. Nair SP, Shah T, Seth S, Pandit N, Shah GV. Case based learning: a method for better understanding of biochemistry in medical students. *J Clin Diagn Res*. 2013;7(8):1576–1578.
- Guze PA. Using technology to meet the challenges of medical education. Trans Am Clin Climatol Assoc. 2015;126:260–270.

Dove Medical Press encourages responsible, free and frank academic debate. The content of the Advances in Medical Education and Practice 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the Advances in Medical Education and Practice editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

#### **Advances in Medical Education and Practice**

## Publish your work in this journal

Advances in Medical Education and Practice is an international, peerreviewed, open access journal that aims to present and publish research on Medical Education covering medical, dental, nursing and allied health care professional education. The journal covers undergraduate education, postgraduate training and continuing medical education including emerging trends and innovative models linking education, research, and health care services. The manuscript management system is completely online and includes a very quick and fair peer-review system. Visit http://www.dovepress.com/testimonials.php to read real quotes from published authors.

Submit your manuscript here: http://www.dovepress.com/advances-in-medical-education-and-practice-journal

**Dove**press