

## EDITORIAL

### ADOPTING LEARNER-CENTERED APPROACH IN TEACHING PHYSIOLOGY

A paradigm shift has occurred in education from providing instruction to produce learning. An innovation in medical education is not a very simple task. In last few decades, knowledge about cognitive processes and teaching and learning strategies has been gathered to determine the most effective way to teach<sup>1</sup>. Scientific evidence favors that active student participation leads to schema formation, consolidation of new knowledge, retrieval of information and improvement in learning outcomes<sup>2</sup>. In addition, literature has proved the concept that information must be given simultaneously in multisensory modalities, substantial amount of data specifies that the most efficient way of teaching physiology to a diverse group of students consists in providing information in a mode that focuses multiple learning styles benefiting visual, auditory and kinesthetic learners<sup>3</sup>. According to Olson's "And, But, Therefore" approach, "Physiology is the basic foundation of all the health professions AND physiology can be hard for students to figure out BUT many physiology courses expect students to memorize a large number of facts; THEREFORE, my scholarship is to help students learn physiology better for the long-term with various types of student centered learning opportunities<sup>4</sup>."

Student centered techniques can be incorporated both in large group interactive sessions and small groups in order to direct them towards meaningful learning and promoting critical thinking and decision making skills among students<sup>2,5</sup>. The achievement of any teaching session lies in planning the strategies which allows the students to gain maximum meaningful knowledge in the short time period and in this regard students are the best judges to assess the efficacy of the teaching session and

assessment methodology<sup>3</sup>. The General Medical Council in the United Kingdom suggests that learning must be "a process in which students are responsible for organizing and managing their own learning activities and needs<sup>6</sup>."

In medical colleges students come from different social and cultural background so more versatile approach to teaching/ learning activities could be used to increase their involvement. Use of techniques like problem based learning (PBL), Case based discussions (CBD), and team based learning (TBL) in order to increase not only their communication, collaborative learning or interpersonal skills but also their decision making and critical thinking skills<sup>3,6</sup>. "Flipped classroom" approach can also be used to focus learning instead of passive listening to teachers in class room, reading books, collecting lecture notes because this way learners could play an active role in their learning process when confronted with situations showing real life problems<sup>2</sup>.

The ultimate goal of education is to ensure that students can be transformed into most effective deliverers of patient care and to achieve this purpose we have to provide students with better learning opportunities that will facilitate the development of knowledge that is relevant and meaningful to clinical practice.

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