THE ROLE OF THEORY IN MEDICAL EDUCATION PRACTICE

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ABSTRACT

Educational practice should have a firm grounding in theory. This essay describes the role of learning theories in defining our educational practices. It discusses promotion of interaction and reflection among students as educational principles for deep learning. The importance and relevance of these principles in the context of medical and dental education is highlighted along with practical strategies to include them in practice.

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INTRODUCTION

'He who loves practice without theory is like the sailor who boards ship without a rudder and compass and never knows where he may cast'.[1]

Our perspectives on learning embody certain beliefs, which define our instructional approaches.[2] We observe different educators and emulate their practice or instinctively teach, without consciously thinking about educational effectiveness. This is an example of practice without theory and many of us start here as educators. However, you may recall situations where teaching in your usual manner did not work; there learning theories may provide guidance. So, what does theory have to do with education? In a sense everything, if you are committed towards becoming a good educator. You can develop your educational principles from these learning theories.[3] This article describes two theory driven educational principles and also present strategies to include them in practice.

Principle I - Promote interaction among students

According to the Wenger's community of practice theory, learning is not an individual but a collective and social process mediated through engagement in the practices of the community.[4] Nowadays, the 'participatory' approach towards learning has replaced the 'acquisition' metaphor.[5] The teacher is no longer a 'sage on the stage' but 'a guide on the side' and students are encouraged to take a driving seat for their learning.[6,7] According to Billett, learning is co-constructed by active engagement and interaction among learners.[8] Co-construction means, that the process of learning is reciprocal and results in a shared understanding of the phenomenon.[2] The adult learning theory claims that the learners have life experiences and when provided with an opportunity (active interaction), they build their knowledge based on those experiences.[3] Therefore in my practice, I encourage opportunities to allow active interaction among students and with their senior colleagues, teachers, patients and the surroundings.

Medical and dental education is based on the process of socialisation. It is through interaction and participation that the student learns to become responsible and adopt the values and skills to become a professional.[2] Encouraging interactive practice among students will extend their understanding and build self-efficacy in practices.[3] This collaborative process will also enhance the quality of their learning experience. However, incorporation of this principle requires proper planning and facilitation.

Strategies

To achieve the above mentioned principle, the formal, informal and hidden curriculum should allow maximum opportunities for students to express themselves. Here, formal curriculum means the planned teaching content and activities happening in the lecture halls and labs etc.[9] The informal curriculum includes opportunistic and often unplanned teaching such as hallway interactions with the teachers.[9] Whereas the hidden curriculum (can be both human and structural) is neither part of the formal nor informal curriculum and includes the norms or values which implicitly exist in the setting.[9] As a course organiser, one should design strategies to ensure group activities, consultation and interaction. By developing open-ended questions and

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posing dilemmas for the students, we can encourage higher order thinking skills (evaluation, synthesis or application of knowledge), resulting in better conceptual understanding and deep learning.[10,11] E-learning can also be incorporated to complement face-to-face teaching as it provides opportunities for discussion through blogs, e-portfolios and virtual classrooms. As a teacher, one can reduce hierarchical barriers, become available and flexible with the students, and encourage the development of a supportive and non-judgemental environment in the classroom.

Principle II - To encourage reflective practices

Theoretical knowledge and technical competence, which is delivered without context does not always apply to the various challenges of real life practice. Understanding the existence of this theory practice gap, Schon introduced the concept of ‘reflection’.[12] According to Schon, an exposure to a unique situation initiates an immediate ‘reflection in action’, where learning occurs by applying reasoning to existing and former experiences.[12] However, later ‘reflection on action’ i.e. thinking back about, what happened and why, what else could be done, what are the learning needs and what would be the action plan to improve in future, will result in achieving mastery.[3,13] So contrary to the common belief ‘practice makes perfect’, which only makes the behaviour permanent; it is ‘practice with reflection that results in perfection’.[14]

Medical and dental education is a life-long learning process and health professionals should be able to reflect and exhibit self-direction, an attribute of adult learners.[3] Promotion of reflection may encourage the learner to continuously self-assess and improve on an ongoing basis for lifelong exemplary practice.[15] Reflective learning encourages thinking and assimilation of knowledge and thus promotes educated decision making in order to solve complex healthcare problems.[16,17] A reflective practice embraces both experiential and situated learning complementing each other.[2] It involves critical analysis of contextual experience and drawing meaning out of it, which results in deep learning .[2,18]

Strategies

Although a challenge to incorporate, one can encourage reflective practices by providing students with situations exposing inconsistencies between their current understanding and new experience. Students can also keep a self-assessment log/ journal of activities to note progress, analyse performance and continuously reflect on their practice.[19] Teachers can promote de-briefing after learning activities such as skill demonstration or community visits.[20] This process of reflection not only develops the students but it can also be a source of feedback on our teaching.[3,21]

CONCLUSION

In a continuously changing healthcare context, I consider building on these principles important for health professionals of Pakistan. One can argue that these principles adhere to adult learning theory, which is critiqued for a lack of coherent theoretical basis[22] but these principles also have firm base in constructivism and social cognitive theory.[3,23] So, in preparing competent health professionals, I aim to practice these principles. By setting this example, I hope to encourage my colleagues to derive their educational practices from sound theoretical basis thus cultivating critical thinking, analytical and problem solving skills among medical and dental students.

CONFLICT OF INTEREST

Author declare no conflict of interest.

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