

Incorporation of peer learning in first MBBS curriculum to enhance metacognition skills

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Abstract: Peer learning can be incorporated in the first MBBS curriculum along with didactic lectures and tutorials. Peer learning is when a student learns from another student who has been trained to explain the topic and discuss it. Peer learning improves domain-specific inquiry skills, supports self-directed learning, and improves metacognition skills. Metacognition is the ability to plan, reason, judge and regulate ways to approach learning a skill or concept. In the midst of curriculum reforms that frequently call for reducing lectures and increasing small-group teaching, there arises a crisis in faculty time for teaching. Peer learning can alleviate the faculty's burden and provide a conducive environment where the student learns not as a passive listener but as an active participator in learning. Peer learning can inculcate in the student the will to learn and to recognize and identify his own learning strategies. Peer learning benefits not only the learner but also the peer or near-peer acting as teacher. This method can be well received in all cross-sections of students if the peer teacher is well-trained, compassionate, able to relate with others and have the wish to participate.

Keywords: Peer Learning, medical students, metacognition.

Introduction

Peer learning also known as peer to peer learning or Peer Assisted Learning is when a student acquires knowledge from his peers, or learns from a peer who has been previously trained by a teacher (assisted). These peers can be first MBBS students like him or from second or third professional year of MBBS (near peers) and have already covered and acquired knowledge on the topic he is teaching.

Through ages we have observed that knowledge conveyed by peers are better accepted by students and adults alike. Students accept knowledge and assimilate it better if the person conveying it is of similar age. Even when children are growing up new concepts of adulthood is discussed with peers, rather than elders, parents or teachers. This inclination of students to go to their peers or immediate seniors for knowledge can be harnessed by creating peers who are better equipped to convey the knowledge. Peer pressure has been a cause of concern, as it induces acquiring of bad habits of smoking, alcohol intake or drug intake. But these same peers can be motivated to acquire and transmit valuable knowledge to their peers. The concept of social

networking through available networks help spread knowledge, induce discussion, these discussions can be ongoing with multiple people participating together in real time. The technology savvy generation will be more open to teaching in a way which would be using peer involvement.

In Medical school in the first year of study the student, who has just been admitted has to acquire a variety of concepts and knowledge. He has to cope with terminologies and circumstances which is new to him. Theoretical, practical, clinical as well as conceptual knowledge can be conveyed to the students by "Peer-to-peer learning" this involves students sharing their knowledge and experience with one another. It can happen through existing social networks or facilitated peer learning opportunities. Traditional learning through didactic lectures is one way communication system where the teacher teaches and the students listen. Peer-to-peer learning can spread information through formal or informal social networks; it involves two-way (or more) communication; it recognizes that every participant can be a teacher and a learner; it is also participant-

driven; and it can occur through either an ongoing forum or one-time exchange [1]. Students' perception of their most effective learning strategies is metacognitive. Metacognition is cognition about cognition or knowing about knowing. It includes knowledge about when and how to use particular strategies for learning and problem solving. It is when the student realises that I am having difficulty in learning concept A rather than B. It also enhances the lesson planning skills of a student. In cognitive neuroscience, metacognitive monitoring and control has been viewed as a function of the prefrontal cortex, which receives or monitors sensory signals from other cortical regions and through feedback loops implements control [2].

Use of peer learning: Peer learning can be a part of medical teaching if under taken under a skilled facilitator, who can identify the portions of the syllabus best suited for peer learning. The facilitator chooses peers or near-peers and trains them to teach. The peers chosen should not only be trained in the curriculum but should be able to identify slackers and trouble-makers and also act as a group or team-leaders. Hence peer teachers should be chosen among students displaying leadership qualities. Sessions can be started with an icebreaker session where the tutors and tutees get comfortable with each other. Peers can clarify points in a lucid manner, encourage cooperation among students, they can identify with the difficulty faced by the learners. Peer learning can enhance the metacognitive skills of both the tutor and tutees. The learners can then develop their unique strategies of learning.

The Advantages of Peer Learning are it alleviates faculty's teaching burden, provide role model for junior students, enhances intrinsic motivation, enriches the learning experience of students and prepares the medical students for their future role as educators [3]. The benefit for the tutees is improved level of self-confidence and aptitude. High dependence and metacognitive awareness, share values and repertoires. They learn through teaching and become more responsible, while doing something worthwhile to help others. Student centred learning is preferred by students. Studies have shown students learned best when they were focused and thinking about the subject at hand. When opportunity presents itself students become active participants in the learning

process, which translates into an improvement in their understanding and application of physiological concept [4-5]. Peer-assisted learning promotes sound pedagogy and efficiency in the learners [6].

The Disadvantages of peer learning are the need to create a friendly bond between tutors and students, the student-tutor should be good at explaining things, they should follow through with examples. Students while teaching have a tendency to move through quickly and not pullback and read the situation like a professional tutor. The facilitator helping prepare the student-tutor's need to keep the student focussed, which sometimes becomes difficult as the tutor and tutees are of similar age. Sometimes re-teaching of subject is useful sometimes repetitive. Learning gaps have to be filled by the teacher. Some students do not respond well to group teaching and others feel only a well qualified person can convey the necessary knowledge.

Discussion

Peer learning or peer-assisted learning not only stimulates the students acting as teachers to improve, it also reduces the apprehension the first MBBS students feel in a new environment by learning from their peers. Peer learning is enhanced when the tutors are trained prior to conducting classes by the facilitator. The peer teachers develop good communication skills which is an essential asset to future clinicians. The peer learning benefits would be best appreciated if we could assess the learning outcomes on peer teaching. The research undertaken so far [7-8] has indicated positive learner outcome where ever peer learning has been employed. In peer learning the learning occurs by discussion and assimilation and not by rote (memorizing). Hence the learning that occurs is deep learning and not superficial learning. Thus in these days of faculty shortage and increased burden of teaching peer learning can be incorporated as a curriculum strategy but care should be taken to see that the tutees are well trained the sessions are accompanied by feedback from the learners and mentoring and monitoring of the student-tutors are done. The peer tutors should be chosen from volunteers

who are academically sound and are eager to participate [9]. To conclude peer learning can be included in the teaching of medical students along with didactic lectures and tutorials. It would be an

asset if done with planning, monitoring, evaluating, revising and implementing [10-11].

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