Assessment of Faculty Perceptions in Introducing Case Based Learning as a Teaching Learning Tool for II MBBS Students

Introduction:
Medical education is changing rapidly, for which more than half of the American medical schools are engaged in curriculum reforms (Hollander et al, 2002). Many courses use case studies in their curriculum to teach content, involve students with real life data and provide opportunities for students to put themselves in the decision maker’s shoes. There is growing emphasis in many Indian medical schools to decrease the quantum of rote memorization and to adopt learning strategies that enhance critical thinking among students (Ghosh, 2007). Learning methods have been classified as teacher-controlled and learner-controlled method. Learner controlled method promotes self-directed learning. Self-directed learning is a process in which learners take responsibility for their learning. Giving greater responsibility to students for their own learning increases motivation (Kumar & Zayapragasam, 2012).

Self-directed learning is increasingly used in medical curricula as it is thought to promote lifelong learning in medicine (Simon, 2005). In self-directed learning, learners are involved in selecting learning resources and learning methods and self-assessment of learning outcomes with teachers acting as facilitators (Knowles, 1975). The emerging trend all over the world is to have a problem-based, integrated student-centred curriculum, demanding active participation from the students and facilitating self-directed learning (Hamad, 1985). Working effectively within teams has been recognized by medical educator as an important competency for learners. Teams are increasingly being used in medical education to enhance active learning and foster better interpersonal communication skills. (Roa & Shenoy, 2013).

Case based learning (CBL) is an active learning strategy closely related to the problem based learning (PBL). CBL in fact incorporates many traits derived from PBL (Ciraj et al, 2010). The main difference between CBL and PBL is that in CBL problem or case scenario was given after didactic lecture of respective topic whereas in PBL, problem or case scenario was given directly without didactic lecture. Case based learning (CBL) can be used as an effective teaching tool in medical colleges as an adjunct to other teaching techniques especially in para clinical subjects.

This study was planned keeping in mind the paraclinical subjects like microbiology of MBBS (Bachelor of medicine & bachelor of surgery). Microbiology is taught to undergraduate students in lecture and practical form in II MBBS. Value addition to this teaching practice can be done by introducing case based learning. This will make teaching more interesting, practical oriented, self-directed. Though time constraint is there in the time table, CBL can be used for a few selected topics. There are many advantages of CBL; like learning is self-directed and students actively participate in this type of teaching learning method. A problem is given to them and they use their previous knowledge and experience to solve it with minimum interference from teacher. Here teacher act as a facilitator. Problem is given from the topic already taught to them in theory class. It is now time for them to apply their knowledge to practical problem. This way they retain the topic better. They then find out the best possible solution by discussion in small groups. Everyone puts forth their ideas and understanding about the case. After brainstorming and group discussion they come to a probable solution. In CBL whatever is learned is applied to a real life situation. This makes learning application oriented and knowledge is retained in a better way. As every student can participate in the learning process, the whole process becomes interesting. This increases students’ attention and their communication skills. In the long run it may improve their attendance in the class.

So we had designed this study to get feedback of teacher’s perception regarding introduction of CBL in teaching curriculum after showing them demonstration of CBL. The course assessment instrument like feedback may help to know about the pros and cons of this teaching method (Badyal et al, 2010).

Objectives:
1) To assess perception of faculty regarding introducing Case based learning as teaching learning tool.
2) To promote self-directed learning in students.

Materials and methods:
This cross-sectional study was planned to assess faculty perceptions regarding introducing CBL in II MBBS teaching at
In the present study maximum staff members agreed that CBL can be used as an effective teaching tool in their subject and it will improve clinical correlation in students. PBL/CBL curriculum resulted in better relationship between faculty and students. This positive interaction with medical teachers does appear to be an important factor in student’s satisfaction with their learning environment (Cavenath, 2011). It is generally accepted that the chances of retaining the knowledge will be better if the learning is expected to occur around a realistic problem. Cases used during CBL necessarily shift the focus of student learning beyond the facts and stimulate the students to utilize scientific knowledge to frame questions and to answer them. In this process they also learn to gather information, find answers to questions and provide support for their conclusions. This approach will help medical students learning skills, analytical skills and ultimately their decision making abilities. Actually all these traits help to develop active learning. (Ciraj et al, 2010)

In this study most of the faculty felt that CBL will help in improving student’s performance in the examination whereas few faculties were in dilemma. But most of them were in agreement that CBL will help to make their subject more interesting. Learning through PBL/CBL has shown that long term retention of content is significantly increased. Students who used CBL/PBL were also better at collaboration and information gathering and had better interpersonal skills (Waternan & Stanly, 2005). There is a need to move from opinion based education to evidence based education (Harden et al ,1999).

Maximum teacher opined that CBL will lead to more sustained learning as compared to the theory classes alone and CBL will enable students to improve their communication skills. It was observed that students were usually satisfied with interactive activities or teaching methods. (Badyal et al, 2010)

Result of study conducted by Blewett et al support continued use of interactive case based sessions. But they recommend ed prospective research to assess the utility of these sessions (Blewett et al, 2009). Experiments by medical teachers had shown that it is possible to introduce a problem based case based form of learning into a new course in parallel with more traditional modes of teaching making it successful (Morrison & Murray, 1994).

Essential learning outcome that medical students should have are, the need for development of critical approach, research oriented attitude and communication skills. For that it is widely agreed that problem solving skills are essentials in the medical practice, but still there is a doubt and dilemma to transform educational strategies in this direction (Ciraj et
al, 2010). Difference of opinion was found regarding incorpo-
ration of CBL in time table in the MUHS syllabus, and even in
curriculum. It was probably due to time constraint; as syll-
abus needs to be completed within stipulated time. While
conducting CBL practical difficulty may arise with limited ex-
isting staff strength. Practically it is difficult to convert total
curriculum in CBL. CBL is possible for few selected topics and
not for all the topics. Another reason might be requirement of
special training for teaching staff member to conduct CBL
Naturally faculty apprehension was common when one de-
viates from the routine (Ciraj et al, 2010).

Medical practice is essentially a problem-solving activity
whether at individual, family or community level (Hamad,
1985). It is possible to introduce a case based form of learn-
ing into a conventional medical curriculum in parallel with
the traditional curriculum with the advantages of re-
ducing didactic teaching and workload and improving self-
directed learning skill in students (Neuble and Clark, 1986)
A judicious combination of didactic lecture and case base
learning may be helpful in molding the medical students for
self directed learning, to learn group dynamics and to de-
velop the skill of correlating basic sciences with clinical sci-
ence. (Ghosh, 2007)

Conclusion:
After attending a demonstration on how to conduct a CBL
session and valuable discussion that most of the faculty
members were of the opinion that CBL can be a very effec-
tive teaching tool in their subject. Faculty perception showed
that it was possible to introduce a case based form of learn-
ing into a conventional medical curriculum in parallel with
the traditional modes of teaching. It will not only improve
clinical correlation in students but also make the subjects
more interesting. CBL will enable students to improve their
communication skills and communication between students
and teacher will also improve. But due to time constraint this
technique can be used for few selected important topics
only. This study showed not only attitude of faculty regarding
CBL, it also highlighted barriers in conducting CBL. By this
study we can interpret that CBL can be introduced in medical
curriculum.

Limitation and Recommendations:
Successful implementations of PBL/CBL require cooperation
of students and teachers along with administrative regulat-
ory body. There may be resistance from few faculty members
who do not favour self directed learning by students; it is
due to probably fear of losing their importance and identity.
Another limitation of the study was that, there may be a bias
among faculty members participating in the study. There are
recommendations from faculty members to undergo Teach-
ters Training Programme, to make them equipped with new
Teaching methodology.

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