

Original Research Article

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Effect of Mentor Teaching on Learning Microbiology to Second Year M.B.B.S Students

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ABSTRACT

Mentor teaching is a valuable strategy to provide students with the emotional and instrumental support students need to achieve the goal of a college degree. Mentor teaching for students in college helps to feel more connected and engaged in campus. Therefore the present study was planned to assess the effectiveness of mentor teaching on the academic performance of second year M.B.B.S students in microbiology and to know the perception of faculty towards mentor teaching. In this study 30 students of second year M.B.B.S students of Malla Reddy Medical College for Women were selected randomly in the subject of microbiology for mentor teaching. Institutional Ethical Clearance was obtained. Mentor teaching was done three times in a week for a period of 5 months. The topic was explained to them in detail. Before teaching the topic a pre-test questionnaire was given. After the mentor teaching a post-test questionnaire was given. Faculty perception regarding mentor teaching was taken by giving a questionnaire. In my project of 5 months duration I have conducted 3 tests to my mentees. In the first test their average scores were low i.e., 30%. In the second tests their scores improved to 60% and in the third tests scores improved to 80%. 100% of faculty in the department of microbiology agreed with the idea of mentor teaching as a good idea. The academic performance of the mentees increased after mentor teaching.

Keywords

Mentor teaching,
Microbiology,
M.B.B.S Students

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Introduction

The role of a mentor has long been understood as invaluable in helping an individual learn something new. The origin of the word mentor dates back to Greek

mythology in Homer's The Odyssey (1961), in which Odysseus' most loyal friend Mentor was charged with educating Odysseus' son Telemachus in every aspect of life, including helping him to recognize and to learn from "his own errors in judgement" (1). This

relationship, in which a wiser and more learned individual plays a role in supporting the development of a more inexperienced novice, is demonstrated throughout history in the relationships of Socrates, who mentored Plato, and Plato, who mentored Aristotle.

The value and importance of a mentor in facilitating one's learning is further supported by the work of educational psychologists, including Vygotsky's conception of a "more knowledgeable other" – one who helps another move from one point to a point beyond where they could get on their own- and is demonstrated repeatedly in the field of education through research and practice in many books, journal articles. (1).

Mentor teaching is a valuable strategy to provide students with the emotional and instrumental support students need to achieve the goal of a college degree. By providing information, guidance, and encouragement, mentors can play an important role in nurturing students' college aspirations. Mentoring for students in college helps students to feel more connected and engaged on campus, which can ultimately improve student outcomes (2). Because of the prevalence of mentoring in various settings and the wide range of issues mentors address, scholars have struggled to develop a common definition of the term. In fact, there are over 50 different definitions of mentoring in the social science literature some describe mentoring as a concept or process, while others use the term to describe a specific set of activities. Yet, across research studies, common characteristics of mentoring emerge. They include: a) learning partnership between a more experienced and a less experienced individual; a process involving emotional (friendship, acceptance, support) and instrumental (information, coaching, advocacy, sponsorship) functions; and a relationship that becomes more impactful

over time. Others discuss nurturing the mentee's social and psychological development, serving as a role model and providing support for goal setting and future planning.

In a discussion on mentoring, Gasner (2006) described the changing nature of mentoring programs and noted that, historically, mentoring was a fairly straightforward endeavour. Mentors were selected based on their willingness to work with a new teacher without receiving any incentive and with no release from other obligations.

Additionally, mentoring included little or no training, as the skills of good teachers were the same as those of a good mentor. Therefore, the goals of mentoring were limited to emotional support, a level of technical assistance, and an orientation to the local culture"

Materials and Methods

In this study 30 students of second year M.B;B.S students of Malla Reddy Medical College for Women were selected in the subject of Microbiology for Mentor teaching. Institutional ethical committee clearance was obtained

Study period: 5 months (October 2017-February 2018) Settings: Department of Microbiology, Malla Reddy Medical College for Women, Hyderabad Study population: Second MBBS students - 30 students Subject – Microbiology Student consent was taken. The Mentor Teaching is done by a five phased approach

Phase 1 – Forming Stage
Phase 2 – Storming Stage
Phase 3 – Norming Stage
Phase 4 – Implementing stage
Phase 5- Evaluating Stage

30 students were included in the mentor teaching. Three classes per week were taken. the topic was explained to them in detail. Before teaching the topic a pretest questionnaire will be given , because the topic is already covered in the theory class. At the end of the week a post test questionnaire is given to them.

Both pretest and post test are compared of individual students to see the improvement in the performance. After mentor teaching any doubts among the individual students will be

cleared to their satisfaction.

Results and Discussion

In my project of this mentor teaching of 5 months duration I have conducted 3 tests to my mentees. In the first test their average scores were low i.e., 30%. In the second test the average scores improved to 60%. In the final third test the average scores improved by 80%. Thus showing significant improvement in their performance.

Table.1 Students’ perception regarding mentor teaching as a teaching method in microbiology

S. No.	Items	Yes	No
1.	Mentor teaching is less stressful as compared to traditional teaching.	90% students said yes.	10% students said No
2.	Mentor teaching eliminates bias	100% students agreed .	Nil
3.	Mentor teaching highlighted the areas of weakness	80% students agreed	20% students disagreed
4.	Mentor teaching helps to score better	100% students agreed	Nil
5.	Mentor teaching helps passing the exams easy	100% students agreed	Nil
6.	Mentor teaching covered wide knowledge area	90% students agreed	10% students disagreed
7.	Mentor teaching helps to learn better	90% students agreed	10% students disagreed
8.	Mentor teaching helps the students to feel more connected and engaged on the campus	70% students agreed	30% students disagreed
9.	Mentor teaching should be continued in Microbiology as a teaching method	100% students agreed.	Nil

Table.2 Faculty perception regarding mentor teaching

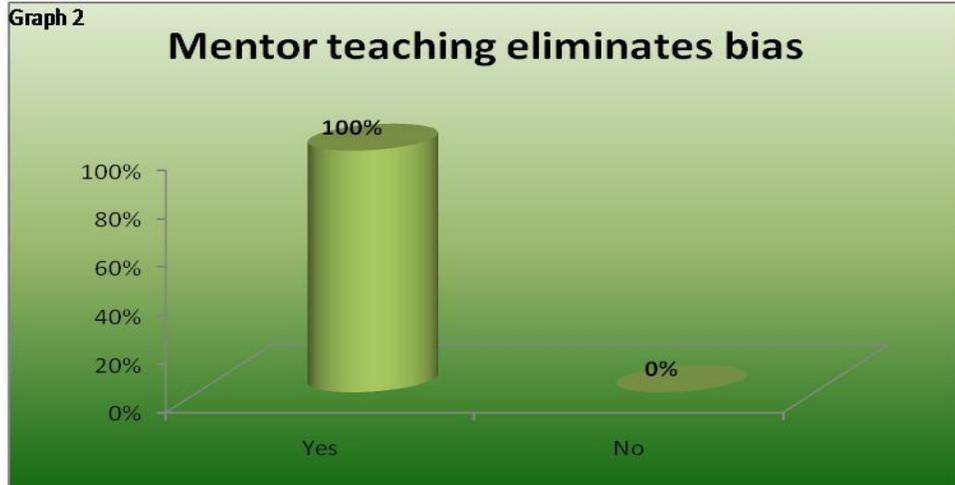
S No	Item	Yes	No
1.	Mentor teaching is helpful for students	All the faculty agreed	Nil
2.	Students performance was better after mentor teaching	All the faculty agreed	Nil
3.	Mentor teaching has helped in improving teaching skills.	60% Faculty agreed	40% Disagree
4.	Mentor teaching helped in better performance in practicals among the students.	70% faculty agreed	30% Disagree
5.	Mentor teaching helped in better performance of students in theory	90% faculty agreed	10% faculty disagree
6.	Mentor teaching eliminates examiner bias	100% faculty agreed	Nil
7.	Mentor teaching should be continued in Microbiology as a teaching method.	70% faculty agreed	30% faculty agreed

Faculty Perception regarding Mentor Teaching

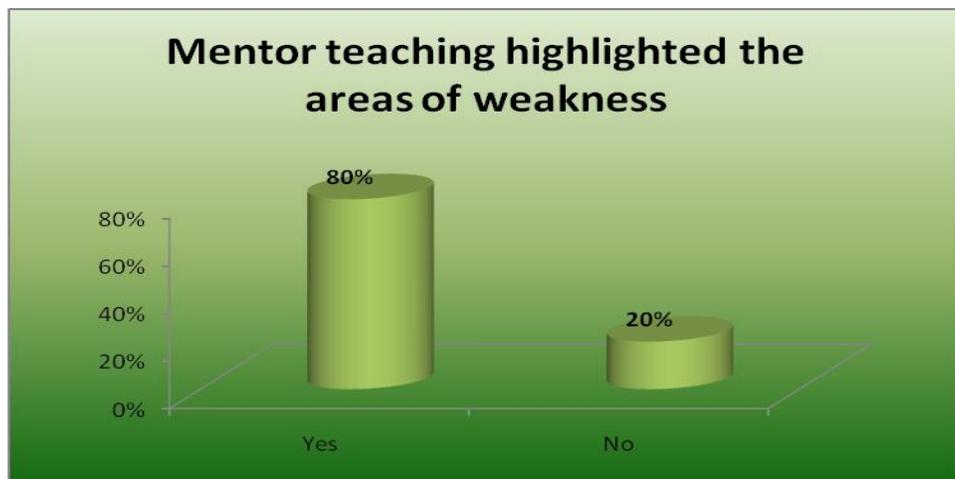
Graph.1



Graph.2



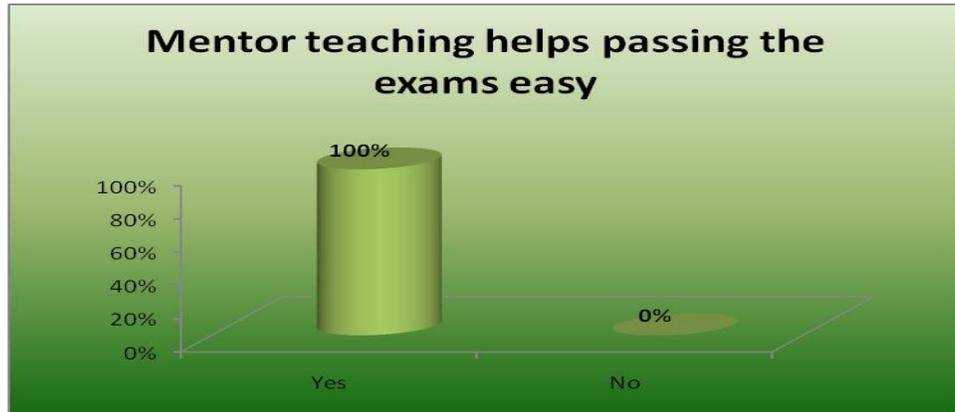
Graph.3



Graph.4



Graph.5



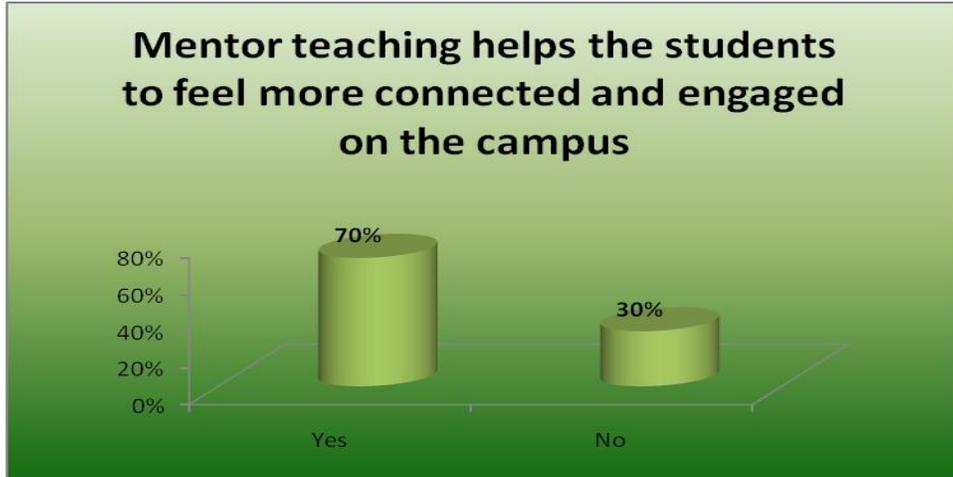
Graph.6



Graph.7



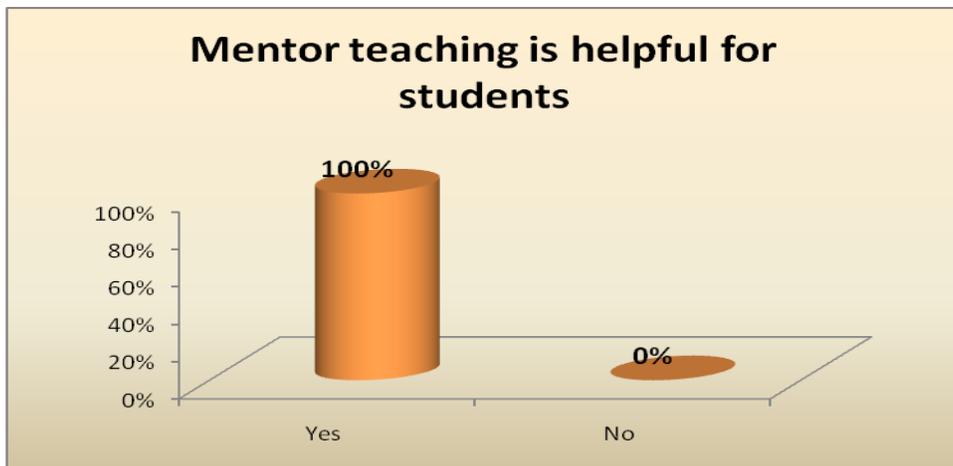
Graph.8



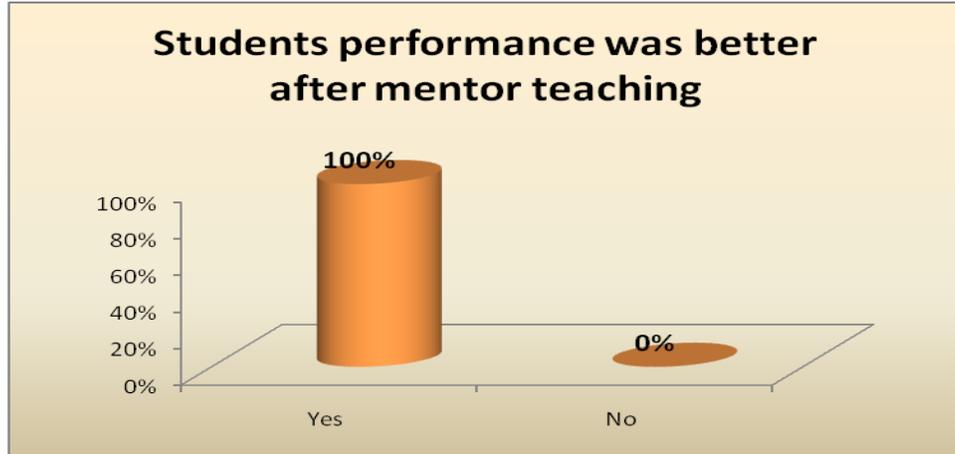
Graph.9



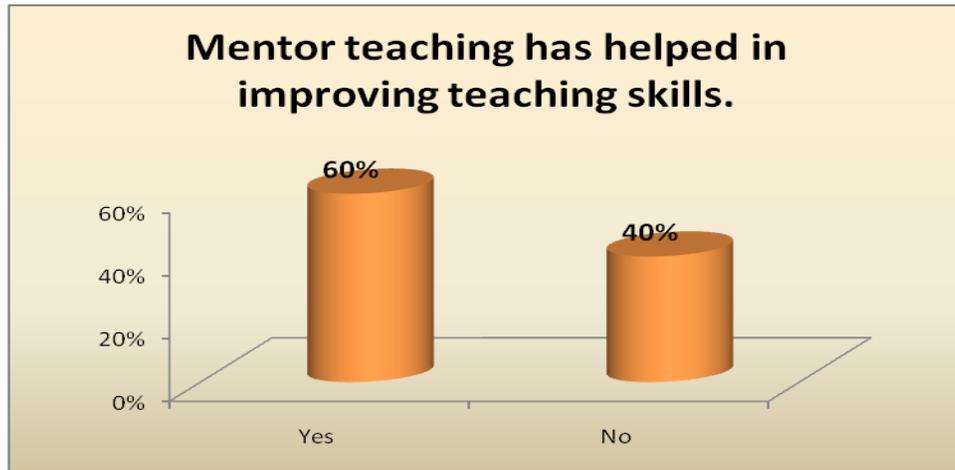
Graph.10



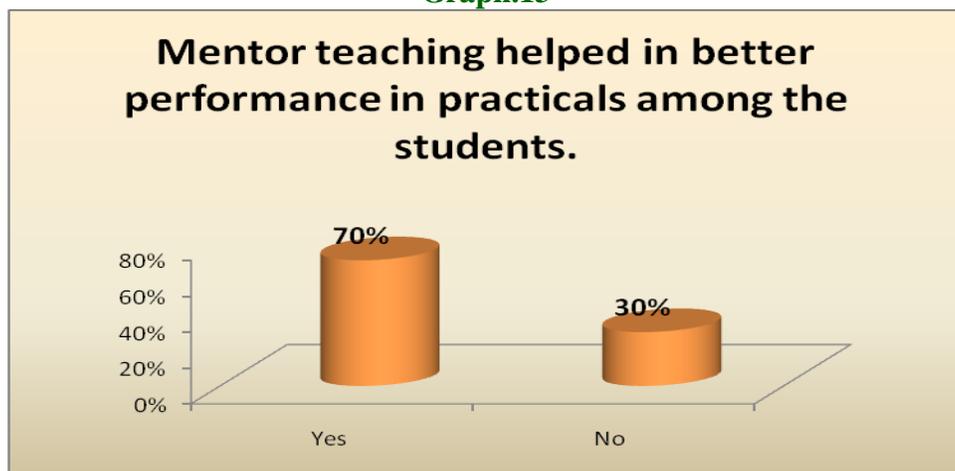
Graph.11



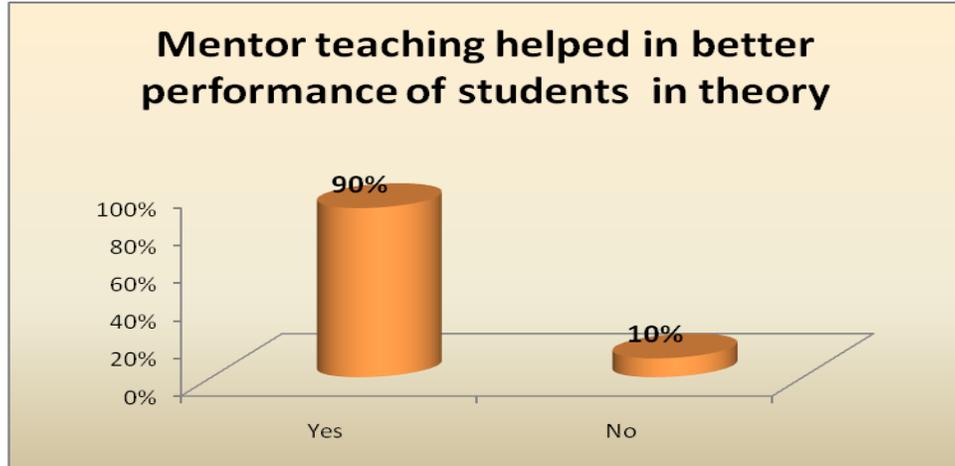
Graph.12



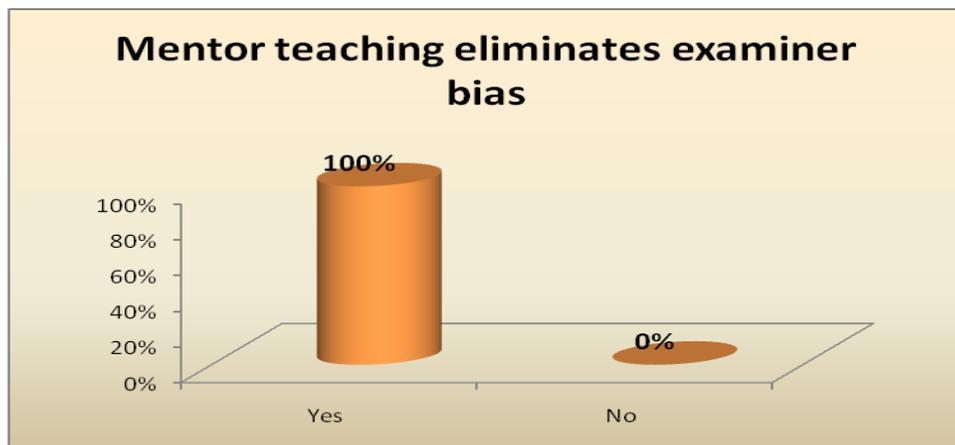
Graph.13



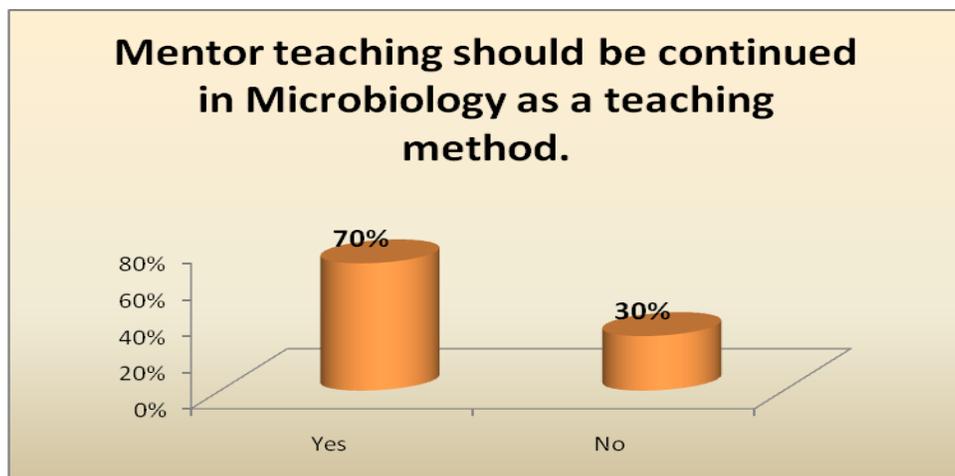
Graph.14



Graph.15



Graph.16



In this study the academic performance increased after mentor teaching.

Mentor teaching remains a viable policy option in education. However, for purposeful mentor teaching to occur, a prerequisite is the acceptance of its complexity in carrying out the mentoring function. This implies careful planning.

Teachers are valuable resources in education, and high quality performance in teaching is an essential ingredient of educational improvement or reform. To assist beginning teachers, it is necessary to support their performance in the classroom from the very beginning of their teaching careers. Quality teaching is essential if the mission of education is to be fulfilled. Mentoring can play a critical role in continually improving the professional knowledge and skills that teachers need to instruct and prepare students for the next century.

In conclusion, the students developed confidence, communication skills and they became more focused on their career(3),(4). The academic performance of the mentees is increased after undergoing mentor teaching (5),(6). The students had more confidence in writing the tests and in viva and clinical. The students felt that they should have mentor teaching as a part of the teaching schedule.

Mentor teaching helped the students in improving their confidence and communication skills. Mentor teaching is an additional tool for the students to revise the topics in a systematic way.

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