



## Original Research Article

# IMPLEMENTATION AND EVALUATION OF MENTOR-MENTEE PROGRAMME AT NEWLY ESTABLISHED MEDICAL COLLEGE IN WESTERN INDIA

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### ABSTRACT

**Background:** Exposure to new environment and professional course is having varied impact on the medical students. Teacher and student relationship is important for better academic performance as well as social and psychological wellbeing of medical students. The mentor-mentee program helps students in career development by increasing their interest in subject, inspiring them for doing research and guiding them for professional development. It also help them emotionally by providing mental support to relieve anxiety and stress. **Aim:** To implement and assess the effectiveness of mentor-mentee program. **Objectives:** To assess academic performance of students for measuring effectiveness of the program and to assess the perception of students and mentors about the mentor-mentee program

**Materials and Methods:** The present study is interventional and prospective which was conducted at tertiary care hospital and newly established medical college in western India from August 2024 to December 2024. All second phase MBBS students were included after taking informed consent. Total 322 students, 181 students (Batch2022-23) and newly joined 141 (Batch 2023-24) were included. Students were divided in groups of 12 for each mentor. The mentor mentee meetings were held once in a month. Quantitative data was collected from the records of attendance and marks and Qualitative data was collected from mentees and mentors through questionnaire.

**Results:** Statistically significant improvement ( $p$  value  $<0.001$ ) was noted in attendance and marks. Majority of mentees felt supported in academic and personal growth (90.18%) and received encouragement and motivation (90.18%). While 70.09% acknowledged emotional support, 87.50% agreed their mentor suggested useful resources. A majority of mentors (77.78%) agreed that the mentorship program helped build stronger relationships with their mentees and approximately 77% showed interest for mentoring in future.

**Conclusion:** Appropriate implementation of mentorship program have boosted academic performance amongst students as well as build stronger relationship with mentors. It is also helpful in emotional support.

**Keywords:** Mentor, Mentee, Mentorship.

## INTRODUCTION

"Everyone who makes it has a mentor".<sup>[2]</sup>

Mentoring is visionary process in which the mentors expertise and knowledge helps to support and keep mentee in protected environment.<sup>[6]</sup>

Formal mentoring programs for medical students and doctors, was developed after 1990s.<sup>[4]</sup> According to Ericson LD et al., informal mentoring is a important resource in educational career, it increases the educational performance and overall educational attainment<sup>10</sup>. Few institutes started the

program to increase professionalism and ethics. The program included volunteer faculties and given eight to sixteen mentees with pre-arranged meetings to address the problems faced by students, soon they realised the importance of proper faculty mentoring training to improve mentoring skills.<sup>[14]</sup> Goal of mentoring program in large-scale educational institutions is to foster the formation of compatible mentor- mentee relationship. Program developed by Ludwig University has two tiered concept which include peer mentoring for first and second year students and one-to-one mentoring for students in their clinical years.<sup>[17]</sup> There is increasing evidence that mentoring is a key element for a successful career in academic medicine.<sup>[17]</sup>

Students admitted in first year MBBS are coming from academic environment which consists of small classroom teaching, when exposed to large batches and students from different background which make them prone for anxiety and peer pressure.<sup>[12]</sup> A mentor is considered as a guide, supporter, facilitator, confidante, counsellor, coach, teacher, advisor etc.<sup>[13]</sup> Mentorship program is multifaceted tool which improves academic performance of the students also it takes care of emotional and personal aspects including career guidance, student-teacher relationship, research oriented approach, interest in academic goals, personality development and reduces anxiety.<sup>[1]</sup> Levinson W et al. suggested that mentorship program increases the productivity and helps in career advancement and career satisfaction.<sup>[9]</sup> Just like teachers and tutors, mentors actively help mentees to achieve their personal and professional goals.<sup>[7]</sup> Mentorship program in undergraduate students help in professional development. In a prospective study on career development in young physicians, graduates stated that mentoring in medical school would have helped them to make their decision on specialty training earlier and to adopt a more goal-oriented strategy in planning their careers.<sup>[4,8]</sup> Ramani et al. described twelve tips for developing effective mentors, Mentors are not born but developed.<sup>[16]</sup> In study made by Jagdish et al. mentoring skills include building rapport, trust and committing time to the relationship.<sup>[14]</sup> The students are in need of honest feedback from mentors, because mentors do not evaluate and overlook the impression made by mentee.<sup>[15]</sup> The program also benefits mentors, institute and society.<sup>[5]</sup> This is an active process in which the mentor delivers selflessly and mentee accept graciously.<sup>[13]</sup> The relative barriers like gender and cultural issues doesn't have any role in effective relationship, but in fact it can foster mutual growth and gain knowledge of each other's culture<sup>[6]</sup>. There may be accessibility, availability, communication issues. But over all this programme improves course work performance, assist carrier queries, understanding academic route, and to achieve carrier goals. Mentor will be a role model,

example of professionalism and help in personal and professional development.<sup>[1,4]</sup> Protected time should be allocated for mentoring activities to encourage engagement and motivation.<sup>[11]</sup>

### **Aim & Objectives**

#### **Aim**

To implement and assess the effectiveness of mentor-mentee program.

#### **Objectives**

1. To assess academic performance of students for measuring effectiveness of the program.
2. To assess the perception of students about mentor-mentee program to solve psychosocial issues through questionnaire.
3. To assess perception of mentors about the mentor-mentee programme.

## **MATERIALS AND METHODS**

The present study is interventional and prospective which was conducted at tertiary care hospital and newly established medical college in western India. Ethical committee approval was taken before starting the study.

**Inclusion Criteria:** All second phase MBBS students were included after taking informed consent.

**Exclusion Criteria:** Other phase students were excluded. The study period was from August 2024 to December 2024.

**Sample Size:** Total 322 students, 181 from Batch 2022-23 and newly joined 141 from Batch 2023-24 were included.

Sensitization of the mentors was done before starting the study. Students were divided in groups of 12 for each mentor according to the role number. The mentor mentee meetings were held once in a month. Mentorship Logbooks were maintained. Review meeting with the mentors were conducted after each monthly mentor mentee meeting to discuss the issues faced by the students and mentors and also to give possible solutions.

Quantitative data was collected from the records of attendance and marks from internal examination taken at the start (September 2024) and at the end of the study (December 2024).

Qualitative data was collected from mentees and mentors through questionnaire based Google forms as feedback. Questionnaire was prepared after reviewing the literature and collaborative discussion with MEU members. It was analyzed by thematic analysis.

**Statistical Analysis:** to check the effectiveness of mentorship on academic performance paired t-test was applied to find association between the two variables, Yates Chi square test was used to check the significance of association at 10% level of significance using IBM SPSS 20.0 New York, Armonk software.

## RESULTS

Total 322 students of both the batches of phase 2 were included in the study. The attendance was compared for the month of September and December. [Table 1]

**Table 1: Comparison of Attendance before and after mentorship program**

Paired t-test	Mean	Variance	t-statistic	P value
Attendance Before Mentorship	75.5824	152.18	16.913	<0.0001
Attendance After Mentorship	90.4395	55.02		

Statistical analysis of data showed the p value < 0.001 indicating significant improvement in the attendance after the regular mentor-mentee meetings.

For assessment of academic performance, marks of internal examination were compared.

**Table 2: Comparison of marks before and after mentorship**

Paired t-test	Mean	Variance	t-statistic	P value
Marks Before Mentorship	39.118	123.691	9.023	<0.0001
Marks After Mentorship	44.037	112.934		

There is a statistically significant difference (P-value is < 0.001) in marks before and after the implementation of mentor-mentee program.

**Table 3: Mentee Responses for mentorship program**

Responses by mentees	Strongly Agree (%)	Agree (%)	Maybe (%)	Disagree (%)	Strongly Disagree (%)
Is my mentor consistently available and accessible to me?	41.5179	48.2143	7.58929	2.23214	0.44643
Does my mentor engage in regular communication with me?	32.5893	46.4286	13.3929	7.14286	0.44643
Do I feel that my mentor is supportive of my academic and personal growth?	38.3929	51.7857	8.92857	0	0.89286
Does my mentor offer encouragement and motivation to help me succeed?	42.4107	47.7679	8.48214	0.44643	0.89286
Does my mentor provide emotional support when needed?	29.4643	40.625	21.875	6.69643	1.33929
Does my mentor suggest useful resources and ideas to enhance my studies?	38.3929	49.1071	9.375	2.67857	0.44643
Will I maintain contact with my mentor for future personal and professional development?	35.2679	40.1786	21.4286	1.78571	1.33929
Do I want to continue working with the same mentor in the next session?	37.9464	40.1786	16.9643	4.46429	0.44643
Has my mentor inspired me to consider becoming a peer mentor?	26.7857	39.2857	26.3393	5.80357	1.78571
Am I willing to volunteer for peer mentoring in the future?	24.1071	39.2857	29.0179	6.69643	0.89286
Is the mentorship program essential for the well-being and development of students?	35.7143	48.2143	13.3929	2.23214	0.44643

Most mentees agreed that their mentors were consistently available (89.73%) and engaged in regular communication (79.02%).

A high proportion of mentees felt supported in academic and personal growth (90.18%) and received encouragement and motivation (90.18%). While 70.09% acknowledged emotional support, 87.50% agreed their mentor suggested useful

resources.

Most mentees expressed willingness to maintain contact with their mentor (75.45%) and continue working with the same mentor (78.13%).

About 66.08% felt inspired to become peer mentors. A significant majority (83.92%) agreed the program is essential for student well-being and development.

**Table 4: Mentor Responses for mentorship program**

Responses by Mentors	Strongly Agree (%)	Agree (%)	Maybe (%)	Disagree (%)	Strongly Disagree (%)
1] Does the mentorship program help build a stronger relationship between you and your mentee?	27.78	50	16.67	5.56	0
2] Me and mentee visits and communicates regularly.	27.78	38.89	16.67	16.67	0
3] Do you think you will continue to have a relationship with your mentee after the program?	22.22	16.67	50	11.11	0
4] Do you feel that being a mentor adds extra pressure or workload?	0	11.11	22.22	61.11	5.56
5] Are you willing to volunteer as a mentor for future groups?	22.22	55.56	22.22	0	0

A majority of mentors (77.78%) agreed that the mentorship program helped build stronger relationships with their mentees and approximately 66.67% of mentors had a regular communication. Half of the mentors (50%) expressed uncertainty about continuing relationships with mentees after the program, while only 38.89% were confident they

would. A significant proportion of mentors (66.67%) disagreed that being a mentor adds extra pressure or workload.

An overwhelming 77.78% of mentors expressed willingness to volunteer for future mentorship programs.

**Table 5: perception of mentor on mentorship program open-ended questions**

What was the most productive outcome of the mentoring?	- students get academic and non-academic help from mentors and helps in personal and career development	78.58%
	Satisfaction of helping students	7.14%
	creates strong relationship	14.28%
What changes you will advise for successful mentorship program?	- fixed time and frequent meetings	28.58%
	Reduce number of mentee per mentor	35.71%
	Faculty training and orientation of students	35.71%
What changes you develop in yourself during mentoring ?	- to find solution for students problems	28.58%
	Counselling and empathy	50.00%
	Leadership and communication	21.42%

## DISCUSSION

Mentorship plays a critical role in training and development of professional skills irrespective of the discipline. It originates from the willingness and desire of a senior and experienced individual to give and the need of inexperienced novice to grow.

Mutual trust, faith and respect are the main driving forces for successful mentorship program.<sup>[13]</sup> Unlike the teachers or tutors, mentors actively help the mentees to enhance their potential and achieve personal and professional goals.<sup>[7]</sup> The mentees requirements at different stages of training and career may decide the type of mentoring relationship. The needs of first year medical students are different from those of final year. This study was done to implement the mentorship program more effectively and to assess its impact on improvement of academic performance of the students. We considered attendance and marks in the internal exams for assessing the academic performance.

The statistical results indicated a significant improvement in marks and attendance following the implementation of regular mentor-mentee meetings, with a p-value < 0.0001. The improvement observed in this study aligns with existing literature on the impact of mentorship programs in educational settings. According to Erickson, et al., mentors have

a great impact on overall educational achievements of mentees.<sup>[10]</sup> Hawkins A, et al. in their study on mentorship programme observed that academic support, improved confidence, increase enjoyment and sense of belonging are the key benefits for mentees.<sup>[18]</sup>

This study also assessed the perception of mentees and mentors about the program. The findings suggest that majority of mentees were satisfied in terms of approachability and regular communication with the mentors. A majority of mentors (77.78%) also agreed that the mentorship program helped build stronger relationships with their mentees. These findings align with the study by Usmani A et al. who reported that better communication between mentor mentee allows mentees to discuss their issues easily.<sup>[19]</sup>

The majority of mentees (90%) feel their mentor is supportive of their academic and personal growth. This finding is in concordance with the study by Kukreja et al. and Kalen et al. who reported that mentoring of students helped them in terms of both professional and personal development.<sup>[5,23]</sup>

The majority of mentees (87.50%) recognized their mentors as resourceful in suggesting useful ideas and resources which helps in broadening mentee's academic horizons and guiding them toward available opportunities. This finding is in accordance with the study by Sambunjak et al. who



proposed that well-informed mentors can significantly enhance the mentee experience by connecting them to appropriate learning and professional resources.<sup>[24]</sup>

About 70% of respondents feel their mentor provides emotional support when needed. Bunin J et al. highlights that mentors often provide essential psychosocial and emotional support, but it is essential to emphasize that mentors should not attempt to act as psychotherapists.<sup>[20,21]</sup>

Approximately 75% of mentees wish to maintain contact with their mentor for future growth. This suggests that mentees recognize the value of the mentor- mentee relationship beyond the immediate educational setting. This finding is in concordance with Ganguly et al., with 82% mentees giving same response.<sup>[21]</sup> Long-term mentorship relationships can facilitate career development, networking opportunities, and continued professional growth.

Around 66% of students felt inspired by their mentor to consider becoming a peer mentor themselves. This finding represents positive impact of mentoring process with additional quality development by students as mentor. According to Mohd Shafiai et al. Peer-led mentoring provides a good opportunity for medical students to shoulder responsibilities as a leader and may enhance their interpersonal communication and leadership skills.<sup>[22]</sup>

The mentorship program is considered essential by 84% of respondents for the well-being and development of students. This shows a widespread recognition of the program's value in contributing to student success as described in literature.<sup>[1,4,7,12,13,10]</sup>

A significant proportion of mentors (66.67%) disagreed that being a mentor adds extra pressure or workload, suggesting that the program is well-structured and does not overburden mentors. This data is in concordance with observations from the study by Ganguly et al.<sup>[21]</sup>

An overwhelming 77.78% of mentors expressed willingness to volunteer for future mentorship programs, indicating high satisfaction and motivation to continue contributing. This percentage can be increased by recognition and rewarding of their work by institutional leaders publicly which gives the mentors more satisfaction.<sup>[16]</sup>

## CONCLUSION

The mentorship program helps in academic and personal development. It strengthens mentor-mentee relationships and fosters effective communication. It helps students alleviating stress and anxiety as they get emotional support from mentors. Mentors found it very satisfying. There is a great scope in improving the outcome of this program through feedbacks, faculty development program and student orientation.

### Limitations

- More Frequent scheduling of mentor mentee meetings was not possible due to time

constraint.

- Long term achievements cannot be assessed.
- Few students may show lack of interest.

### Recommendations

- Faculty development program with special sessions on mentoring techniques will help teachers in effective mentoring.
- Fixed Scheduling of meetings in academic calendar on monthly basis to bring regularity.
- Involvement of more faculty, post graduate students and peer mentoring to reduce the ratio of mentee to mentor which will help in building strong bond by increasing time for interaction.

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