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ORIGINAL ARTICLE

Exploration of mentees' perception of mentoring among Undergraduate medical students: A Cross-sectional Study

Karthika Priyadharshini Udhayakumar^{1,*}, Mangaiarkkarasi Adhimoalam² and Tamilselvan Kuppusamy¹

¹JIPMER, Jipmer Campus Rd, Jipmer Campus, Dhanvantari Nagar, Puducherry, 605006

²Sri Venkateshwaraa Medical College Hospital and Research Center, Pondicherry

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Abstract

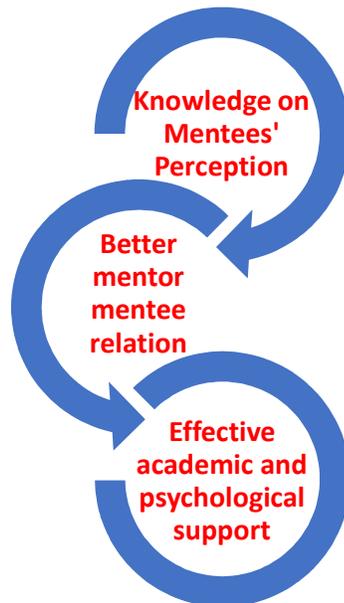
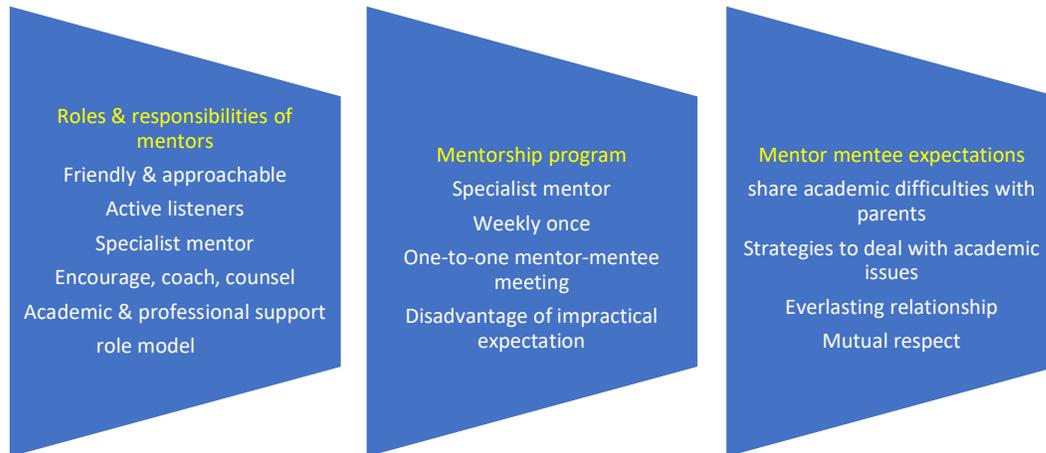
Background: A successful mentorship program promotes personal and professional growth. Experienced mentors provide a nurturing relationship with the mentee. Lack of emotional support with highly expected competency pressurizes students' daily lives. A well-integrated mentorship program has enabled the psychosocial skills and humanistic attitudes among medical students. Mentor mentee pairing system and the knowledge of mentees' perception of mentoring were found to provide a satisfactory mentorship program. Though a number of studies on mentoring medical students were done elsewhere in India, the knowledge on mentee's perception of mentors, mentorship program and mentor-mentee expectations were lacking in south India, hence this study was chosen. **Objectives:** To analyze mentees' perception of mentors; To analyze the mentees' perception of the mentorship program; To analyze the mentees' perception of mentor-mentee relation. **Methodology:** This single-center, observational cross-sectional study was done with a sample size of 241. Undergraduate medical Students of all phases except the first year, who were willing to participate in the study, filled out the 15 items questionnaire. The questionnaire on an exploration of mentees' perception of mentors was validated with the internal consistency of 0.65 (Cronbach's alpha) after Principal component analysis. The questionnaire was designed using google Forms and distributed through WhatsApp. **Results:** The response was tabulated and analyzed as frequency using Microsoft Excel. Most medics prefer their mentor to be friendly and approachable to enhance their academic development. They expect the mentor to counsel, and coach them to improve their academic and social confidence. Mentees prefer to have specialist mentor. They do not prefer to have a mentor of same gender and the same mentor throughout the curriculum. Most of them feel that impractical expectations from the mentor as a disadvantage. They agree that mentoring is an everlasting relationship and prefer to have weekly, one-on-one meetings. They expect the mentor to help in developing strategies to solve a problem and agree to share their academic progress with their parents. Mentees agree that mentor expects mutual respect from their mentees. **Conclusion:** The knowledge of the perception of mentees on the mentors, mentorship program, and mentor-mentee expectations can enable the mentors to adapt to the mentee's needs and promote effective mentoring among undergraduate medical students.

Keywords: Mentor, Medical students, Perception, Questionnaire

*Corresponding author: Karthika Priyadharshini

Email: karthi.karthiuday.uday@gmail.com

Graphical Abstract



Introduction

Mentoring enables medicos towards personal growth & development. It enhances their social and economic opportunity [1]. A successful mentorship program depends on the mentor-mentee relationship. The mentorship program fills the opportunity gap among the students and makes the students trust their parents. It promotes better communication [2]. It was observed that mentors enhance patient care by making the students professionally competent [3]. Clarity on the purpose and intention of

mentoring is vital for an effective mentorship program [4]. Experienced mentors provide a nurturing relationship and serve as role models, teachers, and counselors to the mentee [5]. Want of competent medical graduates with a lack of emotional support pressurizes students' daily lives [6]. An integrated mentorship program has improved the psychosocial skills and humanistic attitudes among medical students even after completion of their undergraduate program [7]. Mentoring programs contribute to building and maintaining professional

identity among medical students and reaffirming the professional identity of mentors [8]. Limited faculty time due to commitments on clinical, teaching, research & guidance has led to involve peer or “near-peer” mentoring in various higher educational institutions [9]. Mentor mentee pairing system and the knowledge of mentees’ perception of mentoring were found to provide a satisfactory mentorship program [10,11]. Lack of pairing between mentor and mentee and absence of a response by mentees to mentors were common problems encountered by mentors.

Though a number of studies on mentoring medical students were done worldwide and in the Northern part of India, the knowledge on mentees’ perception of mentors, mentorship program and mentor-mentee expectations were lacking in south India, hence this study was chosen.

Methodology

This descriptive cross-sectional single-center study was conducted at a medical college in South India (from January 2022 to March 2022) after obtaining the Scientific Research Committee and Institutional Ethics Committee clearance. (No:132/SVMCH/IEC-Cert/Nov21). Self-selected non-probability sampling method was followed. The sample size was 241, calculated using the Epi info, Version 7.2.3.1, with a confidence interval of 95% and a margin of error of 5% expected frequency of 50% of the students who are submitting the form, as the known population of all the presently enrolled MBBS students is around 620 was 240. All the participants willing to fill out the questionnaire were included in the study and informed consent was obtained from them. Those do not compile with the study procedure were excluded from the study.

Data collection tool

The two-phased standardized methodology was implemented for validating the questionnaire. In phase 1 (qualitative phase), the questionnaire was developed through a literature review, focus group discussion, and expert evaluation (content validity). In phase 2(quantitative phase), the validity of the questionnaire was obtained by conducting a cross-sectional survey of 20 participants (however these participants were not included in the main survey). The internal consistency was assessed using Cronbach’s alpha (0.65) after Principal component analysis.

The final version of the questionnaire comprises 15 items (Annexure I). Section I comprises 4 questions on age, gender, the phase in which the participant is presently studying, and their consent to participate in the study. It does not include the mentee’s identification to prevent bias and to enable the students to select the options without inhibition. Section II comprises Question no. 5, 6 & 7 which collects information on the roles and responsibilities of mentors, 8 to 15 questions that collect information on the mentorship program, and question number 16 to 19 on mentor & mentee expectations. For all the questions the mentees were allowed to choose more than one option except the 19th question (open-ended question) and the 11th, 12th & 13th questions. (5-point Likert scale where “1” - strongly agree “5”- strongly disagree) The survey was collected in the English language.

This web-based questionnaire was designed using Google forms and distributed via WhatsApp. The invitation letter explained the aim of the study and the approximate time required to complete the questionnaire. The nature of voluntary participation (consent), declaration of anonymity and confidentiality, and the

invigilator details were mentioned on the first page of the questionnaire. The name of the student was not collected to maintain anonymity.

Result

All the data were tabulated in Microsoft Excel. Mentees’ perceptions of mentors, mentorship programs, and mentor-mentee expectations were analyzed as frequency using Microsoft Excel software.

Among the 241 participants, 32.8 % were male and 67.2% were female. Response from all phases of medical students was collected except the first year as they were new to the mentor-mentee program. 33 % of second-year students, 38% of final year part I, and 29% of final year part II responded. Responses to questions 5 to 18 are represented as a Bar diagram from Figures 1 to 14.

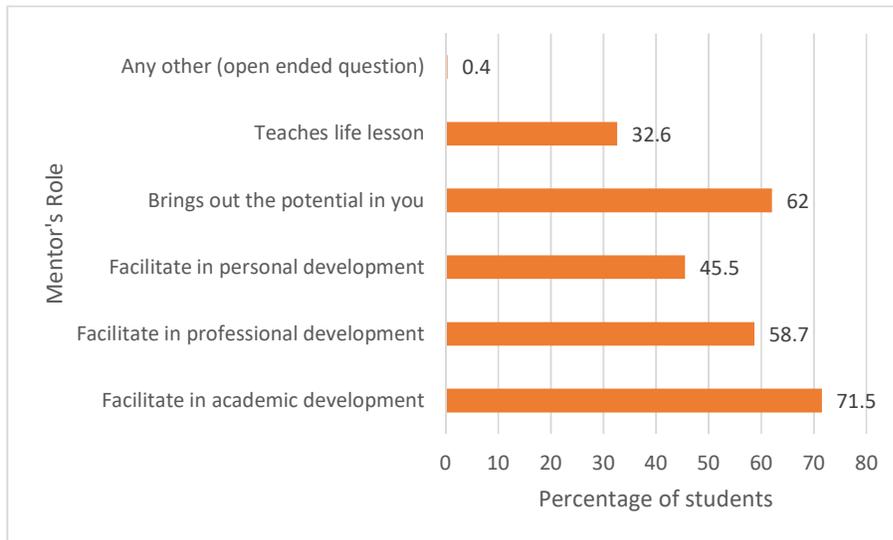


Figure 1. Frequency distribution on mentees perception on who the mentor is?

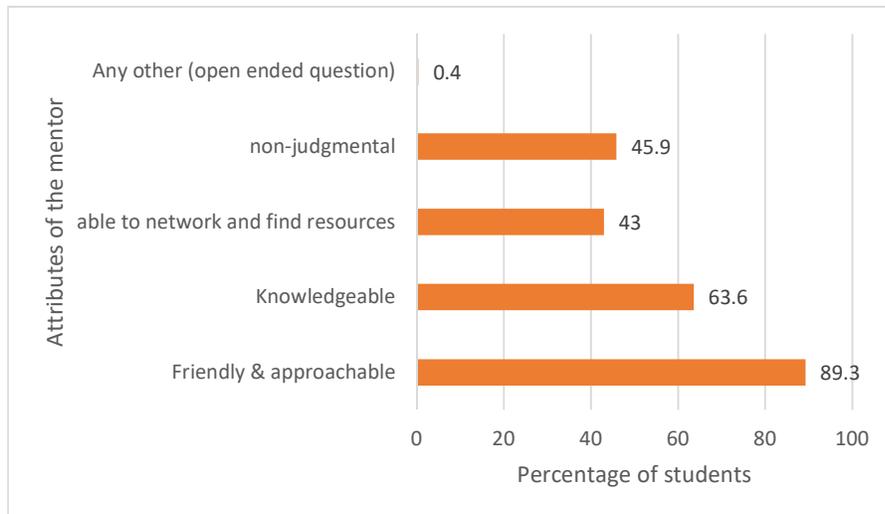


Figure 2. Frequency distribution on Attributes of the mentor

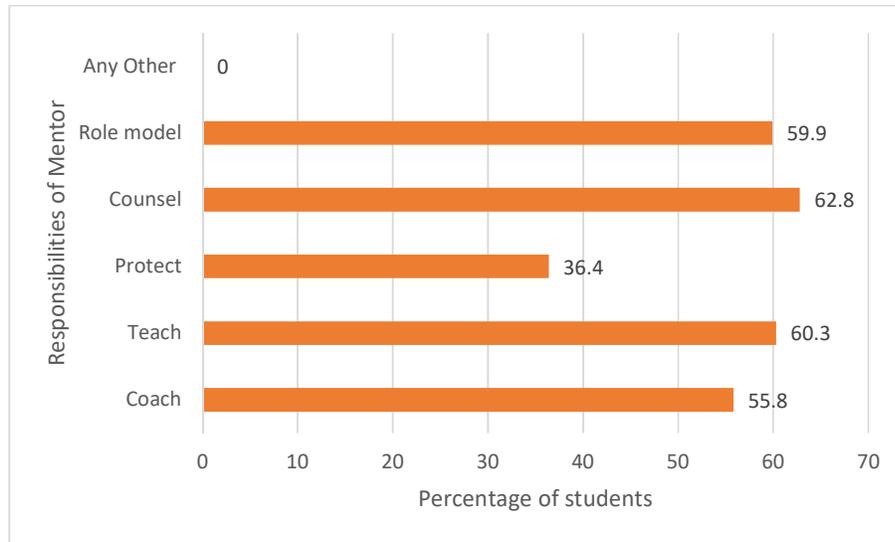


Figure 3. Frequency distribution of responsibility of the mentor

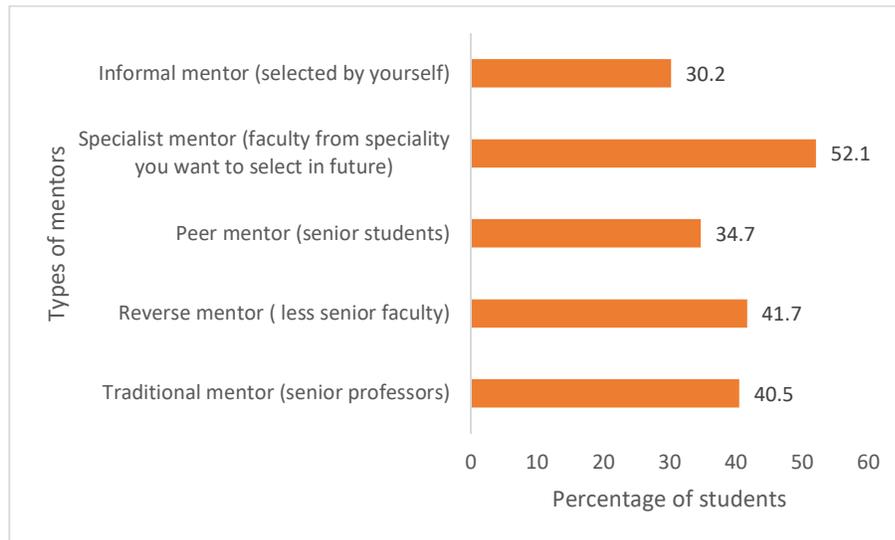


Figure4. Frequency distribution of students' preference towards the type of mentors

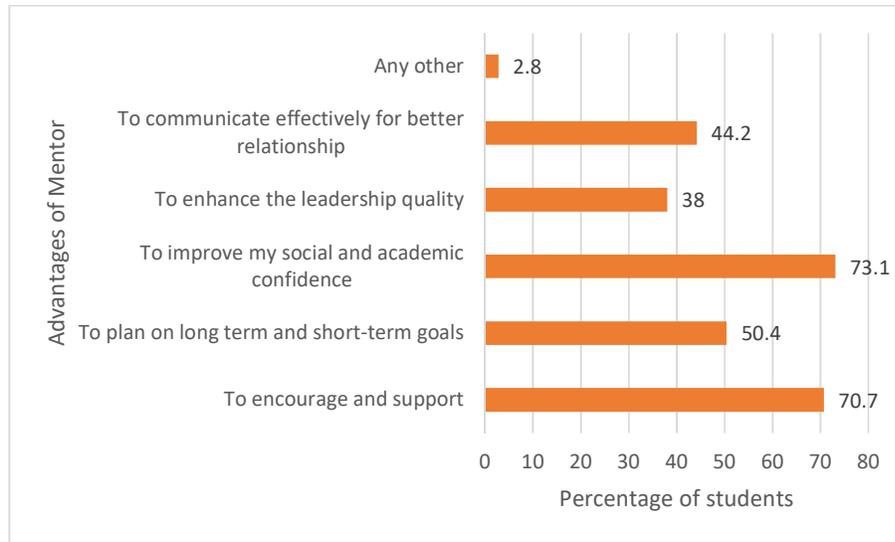


Figure 5. Frequency distribution on Advantages of having a mentor

In the open option, one student has responded that the mentor has to give Moral Support.

One student has suggested Innovative teaching to be an important attribute of the mentor in the open suggestion.

Additional advantage as suggested by some of the students was that the mentor

developed their skill and attitude, enabled them to keep track of work based on the planned schedule, and helped to know their weaknesses. They have improved not only their academic growth but also their personal growth. 9.8% of the students have not committed any disadvantage of having a mentor..

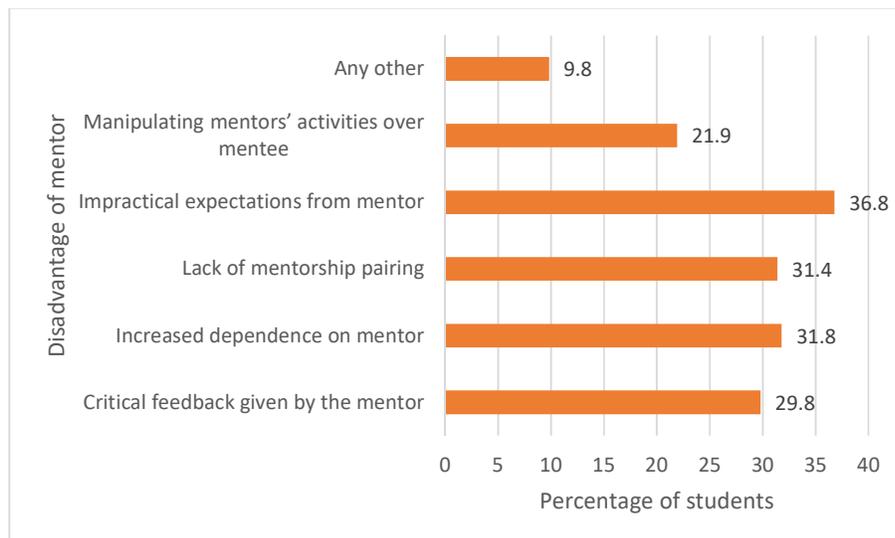


Figure 6. Frequency distribution on disadvantage of having a mentor.

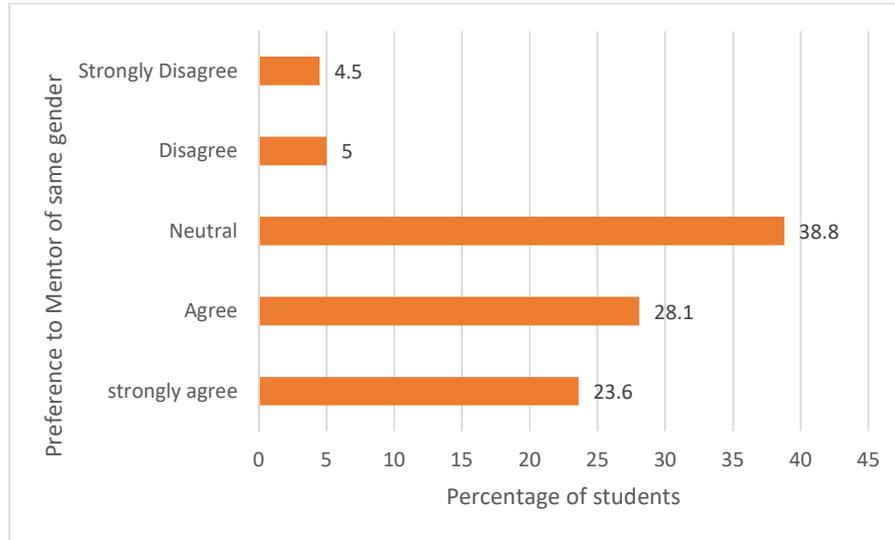


Figure 7. Likert scoring on preference to have mentor of same gender

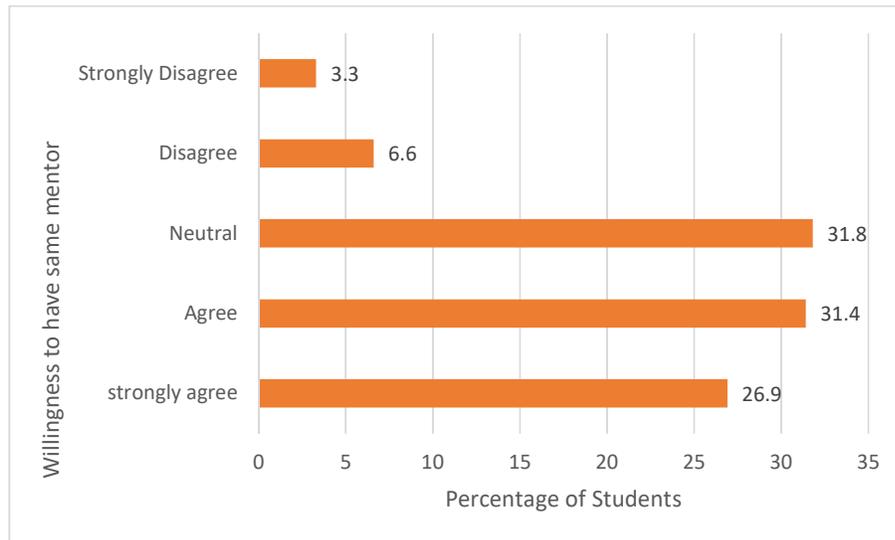


Figure 8. Likert scoring on willingness to have same mentor throughout the curriculum

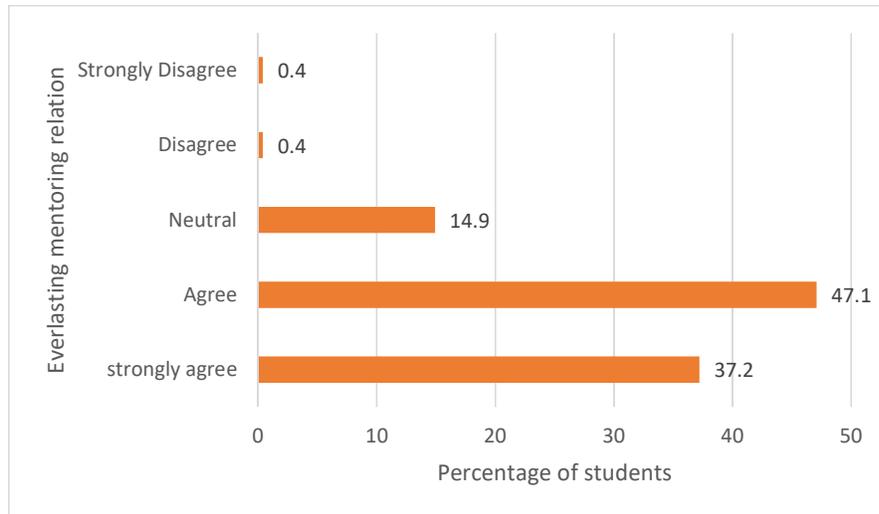


Figure 9. Likert scoring on "mentoring an everlasting relation"

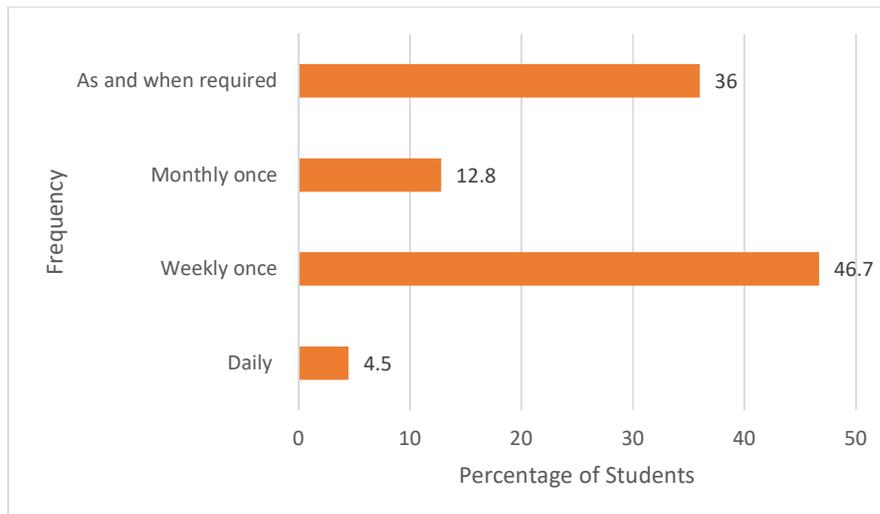


Figure 10. Percentage distribution on preference towards frequency of mentor mentee meeting

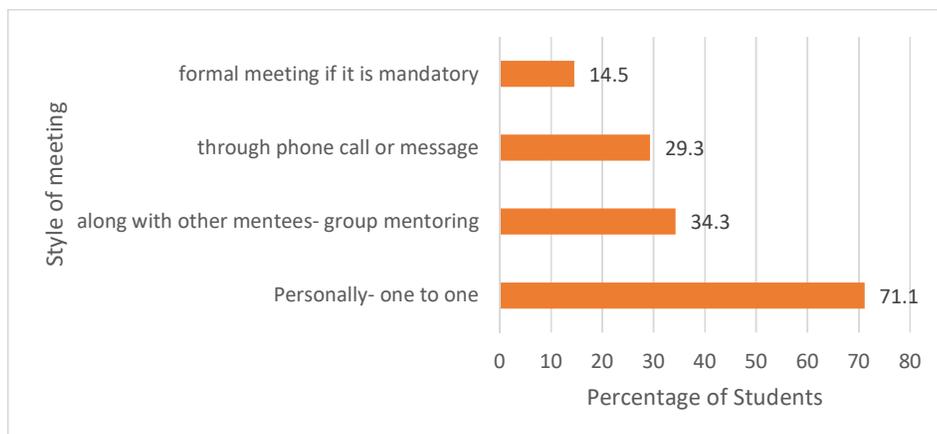


Figure 11. Frequency distribution on preferred style of mentor mentee meeting

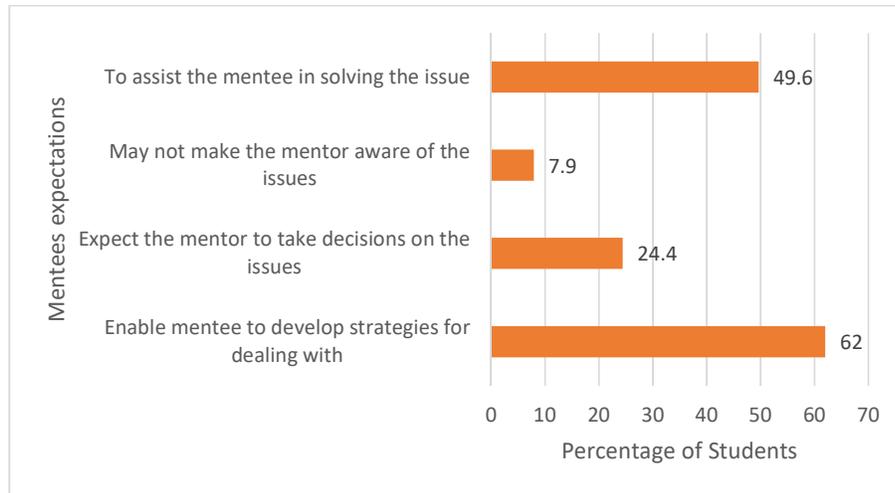


Figure 12. Students Response on Mentees expectations from mentors on personal and academic issues

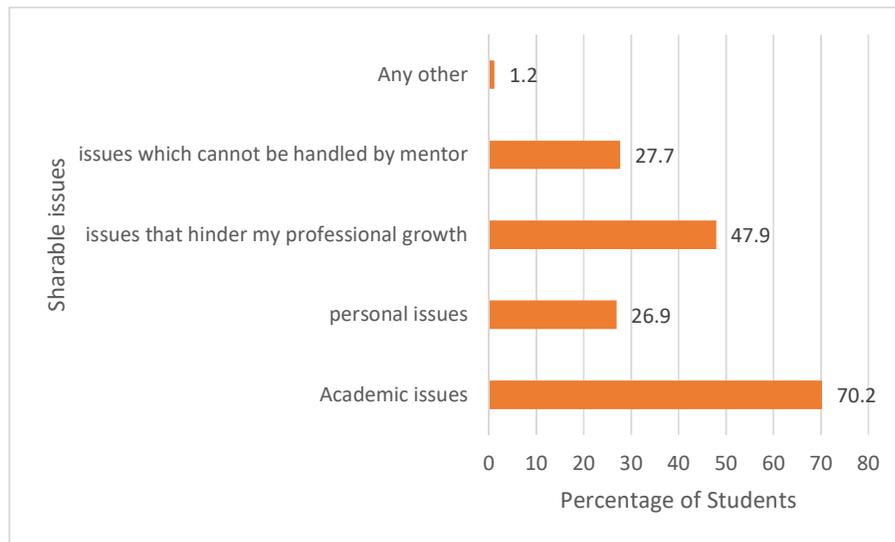


Figure 13. Percentage distribution on preference towards sharable issues with mentees parents

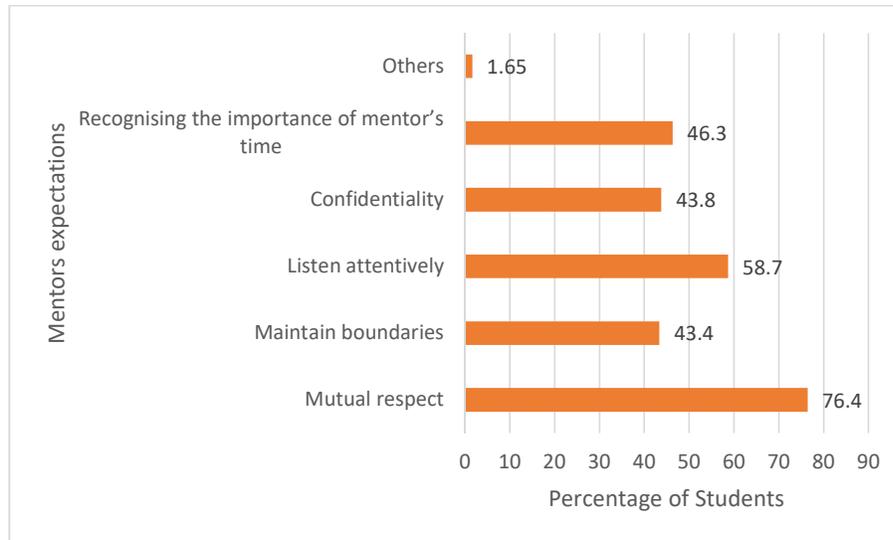


Figure 14. Frequency distribution on Mentors expectations from Mentee

0.8 % of the students have mentioned that a mentor has the right to share any type of problem with parents to solve. 0.4% of the students have responded that every issue should be solved at the mentor level in addition to the above options.

In addition to the above response, two students expressed that the mentor expects Openness from the mentee and two students responded that mentor needs recognition from the mentee.

The response to question number 15 (Open-ended question) was based on thematic analysis. It showed that 60% of the students were satisfied with the mentor-mentee program. 30% of students have mentioned no suggestions. 10% of students have mentioned the need for modification in assigning the mentors of their choice, to increase the frequency of mentor-mentee meetings, and asked for the mentor to be even more friendly and approachable.

Discussion

The study results shows that (Figures 1 to 14) the majority of the students expect the mentor to concentrate on their academic and professional development with a friendly

and approachable attitude. They suppose the mentor not only to be knowledgeable and teach but also to counsel. Most of them prefer to have a specialist mentor who constantly encourages and supports them rather than having impractical expectations from the mentee. Majority of them do not show much interest in having mentors of the same gender or having the same mentor throughout the course. The majority expect to have weekly once, one to one meetings. Moreover, mentees expect the mentors to develop strategies to deal with academic or personal issues and expect to share academic issues, with their parents. They feel that mutually respectable mentor-mentee relations as long-lasting. More than half of the total participants were satisfied with the previous mentorship program.

More than 50% of the students have perceived that the mentor's role is to facilitate academic, and professional development and to bring out the potential in the students. This is similar to various other studies, where academic development and career guidance were the mentee's priority from mentors in addition to psychological support [12-14]. Most of the mentees prefer

to have a mentor with friendly, approachable, and knowledgeable attributes, similar to the expectation of mentees in a study done in Gujarat, where the students need their mentors to share their knowledge and experience in addition to emotional support [15]. However various other studies have made emphasis on interpersonal skills as an important attribute for mentors. [16,17]. Mentees expect that mentors are not only responsible to teach, and act as role models but also to coach and counsel the students. This is similar to the study findings of Kamarudin et al. [10]. Consistent support, guidance, and concrete help are the attributes of a positive role model [11]. Thus the goal of the mentor is to support personal and professional growth to promote mentees' progress.

The majority of the students prefer to have a specialist mentor (mentor from the specialization the student wants to select in the future) in addition to reverse mentoring. Similar to our study, various other studies have also reported the need for more than one mentor for the group of mentees [18,19]. In the study done by Dave et al. the mentees prefer to have subject-wise mentors [15]. However other studies made it flexible and the student can be made to switch mentors to make the mentee feel comfortable [10]. Maximum students perceive that having a mentor's advantage is improving social and academic confidence. Boosting the confidence level can help the students to face the exams without fear. This is similar to the study by Shapiro et al. where the mentoring program relieves exam-related stress [20].

Most of the mentees felt that impractical expectations from the mentor as a disadvantage of having the mentor. In contrast, as stated by Young et al. mentee was found to be responsible for planning and completing the stipulated task which could

enhance the mentor-mentee relationship [21]. In this study, most of the mentees do not prefer to have a mentor of the same gender. Similarly, Kamarudin et al., found that though mentees were not interested to have the same mentor throughout the curriculum, the persistence of the same mentor-mentee group enables the mentees to have better interaction with the mentor and opportunity for bonding [10]. However, Dave et al reported that students prefer to have subject-wise mentors [15]. Some of the mentees perceive mentoring as an everlasting relationship. Similarly, Konstantinos D et al. have mentioned that voluntary mentoring and pairing can result in long-lasting relationships [22]. Mentoring is defined as a "long-term special relationship between the senior and the student" [23]. Majority of mentees prefer to have mentor-mentee meetings at least once a week or as and when required. Similar to the present study, various authors have suggested that students wish to have mentor meetings as per their needs [10,15]. However, the perception of students regarding the frequency of mentor-mentee meetings varies widely [12,24]. In this study majority of the students prefer to meet the mentor personally than as a group. This could enable them to share their problems which might hinder their academic development.

The students, in this study, prefer the mentor to develop strategies for dealing with academic/personal issues and to share only the academic issues with their parents or higher officials for further assistance. However, Attri S has mentioned that mentors could share psychological problems with mentees' parents [25]. In contrast, Freeman R has reported that mentoring should be confidential [26]. Most of the students, in this study perceive that the mentor expects mutual respect and active listening from the

mentee. Only 60% of the students were satisfied with the existing mentor-mentee program.

Students experiencing empathy and caring first-hand from their mentors develop into caring human beings and empathetic doctors. Being a challenging task, mentoring needs investment in time, energy, and emotional resources. Hence this study enables the mentors to adapt according to mentees' perceptions, to provide an effective mentoring program among undergraduate medical students despite the lack of pairing, choice of selecting the mentor by mentee, and volunteering of mentors in this program.

Strength of the study

Most of the studies have been done outside India with few studies published in North India, usage of the same questionnaire may not be fair in the present study setting in south India hence we have developed a questionnaire on mentees' expectations of mentors which have been tested for both internal and external validity.

Limitations

Perception of mentors about the mentees and their option to volunteer for the mentorship program was not obtained. The option to change the mentor or mentee whenever not satisfied by either the mentor or mentee was not considered. Being a single-center cross-sectional study – collective knowledge of the mentorship programs in other teaching medical institutions in south India was not known.

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Conclusion

Formal mentoring of undergraduate medical students is of growing concern to forgo the heavy academic curriculum stress-free within the stipulated time. Hence from this study, we found that mentees are interested to have a more friendly and approachable specialist mentor, concerned mainly with academic progress, to encourage & support the mentee, to have at least weekly once, one to one mentor-mentee meetings, and share especially their academic difficulties with their parents. This knowledge can enable the mentors to adapt to the mentee's needs to make mentoring more effective among undergraduate medical students.

Ethics declarations

Funding This study did not receive any funding.

Conflict of interest

The authors declare that they have no competing interests.

Ethics approval, Consent to participate, Consent to publish, Availability of data and material, Code availability

Not applicable.

Author Contribution: Dr. U. Karthika contributed to designing the concept of the paper, manuscript preparation, and designing the questionnaire. Dr. A. Mangai contributed to the manuscript preparation and design of the questionnaire. Dr. K. Tamilselvan contributed to the statistical analysis, and preparing the manuscript.

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ANNEXURE I (QUESTIONNAIRE)

Exploration of mentee's perception of mentoring among undergraduate medical college students

This study is being done to enhance the mentor-mentee program in our college.

Fill out the questionnaire based on your own perception.

It will take 10-15 minutes to fill out the form.

Filling out the questionnaire and submitting ensures that you are volunteering & giving consent to participate in the study.

You have the right to withdraw from the study at any point in time.

You will not be affected in any way if you are not participating in the study. The name of the student is not collected to maintain anonymity and confidentiality. You can contact the investigator for queries.

Principal investigator: Dr. Karthika Priyadharshini

Co-investigator: Dr. Mangaiarkkarsi - Professor & Head of Pharmacology

Section 1

1. I am volunteering to participate in the study

Mark only one oval.

I am giving my consent to participate in the study

I am not willing or consenting to participate in study

Details of participant

2. Age

3. Gender

Mark only one oval.

Female Male

4. Year/ Batch you belong

Mark only one oval.

first year second year

third/ prefinal year final year

Section 2

Answer the following questions based on your perception

5. The mentor is one who? (you can choose one or more options)

Facilitate in academic development

Facilitate in professional development

Facilitate in personal development

Brings out the potential in you

Teaches life lesson

Other:

6. I like to have a mentor with the following attributes (you can choose one or more options)

Friendly & approachable
knowledgeable
able to network and find resources
non-judgmental
Other:

7. The responsibility of the mentor shall be to (you can choose one or more options)

Coach
Teach
Protect
Counsel
Role model
Other:

8. Type of mentors you prefer (you can choose one or more options)

Traditional mentor (senior professors)
Reverse mentor (less senior faculty)
Peer mentor (senior students)
Specialist mentor (faculty from specialties you want to select in future)
Informal mentor (selected by yourself)

9. What do you think is the advantage of having a mentor? (you can choose one or more options)

To encourage and support
To plan on long term and short-term goals
To improve my social and academic confidence to enhance the leadership quality
To communicate effectively for better relationship
Other:

10. What do you think is the disadvantage of having a mentor? (you can choose one or more options)

Critical feedback given by the mentor
Increased dependence on mentor
Lack of mentorship pairing Impractical expectations from mentor
Manipulating mentors' activities over mentee
Other:

11. Grade your preference to have a mentor of the same gender (Mark only one oval).

strongly agree
agree
neutral
disagree
strongly disagree

12. Grade your willingness to have the same mentor throughout your MBBS course (Mark only one oval.)

strongly agree
agree
neutral
disagree
strongly disagree

13. Mentoring is an everlasting relationship rather than short lasting (Mark only one oval).

strongly agree
agree
neutral
disagree
strongly disagree

14. How frequently do you like to meet your mentor? (give only one answer)

Daily
Weekly once
Monthly once
As and when required
Other:

15. Preferred style of mentor-mentee meeting

(you can choose one or more options)

- Personally- one to one
- along with other mentees- group mentoring
- through phone call or message
- formal meeting if it is mandatory
- Other:

16. What do you expect from a mentor when you face personal and academic issues? (you can choose one or more options)

- Enable mentee to develop strategies for dealing with
- Expect the mentor to take decisions on the issues
- May not make the mentor aware of the issues
- To assist the mentee in solving the issue
- Other:

17. What type of mentees' issues do you feel the mentor can share with your

parents or higher officials for further assistance?

(you can choose one or more options)

- Academic issues
- personal issues
- issues that hinder my professional growth
- issues which cannot be handled by a mentor
- Other:

18. What do you think the mentor expects from the mentee?

(you can choose one or more options)

- Mutual respect
- Maintain boundaries
- Listen attentively
- Confidentiality
- Recognizing the importance of mentor's time
- Other:

19. Give your suggestions on the mentorship program

