Student support system for medical undergraduates: A qualitative exploration of stakeholder perspectives

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Abstract:

BACKGROUND: The demands and learning challenges in medical schools are not efficiently overcome by all learners. Despite the gravity of the problem, there is a dearth of studies to identify, define, and address the needs of learners. Thus, the present study was designed to do a situational analysis to identify and define the problems of learners and to develop a model for student support system in our institution.

MATERIALS AND METHODS: A phenomenological type of qualitative research was undertaken. One-to-one in-depth interviews (IDIs) were conducted, 10 each among undergraduate medical students, faculties and parents (n = 30) to understand the problems of students and their suggested solutions from each one’s perspective. The interviews were audio-recorded, transcribed verbatim, and manual thematic analyses were performed.

RESULTS: Manual thematic analysis of the transcripts yielded 16 subcategories and 7 categories. The various categories that emerged are (1) curriculum related; (2) interpersonal adjustment problems; (3) personal issues and family problems; (4) cognitive learning disabilities; (5) poor organizational skills; (6) students’ lack of motivation; and (7) miscellaneous. Based on the problems and their suggested solutions, a model for the essential components of a student support system for our college was developed. It outlines the principal roles of four key stakeholders, namely students, faculties, parents, and college administration.

CONCLUSION: It has been found that students face various academic problems, personal, interpersonal and family level issues. We developed the support system model suitable for our context. In future, it may be implemented and evaluated to check if it achieves the desired purpose.

Keywords: Learners’ problems, medical education, student support

Introduction

The medical education system is framed in such a way as to impart the necessary knowledge, skills and attitude to the undergraduate students and develop them as competent doctors. These students are diverse with respect to their socio-economic and cultural backgrounds, which creates differences in their learning abilities, especially in a country like India. Furthermore, the demands and learning challenges in the medical schools are not efficiently overcome by all learners. Majority of them face challenges like academic, personal or financial problems, which lead to undue stress among them. However, at many institutions, there are no student welfare systems for providing support to the medical students, especially during their stressful periods and failure times.

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These students, if not supported at the right time gets demotivated and demoralized leading to shattering their self-confidence, and their personal and professional development gets stunted. They ultimately succumb to this vicious cycle of failures and it poses a big challenge to rebuild their self-confidence and rescue them at this stage. It can even lead to noncompletion of the course and drop out from medical college.[4]

Thus, there is a need for the development of a student support system in every medical college to identify and support the learners who face problems during their medical education. A good student support system is designed to meet the academic and personal needs of the student. The goal of the student support system is to promote a friendly learning environment for the students so that they develop personally, emotionally, intellectually, and academically and motivate them to succeed in life. This requires a thorough analysis of the problems faced by the learners of the concerned medical college (needs assessment), followed by the formulation of a student support program. Despite the gravity of the problem, there is a dearth of studies in India to identify, define, and address the needs of learners. Thus, the present study was designed to do a situational analysis to identify and define the problems of learners and to develop a model for the student support system to address these problems in our institution.

**Materials and Methods**

**Study setting**

This study was carried out in a private medical college, which admits 150 undergraduate medical students per year from all over India. The college currently has a structured student support system with the functioning mentorship program for undergraduates, regular parents-teachers meeting, and student’s grievance cell. Currently, we are in the process of National Assessment and Accreditation Council (NAAC) accreditation and thus, are in the process of strengthening our student support system, which is one of the standards in the accreditation process.

**Study design**

It was a phenomenological type of qualitative research study. Phenomenological approach was chosen because it helps to bring forth the current personal experiences of people from their own perspectives.[5]

**Sample size, sampling, and study participants**

The study participants were 10 each of undergraduate medical students, faculties, and parents. Thus, a total of 30 participants were interviewed.

We have done an extreme type of purposive sampling[6] by identifying the 2nd-year MBBS students who have been consistently performing lesser than 20% in their internal assessment examinations and with low attendance percentage in all the subjects of the 2nd year. A total of 17 such students were identified, 10 agreed to participate, 4 refused, and 3 were reluctant to participate. Thus, the overall response rate was 58.8%. Parents of the corresponding low achiever students were approached during the parent-teacher meeting for the interview. Either the father or mother of the student, whoever came for the meeting and who consented for the interview was interviewed. Faculties who were in-charge/mentors of low-achieving students in the pre and para-clinical departments were identified and those who were vocal and willing to share their perspectives on the problems of the learners were interviewed, including an administrator.

**Justification for the adequacy of sample size**

The minimum size of a purposive sample needed to achieve theoretical saturation is approximated between 20 and 30.[7,8] In our study, the interviews were conducted till the point of saturation, i.e., after 8 interviews each with students, faculties, and parents, no new additional information was obtained. Thus, after 24 interviews, no new ideas or concepts emerged, and saturation occurred. However, since 30 participants consented for the study, all of them were interviewed.

**Data collection**

The study was initiated after obtaining approval from our Institutional Ethics committee (IEC code: SMVMCH-ECO/AL/66/2018).

Informed consent was taken from all the study participants. One-to-one in-depth interviews (IDIs) were conducted with a semi-structured interview guide. Semi-structured in-depth interview technique is a versatile approach which enables the establishment of good rapport between the participant and interviewer, thus helping in the generation of insightful responses and high-quality data.[9] A separate interview guide consisting of broad-opened questions with situational probes was prepared for the students, faculties and parents. The contents of the interview guide were validated by the second author, who was experienced in the field of qualitative research and also holds masters in health profession education. The first author, who was trained in qualitative methods, carried out one to one interviews with the various stakeholders. Each interview lasted for about 30–45 min. The interviews with the students were conducted on evenings and holidays, with the faculties during their convenient timings, and with the parents during the parent-teacher meeting. Adequate information was provided to the participants about the study. The venue of the interview was chosen by the participants as per their convenience, and privacy was ensured during
the interview process by making sure only the interviewer and participant were present throughout the interview process. The interviews were conducted in English except for six of the parents, who was interviewed in the Tamil language as per their convenience. In case of emotional outbursts of the participants during the interview process, comfort was ensured and their consent whether to proceed with the interview was again asked for. At the end of the interview, the key findings were summarized to the participant for their validation. All the permissions required before, during and after the conduct of the study were thus obtained.

Data analysis and interpretation
The following stepwise approach representing the Colaizzi process for phenomenological data analysis was employed in this study. The interviews were audio-recorded and transcribed verbatim by the first author. During transcription, personal details of the participants were anonymized. The transcripts were prepared as soon as possible, preferably within 1 week of the conduct of interviews. The six interviews conducted in the Tamil language were translated to English by the first author, who was well versed in both languages. Manual thematic analyses of the transcripts were performed by the first and third authors, who were trained in qualitative data analysis. The authors together coded significant text information in the transcript. The codes belonging to similar areas were clubbed together to form subcategories of problems faced by learners and their solutions. Finally, similar sub-categories were grouped to form categories. The codes, sub-categories, and categories were reviewed by the second and the fourth author for ensuring the validity of the interpretations in our context. The statements in Italics represent the direct quote from the participants. In order to explore the patterns, the content analysis was done using the framework approach to find out the frequency of contribution by various stakeholders to various categories.\cite{10}

Various strategies were employed to ensure the trustworthiness of the qualitative data [Annexure 1].\cite{11,12} Credibility of the data was ensured by prolonged engagement with the participants, persistent observation, data triangulation, investigator triangulation and member check. Moreover, a detailed description of the study methodology ensured transferability; and maintenance of audit trail ensured dependability and confirmability. The study findings are reported according to the “Consolidated Criteria for Reporting Qualitative Research” guidelines.\cite{13}

Results

Each interview lasted about 30–45 min. Equal number of male and female undergraduate students were interviewed (each \( n = 5 \)). However, more male participants were interviewed among the faculties (male:female = 6:4) and parents (male: female = 7:3). The participants’ age ranged from 19 to 21 years for students; 29–55 years for faculties; and 45–59 years for parents. Manual thematic analysis of the transcripts yielded 16 sub-categories and 7 categories. Statements in Italics indicate direct quotes or verbatim responses from the participants.

Category 1 – Curriculum-related problems
The students and faculties perceived that vast curriculum and noninteractive teaching methods as key problems faced by the learners. The possible solutions suggested were shown in Table 1. However, parents did not recognize any curriculum-related problems of the learners.

With reference to curriculum-related problems, a female student said “I just can’t cope with the huge syllabus and complex terms”.\cite{10}

As a solution for the problem of vast curriculum, a female faculty told “Trained subject experts can be allotted for students facing problems. When an additional academic mentor takes responsibility for such students, they become more aware of the strengths and weaknesses of the students and will be in a better position to guide them.”

Category 2 - Interpersonal adjustment problems/poor social skills
All three stakeholders were aware that maladjustment with classmates/roommates/friends/seniors/juniors contributed as obstacles to learning and they suggested counseling, conflict resolution/grievance addressal and teaching interpersonal and communication skills as some of the possible solutions [Table 1].

A female student said “My study times are not matching with that of my roommate, which is causing a lot of conflict between us. I study late at night, whereas she wants me to switch off the lights so that she can sleep and wake up early to study.”

Another female student said “I feel other students are isolating me because I am not good in studies. They do not share any study-related information with me and I always feel left out.”

Category 3 - Personal issues and family problems
The students felt that maladjustment to college hostel life and food, personal health issues of the learner, distractions, language barriers for the nonnative students, family problems, and financial problems as key problems they face with respect to the theme on “personal issues
and family problems”. Though the parents perceived the same problems, they did not realize that family problems and language barriers hindered the learning process of the students. Furthermore, the faculties did not realize that language barriers, family problems, and financial problems deterred the students from learning. The various solutions for these problems mentioned by the stakeholders are shown in Table 2.

With regard to the problem of distractions, a male student told “I forget things around me and have lost many days when I play video games”. Another male student said “I am missing my home food when I am in the hostel.”

As a recommendation to tackle students’ problems, a male faculty said “Suggestion boxes can be kept at various places in the college and hostel to get anonymous feedbacks from students about the problems they are facing.”

Category 4 - Cognitive learning problems
The students and faculties mentioned cognitive learning problems such as inability in comprehension and memorization, basic knowledge gaps, ineffective learning techniques, and poor language skills (both English and the Tamil language). Various solutions suggested for tackling these problems are shown in Table 3. On the contrary, parents did not recognize this domain as a potential problem of the learners.

A male student said “How much ever I read, I am not able to recall and write in the exams”.

Category 5 - Poor organizational skills
All three stakeholders realized that poor study habits as one of the major problems faced by the learners. In contrast, only the students and faculties recognized poor exam writing skills of the students and the parents were
unable to perceive it. The recommendations provided by the respondents are outlined in Table 3.

A male student said “If faculty prepares a study schedule for us, we will be able to read according to it.” A female student said “Hostel warden can monitor us during our study hours so that my friends will not disturb me when I am studying.”

**Category 6 - Students' lack of motivation**

All the stakeholders opined that lack of motivation of the students as a major contributing factor for learners’ problems. The respondents opined that counseling, motivation, and stress management programs would pave the way for their positive attitude towards studies [Table 3].

A male student said “I was interested to join engineering, However, my parents forced me to join MBBS.”

A female parent said “My son gets very angry whenever I ask him about his marks.”

**Category 7 - Miscellaneous problems**

The faculties felt that the pressurizing attitude of some parents to get high marks could be detrimental to the student’s learning, which can be mitigated by educating the parents regarding the nature of MBBS course and organizing frequent parent-teachers meetings. The parents were of the notion that the lack of information about their child’s performance in college leads to reduced parental support for the children. They advocate that frequent and periodic updates of the child’s performance from the institution would benefit them in guiding their children. They also suggested that the Hostel warden should give special care for the students staying in hostels.

Framework analysis illustrating the contribution of various stakeholders to the generation of various subcategories and categories are shown in Table 4. In short, only the students mentioned the problems of language barriers and family problems, whereas other stakeholders did not recognize this domain as a

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### Table 2: Category 3-Personal issues and family problems faced by the learners and their suggested solutions

| Sub-categories                                                                 | Problems of learners                                                                 | Solutions for the problems                                                                 |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Maladjustment to college hostel life and food (S, F, P)                       | Feeling homesick (S, F, P)                                                          | Counseling for homesickness (S, F)                                                       |
|                                                                                | Taking time to adapt to hostel life and food (S, F, P)                               | Quality assurance of good food in hostel (S)                                               |
|                                                                                | Reading pattern different from peers/hostel reading time (S)                        | Grievance addressal for problems relating to their education or stay in the campus/hostel (F) |
|                                                                                | Lack of parental support and mentoring (F)                                          | Strengthening of student council (F)                                                      |
|                                                                                | Suffering from acute and chronic illness (S, F)                                     | Keeping suggestion boxes to get anonymous feedback from the students (F)                   |
| Health issues (S, F, P)                                                        | Suffering from depression (S)                                                       |                                                                                           |
| Distractions (S, F, P)                                                        | Mobile phones, social media, video games and YouTube videos (S, F, P)               | Counseling from mentors and faculties (S)                                                  |
|                                                                                | Peer pressure-chatting and outings with friends (S, F)                              | Extra-classes for missed topics (S, P)                                                     |
|                                                                                | Listening to music (P)                                                              | Needs peer support and care (S)                                                           |
|                                                                                |                                                                                                                                              |
| Language barriers (S)                                                          | Difficulty in coping with local language (S)                                        | Routine premedical screening (F)                                                          |
|                                                                                | Lack of fluency in English (S)                                                      | Counseling for healthy life style (F)                                                     |
| Family problems (S)                                                            | Illness/diseases in family member (s) (S)                                           | Timely intervention-Referral to specialists (F)                                            |
| Financial problems (S, P)                                                      | Death of family member (s) (S)                                                      | Provision of extra care by faculties, warden and college (P)                               |
|                                                                                | Parents facing difficulties in paying the college fees (S, P)                       | Counseling from mentors and faculties (S)                                                  |
|                                                                                |                                                                                                                                              |
|                                                                                                                            | Language support (S)                                                                |                                                                                           |
|                                                                                                                            | Help from peers (S)                                                                |                                                                                           |
|                                                                                                                            | Counseling from mentors, faculties and support from peers (S)                      |                                                                                           |
|                                                                                                                            | Extra-classes for missed topics (S)                                                 |                                                                                           |
|                                                                                                                            | Financial assistance and scholarship can be given (P)                               |                                                                                           |

S=Students’ perspective, F=Faculties’ perspective, P=Parents’ perspective
Discussion

The in-depth interviews with the students, faculties, and parents showed that problems faced by the undergraduate medical students varied with the perspective of each stakeholder. It was interesting to find that all the categories were contributed by all the three stakeholders except parents who did not mention about curriculum-related problems and cognitive learning disabilities among students. Similarly, students did not contribute to the miscellaneous category.

Various solutions were suggested by the stakeholders to address the problems faced by the learners. These solutions were regrouped and reflected upon to develop the proposed model of a student support system [Table 5]. This is a team-based model, which has 4 key stakeholders (students, parents, teachers, and college administration) who form the backbone in the development and implementation of the support system in any institution. All the stakeholders should understand each others’ roles and expectations for meaningful and informed decision-making for problem-solving. Thus, this model is similar to the “sounding board” approach (Rogerian approach) to mentoring and counseling. It is based on students’ current experience of problems, and teachers play the role of facilitators to support and help students to solve their own problem.

Although certain institutions and universities offer student support services globally, there is scanty literature on the development of student support
systems for medical students in India. Moreover, the majority of the studies were focused on identifying and improving only the problem learners, unlike the present study, which aimed to propose a model for centralized student support systems and services for 1st and 2nd-year undergraduate medical students.

The results of this study were consistent with the findings of similar studies. A study by Hays et al. identified that immaturity, poor learning skills, poor organizational skills, transient personal crises, poor mental health, and poor insight were the most prevalent issues for which students sought support. A questionnaire-based study from Saudi Arabia demonstrated that peer competition, Poor English language skills, heavy curriculum, work stress, lack of knowledge on study materials, lack of time for family and social life, and stress and anxiety were the highly ranked problems.

A study by Vaughn et al. described four classes of problem learners among medical students (affective, cognitive, structural, and interpersonal class), which is congruent with the findings of the present study and proposed S-T-P model [specify the problem (S); desired target state (T); and procedure, plan, or path to get from S to T (P)] to provide solutions for the problem learners. Similarly, Steinert has described a framework for a medical student support system for undergraduate and postgraduate problem learners, from identification and definition of their problems to addressing the same.
The Foundation Course of the Competency-Based Medical Education (CBME) curriculum proposed by the Medical Council of India (MCI), offers an ideal platform to implement the components of the student support system in every institution. NAAC,[19] in its Guidelines for Assessment and Accreditation, insists “Student support and Progression” as one of the seven criteria which represent the core function and activity of a higher education institution. The council warrants each institution to have well structured, organized guidance, and counseling system. NAAC suggests that each institution should identify the reasons for poor attainment of the students, and should implement remedial measures. It also lays emphasis that institutions should promote active participation of the students in leisure activities, which can foster their holistic development.

Many medical schools worldwide have student support services, with some countries requiring it as a mandate as per their regulations. However, their effectiveness and practical utility has not been widely studied. A study to evaluate the effectiveness of student support services in a university in the United Kingdom showed equivocal results on the support provided by personal tutors, and lack of usage of career and counseling services by the students.[20] The student mentorship program, which was one of the essential components of the student support system proposed in our study, was shown to be effective in a study by Robertson et al.[21] However, the effectiveness of other components of the student support system remains obscure and requires further investigation.

The World Federation for Medical Education (WFME),[22] in its Global standards for quality improvement in basic medical education emphasizes that every medical school should have provisions for student support systems and services. Such system should render academic counseling, which would include appointing academic mentors for individual students for their residence preparation and career guidance. The institution should also render professional support in relation to social, personal, health, and financial problems. WFME also emphasizes the need for the allocation of resources for the implementation of the student support system by the institution.

The limitation of our study was that we used purposive sampling and this could have led to the exclusion of the views of those who were not selected. Furthermore, the authors acknowledge that this proposed student support system model is just guidance for the components to be incorporated in the system and every institution has to adapt it to suit their local needs. Moreover, with regard to the transferability of the data, the authors have given a detailed description of the context so that the readers can make decision about the suitability of study findings to their context.[11]

**Conclusion**

Medical students face problems related to vast curriculum, poor social skills/interpersonal adjustments, personal issues and family problems, cognitive learning problems, poor organizational skills, students’ lack of motivation, which hinders the quality of their learning. The proposed model of the student support system outlines the principal roles of four key stakeholders, namely students, faculties, parents and college administration. Further research is required on the means of implementing (pilot testing) each component of the student support system, its cost, feasibility, acceptability, sustainability, and effectiveness in improving students’ learning performance. We developed the support system model suitable for our context, which is aligned to students’ current problems.

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**Conflicts of interest**

There are no conflicts of interest.

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Annexure

Annexure 1: Strategies employed to ensure the trustworthiness of the qualitative data

| Criteria               | Strategy                      | Description of the strategy                                                                                                                                                                                                 |
|------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Credibility            | Prolonged engagement         | The researcher conducted an in-depth interview for as long as the participant was consenting to give information. The researcher used probing questions and encouraged the participants to explain their stand by giving examples. |
|                        | Persistent observation        | Semi-structured audio recorded interviews were heard many times and the transcripts were read repeatedly by the first and third authors. The emerged codes, categories and themes were discussed with the other authors and recoded and revised time and again to provide the intended depth of insight. |
|                        | Data triangulation            | The data was gathered from purposively selected 3 types of stakeholders namely students, faculties and parents. Thus, data triangulation in terms of person was performed.                                                        |
|                        | Investigator triangulation    | Manual thematic analyses of the transcripts were performed by the first and third authors, who were trained in qualitative data analysis. The codes, categories, and themes were reviewed by the second and fourth authors for ensuring validity of the interpretations in our context. |
|                        | Member check                  | At the end of the interview, the salient points were summarized to the participants and their consensus regarding the researcher’s interpretation was sought. In case of any discrepancies, the participant’s view was listened to in great detail and necessary modifications were made to the transcript by the researcher. |
| Transferability         | Detailed description          | Detailed description of the study setting, design, participants, data collection, data analysis and interpretation has been provided which would help the reader to understand the context of the study. It will also aid them in judging whether the results would be applicable in their setting. |
| Dependability and confirmability | Audit trail                  | A detailed account of the interviews, their raw data, transcripts, analysis notes, coding notes, categorization and theme generation has been preserved by the researchers.                                                   |