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Original Research Article

Perception of under graduate medical students on the family adoption program

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ABSTRACT

Background: The National Medical Commission introduced Competency Based Medical Education (CBME) in India to enhance the quality of medical training. Family Adoption Program, which is a key initiative in CBME, aims to improve health literacy and community care while providing medical students with experiential learning opportunities. Being a newly introduced program, there is deficiency of data on the perception and experiences of primary stakeholders, which this study intends to explore.
Methods: Descriptive study was conducted among medical students of a private medical college in Kozhikode district, Kerala. Universal sampling was used with a sample size of 300. Data was obtained through pre-tested questionnaire and was analyzed using SPSS version 25.
Results: Results indicated that majority of students understood the four main objectives of FAP. Most of them (95.5%) found the program to be beneficial to their academics and 98.2% recognized its value in their development as future doctors. Health issues were addressed effectively by 59.8%. While most students were comfortable interacting with their families, various challenges were also mentioned.
Conclusions: The study demonstrated that FAP has had significant positive impact on students' academic learning, community engagement and practical skills application.

Keywords: CBME, Experiential learning, Family adoption program, Medical education

INTRODUCTION

With the aim of improving the quality of medical education in India, the National Medical Commission (NMC) took a major initiative by introducing the Competency Based Medical Education (CBME) for the undergraduate medical curriculum, 2019. The NMC clearly laid out the various competencies which need to be achieved by an undergraduate medical student, at different stages of their course and put forward diverse and innovative teaching learning methods to realize the goal.[1] The Family Adoption Program (FAP) is one such novel initiative, introduced as part of the CBME.

The program aims at increasing the availability and accessibility to medical care in rural areas, it also intends to provide an experiential learning opportunity for the medical students towards community health care.[1,2] It also tackle issues such as health illiteracy, ignorance about communicable and non communicable diseases, schemes and services available for the community and so on. The FAP will create a window of opportunity for the students to understand the prevailing health inequities and the social determinants of health.[3] It is expected to encourage the budding doctors to opt for a more empathetic approach to health care delivery by understanding patients lives beyond their medical conditions.

The NMC mandates the FAP to be conducted under the department of community medicine, from the 1st professional year and continued till the end of the 3rd professional year, with competencies spread over the entire duration of the program. It involves the adoption of 3-5 families by each medical student, in villages that are preferably not covered by the PHCs adopted by the medical college.[2,4] FAP identifies the different targets and competencies for community-based orientation and training clearly in terms of the number of visits as well as camps and other objectives. FAP serves as an opportunity for colleges to discharge their social responsibility and a critical platform to execute authentic learning for undergraduate students.[5]

Being a newly introduced program, it comes with its own set of opportunities and challenges. Thus, it becomes essential to understand the perceptions and experiences of the primary stakeholders, the medical students and family members towards the program. There exists a scarcity of data regarding the same in India as well as complete absence of similar studies in Kerala, which further elevates the need for this study.

In this context, a study was conducted with the objectives of describing the students' perception of the family adoption program, outlining their perspective on the families' perception of the program, and detailing the challenges and operational difficulties they faced.

METHODS

This cross-sectional study was conducted at a private Medical College in Kozhikode which has annual intake of 150 students per MBBS batch. FAP has been ongoing in the college since 2021 itself and selected Chathamangalam Panchayath has been selected for the conduct of FAP, which has a population of around 50,000 and spanning an area of about 40sq.kms. As a part of this, students visited the designated houses on fixed days of every month and maintained an FAP diary and logbook throughout their course to document their experiences and interactions. We conducted medical camps and various health education sessions in the adopted areas.

The study was conducted between June 2024 and October 2024 among 300 students with 150 participants from each of the second, third professional year batches (2022, 2021 year admissions), using universal sampling. The first professional year batch (2023) was excluded due to their limited exposure to FAP. Universal sampling was employed. After getting informed consent the data was collected using a pretested questionnaire, prepared by investigators who are faculties in the department. It consists of 4 sections- (a) students' perspectives towards FAP, including their understanding of the program's objectives; (b) academic gains from participation in FAP; (c) students' outlook on the families' perception towards FAP; and (d) future challenges and potential gains for students. Students from each batch were divided into small groups consisting of 25 each, with mentors assigned to each group. These mentors were equipped with the study questionnaire and they explained the study's objectives to their respective students, following which the questionnaire was distributed to students via WhatsApp as a Google Form with associated instructions.

Statistical analysis

Statistical analysis was done using SPSS version 25. Descriptive statistical methods like frequencies and proportions were used. Students' responses were collected with graded responses.

Ethical consideration

The study obtained clearance from the institutional ethical committee via an expedited review process. Prior to the data collection, details of the study were explained, and informed consent was obtained and anonymity was ensured throughout the study.

RESULTS

Out of 300 participants 291(97%) responses were obtained and analyzed. Among the participants 51.5% were from 2022 batch and remaining were from 2021 batch in which 215 (73%) were females. The results about correct perceptions about the objectives of FAP and their learning experience in FAP were given in Table 1.

Table 1: Perception of students on FAP objectives.

Perception of students towards FAP		Frequency (n)	Percentage (%)
Objectives of FAP prescribed by NMC* (N=291)	Community engagement	236	81.1
	Communication with the community members	222	76.3
	Social responsibility of medical student	210	72.2
	Students as first point of contact	11	3.7
Learning experience* (N=291)	Communication skills with the common people	217	74.6
	Cultural practices of the community	202	69.4
	Morbidity pattern of the family	209	71.8
	Health seeking behavior of the community	253	86.9
	Health care delivery system	234	80.4

*multiple responses

The above results indicated that the majority of students understood the objectives of FAP. When asked to grade the positive learning experience by FAP , most students reported as understanding the health-seeking behavior of the community (86.9%) and the public health care delivery system (80.4%) as answers.

Majority of participants (95.5%) accepting that FAP was beneficial to their academics, 98.2% (286) also recognized its value in their development as future doctors (Table 2).

Table 2: Perception about benefits for the students from FAP* (n=291).

	Yes		No	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Establishing rapport between students and community*	216	74.2	15	5.1
Beneficial to current academic programs	278	95.5	13	4.4
Participating and organizing community health related activities	225	77.3	66	22.7
Opportunity to apply practical knowledge in clinical learning	225	77.3	66	22.7
Beneficial as a future doctor	286	98.2	5	1.7

*Neutral opinions not given in the table

Table 3: Students' outlook on the perception of adopted families and the benefits of FAP to families.

	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Comfortable Interaction with family members	285	97.9	6	2.1
Communication barrier with family members	88	30.2	203	69.8
Contacting family other than regular visits	199	68.4	92	31.6
Approaching students for family medical care.	164	56.4	127	43.6
Effective in addressing health issues of the family members	174	59.8	117	40.2
Referral service done	272	93.5	19	6.5
Follow up after a health events	125	43	166	57
Intend to keep contact with the family in future*	125	43	37	12.7

*Neutral/No opinions not given in the table

Another primary stake holders in FAP are the selected families. The perspective on the families' perception of the program is given in Table 3.

In assessing the family's approach towards participants, 246 (84.5%) found the interaction to be friendly and >97% students were comfortable interacting with their families. Also, 68.4% (199) students told that they have contacted the families other than during the regular visits as well. The major method of such contacts was through phone calls (99%, 197).

Among the 225 (77.3%) subjects who had participated in at least one activity organized in the adopted area, 13.4% (39) participated in medical camps, 35.4% (103) in health education activities, 21.7% (63) in role plays, 6.9% (20) in spreading awareness through video messages, and 51.9% (151) in pamphlet distribution.

Table 4: Perception of students on operational issues of FAP.

Operational difficulty	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Whether department has organized FAP well?	218	75	73	25
Whether Current duration of each visit is adequate?* (Monthly 1day -forenoon)	183	63	47	16
Whether there were any difficulties in reaching the family	192	66	99	34
Whether there were any difficulties in availing family members at the time of visit?	289	99.3	2	0.7

*Neutral/No opinions were omitted in the table

Being a newly introduced program in the course, with disproportionate student teacher ratio and time constraints, FAP has got its own challenges. Operational issues of FAP given in Table 4.

As given in the table 4 among various challenges of FAP, majority mentioned about the difficulty in accessibility to houses allotted and also about the unavailability of family members at the time of visit. The increased academic load

(27.3%) and lack of time were also some of the problems faced by the students.

DISCUSSION

The study was conducted to understand the perspective of undergraduate medical students toward the FAP, their perspective on the families' perception of the program, and the challenges and operational difficulties faced.

Although the program was recently introduced into the curriculum, the majority of students correctly identified its four main objectives. Most students recognized key objectives of the Family Adoption Program (FAP), including community engagement (81.1%), communication skills (76.3%), and social responsibility (72.2%), highlighting the program's positive impact in these areas (Table 1). Around 75% of the participants in our study feel that their communication skills have improved along with other academic gains like understanding the cultural practices, morbidity pattern, health seeking behavior and health care delivery (Table 1). They also accepted that FAP has assisted in creating and improving the connection between medical students and the community which is similar to the studies done in Tamil Nadu (93%) and Delhi (>80%).[6,7] In the study done at Assam, around 53% of students pointed out that FAP helped them gain knowledge, psychomotor skills, attitudes and communication skills relevant to the Indian Medical Graduate(IMG).[8]

Our study (87%) also specified that FAP aided them in understanding the health seeking behavior of the community; which was higher than the reported in other studies in Assam (54%).[8]

While about 72% of the participants in our study believed that FAP helped them in understanding the morbidity pattern of the adopted families while 95% medical students from rural TN felt that FAP was useful in making them understand the disease profile of the rural community.[6] Whereas, the participants of the study done at Jorhat Medical College, Assam had dissimilar opinion, where they observed that only 53.6% students felt that the program was useful in comprehending the community health status and social structure of the area.[8]

While students put FAP to good use, the families they adopted also reaped various benefits out of the program. Many of the students in our study used to keep in touch with the families and contact them over phone to enquire about their well being, in addition to the monthly home visits. This often made the families reach out to these students in case of any medical assistance or advice. Around 56% of the families had approached the students on several occasions, out of which 53% sought their help more than once. Meanwhile, the qualitative study from Andhra Pradesh was of the view that expert health facilities were widely available, and most people knew a doctor personally. If a family already had a trusted doctor, they were unlikely to approach medical students in times of need.[9]

In addition to the monthly house visits, participants also took part in medical camps and spreading awareness through health education sessions, role plays, video messages and distribution of health related pamphlets, all of which were intended to benefit the families. While studies from different regions of India emphasized the positive impact of student involvement, particularly Assam and Mysuru focused on general health support, whereas Tamil Nadu highlighted illness identification and service information.[6,8,10]

Considering the perception of students on the effectiveness of FAP in addressing family health issues, 60% of our students perceived the program was effective which is higher than (50%) that of Mysuru.[10] Almost 50% of the participants in studies conducted in rural Tamil Nadu and at Army college of medical sciences, Delhi obtained similar results, where they thought that the lives of the rural population will be improved by this venture and that they will be able to make a difference in the health status and attitude of the families.[6,7]

Some of the main challenges faced by our students as part of their FAP visits were the lack of time for communication in order to achieve the expected targets during each visit (51.8%), the academic load (52%) they had in the respective phases of MBBS and the unavailability of the family (32.9%) at the time of visit. Time constraints was found to be a challenge in FAP implementation in the study conducted by Landge et al in Maharashtra, as well as in the study by Shikha et al in Jharkhand.[11,12] The unavailability of families at the time of visit was also reported to be an issue in similar studies conducted at Army medical college Delhi, and at a new medical school of Jharkhand.[7,12]

The responses from our study indicate that 84.53% of families were perceived as friendly and approachable, emphasizing a positive dynamic between students and their adopted families. While studies from Assam shows the non-cooperation from the adopted families where 90% of students reported difficulty in gaining cooperation from their families. Students also reported that most of the time, the families were busy with their household chores and were not willing to spare time for the students.[8] Such non-cooperation was also reported to be felt by students, in studies conducted at Maharashtra, Delhi and Tamil Nadu.[7,11,13] However in the study conducted by Vairavasolai et al in rural Tamil Nadu, it was reported that 88% students felt that the families were cooperative, and 91% students felt that they had gained enough trust from the family members.[6] However, communication barriers were acknowledged by 30.2% of respondents, indicating areas where improved strategies or support were needed. In the study conducted in Assam almost 89% students had difficulty in communicating with the families.[8] On contemplation, the communication

barriers were probably felt by non-local language (Malayalam) speaking students of both batches. This linguistic barrier was found to be an issue in identical studies done elsewhere.[10-13] The comparatively minimal communication barrier in our study might stem from adoption of methods such as assigning native language speakers along with non-native speakers and their commitment to learning the local language. Many students were even invited to attend family functions, such as weddings and birthday celebrations, in their adopted families. The strong bond many students developed was evident, as 43% of them expressed their intention to maintain contact with these families after completing their medical course.

In order to get the complete perception of stakeholders regarding the family adoption program, we had invited suggestions from students regarding the future possibilities of the program.

Majority (61.51%) of students felt that FAP should be initiated in phase 1 which may be attributed to earlier community engagement, enhanced learning experience and emphasizing values and that it should be mandatory in the MBBS curriculum (66%). Majority (66%) also felt that support from other departments is necessary for the efficient conduct of the program. This becomes relevant in the context of integrated teaching expected in the current medical curriculum. This is in contrast with the study conducted in Army College of Medical Sciences in Delhi where >80% agree that this program should be a part of the MBBS curriculum, while 70% feel that FAP should have been included at a later stage of the curriculum and half of them feel this time could have been better utilized for first-year subjects.[7] Faculties who were interviewed as part of the study conducted in Assam also mentioned that it would be better if FAP was initiated in phase 2 MBBS as the students would have got some clinical exposure by then.[8]

The overall experience of participants in the Family adoption Program (FAP) reflects a predominantly positive response, with around 70% expressing satisfaction. This high satisfaction rate indicates the program's effectiveness in meeting student expectations and fostering valuable learning experiences outside the classroom. This may be accredited to approachable family and better mentorship and support provided by faculty. Similarly reported in Western India, where majority participants reported a good overall experience.[11]

The use of universal sampling with 97% response rate ensures comprehensive representation of the target population. The study population comprised medical students admitted through the National Eligibility cum Entrance Test (NEET) from the national merit list, reflecting diverse socio-economic backgrounds and geographic locations were strength of our study.

The limitations were that our study was based on self-reported data from participants, which introduces potential biases. Social desirability bias may have influenced respondents to provide answers they perceived as more socially acceptable. The study was conducted in a small geographical area, and the method of implementation FAP is unique to this setting, findings may not be easily generalisable to other regions or institutions with different FAP structures and practices.

CONCLUSION

The study demonstrates that the Family Adoption Program (FAP) has had a significant positive impact on students' academic learning, community engagement, and practical skills application. The majority of students acknowledged the value of FAP in enhancing communication, social responsibility, and health care delivery. Although operational challenges such as time management, family unavailability, and accessibility issues were identified, the overall experience was perceived as highly beneficial. Moreover, a vast majority of participants agreed that FAP is essential in shaping future doctors, underscoring the importance of integrating it into the medical curriculum.

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