ORIGINAL ARTICLE

Exploring perception of stakeholders regarding family adoption programme: A mixed method study

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Abstract

Background: Initiative of National Medical Commission to introduce family adoption programme starting from first year is a welcome step in the process of making community oriented Indian medical graduate. *Aim and Objectives*: The study aimed to interpret perspectives of students and community about family adoption programme, and to determine the challenges encountered in implementing the family adoption programme. *Material and Methods*: A mixed method study was conducted to understand the perspectives of stakeholders (the first batch of MBBS students and the community adopted) after taking due permission from institutional ethics committee for a duration of 8 months. Quantitative data was collected from the students and the community members using a pre-tested, semi structured and validated questionnaire. Further exploration of views from the stakeholders was done by applying qualitative methods (FGD). The quantitative data was entered into a Microsoft excel spreadsheet and analyzed using Epi Info version 3.4.3. The qualitative responses obtained were analyzed using a mixed method sequential analysis. *Results:* The majority of first-year medical students (89.2%) had been to village before joining the course. Most of the students showed a favourable attitude towards the family adoption programme. Non-availability of all family members (81.67%) and locked houses (51.6%) were common difficulties reported. Few families (13.0%) showed disinclination to share information. Overall feedback of villagers towards family adoption programme was favourable (90.0%). *Conclusions:* Students and community members considered family adoption programme as unique approach to meet the health needs of the rural community.

Keywords: Community, Indian Medical Graduate, Health Demands, Family Adoption Programme

Introduction

In a community-oriented medical education model, the community is an important learning environment within a selective social context. Inclusion of health needs of community in medical curriculum is promising in helping students to perceive the social dimensions of health. Engrossing the educational experiences relevant to community needs is a prescient endeavor for medical students and community [1-2]. India has majority of its population residing in rural area and they are facing many challenges in accessing health care services. Hence, medical students and doctors should take steps to improve the situation by training an Indian medical graduate who is well oriented to needs of rural communities [3-4]. Medical education has undergone a paradigm shift with the introduction of Competency-Based Medical Education (CBME), which emphasizes the integrated development of communication, knowledge, and attitude of medical student [5].

Family Adoption Programme (FAP) has been introduced by National Medical Commission

(NMC) as a component of CBME curriculum. FAP has an objective to provide opportunity to Indian medical graduates to understand community-based health care and thereby equal access to healthcare. First year medical students are allotted three to five families per student and the families are followed up in a regular interval. This helps students become oriented to rural settings and provides valuable opportunities for community-based learning [3, 6].

This study was an attempt to understand the perspectives of community members and students pertaining to the FAP, and to identify the challenges faced during its implementation. Thus, helping to assess the effectiveness of this new addition to the curriculum.

Material and Methods

A mixed-methods study was carried out over a duration of 8 months (June 2023 and January 2024) to understand stakeholder perspectives, with prior approval from relevant authorities and the Institutional Ethics Committee.

Quantitative component

After completion of six visits to the allotted families in selected villages, students were explained about the study and those who gave informed consent and were willing to participate were included. Students were given pre-tested, semi-structured and validated questionnaire. The questionnaire had questions related to socio-demographic details, perception on FAP, attitude towards FAP and challenges faced during family adoption visits. For the attitude questions, participants were asked to express their opinion by choosing either agree or disagree on a dichotomous scale.

Subsequently, community response was recorded by using a pre-tested, semi-structured, validated questionnaire consisting of questions related to their satisfaction, expectation from the medical undergraduate students visiting them and their requirements.

Qualitative component

Part A: Student responses

First year MBBS students were selected purposively considering their overall interest and participation during FAP related activities and should have had made minimum 6 visits to the families allotted. Participants were distributed by the investigator to have equal male and female students' representation in each group formed.

Total 3 focus group discussions were conducted till data saturation. Each focus group discussion consisted 6 to 8 students, moderator, recorder and observer. It was ascertained that all participants actively contributed to the discussion. The session was recorded using a voice recorder.

Each group for focus group discussions was addressed by the investigator by welcoming them to be part of the study, the purpose of the study was explained. Groups were encouraged to express their frank opinion in a non-intimidating environment wherein anonymity of the responses was maintained. Each participant's response was recorded by observer by labelling the participants as F1, F2 ---- F8 for first FGD. Further numbering was continued for the subsequent FGDs. The discussion was initiated by asking them to describe their individual experiences regarding the FAP. To keep the discussion going, probes and cues were given by moderator asking them about what they feel as advantages, difficulties, and suggestions about FAP using pretested interview guide.

Probes and cues used were like –

How often do you attend the programme?

What are your favourite aspects of the programme?

What do your fellow students think about the programme?

Which aspect of the programme you would like to improve?

What would you like to add to the programme?

The discussion was recorded using digital voice recorder.

Part B: Community response

In the hope of acquiring responses from the community members from villages adopted under FAP, focus group discussions were conducted involving 8 to 10 members from the selected villages using pre-tested interview guide.

Potential participants who were likely to contribute to the study objectives were identified by the investigator with the help of Anganwadi worker from each selected village. Community members were informed about the purpose of the study and were told to gather at a common place like Anganwadi schools. In each village, we conducted focus group discussions and participants were labelled as C1, C2----C10 for first focus group discussion. Further numbering was continued for the subsequent focus group discussions. Responses were collected till data saturation was achieved with the help of trained investigator as moderator. Each session was recorded using digital voice recorder and observer noted responses given by each participant in their own words (vernacular language -Kannada).

Sample size

Quantitative component

A total of 120, first year MBBS students who were willing to participate in the study were included. Sample size of 181, for the residents of FAP villages was calculated using following formula

$N = 4PQ/L2$

Where, P is 52%

(DHS, Tumakuru district, utilization of health care services by antenatal mothers) and L is 15% relative error $= 4 (52) (48)/7.8^2$

$= 165$

Sample size derived was 181, considering non response rate of 10 %.

Sampling technique

Quantitative component

First year MBBS students were selected using universal sampling. Community members were included in the present study by using systematic sampling technique. First house was selected randomly from the list of 3700 families available and then followed by every 20th house to obtain 181 houses using systematic random sampling technique. One adult (>18 years) family member from each family who was available at the time of visit was included for recording the response using a pre-tested validated semi-structured questionnaire as shown in figure 2.

Informed consent was obtained from them after explaining about the present study. During selection of the sample, if the house was closed or no family member was available even during 2 subsequent visits then the next house was selected.

Qualitative component

To explore the perception of stakeholders (students and residents of villages adopted) focus group discussions were conducted till saturation was obtained.

Statistical analysis

Quantitative data

Data were entered in Microsoft Excel sheet and analyzed in Epi Info version 3.4.3. Descriptive statistics like percentages and means were derived.

Qualitative data

The data collected was analyzed using a mixed method sequential analysis. For this, based on analysis of quantitative data obtained from the questionnaire, topic guide was prepared consisting of following themes

1. Experience
2. Benefits
3. Difficulties
4. Suggestions to improve upon

After listening to the recorded sessions, the responses were transcribed to codes followed by generation of themes.

Results

A total of 120 (first year MBBS) students participated in the present study. Majority (89.2%) of study participants had been to village before joining MBBS whereas 28.5 % of study participants had heard about FAP before joining MBBS course. Most of the study participants reported that they first heard about the FAP through friends (57%) and relatives (22%). Table 1 displays the viewpoint of undergraduate medical students regarding FAP to be desirable as most of them responded favourably to questions asked.

When asked about challenges faced during FAP, most common difficulty was non-availability of all family members during visit followed by locked houses as presented in Table 2. After obtaining response from undergraduate medical students, we approached community members. A total of 218 members from villages adopted under FAP responded. Questionnaires were administered to the members available at home at the time of visit. Questionnaire consisted of closed and open-ended questions to understand the perception of community members regarding the FAP.

Out of 218, 124 (57%) were females and many were in 30 to 50 years age group and 94 (43%) were males of which majority were in 40 to 70 years age group as shown in Table 3. During the visit we could contact more females than males.

When asked about their first time response when heard about FAP, majority (82%) replied positively mentioning that it is new and this may be beneficial for them and they may get aided with free health check-up, regular blood pressure and blood sugar monitoring, free medicines, health awareness, early diagnosis of diseases. However, a few (12%) had opined negatively saying that it is waste of time and is of no use and the remaining (6%) had neither any idea about the FAP nor they showed any interest as displayed in Table 4.

Family members were asked about their willingness to share the information which is asked by students as per the logbook. Majority of them were comfortable sharing the information asked. A few of them (13%) were not willing to share information especially when related to socioeconomic status and use of family planning methods as shown in Table 5. Most of the family members (99.5%) were satisfied when enquired about student's appropriateness while interacting with them. Combined responses were recorded from the participants regarding the benefits obtained. They included - screening for diabetes and hypertension, regular health check-ups, health education, and provision of a subsidized health card were

mentioned, with regular health check-ups and the subsidized health card being the most frequently reported. Family members (98%) expressed their gratitude saying that regular visits by medical students improved their awareness regarding health-related issues and benefited the village at large (94%). Overall feedback from the community was favorable (>90%) towards FAP. Further to explore perspective of students about FAP, focus group discussion were conducted and themes were derived as shown in Table 6.

To understand perspective of community regarding the FAP, focus group discussions were conducted and themes were derived as shown in table 7.

Discussion

FAP provides learning opportunity for the medical undergraduates and in turn help the community to solve the health problems. But it comes with few challenges also. Keeping this in mind we tried to understand the views of the stakeholders, community members, and the students. In the present study, undergraduate medical students showed positive attitude towards FAP. Students agreed that the community exposure provided through FAP helped them understand the dynamics (93.34%) and factors influencing health and disease pattern (96.67%) in rural areas. Majority opined that interaction with families improved their communication skills (97.5%) and confidence to interact with patients during early clinical exposure (83.33%). A study done by Arora *et al*. [7], > 80% of first year medical students had agreed that FAP should be included in the medical curriculum and FAP visits to community helped them improve their communication skills. Similar experiences had been mentioned by Gaurav *et al*. [8], in a study

Table 1: Attitude of undergraduate medical students regarding family adoption program (N=120)

Questions	Agree Number (%)	Disagree Number (%)
FAP provided opportunity to understand dynamics of rural set-up	112 (93.34)	8 (6.66)
FAP helped us in improvising with our communication skills	117 (97.5)	3 (2.5)
We were able to identify health and social issues in the family during FAP visits	113 (94.17)	7 (5.83)
FAP visits enabled us to understand various dimensions and factors influencing health and disease pattern in the community	116 (96.67)	4 (3.33)
Interaction with the families during FAP visits improved our confidence to interact with the patient during early clinical exposure	100 (83.33)	20 (16.67)

FAP – Family adoption programme

Table 2: Challenges faced during the FAP visit

Challenges faced during the FAP visit*	Number (%)
Non-co-operative family members	33 (25)
Door was closed for three consecutive visits	62 (51.6)
Not all family members were available	98 (81.67)
Language barrier	16 (13.33)

**Question had multiple answers; FAP – Family adoption programme*

Table 3: Frequency distribution of male and female as per age group

Age group	Male Number (%)	Female Number (%)
< = 20	2 (2.1)	3 (2.4)
21 -30	11 (11.7)	18 (14.5)
31 - 40	12 (12.8)	29 (23.4)
41 - 50	27 (28.7)	31 (25)
51 - 60	22 (23.4)	18 (14.5)
61 -70	20 (21.3)	15 (12.1)
71 - 80	0	7 (5.6)
> = 81	0	3 (2.4)
Total	94 (100)	124 (100)

Table 4: Frequency distribution of responses for FAP

Responses	Number (%)
Positive response	178 (81.65)
Negative response	26 (11.92)
Neutral	14 (6.43)
Total	218 (100)

FAP – Family adoption programme

Table 5: Frequency distribution of responses for aptness to share information

Aptness to share information	Number (%)
Yes	190 (87.15)
No	28 (12.85)
Total	218 (100)

Table 6: Responses of undergraduate medical students during focus group discussions regarding FAP

Raw data	Subtheme	Theme
Improving communication skills, gave an idea of approaching people, got an idea of how to talk to the patient, got to know how to respond to other - F1, F3, F8, F16 *How to interact with rural people and understanding of their mindset* - F7 *Building trust among the community* - F18, F 20 *Help them to learn the local language* - F13 *Act as communicating media between people and doctor* - F1, F15	Improved communication	Benefits
Got an idea about the village lifestyle and common problem faced by rural people, got to know about the community - F9, F14	Improved understanding of rural area	
Understanding the perspective of patients - F18, F21 *Learnt how to advise about diseases and medicines* - F10, F22	Giving advice	

Continued...

Families were not ready to accept us - F5, F6, F17 *Family members were not cooperative* - F5, F11 *People did not have confidence in us since we were young* - F2, F3, F19 *Once they knew we were students, some people were not ready to give information* - F2, F3, F19	Unacceptance	Difficulties faced
They are not ready to share few details such as family planning, Aadhaar number and income etc -F1, F2, F16, F20	Reluctance	
Not everyone is available in the houses - F1, F3, F8, F12, F13 *Children were not be available during visits* - F3, F4, F9 *Only women were available in the houses, so they did not allow male student to enter the house* - F8, F12, F13	Unavailability	
I found it difficult to communicate due to language barrier - F12, F14	Language barrier	
People are expecting us to give drugs - F1, F3, F6, F7, F11, F18, *Cannot explain and suggest the drugs* - F1, F3, F6, F7, F11, F18	Expectations	Challenges ahead
People are losing interest in FAP over subsequent visit - F1, F2, F9, F19, F22	Loss of interest	
Community medicine is an added burden in 1st year - F2, F5 *Other subject to study and writing record is tough* - F3, F7, F9, F20	Added burden in first year	

FAP – Family adoption programme

Table 7: Responses of community members during focus group discussions regarding FAP

Raw data	Subtheme	Theme
Information was given regarding different diseases like diabetes, BP, dengue, anemia – C5, C8, C13, C20 *Health education regarding healthy nutrition, anemia, exercise, hygiene was given* – C12, C13, C17, C20	Information, education, and communication	Benefits
Told about importance of regular health checkup – C4, C5, C8, C13, C14, C22, C25 *Students check BP, sugar at our home and is very useful* - C3, C4, C9, C11, C13, C22, C25, C28 *This programme is useful for us nearly 80% good* - C4, C5	Health and disease monitoring	
Camp conducted are beneficial - C2, C3, C4, C9, C13, C14, C15, C20, C22, C23	Services	
Medicines are not prescribed by the students visiting families - C2, C9, C11, C18, C21	Medicine distribution	Requirements
Emergency medicines are not given for conditions like sudden high BP - C2	Treatment for emergency	
Visit times are not ok - C12	Hesitancy	Difficulties faced
All members in the family will not be present during the visits - C3, C4, C9, C11, C13, C22, C25	Unavailability of family members	

FAP – Family adoption programme

conducted at Thane, Maharashtra, along with strong agreement for importance of FAP visits to understand the health problems in the community as opined by majority (64.66%) of first year medical students. In a study conducted by Yalamanchi *et al*. [9], deeper insight into the living conditions of patients and practical experience of working in community had been reported by first year medical students. FAP is a very ambitious initiative taken by NMC with dual purpose of providing community-based training for undergraduate students and thereby bringing improvement in health of adopted families.

This opportunity comes with challenges from both the ends (provider's and receiver's end). Considering the students' responses the main challenges were non availability of family members (81.7%),

locked doors during visits (51.6%), noncooperative family members (25%) followed by language barrier for other than Karnataka state students (13%). In a study conducted by Chhabra *et al*. [10], similar problems had been encountered. The major challenges were communication barriers and difficulty in gaining the trust of the family members. Dongre *et al*. [11], have also reported that the most common difficulty encountered in the implementation of field-based teaching programs are the cooperation from the people.

Similar challenges were faced by students in other studies along with experiencing extreme heat due to effect of terrain [12-13]. Students in the present study expressed their difficulty in attaining the demand of adopted families to provide or prescribe medicines during the focus group discussion, as they had no knowledge about it in first year MBBS, which made them feel unprepared. In a study conducted by Shree *et al*. [12], community exposure through FAP visits was not agreed upon by the students, as they had inadequate knowledge and lack of clinical skills to provide care to the adopted families.

Arora *et al*. [7], in their study conducted at Delhi, explored perception of medical students about FAP visits. Nearly > 70% students stated that inclusion of FAP during subsequent years and 50% had opined it would have helped in optimal utilization of time for first year subjects. Even in present study, few students felt FAP is an added burden in 1st year MBBS. Further the perception of community regarding FAP was explored in detail using the focus group discussion. In the present study, majority (82%) of villagers favorably said that this new initiative may be beneficial for them as they were hoping to get free health check-up, regular blood pressure and blood sugar monitoring, free medicines, health awareness, and early diagnosis of diseases. However, a few (12%) had opined negatively saying that it is waste of time and of no use while the remaining (6%) had neither any idea about the FAP nor they showed interest.

Sai *et al*. [13] who tried to study perceptions on FAP among the rural population and determine the barriers to health-care utilization among them, found that most of the villagers perceived FAP well (75%). Rest of them who did not perceive it well, could be attributed to the lesser felt need among such groups for the concept of undergraduate students coming to their homes to create awareness of health among them for better health-care utilization. Those who were not conducive in the present study were found to be not comfortable with medical students visiting their house, asking them personal details. Those who cooperated initially had their demands to be fulfilled. Further exploration of the responses obtained was done in the present study by conducting focus group discussion with community members.

Even though most of them were hopeful and satisfied with the services provided, few were of the view that medicine should be prescribed for the complaints they have had along with management of emergency conditions during the visit by medical undergraduates. In order to fulfil their demands of medicines, health checkup camps were conducted at a frequency of one camp every month for each selected village where medicines were provided free of cost. Later, survey was conducted to know the number of patients with hypertension and diabetes in the adopted community.

Further, antidiabetic and antihypertensive medications in the required dosages were distributed to

individual patients for a period of one month. Dosage adjustments were made based on random blood sugar and blood pressure readings. Students were told to motivate family members and bring them to the camp, thereby involving them in delivering health care to the adopted families. In the present study, we not only recorded the responses from study participants but also tried to understand in depth the problems encountered and the results of the study were further used in bringing in change in desired direction. Many of the participants during focus group discussions conducted in community were females. Very few participants were males due to work related acquisitions.

Conclusion

In our study, majority of the students and community members replied favorably regarding FAP. It helped students to interact with and improve their communication skills. However, it comes with few challenges like students feel unprepared in their very first year of medical curriculum for providing or prescribing medicines and decline in overall interest from stakeholders during subsequent visits.

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