Family medicine: Perception and attitudes among Indian medical students

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Abstract
Context: Currently, family medicine is not taught as a part of the undergraduate medical curriculum in India. In this context, the perceptions and attitudes of Indian medical students regarding family medicine as a career choice were studied. Aims: This study aims to study the perceptions and attitudes prevalent among Indian medical students regarding family medicine as a career choice and discuss its future implications. Settings and Design: Cross-sectional survey study design. Methods and Material: We conducted a cross-sectional survey of undergraduate medical (MBBS) students attending the 2016 medical student conference DEMEDCON at Sri Devaraj Urs Medical College in Kolar, Karnataka, India. Besides demographics, the survey included questions pertaining to awareness, exposure, and interest in family medicine in India. We also asked an open-ended question regarding the respondent’s perception of the future of family medicine in India. Statistical Analysis: Simple statistics such as mean and frequency (%) were calculated. Given the small sample size, no formal tests for statistical significance were performed. Results: Responses were collected from 45 students between the ages of 18–24 from 6 medical colleges across Karnataka and Puducherry. The majority (64%) of respondents were in their 3rd or 4th year of medical college. 98% of respondents expressed a desire to learn more about family medicine as a specialty, and 82% expressed a need to introduce it as a subject in medical college. However, only 58% were aware of the Medical Council of India accredited status of family medicine in India. Conclusions: There exists a significant lack of awareness and inadequate exposure among Indian medical students toward family medicine. Nonetheless, there is widespread optimism and a desire to learn more about the subject. Increased awareness and avenues for exposure to family medicine in the formal undergraduate medical curriculum is the need of the hour.

Keywords: Family medicine, primary care, undergraduate medical education

Introduction
The role of well-trained family physicians in providing comprehensive and patient-centric care that results in improving patient outcomes in a cost-effective manner while promoting health equity is widely acknowledged.1-5 However, in India, primary care and family medicine still remain inadequately developed.4,7 In addition, the exposure to, understanding of, and interest in family medicine among undergraduate medical students are poorly understood.9 This understanding is of great relevance since this student pool forms the medical workforce of the near future, and their perceptions and choices have an impact on changing the landscape of health care. In this context, we explored the knowledge, awareness, and attitudes of medical students toward family medicine.

Subjects and Methods
We conducted a cross-sectional survey in April 2016, that was administered in the form of a questionnaire to undergraduate
medical (MBBS) students attending the 2016 medical student conference DEMEDCON at Sri Devaraj Urs Medical College in Kolar, Karnataka, India. Besides demographics, the survey included questions pertaining to: (1) Awareness and exposure to family medicine, (2) Interest in family medicine as a career choice in India or overseas, and (3) Likelihood of choosing family medicine as a specialty. We also included an open-ended question regarding the respondent’s perception of the future of family medicine in India.

Questions regarding awareness of and exposure to family medicine looked at the knowledge regarding its accreditation status in India, sources from where respondents received information about family medicine, and opinions on the need to introduce family medicine in the undergraduate medical curriculum and as part of the rotational internship thereafter. The section of the questionnaire on interest in family medicine looked at the future practice location (Urban or Rural India, Overseas), possible specialization being considered by the respondent, reasons for considering family medicine, and potential training paths preferred in pursuing the same. We conducted the study after briefly explaining the nature of the study to the target group. No names or other identifiers were collected thus maintaining confidentiality. We compiled and organized the results in a tabular manner and subjected it to statistical and descriptive analysis.

**Results**

Table 1 describes the demographic characteristics of the respondents.

Responses were collected from 45 students across 6 medical colleges. The majority of the respondents were from colleges in Karnataka, and the rest were from the Union Territory of Puducherry. The age of the respondents varied from 18 to 24 years, and about 60 percent were female. Respondents were from all 4 years of medical school with the majority (64%) being in their 3rd or 4th year of MBBS.

The responses regarding awareness and exposure to family medicine are summarized in Table 2. The knowledge regarding the current accreditation status of family medicine was average, with 58% of respondents stating that it was Medical Council of India (MCI) accredited. The large majority felt the need to introduce the subject as part of the curriculum (82%) and during internship (96%), while a small group of students (27%) felt that exposure to family medicine in medical school was currently adequate.

Table 3 displays the findings related to interest in family medicine.

Table 4 summarizes questions that looked at respondent opinions on consulting family physicians, role and effect in health systems, and remuneration for family physicians. More than 80% said that they would see a family physician if there was one close to them, believed that family physicians would be able to address their health needs, and that family physicians would improve overall health delivery. The majority were unsure about the income of family physicians.

When presented with a question on the likelihood of choosing family medicine as a specialty, 21% of respondents were likely or highly likely to do so with about 30% considering it an unlikely option in the future, while the majority (49%) were unsure about it.

**Qualitative results**

The open-ended question posed to the respondents asked for their views on what the status of family medicine would be in India, 10 years from now. The responses analyzed in a qualitative manner were classified into the following themes:

| Question                                                                 | Responses                      | Frequency (%) |
|-------------------------------------------------------------------------|--------------------------------|---------------|
| Medical college                                                         | SDUMC                          | 22 (49)       |
| Students were from 6 colleges                                           | SMVMC                          | 10 (22)       |
| Year of medical school****                                              | JNMC                           | 5 (11)        |
|                                                                         | Other including no response    | 8 (18)        |
|                                                                         | 1st year                       | 3 (7)         |
|                                                                         | 2nd year                       | 13 (29)       |
|                                                                         | 3rd year                       | 22 (50)       |
|                                                                         | 4th year                       | 6 (14)        |
| Gender                                                                  | Female                         | 27 (60)       |
| Age - range=18-24 years                                                | Mean=20 years, mode=19 years   |               |
| Size of community student grew up in [lakh]****                         | <1                             | 13 (31)       |
|                                                                         | 1-10                           | 16 (38)       |
|                                                                         | >10                            | 13 (31)       |
| Has a family physician                                                 | Yes                            | 26 (61)       |
| Knows where to see family physician                                     | Yes                            | 34 (77)       |

****Some of the numbers do not add up to 100% on account of missing data points in survey responses. SDUMC: Sri Devaraj Urs Medical College; SMVMC: Sri Manakula Vinayagar Medical College; JNMC: Jawaharlal Nehru Medical College
Table 2: Awareness and exposure

| Question                                                                 | Response                                      | Frequency (%) |
|-------------------------------------------------------------------------|-----------------------------------------------|---------------|
| Current status of family medicine                                       | MCI accredited                                | 22 (58)       |
| Sources that have helped inform regarding family medicine*              | Medical College                               | 19 (43)       |
|                                                                          | Family and Friends                            | 14 (32)       |
|                                                                          | Was not aware before survey                    | 7 (16)        |
|                                                                          | Private Reading                                | 6 (14)        |
|                                                                          | Promotional Seminar/Material                   | 5 (11)        |
| Exposure to family medicine in medical school                           | Yes                                           | 12 (27)       |
| Feels there is a need to introduce family medicine in the MBBS curriculum | Yes                                           | 36 (82)       |
| Feels there is a need for family medicine rotation during internship    | Yes                                           | 42 (96)       |

*Respondents had the option of choosing >1 response

Table 3: Interest

| Question                                                                 | Response                                      | Frequency (%) |
|-------------------------------------------------------------------------|-----------------------------------------------|---------------|
| Upon graduation where do you plan to practice?                         | Urban                                         | 19 (43)       |
|                                                                         | Rural                                         | 20 (46)       |
|                                                                         | Overseas                                      | 12 (27)       |
| What specialization are you considering after you graduate medical school? | General surgery                              | 13 (30)       |
|                                                                         | Undecided                                     | 11 (25)       |
| It is noted that several students chose >1 response*                    | Other - including orthopedics, psychiatry, and neurology | 11 (25)       |
|                                                                         | Internal medicine                             | 8 (18)        |
|                                                                         | Pediatrics                                    | 5 (11)        |
|                                                                         | Family medicine                               | 2 (5)         |
| Select one factor from below list that most influences your specialty choice? | Interest in field                           | 42 (96)       |
|                                                                         | Popularity and prestige                       | 1 (2)         |
|                                                                         | Duration of training                          | 1 (2)         |
| If you were to pursue family medicine, which training option would you chose? | MD in family medicine                        | 20 (48)       |
|                                                                         | DNB in family medicine                        | 10 (24)       |
| It is noted several students choose >1 answer*                         | Just start practicing after MBBS             | 6 (14)        |
|                                                                         | Seek residency in family medicine overseas    | 6 (14)        |
|                                                                         | Other - “start right now, I’d by my family doctor” and “MS” | 2 (5)         |
| Would like to learn more about family medicine                          | Yes                                           | 43 (98)       |

*Respondents had the option of choosing >1 response

Table 4: Likert scale responses showing opinions toward family medicine practice

| Statement                                                                 | Strongly disagreed and disagreed (%) | Not sure (%) | Agreed and strongly agreed (%) |
|--------------------------------------------------------------------------|---------------------------------------|--------------|-------------------------------|
| I would see a family physician if there was one close to me               | 4 (9)                                 | 4 (9)        | 36 (82)                       |
| I believe family physicians will reduce the cost of care                  | 5 (11)                                | 13 (30)      | 26 (59)                       |
| I believe family physicians will improve overall health delivery          | 3 (7)                                 | 3 (7)        | 28 (86)                       |
| I believe a family physician would be able to address my health needs    | 1 (2)                                 | 4 (9)        | 39 (89)                       |
| Family physicians do not make much money                                  | 8 (18)                                | 22 (50)      | 14 (32)                       |

1. Obvious optimism: Almost half the respondents displayed great positivity regarding the future of family medicine in India. Select participant responses include: “Well up to the mark,” “Very helpful as it gives personal care to the patients,” “Vital in delivering health care which is needed most in rural areas,” “The concept of a family doctor is sure to find many takers in the future”.

2. Cautious optimism: About a third of the participants thought that there existed a possibility for greater awareness and acceptance of family medicine. Select participant responses include “(Family medicine will be) more acceptable and people will know more about it,” “Prevalent in most parts of India due to increasing awareness of the subject among students;” “(Family medicine will be) introduced and promoted hopefully”.

3. Equivocal: A small group was unsure about the perceived future of family medicine in India. Their responses ranged from “Maybe established” to “Cannot predict it”.

4. Pessimism: One respondent felt that the future of family medicine in India looked bleak with the response “Awful” coming to the fore.
Discussion

This is among the few studies examining the perceptions, attitudes, and level of awareness of undergraduate medical students toward family medicine in India.

Despite a lack of exposure, it was noticeable that an overwhelming 98% of medical students expressed a desire to learn more about family medicine. 82% students felt that there was a need to introduce family medicine as a subject in medical college. However, only 58% were aware of the MCI accredited status of family medicine in India. These leaves nearly half the student population in the dark about a specialty that has an important role to play in addressing crucial health care issues of equity, continuity of care, cost effectiveness, and holistic care that is patient centric.[4,9]

Our study clearly establishes that an accepting and receptive student pool already exists. In fact, when medical students were presented with a question on the likelihood of choosing family medicine as a specialty, 21% of respondents reported being likely or highly likely to do so. Furthermore, the majority of students displayed an optimistic view on the future of family medicine in India, which was evident from the responses to the open-ended question posed to them in the survey. They were hopeful that family medicine would contribute to the improvement of the Indian healthcare scenario. These findings were consistent with similar studies carried out in other countries as well.[10‑13]

In this context, efforts to increase awareness about family medicine in medical colleges and the undergraduate medical curriculum are of paramount importance. It is imperative that like other subjects, family medicine too should be taught using clinical rotations, lectures/seminars, and workshops.

Limitations

This study was limited by a small sample size and convenience sampling. However, it is an important step towards gauging the opinions of the future physician workforce of the country. We feel that with periodic surveys of medical students with robust sampling techniques, a clearer picture of the evolving status of family medicine in India will emerge. This in turn would prove useful in identifying points of intervention and designing training modules to incorporate family medicine in the undergraduate medical curriculum.

Conclusions

Family medicine prepares physicians to work in community settings and meet the health needs of a population.[3,4,13] An expanded number of seats for medical students in this field will not only provide a satisfactory career option but will also create a workforce for unmet community health needs.[3,4,13] Our study showcases a clear need to expose medical students in India to the specialty of family medicine during their undergraduate medical education.

Towards promoting family medicine at medical colleges, the following recommendations are put forth:

1. The MCI should make the introduction of family medicine in the undergraduate medical curriculum mandatory
2. All medical colleges should establish independent departments of family medicine that are ideally headed by doctors with postgraduate in family medicine
3. On account of family medicine currently being an emerging discipline in India, the MCI should relax rigorous requirements pertaining to years of teaching experience at a medical college for family medicine faculty
4. Further research to understand interests, barriers, and facilitators influencing student choice of family medicine as a career.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Starfield B. The hidden inequity in health care. Int J Equity Health 2011;10:15.
2. Starfield B. Is patient-centered care the same as person-focused care? Perm J 2011;15:63-9.
3. Starfield B. New paradigms for quality in primary care. Br J Gen Pract 2001;51:303-9.
4. Starfield B. Global health, equity, and primary care. J Am Board Fam Med 2007;20:511-3.
5. Singh S, Badaya S. Health care in rural India: A lack between need and feed. South Asian J Cancer 2014;3:143-4.
6. Jain M, Niharika M. GPs: The Disappearing First Line of Defence, the Hindu, First Published; 31 October, 2014. Available from: http://www.thehindubusinessline.com/specials/pulse/gps-the-disappearing-first-line-of-defence/article6552593.ece. [Last accessed on 2016 Feb 29].
7. Parecha M. Do You Still Have a Family Physician? DNA India; 28 February 2014. Available from: http://www.dnaindia.com/health/report-do-you-still-have-a-family-physician-1964306. [Last accessed on 2016 Feb 29].
8. Akhter S. The Concept of Family Physician Needs Resurrection: Col (Dr) K. Mohan Kubendra ETHealthWorld; 30 January 2016. Available from: http://www.health.economictimes.indiatimes.com/news/industry/the-concept-of-family-physician-needs-resurrection-col-dr-k-mohan-kubendra/50780407. [Last accessed on 2016 Feb 28].
9. Pati S, Sharma A, Pati S, Zodpey S. Family medicine education in India: A panoramic view. J Family Med Prim Care 2015;4:495-500.
10. Essuman A, Anthony-Krueger C, Ndamu TA. Perceptions of medical students about family medicine in Ghana. Ghana Med J 2013;47:178-84.
11. Kawamoto R, Ninomiya D, Kasai Y, Kusunoki T, Ohtsuka N, Kumagai T, et al. Factors associated with the choice of general medicine as a career among Japanese medical students. Med Educ Online 2016;21:29448.
12. Hayes BW, Shakya R. Career choices and what influences
Nepali medical students and young doctors: A cross-sectional study. Hum Resour Health 2013;11:5.

13. Bethune C, Hansen PA, Deacon D, Hurley K, Kirby A, Godwin M. Family medicine as a career option: How students' attitudes changed during medical school. Can Fam Physician 2007;53:881-5, 880.

14. Starfield B. Family medicine should shape reform, not vice versa. Fam Pract Manag 2009;16:6-7.

15. Michael Kidd A. Challenges for healthcare in the 21st century: How family medicine can help. J Family Med Prim Care 2013;2:211-4.

16. Kumar R. Why family medicine is a good career choice for Indian medical graduates? J Family Med Prim Care 2014;3:1-2.

17. Beswal G. Family medicine: A solution for career inequalities among doctors in India. J Family Med Prim Care 2013;2:215-7.