Original Article

Sorting Out the Perception of Medical Teachers Regarding Family Adoption Program: A Qualitative Inquiry

Diptakanti Mukhopadhyay, Kajari Bandyopadhyay, Soumalya Ray[1]

Department of Community Medicine, College of Medicine and Sagore Dutta Hospital, Kolkata, [1]Department of Community Medicine, Sarat Chandra Chattopadhyay Government Medical College and Hospital, Howrah, West Bengal, India

Abstract

Introduction: The family adoption program (FAP) was launched by National Medical Commission in 2022. This study aimed to explore the perception of medical educators regarding FAP implementation in West Bengal in terms of strengths, weaknesses, opportunities, and challenges. **Materials and Methods:** A descriptive, cross-sectional study was conducted among the teachers of Community Medicine in the state of West Bengal from December 2023 to March 2024 using free-listing and pile-sorting methods. Fifty teachers of different tiers from different government medical colleges of West Bengal were selected through stratified purposive sampling. Collected data were analyzed using visual Anthropac software. **Results:** The response rate was 90% (45/50). The mean (standard deviation) and median (interquartile range) age of the respondents were 45.7 (6.4) years and 45.0 (8.0) years, respectively. Community-oriented medical education and nurturing clinical and communication skills were perceived as the major strengths. In contrast, constraints in human resources, logistics, as well as improper curricular planning were the major weakness of FAP. Bolstering community-oriented medical education through enhanced participation in primary health care was the major opportunity. In contrast, the overall sustainability of the program in the face of resource constraints and lack of motivation of stakeholders was perceived as a major challenge. **Conclusion:** The FAP envisaged an avenue for community-based medical education grounded in the principles of primary healthcare. Efficient handling of issues pertaining to resource constraints, curricular planning, and motivation of all stakeholders will be important for the sustainability of the program.

Keywords: Community, early clinical exposure, family adoption program, India, medical education

Introduction

It was a long-standing criticism of the Indian medical education system that training of medical students in multi-specialty tertiary care hospitals located in urban areas results in a profound disconnect between medical students and the healthcare needs of the rural community as well as the limited ability of the medical students to serve in a resource-constrained setting.[1,2] They also used to see only the later phases of the natural history of the disease.[1] These all contributed to the shortage of skilled human resources in rural areas where almost two-thirds of the Indian population resides.[3]

With the vision to orient medical students to the common health problems and available primary healthcare resources in rural areas as well as to enable them to provide first-contact care, the National Medical Commission (NMC) took a small strive toward Community-based medical education by launching "Family Adoption Program" in March 2022 with Department of Community Medicine as the Nodal Department.[4] The program also envisaged that the students would act as the conduit between the community and the healthcare system.[4] Under this program, an undergraduate medical student during the first 3 years of medical course has to adopt three to five families from a rural community.[4] The policymakers hoped that the medical students would be "informed facilitators" of health, develop empathy, and have greater medical learning and social understanding through the successful implementation of this program.[1,2]

Address for correspondence: Dr. Soumalya Ray, Department of Community Medicine, Sarat Chandra Chattopadhyay Government Medical College and Hospital, Uluberia, Howrah - 711 315, West Bengal, India.
E-mail: drsoumalya@gmail.com

Submitted: 15-Jan-2025 **Revised:** 21-Mar-2025
Accepted: 26-Mar-2025 **Published:** 30-Apr-2025

Access this article online

Quick Response Code:

Website: http://journals.lww.com/amit

DOI: 10.4103/amit.amit_5_25

How to cite this article: Mukhopadhyay D, Bandyopadhyay K, Ray S. Sorting out the perception of medical teachers regarding family adoption program: A qualitative inquiry. Acta Med Int 2025;12:11-7.

The concept of integrating community-oriented medical education is not novel and has historical antecedents in India's preindependence period. The Bhore Committee, established in 1946, was among the first to highlight the necessity of rural healthcare exposure within medical training.[5] The Reorientation of Medical Education (ROME) initiative, introduced in the 1970s, sought to promote community-based learning through the adoption of innovative teaching–learning methodologies.[6] Despite its intentions to foster graduates with a strong sense of social responsibility and community orientation, the ROME initiative faced several obstacles that limited its effectiveness and ultimately did not achieve its full potential.[7] Inadequate faculty-to-student ratio, logistic constraints, and curricular overload, as well as the reluctance of all stakeholders, were cited as factors contributing to the "premature death" of the ROME initiative.[7]

The earlier researchers reported certain challenges during implementation, such as the number of teachers in the Department of Community Medicine, the number of students per batch, and the distance of the adopted rural community.[2,8] Moreover, core competencies for family adoption program (FAP) include survey methods, including participatory research, communication skills, and methods of clinical examination which may overburden the 1st-year curriculum.[2,8]

Published literature was scarce on this topic. However, for the successful implementation and sustainability of this program, critical analysis of the perceptions of key stakeholders is imperative. In this context, the present study was planned to explore the perception of teachers of Community Medicine regarding FAP in terms of strengths, weaknesses, opportunities, and challenges.

Materials and Methods

Study type, design, and sample population

A descriptive, cross-sectional study was conducted among the teachers of Community Medicine in the state of West Bengal from December 2023 to March 2024 using free-listing and pile-sorting techniques. Fifty teachers of different tiers from different government medical colleges of West Bengal were selected through stratified purposive sampling. Government medical colleges of West Bengal were divided into three strata – medical colleges of North Bengal, medical colleges of South Bengal, and medical colleges from Kolkata and its outskirts. Either head of the Department of Community Medicine or the faculty in charge of FAP from these colleges were considered for inclusion in the study.

Study tools and technique

After obtaining approval from the Institutional Ethics Committee, the link to a structured questionnaire with three sections was shared using a Google Form. The first section was the informed consent form, and the participants were able to move to the next section of the questionnaire only if they signed the form. The second section intended to collect the sociodemographic and individual information of the participants. The third section was designed for free-listing of responses in phrases or short sentences on the strengths, weaknesses, opportunities, and challenges of FAP. This methodological approach ensured a comprehensive and systematic collection of data, facilitating a nuanced understanding of the participants' perspectives on the FAP.

Data analysis

After gathering all responses, the researchers employed consensus methods to collate responses with similar meanings but different wordings. The consolidated list of responses was saved in Notepad and organized separately according to the categories of strengths, weaknesses, opportunities, and challenges. Visual Antropac software, version 4.98 (Lexington, KY, USA: Analytic Technologies, 2010) was used to calculate Smith's salience index for each identified response within these categories. The resulting salience indices served as the basis for constructing separate scree plots for strengths, weaknesses, opportunities, and challenges. Within each scree plot, the elbow point was designated as the cutoff; only responses with salience scores at or above this threshold were retained for further analysis, with each qualifying response assigned a unique code. In the next phase, all the coded responses were given to 15 Community Medicine experts from three medical colleges. They were requested to group similar codes into piles. Faculty members of the rank of Associate Professor and above with exposure or training in qualitative research methods were included. They were also requested to note down the reasons behind the grouping as per their perceptions. This phase of the study aimed to ensure that the data were organized in a manner that accurately reflected the participants' insights and facilitated further analysis.

The sorted codes (piles) were again saved in Notepad and opened in Visual Anthropac software for cluster analysis. This analysis facilitated the creation of a cognitive map, which visually represented the data. This methodological approach ensured a comprehensive and systematic analysis of the data, contributing valuable insights into the implementation and effect of the FAP.

Ethical consideration

The study obtained permission from the Institutional Ethics Committee of the institute (CMSDH/IEC/106/12-2023; date: December 04, 2023). Informed written consent was obtained from each participant after explaining the objectives, procedure of the study, confidentiality of the data, and voluntariness of participation through Google Forms.

Results

Out of 50 Community Medicine teachers who were approached in this study, 45 responded (90% response rate). Among the respondents, 17 (37.8%) were female, one (2.2%) preferred not to disclose his/her gender, and the

rest were male. The mean (standard deviation [SD]) and median (interquartile range) age of the respondents were 45.7 (6.4) years and 45.0 (8.0) years, respectively. Among them, 8 (17.0%) were Professors, 20 (44.4%) were Associate Professors, and the rest were Assistant Professors. The mean (SD) duration of teaching experience was 12.5 (5.2) years, with a range of 2–25 years. Among the respondents, 93.3% underwent basic courses in medical education, and 71.1% attended a curriculum implementation support program, whereas 8 (17.7%) completed advanced courses in medical education.

In the free-listing exercise, a total of 45, 45, 45, and 47 responses were recorded under the categories of strengths, weaknesses, opportunities, and challenges, respectively. Among these, 15, 18, 18, and 18 responses, respectively, had salient indices equal to or higher than the threshold value. These responses were subsequently assigned unique identifiers and utilized for the pile-sorting exercise. Out of 15 teachers who were involved in the pile sorting exercise, three (20.0%) were Professors, and the rest were Associate Professors with a mean (SD) duration of teaching was 13.3 (3.1) years. Among them, five (33.3%) were females.

As shown in Figure 1, the medical teachers perceived community-oriented medical education and the development of clinical and communication skills in real-life situations as the major strengths of FAP.

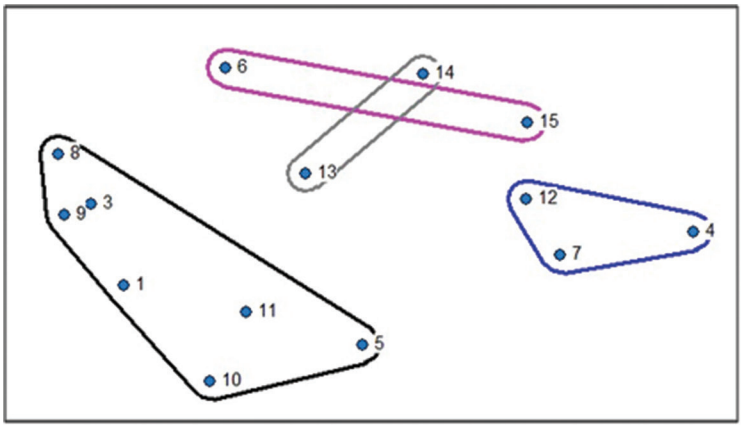
Resource constraints in terms of human resources, logistics, and vehicular, along with little curricular planning, were perceived as the major weaknesses [Figure 2].

Perceiving FAP as a strive forward toward community-oriented medical education with training on communication and team-building and strengthening primary health care with community participation were the major opportunities [Figure 3].

As per Figure 4, overall sustainability was perceived as the major challenge. Continuous institutional support for vehicles, human resources, logistics, sustaining motivation of all the stakeholders, as well as inter-sectoral and inter-departmental collaboration, were major challenges.

Discussion

This cross-sectional study explored the implementation barriers associated with the FAP from the perspective of medical educators. FAP was conceptualized as a community-based medical education initiative for Indian Medical Graduates (IMGs) starting from their 1st year of professional training.[4,9] Existing literature highlights that early exposure to community settings fosters greater empathy among medical students, enabling them to view individuals with diseases beyond mere "cases."[10-15] In addition, this exposure enhances their understanding of the social and environmental



A. Relevance:

6- Aligned to CBME

15- Relevant

B. Garnering community involvement:

13- Promoting community participation

14- Liaison between family and medical college

C. Community orientation:

1-Development of communication skills

3- Exposure to rural community

5- Learning by doing

8- Introduction to the primary health system

9- Exposure to common health problems

10- Development of clinical skills

11- Training as family physicians

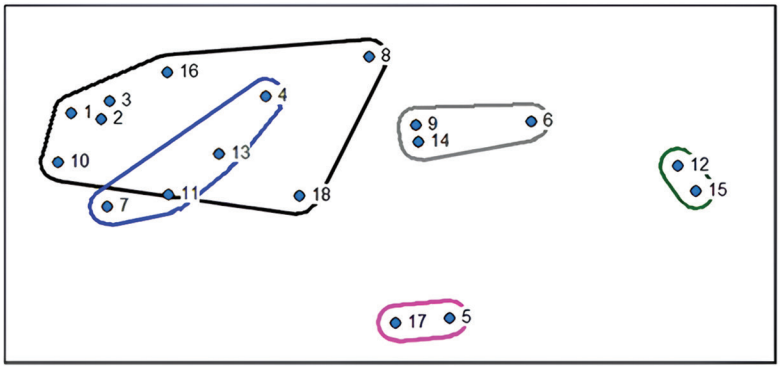
D. Promoting primary health care:

4- Continuum of care

7- Comprehensive care

12- Building trust in doctors

Figure 1: Cognitive map of the strengths of the family adaption program



A. Resource constraints:

1-Availability of vehicular support

2- Shortage of human resources

3- Lack of infrastructure

8- Lack of participation of other departments

10- Time constraints

11- Lack of clarity

16- Lack of administrative control

18- Distance of the rural area from the medical college

B. Academic malalignment:

4- Difficulty in accommodating the existing routine

7- Not realistic

13- Poorly structured

C. Community resistance:

5- Mismatched expectations of families

17- Resistance by community

D. Unpreparedness of students

12- Incomplete knowledge and skills of students

15- Lack of students' interest

E. Unpreparedness of teachers

6- Overburdened faculty

9- Lack of motivation among teachers

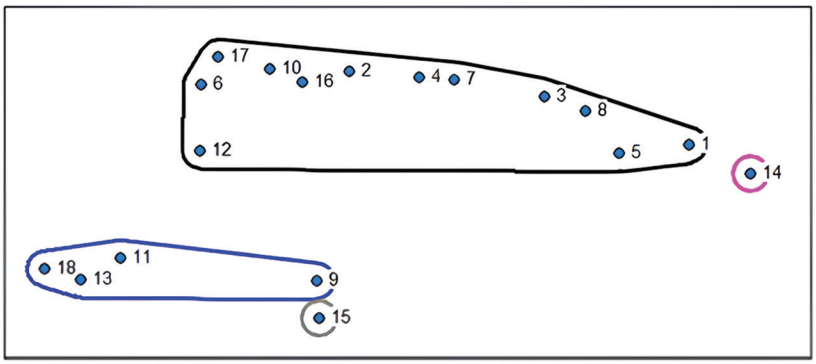
14- Lack of orientation among faculty

Figure 2: Cognitive map of the weakness of the family adaption program

determinants of health and the natural progression of diseases.[9,10] Despite its potential benefits, FAP is still in its nascent stage in India. Identifying the obstacles to program implementation will assist in evidence-based decision-making by policymakers to enhance its effectiveness. The present study collected insights from individuals overseeing FAP implementation across various districts in West Bengal to address this knowledge gap.

In this study, respondents highlighted two significant strengths of the FAP for the IMGs: the enhancement of communication skills and exposure to the rural healthcare delivery system. These findings align with existing peer-reviewed literature, both at the national and international levels, emphasizing the value of community-based postings in medical education.[8,16-18] In addition, respondents also perceive that the opportunity to expose the students to the often-ignored social determinants of health in the crucible of the community directly is another opportunity for FAP. This was also reported in previous literature.[8,16-18]

However, respondents also acknowledged that some weaknesses and challenges related to FAP implementation could hinder its success. Potential infrastructural challenges were perceived as the most important weakness that could hinder FAP's successful implementation. These infrastructural deficiencies include the availability of vehicular support and human resources, coordination with other departments, and the geographical distance between rural areas and medical colleges. Notably, the responsibility for overseeing the program lies squarely with the Department of Community Medicine, as outlined in the FAP guidelines.[9] However, this poses a considerable challenge, given that NMC created no additional human resources for this purpose. Unlike other field postings in rural and urban field practice areas of the institute, where an Assistant Professor from the Department of Community Medicine was assigned, responsibilities related to FAP were not assigned by the NMC.[4,9] This could produce additional stress on the faculty members of Community Medicine. On the other hand, other departments may overlook the program as their name was not mentioned separately, leading to a lack of necessary support. Previous studies have documented deficiencies in human resources, particularly among paramedical and field workers, as well as logistical support in various institutions, which is the barrier that derailed previous community-based postings.[2,8] Additional human resources and logistical resources are essential to achieve realistic and effective FAP implementation. Furthermore, the mere availability of human resources would not be



A. Community-based medical education:

1-Community-based education

2- Development of communication skills

3- Comprehensive training

4- Early clinical exposure

5- Encouraging family medicine practice

6- Rapport building

7- Clinical skill training

8- Orientation on Social Determinants of health

10- Taking responsibility

12- Community Diagnosis

16- Developing empathy among students

17- Team building

B. Community participation:

9- Bridging community with health system

11- Holistic healthcare

13- Improvement of health-seeking behaviors

18- Building trust in the public system

15- Co-operation of local authority

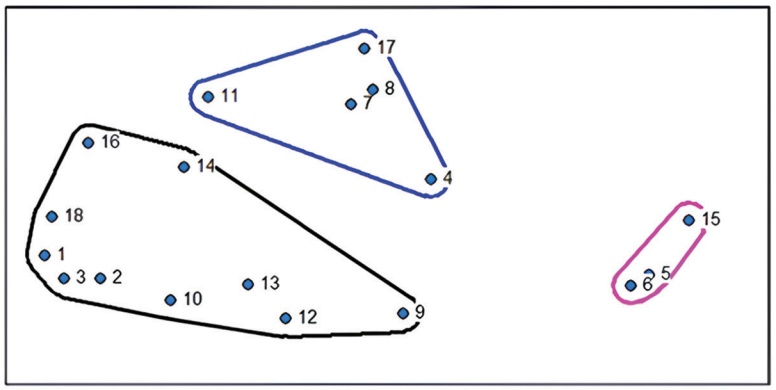
14-opportunity for research

Figure 3: Cognitive map of the opportunities of the family adaption program

sufficient. Capacity building needs to be ensured as well. The successful implementation of a novel component necessitates thorough preparation, including training for teachers, staff, and students – elements that were lacking in this particular context.[9]

Regarding the threat to FAP, some respondents expressed concern about introducing novice medical students with limited clinical skills and knowledge to community settings. Given India's linguistic diversity, students from various states may encounter challenges in communicating effectively with the local population. In addition, learners from diverse cultural backgrounds and varying settings (urban and rural) may struggle to adapt while coping with the demands of medical education. These observations align with prior research, which also identified cultural diversity, insufficient vehicular support (especially when mobilizing large student groups), and community noncooperation as significant threats to the successful integration of community exposure into medical education.[8,16-18]

Despite the diligent efforts of the investigators, this study does have certain limitations. The study employed qualitative data collection techniques, specifically free-listing and pile-sorting exercises, based on respondents' input to explore the sentiments and concerns of medical educators regarding the FAP. While it might be argued that relying solely on qualitative methods, such as in-depth interviews, restricts the external generalizability of findings, it is essential to recognize the potency of pile-sorting as a methodology. This approach delves into the intricate interplay of values, emotions, and apprehensions that influence human behavior, particularly in complex constructs such as barriers and challenges.[19] Pile sorting not only facilitates the quantification of constructs but also provides a visual representation of the relationships among different categories.[19] Its interactive nature minimizes nonresponse issues, making it a valuable asset rather than a limitation.[19] The cognitive map served as a pictorial representation of the grouped responses, providing a clear and organized view of the strengths, weaknesses, opportunities, and challenges associated with the FAP as perceived by the study participants. Furthermore, this study stands as a pioneering effort – the first of its kind, to the best of the authors' knowledge – by incorporating responses from multiple participants across various medical colleges in West Bengal. Although external generalizability remains limited, the inclusion of diverse colleges enhances the richness of the data, underscoring the strength of the study. It is worth noting that the study's primary objective was barrier identification



A. Sustainability

1-Overall Sustainability

2- Ensuring vehicular support

3- Sustaining institutional support

9- Time constraints

10- Manpower crunch

12- Lack of teachers' motivation

13- Lack of structured monitoring

14- Lack of stakeholders' motivation

16- Sustaining inter-sectoral coordination

18- Sustaining inter-departmental coordination

B. Students' inability

5- Lack of students' motivation

6- Lack of students' clinical skills

15- Safety of students

C. Community support

4- Access to rural community

7- Ensuring family support

8- Ensuring community participation

11- Garnering political support

17- Burden of families

Figure 4: Cognitive map of the challenges of the family adaption program

rather than quantification. Future research endeavors could investigate the proportion of these barriers faced by different FAP implementers nationwide.

Conclusion

The FAP represents an avenue for community-based medical education grounded in the principles of primary healthcare.[1] This educational approach transcends mere cognitive capacities, aiming to transform future physicians into compassionate practitioners rather than mere disease managers. It is crucial to address the weaknesses and threats identified in this study to enhance the program's effectiveness. Key strategies that emerged from the study included robust curricular planning, logistical and transportation support from institutions, and the development of comprehensive visit plans. These plans should encompass specific learning objectives, area allocation, family surveys, data collection, analysis, presentation, assessments, feedback, and evaluation. By implementing these measures, FAP can fully realize its potential. By ignoring these recommendations, it has the potential to die such as ROME.[20]

Financial support and sponsorship

Self-sponsored.

Conflicts of interest

There are no conflicts of interest.

References

1. Reddy KS. Family Adoption will Enrich Medical Education. The New Indian Express; 2022. Available from: https://www.newindianexpress.com/opinions/2022/Aug/05/family-adoption-will-enrich-medical-education-2484488.html. [Last accessed on 2024 Dec 26].
2. Mallik S. Family adoption program, a way forward to community based medical education. Challenges ahead. J Compr Health 2022;10:1-3.
3. Jain M, Gupta SA, Gupta AK, Roy P. Attitude of would-be medical graduates toward rural health services: An assessment from government medical colleges in Chhattisgarh. J Family Med Prim Care 2016;5:440-3.
4. National Medical Commission Undergraduate Medical Education Board. Implementation of New Competency Based Medical Education for Undergraduate Course Curriculum. National Medical Commission, India; 2022. Available from: https://www.nmc.org.in/MCIRest/open/getDocument?path=/Documents/Public/Portal/LatestNews/Implementation.pdf. [Last accessed on 2024 Dec 26].
5. Park K. Parks Textbook of Preventive and Social Medicine. 26th ed. Jabalpur, India: Banarsidas Bhanot Publishers; 2020. p. 937.
6. Mahajan PB. ROME scheme: From reorientation to research oriented medical education, a new beginning. Indian J Med Res 2010;132:110.
7. Dongre AR, Deshmukh PR, Gupta SS, Garg BS. An evaluation of ROME Camp: Forgotten innovation in medical education. Educ Health (Abingdon) 2010;23:363.
8. Yalamanchili VK, Uthakalla VK, Naidana SP, Kalapala A, Venkata PK, Yendapu R. Family adoption programme for medical undergraduates in India – The way ahead: A qualitative exploration of stakeholders' perceptions. Indian J Community Med 2023;48:142-6.

9. The Gazette of India. The National Medical Commission Act, 2019. Ministry of Law and Justice, Government of India; 2019. Available from: https://www.nmc.org.in/nmc-act/. [Last accessed on 2024 Dec 26].
10. Mennin S, Petroni-Mennin R. Community-based medical education. Clin Teach 2006;3:90-6.
11. Nurunnabi AS, Hasan MJ, Quddush AR, Jahan S, Kaiser AM, Afrose T, *et al.* Community based medical education: What, why and how? Community Based Med J 2024;13:119-29.
12. Misra B. Family Adoption Programme Finds its Place in New MBBS Curriculum; 2022. Available from: https://medicaldialogues.in/news/education/family-adoption-programme-finds-its-place-in-new-mbbs-curriculum-91556. [Last accessed on 2024 Dec 26].
13. Dey S. NMC may Make Family Adoption Programme Part of MBBS Training | India News – Times of India; 2022. Available from: https://timesofindia.indiatimes.com/india/nmc-may-make-family-adoption-programme-part-of-mbbs-training/articleshow/89601993.cms. [Last accessed on 2024 Dec 26].
14. Raja VP, Shivasakthy M, Lavakumar S, Lenin D. Community based medical education in medical curriculum. Int J Community Med Public Health 2022;9:4762-4.
15. Mudarikwa RS, McDonnell JA, Whyte S, Villanueva E, Hill RA, Hart W, *et al.* Community-based practice program in a rural medical school: Benefits and challenges. Med Teach 2010;32:990-6.
16. Arumugam B, Sanjana L, Singh DG, Kuppuraj P, Sayee TSM, A narrative review on the experience of "Family Adoption Programme" in a tertiary care institute. J Community Health Manag 2022;9:54-9.
17. Shikha S, Kumar A, Begum J, Ali SI, Tripathy S. Family adoption program for undergraduate medical students at a new medical school of Jharkhand: An experience and SWOC analysis. Indian J Community Med 2024;49:218-22.
18. Raja VP, Lenin D. Challenges in conducting the family adoption program. Indian J Med Specialities 2024;15:208.
19. Yeh HW, Gajewski BJ, Perdue DG, Cully A, Cully L, Greiner KA, *et al.* Sorting it out: Pile sorting as a mixed methodology for exploring barriers to cancer screening. Qual Quant 2014;48:2569-87.
20. Vasudevan S. Why re-orientation of medical education is an essential and needed program to the medical institutions in India? Int J Med Sci Nurs Res 2023;3:3-4.