

# Community Exposure and Engagement: A Comprehensive Analysis of Medical Students' Perspectives

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## ARTICLE CYCLE

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## ABSTRACT

**Background:** Community postings are an integral component of competency-based learning and training of Indian Medical Graduates (IMG). **Aims & objective:** To find the role of community exposure in the theoretical conceptual understanding of health and disease, community-based learning and awareness activities. **Methods:** Mixed method assessment of the learning and skills development from the medical students' perspective. Quantitative data collection was done with a 21-item questionnaire to assess generic competency-based medical education (CBME) objectives. Qualitative data collection was done with the pile-sorting and tagging methods after focus group discussions. **Results:** A total of ninety-nine study participants responded on a five-point attitude measurement scale on three themes. Three qualitative 'a priori' themes were assessed. Development of communication, observation, teamwork, leadership, and collaboration skills were the most engaging themes. Nearly 5-10% of study participants felt that more training is required for reducing health inequity, in addition to the early community exposure and postings. **Conclusions:** Community-based exposure and learning are strategically important for easing the transition of medical undergraduate students from theoretical concepts to practical application. This study provide comprehensive insights into the expectations and learning experiences of students during field postings and family visits. Regular and continuous assessment and feedback methods are essential to ensure dynamic learning.

## KEYWORDS

Community Medicine, Community-Based Learning, Community Exposure, Competency-Based Medical Education, Medical Undergraduate,

## INTRODUCTION

The evolving world of medical education aims to bridge the gap between theoretical knowledge and practical application. (1,2) The goal of present competency-based medical curriculum is development of Indian Medical Graduates (IMG) as holistic medical professionals with knowledge, competence, compassion, interdisciplinary teamwork, evidence-based practice, and ethical behaviour. (3,4) A review by Best Evidence Medical Education (BEME) of 73 studies documents 277 educational outcomes from community exposure and community-based learning among medical students, points to enhanced learning and adaptability to clinical practice. These were not only beneficial to students but also to stakeholders: teachers, community organizations, and overall institutions. It helped students to assess their own skills in a stress-free atmosphere (Field, 5).

International research shows that community-based learning is essential for contextual learning. For countries like India, it becomes even more important. (5,6) With more urbanization and migration, majority of population moves to urban areas where the community exposure is

not well documented. There also lies a need for development of public health approach by doctors. (3,4,7). Continuous research are needed for community engagement techniques with community based exposure/community based learning (CBE/CBL) criteria to improve learning by medical students. (6) Most of this research in India have been done in rural settings and evaluate improvement in communication skills and learning of medical students. (2-4,8) None of the available research takes into account the students' aspect and expectations from community exposure postings. (9) This study attempts to study the perspectives, experiences, and feedback of undergraduate medical students regarding their early community exposure experiences in urban areas.

### Aims and Objectives

- To find out the role of community exposure in the theoretical conceptual understanding of health and disease by undergraduate medical students.
- To understand the role of community-based learning in the development of skills of undergraduate medical students.

c) To explore the role of community awareness activities in the medical education of undergraduates.

Using a mixed-methods approach, the study seeks to provide a comprehensive understanding of how early community exposure contributes to medical education through the students' point of view.

**MATERIAL & METHODS**

**Study type and study design**—A mixed-methods study of determining the role of early urban area community exposure in contextual understanding and behavioral and communication skills development among medical undergraduates was conducted as detailed in flow-chart table 1.

**Study setting** - Tertiary healthcare center attached to a medical college in western India

**Study population** - Fourth-semester medical undergraduates or second-year students scheduled to take their community medicine exams in the ninth semester or final year. The clinical assignment known as Family Health Advisory Services (FHAS) is designed for the early community exposure and community-based education of medical students in urban primary health facilities and their associated field areas. In Indian National Institutions (such as AIIMS Delhi and other AIIMS, the community medicine discipline administers three clinical placements throughout the fourth, seventh, and ninth semesters, respectively.

**Study duration** – The observations included two years' duration, 2022 and 2023.

**Sample size calculation** - This study concentrated on the initial postings that offered early community exposure to the first two admittance cohorts in the years 2020 and 2021. Each batch had fifty students pursuing the medical education and all of them were included in the study as potential study participants.

**Inclusion and exclusion criteria** – For inclusion in the study, a person has to be a medical undergraduate, have completed the first community field posting in urban areas during the fourth semester of medical education, and be able to understand and converse in the English and Hindi language.

**Methods for data collection** - Quantitative data collection was done with the help of a pre-designed and standardized 21-item questionnaire to assess generic competency-based medical education (CBME) objectives with three themes: (a) to collaborate with groups of people in the community for finding solutions to local and focal health problems; (b) conducting regular community awareness sessions to provide health education to the specific groups of the community; and (c) to reduce imbalance of availability and accessibility of good quality healthcare and services.

A five-point balanced attitude measurement scale, also called the Likert Scale, was used to examine the experiences of study participants. The options in the range of "strongly disagree" to "strongly agree" were used for scoring responses from students. The score "1 to 5" was used to assess responses, where 1- denotes strongly disagree and 5- denotes strongly agree. During the clinical posting, a formative assessment was conducted based on active involvement, group activities,

and community awareness. Upon completion of the posting, an internal summative assessment for case-based learning (family case study) and presentation was conducted.

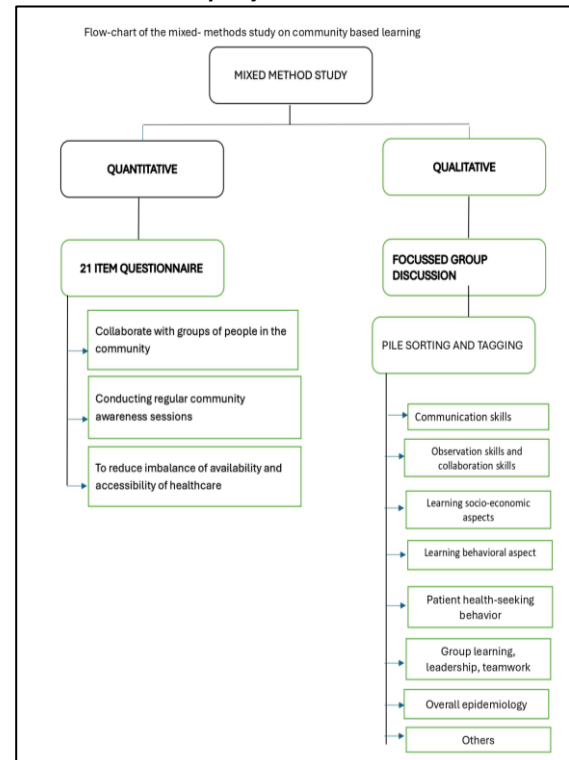
In this way, quantification of the improvement in understanding clinical concepts and skills was conducted by formative, summative, and study tool-based scoring. The former two techniques helped collect data from the teaching team, and the last technique from students, respectively.

Qualitative exploration was done at various stages using a participatory approach. The formative assessment was carried out based on direct observation of family and case study, discussion of case work, and preparation of community posting records. During the course of posting, community awareness activities were prepared, practiced, and conducted for development of group learning, communication, and clinical skills. All activities were sharpened for technical knowledge and skills development by daily and regular feedback at the end of teaching session. The study participants participated in a focused group discussion (FGDs) along with investigators. The techniques of pile sorting and tagging were used to identify and then develop the themes of community-based education and learning from students' point of view.

All responses were collected as handwritten notes. There was provision of open-ended feedback from the study participants to collect emerging themes and codes.

**Ethical issues and informed consent:** The study details and procedure were explained to potential study participants with the help of a participant information sheet (PIS). The written participant informed consent (PICF) was requested before administering the study tool.

**Figure-1 Flow-Chart of the methodology of Data Collection and Study Objectives**



**Data analysis – software**

Quantitative: The data for the 21-item questionnaire was collected in Google-based Excel sheets directly from the administered questionnaire for each study participant. The response sheet was merged with a quantitative summarization of the formative and summative end-of-term examinations. Descriptive statistics from attitude measurement scaling and techniques were calculated. Wherever required, inferential statistics were applied to test the significance of the difference between statistics. For qualitative findings, participatory approach of free listing, pile-sorting and weighted tagging techniques were used collect the students' perspectives of the contribution of community postings to medical education.

**Study background and activities conducted during community posting:** In order to achieve the goal of creating an Indian Medical Graduate (IMG) who possesses the necessary knowledge, skills, attitudes, values, and responsiveness, the purpose of this study is to investigate the role that early community exposure plays in competency-based medical education (CBME). This is done with the assumption that the IMG will be able to function appropriately and effectively as a physician who is the first point of contact with the community.

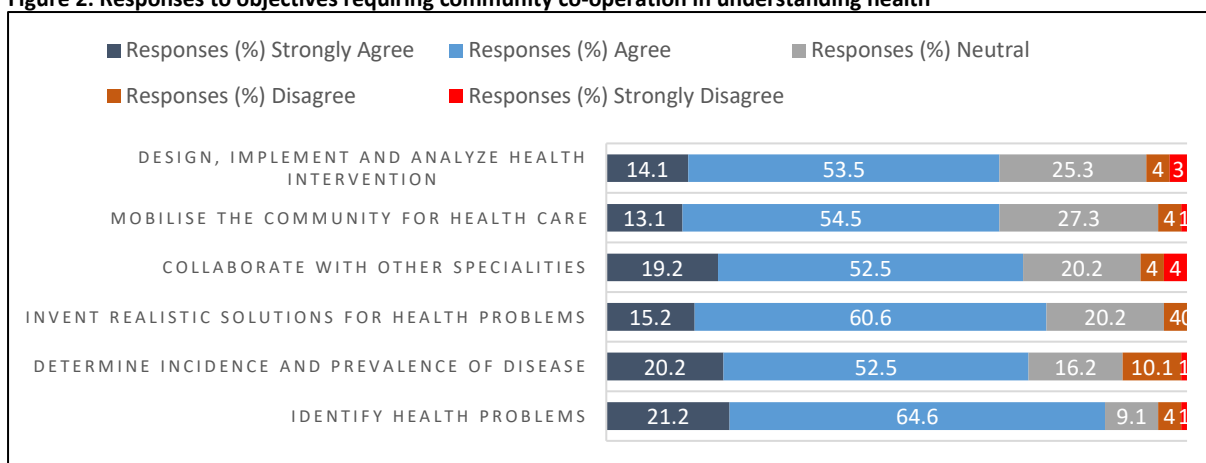
In accordance with the master plan of the institute, undergraduate students in their second year are assigned to different courses and departments and rotated between them for a period of four weeks. A full examination of the influence of demographic, socio-cultural, environmental, and family-related factors on health status and health-seeking behavior was included. These teachings were centered on the assessment of diet, nutrition, home economics, and socioeconomic status. Students were scheduled to visit the families residing in the field practice area throughout the morning portion of the school day, as per the academic timetable. As a result of the field trips, the specific objectives of communication skills and determining the health state and requirements of a family were able to be learned and

demonstrated. In order to increase patient satisfaction and health care results, the students prepared and practiced in simulated settings (classroom) with role-plays and case-based learning exercises. The technical content of family health and advisory services was presented, discussed, and finalized with teachers before field visits. This practice encouraged and assisted in communicating with patients, colleagues, families, and the community in a manner that was appropriate, sensitive, effective, and courteous. Competency-based teachings were conducted to inform and educate the family about the improvement of personal hygiene and basic sanitation, the assessment of the nutritional status of the family, and the promotion of healthy dietary practices by recommending locally available foods that are acceptable to them. Additionally, they were taught to be aware of the various health care services that are available in the community and to provide referral services to hospitals in the surrounding area.

**RESULTS**

A total of 99 responses could be received from the undergraduates who have completed the fourth semester (second year) of medical training. Quantitative analysis consisted of three sets of questionnaires, and responses were designed to measure attitudes and skills development by a five-point scaling system. The main objective of the field posting was family- and case-based learning. All students were required to visit a household or family and assess their health status and health-seeking behavior. During the family visit they also explored the index case from the family studied. The family and index case included antenatal care (ANC), postnatal care (PNC), infant or under-five-year-old child care assessment, etc. Figure 2 illustrates the rating on a five-point Likert scale (from strongly disagree to strongly agree) about the significance of community exposure in comprehending health education.

**Figure 2: Responses to objectives requiring community co-operation in understanding health**



In partnership with the community, the majority (85%) felt that community exposure enables them to identify health problems [Figure 2]. Seventy percent of students found this posting helped them learn the epidemiology of

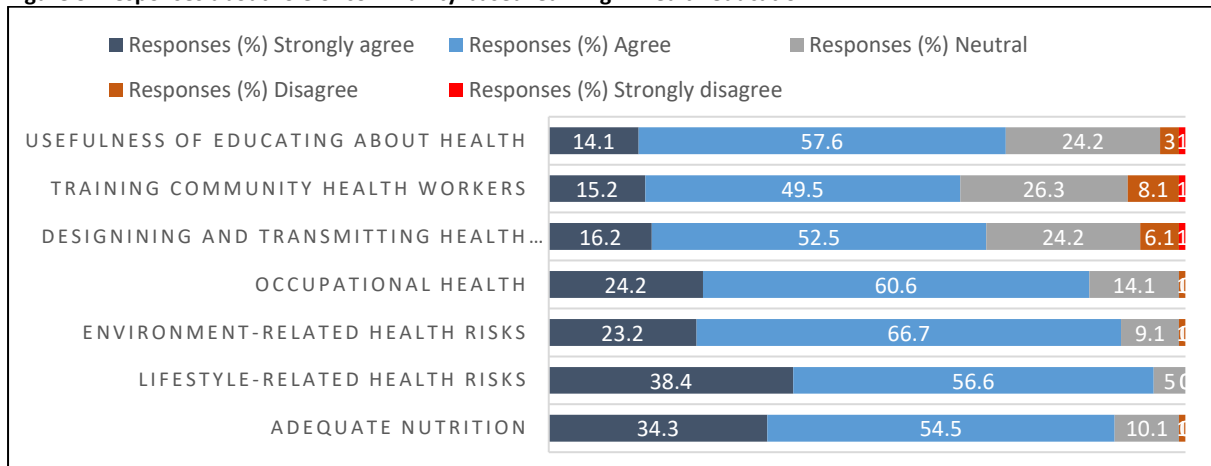
diseases and collaborate with colleagues and seniors from other disciplines and related sectors to solve identified health problems. Approximately two-thirds said they were better equipped with designing and

implementing health interventions for people and populations after community exposure and postings [Figure 2].

The subsequent set of CBL objectives concentrated on assessing the effectiveness of the community-based teaching curriculum in delivering awareness and health education to individual cases and high-risk populations [Figure 3]. Specifically, 34.3% of students strongly agreed, while 54.5% agreed that exercise of assessment of nutrition requirements and actual daily intake by family study enabled better understanding of conceptual knowledge about the importance of adequate nutrition in the maintenance of good health. Similarly, 95% of

medical students who completed community postings reported that observation of different types of people's lifestyles and behaviors in the community helped them learn the necessity of good health awareness and education programs. It was also noteworthy that more than 90% agreed on the necessity of dissemination of health education for environment-related health hazards. Nearly one-fourth were neutral on the topic of the contribution of community postings in designing and transmitting effective health education, while the other three-fourths agreed that community exposure was necessary to train for implementing health awareness and education programs.

**Figure 3: Responses about role of community-based learning in health education**

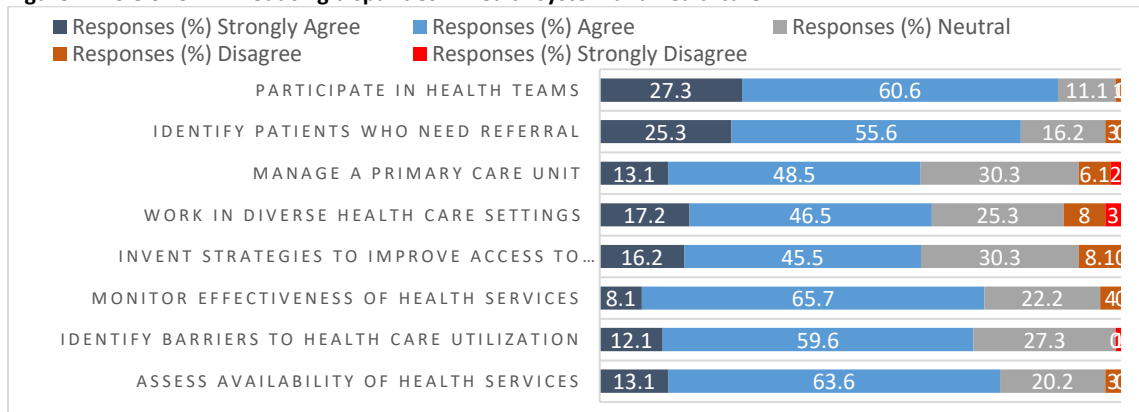


In the final part of attitude measurement, we assessed the students' responses about the role of community exposure and posting in sensitization to reduce inequity of health services.

A total of 63.6% of students agreed that they were able to assess the availability of health services to the

community, while 13.4% strongly agreed to this (Figure 4). Approximately 70% were able to identify the barriers to health care utilization by the community after the community postings.

**Figure 4: Role of CBE in reducing disparities in health system and healthcare**



**Qualitative Analysis:** A free listing method, followed by pile sorting, was employed to investigate and organise medical undergraduates' assessments of the impact of community exposure on their education. Initially, participants were instructed to enumerate all elements they connect with learning via community exposure, resulting in a thorough item collection. The "a priori" themes identified from free-listing are as below:

a) Communication skills

- b) Observation skills and collaboration skills
- c) learning socio-economic aspects
- d) learning behavioral aspect
- e) Patient health-seeking behavior
- f) Group learning, leadership, teamwork, etc.
- g) Overall epidemiology of the health problem.
- h) Any suggestions from the participants-for emerging themes

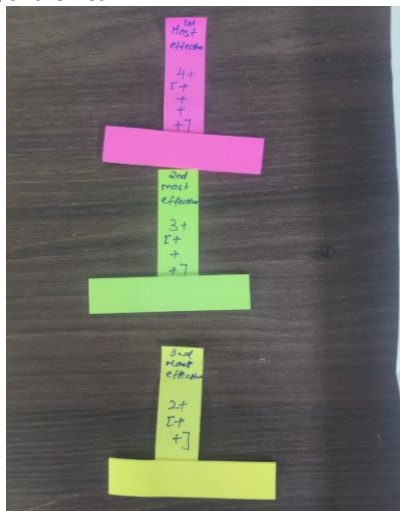
The themes were explained and drawn on simple chart paper. Items from the list of themes were picked and inscribed on cards for pile sorting. Participants categorised these items according to perceived similarity and designated labels for each category, articulating their

rationale. The colour coded weighted tagging system was used to record responses Pink, yellow, and green in descending order, representing the highest to 3<sup>rd</sup> highest learning points. The results are shown in Table 1 and Figures 5 and Figure 6 below.

**Table 1: Analysis of Qualitative Responses by Pile Sorting and Tagging methods**  
**Responses on a-priori and emerging themes on community-based learning**

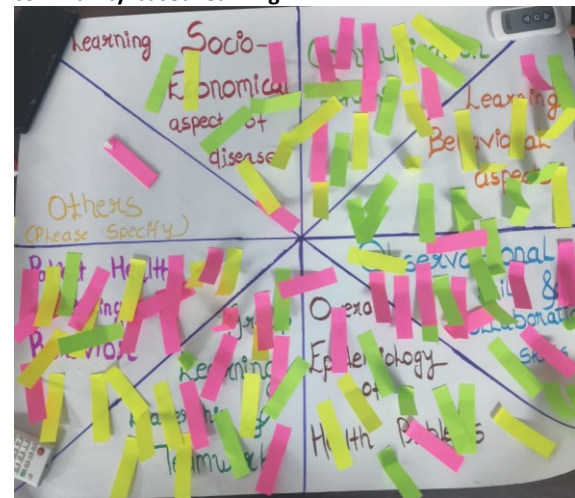
Themes of Community-Based Learning	Batch A			Batch B			Total
	Pink tags	Yellow tags	Green tags	Pink tags	Yellow tags	Green tags	
Communication skills	7	8	8	6	6	4	39
Observational skills	12	5	5	10	9	1	42
Collaborative Skills	12	5	5	10	9	1	42
Learning socioeconomic aspects	5	3	6	2	3	3	22
Learning behavioural aspects	4	10	3	1	6	10	34
Patient health-seeking behaviour	2	4	4	9	9	2	30
Group learning	12	8	7	6	6	4	43
Leadership and teamwork	12	8	7	6	6	4	43
Overall epidemiology of health problem	3	4	7	3	3	5	25
Others (Fun with learning)	2	2	1	3	1	2	11
<b>Total</b>	<b>71</b>	<b>57</b>	<b>53</b>	<b>56</b>	<b>58</b>	<b>36</b>	<b>331</b>

**Figure 5: Colour-coded tags used in pile sorting and tagging of themes**



The free-listing and tagging was followed by pile-sorting exercise. Data was synthesized through frequency counts and thematic clustering to determine the hierarchy of learning outcomes. Soft skills and working together as a team were found to be the most important learning results. With 43 answers each, Group Learning and Leadership/Teamwork tied for the most relevant question to each person. Observational and collaborative skills stood out as most relevant (pink tags) with 42 answers each, especially for Batch-A.

**Figure 6: Depiction of a-priori and emerging themes of community-based learning**



Learning (34 in total) and patient health-seeking (30 in total) provided insights into society and behavior and were considered somewhat important by study participants. Surprisingly, overall learning of the epidemiology of health problems (25 total tags) and socioeconomic features (22 total tags) got fewer tags from study participants of both groups. The participant-driven emerging theme "Others (Fun with learning)" was encouraging for teachers also, drawing 11 replies in total.

**Table 2: Distribution of Learning Themes from Community Exposure and Community-Based Learning**

Category (Pile)	Total Responses	Primary Focus
Pile 1: Clinical Soft Skills	123	Communication, Observation, Collaboration
Pile 3: Social & Team Dynamics	97	Group Learning, Leadership, Fun with Learning
Pile 2: Behavioral Insights	64	Health-seeking behavior, Behavioral aspects
Pile 4: Macro Health Perspectives	47	Epidemiology, Socioeconomics

## DISCUSSION

The community exposure and community based learning and its impact on development of Indian Medical Graduate has not been studied to the extent where objective and subjective conclusions can be arrived. The global studies show that community exposure not only strengthens contextual learning and skill building but also helps students derive inspirations for adopting medical careers based on needs of the community. The systematic review BEME noted that the early exposure to the community helped them not only academically, but also in acclimatization to the clinical environment, interacting to patients with more confidence, reduced stress and developing self-reflection and appraisal skills. (11) The present study also pointed out that there was an improvement in communication skills, leadership skills and observational skill among others have improved significantly.

A phenomenological study among Columbian undergraduate medical students noted that the Community medicine learning environments can be experienced in multiple ways. (12) A study from South India has pointed the need of early exposure to the community is necessary for the core development of the subject, and noted the importance of PHCs and UHTCs which can act as the focal point for the community medicine postings. (13)

Understanding the significance of early community exposure goes beyond mere academic achievement; it lays the foundation for future physicians who are not only clinically proficient but also culturally competent, socially aware, and ethically responsible. (6,7) The present study attempts to explore and learn the medical students' views and experiences during community exposure.

Findings from this study elaborate students' perspectives on community-based learning to mitigate disparities and promote health education among individuals and communities. Approximately eighty percent of study participants believed that CBL played important roles in identifying health problems and implementing health interventions. In the community settings, the students had further advantage of learning better about the patients and their diseases when compared to the OPD or ward setting (Figure 1). This was similar to a review from senior public health experts and community medicine teachers who found that community exposure conduces the learning of disease epidemiology and field implementation of various national programs (10). The present study also identified supplementary advantages for other stakeholders, particularly teachers and patients, as medical undergraduates are educated to be more empathetic and accountable through a thorough understanding of the operations and offerings of primary health centers and preventive healthcare. (Figure 2 & Figure 3) (9,11)

The qualitative data collection and analysis by focus group discussions and pile sorting and aging techniques, respectively, show that field-based learning excels at fostering emotional intelligence and teamwork. The high engagement in Pile 3 suggests that the social structure of the learning environment (peer groups) is just as

important as the clinical content. However, the lower engagement with socio-economic and epidemiological themes (Pile 4) suggests a "conceptual disconnect." Students may struggle to see these macro-level factors while focused on the micro-level task of patient interaction. The emerging theme of "fun with learning" highlights that the community setting reduces the "academic fatigue" often found in traditional classroom settings.

Community-based exposure and learning are strategically important for easing the transition of medical undergraduate students from theoretical concepts to practical application. The mixed-methods perspectives and feedback from the present study provide comprehensive insights into the expectations and learning experiences of students during field postings and family visits. Regular and continuous assessment and feedback methods in community exposure postings of medical undergraduates are essential to ensure dynamic learning models and prepare sufficiently competent primary care providers.

## CONCLUSION

Community-based exposure and learning are strategically important for easing the transition of medical undergraduate students from theoretical concepts to practical application. The mixed-methods perspectives and feedback from the present study provide comprehensive insights into the expectations and learning experiences of students during field postings and family visits. Regular and continuous assessment and feedback methods in community exposure postings of medical undergraduates are essential to ensure dynamic learning models and prepare sufficiently competent primary care providers.

## RECOMMENDATION

The students' have multi-faceted experiences of group work, team building, communication skills and future career path selection with community based learning. These study findings can be used to develop teaching through community-based learning. Future research should focus on understanding students' perspectives to make community based learning a participatory approach model.

## LIMITATION OF THE STUDY

Since the study was conducted only in one tertiary care centre, it is advised for future studies in this area, involving larger stakeholders and more medical college hospitals will provide a better and clear perspective regarding this. Also the study was conducted during the family case study visit of a particular area, which may have affected the external validity of the study.

## RELEVANCE OF THE STUDY

Clinical and community postings are an integral component of the learning and training of Indian Medical Graduates (IMG). The medical students are exposed to community field postings in urban areas for FHAS (Family Health And Advisory Services). Furthermore, the community exposure is scheduled early in the second

year according to the curriculum and competency-based medical education (CBME) objectives of INI (Indian National Institutes). There are very few research studies designed to assess the objectives of community-based learning. The present study explores students' perspectives and feedback and performs a comprehensive quantitative and qualitative assessment of the learning and skills development during early community exposure. Specific variables studied were communication, social, behavioral, and theoretical skills strengthened by community postings.

#### AUTHORS CONTRIBUTION

All authors have contributed equally.

#### FINANCIAL SUPPORT AND SPONSORSHIP

Nil

#### CONFLICT OF INTEREST

There are no conflicts of interest.

#### DECLARATION OF GENERATIVE AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The authors haven't used any generative AI/AI assisted technologies in the writing process.

#### REFERENCES

1. Medical Council of India. Attitude, Ethics and Communication (AETCOM) Competencies for the Indian Medical Graduate. In: (MCI) MCoI, editor. New Delhi: National Medical Commission, Bharat; 2018.
2. Patil AV, Somasundaram KV, Goyal RC. Current health scenario in rural India. *The Australian journal of rural health*. 2002;10(2):129–35.
3. Bhattacharya H, Medhi GK, Pala S, Sarkar A, Kharmujai OM, Lynrah W. Early community-based teaching of medical undergraduates for achieving better working skills in the community. *J Educ Health Promot*. 2018;7:161.
4. Krishnan A, Misra P, Rai SK, Gupta SK, Pandav CS. Teaching community medicine to medical undergraduates-learning by doing: our experience of rural posting at All India Institute of Medical Sciences, New Delhi, India. *Natl Med J India*. 2014; May-Jun;27(3):152–8.
5. Claramita M, Setiawati EP, Kristina TN, Emilia O, van der Vleuten C. Community-based educational design for undergraduate medical education: a grounded theory study. *BMC Medical Education*. 2019;19(1).
6. Oliveira CC, Renata C de Souza, Érika H Sasaki Abe, Luís E Silva Móz, Carvalho LRd, Domingues aMA. Undergraduate research in medical education: a descriptive study of students' views. *BMC Medical Education*. 2013;14(51).
7. Narapureddy BR, Patan SK, Deepthi CS, Chaudhuri S, John KR, Chittooru C, et al. Development of a community orientation program (COP) as a community-based medical education method for undergraduate medical students: an experience from India. *BMC Med Educ*. 2021;21(1):626.
8. Shrivastava SR SP. Utilizing the community as a learning resource in the training of undergraduate medical students. *Curr Med Issues*. 2023;21:123–5.
9. Chung EY. Facilitating learning of community-based rehabilitation through problem-based learning in higher education. *BMC Med Educ*. 2019;19(1):433.
10. Kumar P. Rural and Urban Health training Centers and Community Medicine: my musings. *Healthline* 2013;4(2).
11. Dornan T, Littlewood S Fau - Margolis SA, Margolis Sa Fau - Scherpbier A, Scherpbier A Fau - Spencer J, Spencer J Fau - Ypinazar V, Ypinazar V. How can experience in clinical and community settings contribute to early medical education? A BEME systematic review. *Medical Teacher* 2006;28(1):3–18.
12. Community health learning experiences of Colombian undergraduate medical students. A phenomenographic research study Claudia Liliana Jaimés-Penuela1 · Francisco Lamus-Lemus1 · Natalia Reinoso-Chavez2
13. Training medical undergraduates in the core disciplines of community medicine through community postings – an experience from India Hemant Deepak Shewade1,a, Chinnakali Palanivel1,b, Kathiresan Jeyashree