



Assessment of Undergraduate Medical Students' Understanding of Empathy Toward Family Members and Caregivers

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ABSTRACT

Aim: To explore undergraduate medical students' understanding and perceptions of empathy toward caregivers, within the framework of the Attitude, Ethics, and Communication (AETCOM) module.

Settings and design: A qualitative cross-sectional study was conducted at a tertiary care academic medical institution following the Competency-Based Medical Education (CBME) curriculum.

Materials and methods: Second-year MBBS students ($n = 113$), having clinical exposure and AETCOM training, were selected through purposive sampling. Data were collected using a 15-item questionnaire. The questionnaire focused on students' understanding of empathy, perceived importance of caregiver involvement, personal observations, and suggestions for curriculum improvement. Students were allowed to interact with caregivers in clinical wards, present reflections in class, and view curated videos illustrating caregiver challenges. Group discussions and debriefings were conducted, which further enhanced reflection. Participant anonymity and confidentiality were maintained.

Statistical analysis: Data were analyzed with GraphPad Prism 10. Descriptive statistics such as frequencies and percentages were used to summarize demographic information and closed-ended responses, as applicable.

Results: The role of empathy in holistic care, communication gaps with caregivers, emotional challenges faced by families, and recommendations for integrating empathy-focused training into the curriculum were assessed. A significant number of students were aware of the problems of the caregivers and components of empathy.

Conclusion: This study provides insights into students' perspectives on empathy toward caregivers and highlights the need for structured, experiential learning approaches in medical education to foster compassionate care beyond the patient.

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INTRODUCTION

Empathy is a cornerstone of effective and compassionate medical practice.¹ Traditionally, the concept of empathy in medical education has focused primarily on the physician–patient relationship.² However, the scope of empathetic engagement extends beyond the patient to include family members and caregivers, who play a vital role in the continuum of care.³ Family/patient caregivers are the unsung backbone of healthcare systems worldwide.

Caring for a loved one through illness or disability is a profound act of devotion and commitment, but it comes at a steep personal cost. Family caregivers routinely sacrifice their own physical, emotional, and financial well-being to support others. They often face multifaceted challenges that can significantly impact their well-being.^{4,5}

Emotionally, they may experience stress, anxiety, depression, and feelings of guilt or grief, especially when witnessing the decline of a loved one.⁶ Physically, the demands of caregiving can lead to fatigue,

sleep disturbances, and health issues due to neglecting personal care. Financially, many caregivers incur substantial expenses and may reduce work hours or leave their jobs.^{4,5} Social isolation is common, as caregiving responsibilities can limit time for personal relationships and activities. Additionally, caregivers often lack adequate training and support, making it challenging to manage complex care tasks and navigate healthcare systems. These cumulative stresses can lead to caregiver burnout, characterized by emotional, mental, and physical exhaustion.^{7,8}

In such circumstances, when they perceive insensitivity or a lack of compassion from doctors, it can lead to frustration or even aggression. Violence against healthcare professionals is a pressing concern not only in India but globally.^{9,10} These individuals who experience significant emotional, physical, and financial burdens feel that their perspectives and needs are overlooked in clinical encounters. This underscores the critical role of empathy and effective communication in health care toward patients as well as caregivers.

In recent years, there has been growing recognition of the importance of holistic care, which encompasses the patient and their support system. Medical students, as future healthcare professionals, must be sensitized not only to the suffering of patients but also to the lived experiences of those who care for them. Developing empathy toward caregivers and family members is essential in fostering patient-centered and family-inclusive care.² Therefore, the competency-based medical education (CBME) curriculum has incorporated Attitude, Ethics, and Communication (AETCOM) modules throughout various disciplines and phases of medical undergraduate training in India. Particularly, the AETCOM 2.8 module is designed to teach future doctors how to empathetically and skillfully interact with those caring for patients.¹¹

Despite this, there is limited research assessing how well undergraduate medical students understand and internalize empathy toward nonpatient stakeholders in the health care process. Most existing studies focus on cognitive and affective empathy in the context of direct patient interaction, with minimal emphasis on the emotional needs and challenges faced by caregivers. This study aims to explore the depth and nature of empathy among undergraduate medical students toward family members and caregivers of patients.

MATERIALS AND METHODS

This was a cross-sectional questionnaire-based study conducted to explore the understanding and perceptions of

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undergraduate medical students regarding empathy toward family members and caregivers of patients. The study was carried out in a tertiary care academic medical institution, which follows the CBME curriculum, including the AETCOM module.

Undergraduate medical students from the second year of MBBS were included in the study, as they have had exposure to both clinical settings and the AETCOM module. After obtaining approval from the Institutional Ethics Committee (BVDUMC/IEC/25-26/120E), the study was conducted. The background and purpose of the study were explained to the students, and they were encouraged to participate voluntarily, without any undue pressure, before the administration of the questionnaire.

Prior to the distribution of the questionnaire, the students were sent to the wards and asked to interact with the caregivers. They were then asked to share their experiences in class and participate in a discussion based on each group's presentation, with a focus on the suffering of family members and caregivers. Four videos were shown to the students, demonstrating various aspects of the challenges faced by caregivers when a patient is hospitalized. A discussion and debriefing session followed, addressing the different challenges and how they can be managed.

At the end of these sessions, all the key aspects were summarized. A questionnaire, created as a Google Form, was emailed to the students at their registered email addresses, and their responses were collected. The responses were analyzed to assess the students' understanding of how to demonstrate empathy toward the family members and caregivers of patients.

STATISTICAL ANALYSIS

Each response was coded independently by two researchers to enhance reliability. Discrepancies in coding were resolved through discussion and consensus.

Descriptive statistics such as frequencies and percentages were used to summarize demographic information and closed-ended responses, as applicable.

RESULTS

In our first question, addressing common functions performed by family members or caregivers for a patient, 95.6% identified "all of the above" as the correct response. 60.3% of students identified "emotional and physical burnout" as a common major issue experienced by caregivers, while "financial

stability" was chosen by 32.7%. "Decreased dependency on healthcare facilities" and "increased opportunities for leisure travel" were equally selected by the rest, at 3.5% (Fig. 1).

Most students (90.3%) correctly described empathy as "placing yourself in the patient's and caregiver's position and understanding their experience." However, the rest failed to understand the concept. For our question on the "most common cause of patient noncompliance with medication (chronic illness)," a varied response was received. The leading cause, indicated by 49.6% of respondents, was "expensive medications causing financial burden." "Lack of awareness and poor communication" was selected by 23.8%, followed by "complex medication regimens" by 14.2% and "side effects of the medication" by 12.4% (Fig. 2).

A dominant 94.7% agreed that understanding caregiver stress is important because "it impacts the overall quality of patient care." 83.2% of participants believed that "providing structured caregiver training and education programs" is the most effective change in the health care settings to support caregivers in their roles. A high percentage, 95.6%, indicated that a future doctor should "listen empathetically and suggest support resources" in response to the caregiver expressing emotional fatigue. For "attitude reflecting respect for dignity of patients and caregivers," the vast majority, i.e., 96.5%, chose "listening actively and involving them in care" as the best reflection.

In response to an overly involved caregiver in clinical decision-making, 89.4% of respondents suggested that the appropriate response should be to "listen and guide them constructively." However, the rest of the students, i.e., 10.6%, still believe that

options such as "asking caregiver to stay out of clinical space" and "changing or ignoring caregivers" are better. Showing respect to cultural beliefs during patient interaction was rightly identified as an example of "Cultural sensitivity" by 88.5% of respondents. While some students still misinterpreted this as paternalism, indifference, and over-involvement.

A large proportion, 95.6%, agreed that "use simple language and check understanding" is a good practice for explaining the drug regimen.

For caregiver information during discharge planning, 72.6% stated that caregivers should be given "Clear instructions, emergency contacts, and support resources," while 26.5% chose "a brief condition overview and follow-up reminder." The rest believed that "only the medication list and follow-up details were sufficient." "Recognize and reflect on feelings, seeking support if needed" is the correct approach by healthcare professionals in the management of emotional response in difficult situations, was believed by 90.3% of the students.

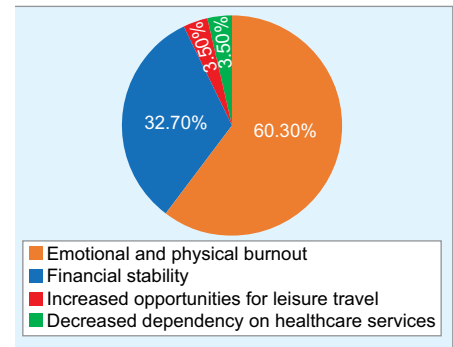


Fig. 1: Common major issue experienced by caregivers

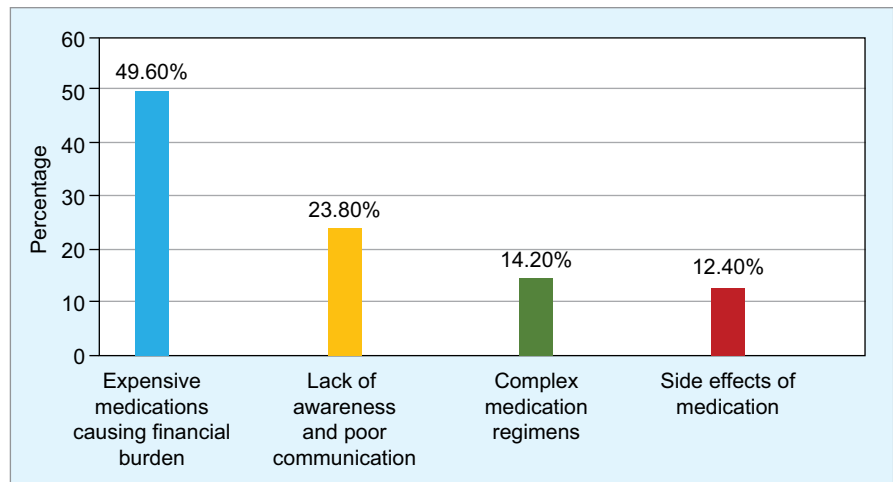


Fig. 2: Most common cause of patient noncompliance with medication (chronic illness)

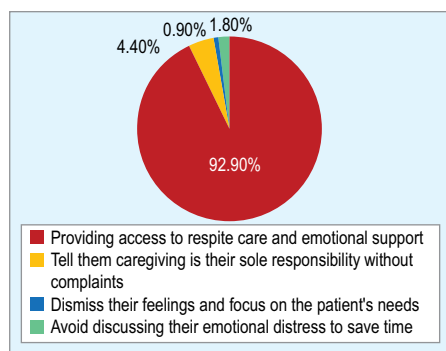


Fig. 3: Health care professional's response to caregiver expressing "why me?" feelings

A strong 92.9% of participants indicated that "providing access to respite care and emotional support" is most likely to improve the quality of life of family caregivers. Incidentally, the same percentage of students chose to "acknowledge their emotions, offer empathetic support and provide coping resources" to caregivers expressing "why me?" feelings. While 4.4% voted for "tell them caregiving is their sole responsibility without complaints." A very small percentage of students, i.e., 1.8% and 0.9%, voted for "dismiss their feelings and focus on the patient's needs" and "avoid discussing their emotional distress to save time", respectively (Fig. 3).

DISCUSSION

This study aimed to explore the understanding and perceptions of undergraduate medical students regarding empathy toward caregivers and family members of hospitalized patients, a domain emphasized in the AETCOM module 2.8, which is integral to the Competency-Based Medical Education (CBME) curriculum.

The survey revealed strong awareness among students about the broad roles of caregivers, with 95.6% correctly identifying tasks such as daily care, medication management, and emotional support. This aligns with findings from the study of Schulz et al., who highlight the vital role caregivers play in supporting patient health.¹²

Most of the students (60.3%) recognized emotional and physical burnout as a major caregiver challenge, reflecting the well-documented concept of caregiver burden.¹³ Financial strain was also noted by 32.7%, consistent with research indicating the economic impact of caregiving.¹⁴ Minimal responses for options like "increased leisure travel" suggest students view caregiving as demanding, not liberating, similar to the findings by Pinguart and Sørensen.¹⁵

A large proportion of students (90.3%) demonstrated a sound understanding of empathy, identifying it as the ability to

place oneself in the position of patients and caregivers. This suggests that the educational approach has been largely effective, aligning with literature emphasizing empathy as a core competency in medical training.¹⁶ However, the remaining students' lack of understanding, despite multimodal teaching strategies, points to the need for more experiential and reflective learning methods.¹⁷

Regarding patient noncompliance in chronic illness, nearly half of the students (49.6%) recognized financial burden due to expensive medications as the leading cause; the finding is consistent with global data on cost-related medication nonadherence.¹⁸ Other contributing factors identified were poor communication and lack of awareness (23.8%), complex regimens (14.2%), and medication side effects (12.4%), reflecting the multifactorial nature of nonadherence.¹⁹ These results underscore the importance of addressing both systemic and interpersonal barriers to improve treatment outcomes.

The results also indicate strong student awareness of the critical role caregivers play in patient care. An overwhelming 94.7% agreed that caregiver stress affects the quality of care, which is well supported by studies showing that caregiver well-being is directly linked to patient outcomes.²⁰ Furthermore, 83.2% of respondents identified structured caregiver education and training as the most effective healthcare intervention, an approach endorsed by evidence showing that targeted programs can reduce caregiver burden and improve both patient and caregiver satisfaction.²¹

Encouragingly, 95.6% of students acknowledged the importance of listening empathetically and offering support resources to caregivers experiencing emotional fatigue, aligning with best practices for holistic and compassionate care.²² Similarly, 96.5% identified "active listening and involving patients and caregivers in care decisions" as the best reflection of respect for dignity. This reflects a strong alignment with patient- and family-centered care principles, which emphasize shared decision-making and empathy as key components.²³

These findings suggest that students not only understand the emotional and practical needs of caregivers but also value empathy and communication as essential skills in clinical practice.

The findings reflect a commendable level of insight among students regarding communication and cultural competence in patient care. A majority (89.4%) appropriately recommended "listening and guiding constructively" when dealing with overly involved caregivers, aligning with principles

of collaborative decision-making and maintaining caregiver engagement while setting healthy boundaries.²⁴ However, the 10.6% who preferred dismissive strategies indicate the need for further emphasis on respectful, inclusive communication.

In terms of cultural competence, 88.5% correctly identified showing respect for cultural beliefs as a form of cultural sensitivity. This is consistent with the growing emphasis in medical education on culturally responsive care, which improves trust and health outcomes.²⁵ The few misconceptions observed (e.g., viewing sensitivity as paternalism or indifference) highlight a need for clearer distinctions during training.

Moreover, nearly all students (95.6%) agreed that using simple language and confirming understanding is essential for explaining medication regimens. This aligns with health literacy best practices and reinforces the importance of patient comprehension to ensure adherence and safe medication use.²⁶

Overall, these responses suggest strong foundational attitudes among students, with targeted reinforcement needed in nuanced areas such as caregiver boundaries and cultural humility. These responses reflect a well-developed understanding among students about the caregiver's role during discharge planning and emotional support.

A majority (72.6%) recognized that caregivers should receive comprehensive discharge instructions, including clear guidance, emergency contacts, and available support resources. This aligns with best practices for discharge planning, which emphasize the need for thorough caregiver preparation to reduce readmissions and improve continuity of care.²⁷ However, the 26.5% who preferred a brief overview suggest that further emphasis is needed on caregiver empowerment through communication.

Regarding emotional response management, 90.3% of students correctly endorsed self-awareness and seeking support as appropriate strategies for healthcare professionals facing difficult situations, key elements of emotional intelligence and resilience in clinical practice.²⁸

Encouragingly, 92.9% of students supported providing respite care and emotional support as effective measures to enhance caregivers' quality of life. Similarly, an equal proportion chose to acknowledge caregiver distress with empathy and coping resources when caregivers express "why me?" feelings. These empathetic responses reflect the growing shift toward family-centered care models and the importance of

validating caregiver emotions as per Beach and Inui.²² The small percentage (4.4%) favoring dismissive or judgmental attitudes underscores the need for continuous training on compassionate communication.

Overall, the data suggest that students appreciate the complex emotional and practical needs of caregivers, though minor gaps remain in uniformly applying these principles.

CONCLUSION

This study highlights the significant impact of structured, experiential learning on enhancing empathy among undergraduate medical students, specifically toward family members and caregivers of patients. By engaging with caregivers in clinical settings, participating in guided reflections, and viewing real-life video narratives, students developed a deeper appreciation for the multifaceted challenges caregivers face. The integration of the AETCOM module and CBME framework provided a strong educational foundation that facilitated this transformation.

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