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## Exploring Faculty Perceptions of Case-Based Learning in Paediatric Education

Nilar Lwin<sup>2\*</sup>, Tayzar Hein<sup>1</sup>, Zaw Phyo<sup>1</sup>, Zin Min Htike<sup>1</sup> Tun Tun Naing<sup>1</sup> & Ye Phyo Aung<sup>1</sup>

<sup>1</sup> Department of Medical Education, Defence Services Medical Academy, Myanmar

<sup>2</sup> Department of Child Health, Defence Services Medical Academy, Myanmar

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\*Corresponding author: Nilar Lwin

Department of Child Health, Defence Services Medical Academy, Myanmar

### Abstract

**Introduction:** This study explores the perceptions of pediatric faculty members regarding the use of Case-Based Learning (CBL) in medical education.

**Method:** A qualitative research approach was adopted, utilizing purposive sampling to select six faculty members with experience in CBL. Data was collected through focus group discussions (FGDs) and analyzed using thematic analysis.

**Result:** The results highlighted four key themes: general perceptions, benefits, challenges, and recommendations for improvement. Faculty believed CBL enhances critical thinking, communication skills, and the application of theoretical knowledge in real-world scenarios. However, challenges such as time constraints and unclear learning outcomes were identified. Recommendations included providing ongoing faculty training, using smaller discussion groups, and refining case scenarios to better meet students' learning needs.

**Conclusion:** The study underscores the importance of faculty perceptions in shaping the future of CBL and improving its effectiveness in pediatric education.

**Keywords:** Case-Based Learning (CBL), Pediatric Education, Faculty Perceptions, Qualitative Research, Medical Education

## I. INTRODUCTION

Case-Based Learning (CBL) has gained traction in medical education, allowing students to engage with real-world clinical scenarios while applying theoretical knowledge (McLean, 2016). While the approach is widespread, there is a notable gap in research focused on faculty perceptions, particularly in pediatric education. Understanding these perceptions is crucial for evaluating the efficacy of CBL and shaping its implementation in training future pediatric practitioners. CBL encourages students to tackle real-life scenarios, promoting critical thinking, collaboration, and practical application of theoretical knowledge. This study aims to delve into the faculty's perspectives, assessing how CBL influences both teaching and learning within the pediatric curriculum.

## II. METHODS

This study employed a qualitative research design to explore pediatric faculty members' perceptions of CBL. A purposive sampling method (Campbell et al., 2020) was used to select 6 faculty members from a medical institution, chosen based on their direct experience with CBL to ensure relevance to the research objectives. Data collection was conducted through focus group discussions (FGDs), allowing participants to engage in interactive dialogue and share diverse perspectives on CBL. Ethical approval was obtained from the Institutional Review Board of DSMA, and informed consent was secured from all participants to maintain confidentiality and anonymity. Data were analyzed using thematic analysis, where recurring themes were identified and categorized iteratively in alignment with the research objectives.

## III. RESULTS

The thematic analysis of the qualitative findings revealed four main themes regarding faculty perceptions of CBL: general perceptions, benefits, challenges, and recommendations for improvement.

**General Perceptions of CBL:** Discussions of cases like malnutrition prompted students to explore critical issues such as poverty and healthcare access. Faculty believed this approach was vital for producing well-rounded practitioners who can address both clinical and socio-economic aspects of patient care. Additionally, CBL fostered peer-to-peer interaction, where students engaged critically with treatment options and moved beyond textbook knowledge.

**Benefits of CBL:** CBL was beneficial in improving presentation and communication skills through regular case discussions, such as those involving a bleeding child, helping them articulate complex medical information. This aligns with Thistlethwaite et al. (2012) on role of CBL in solving advanced medical problems. Additionally, it enhanced clinical reasoning by using pre-reading materials for better diagnosis and management of cases like recurrent abdominal pain. Integrating various medical disciplines, including pediatrics, surgery, and emergency care, was key in helping students apply theoretical knowledge in real-world situations.

**Challenges and Barriers:** The most significant challenge identified was the time-intensive nature of CBL. Faculty noted that discussions frequently exceeded the allotted time, indicating the need for more structured discussions or extended sessions. Another challenge was the absence of clear learning outcomes, which occasionally led to unfocused and less productive discussions.

Faculty emphasized the importance of clearly defined objectives to streamline case discussions and improve time management.

**Faculty and Student Support:** The analysis also highlighted the need for ongoing faculty training to ensure the effective facilitation of CBL. Faculty suggested conducting pilot sessions to identify and resolve potential issues early in the process. Additionally, limiting CBL group sizes to 6–10 students was recommended to promote meaningful interaction, a suggestion supported by Sartania et al. (2022), who found that large groups can disrupt the dynamics of discussion.

**Recommendations for Improvement:** To further enhance CBL, faculty recommended actively encouraging quieter students to participate in discussions, fostering a more inclusive environment. Another suggestion was to tailor case scenarios to better align with students' learning needs. For example, incorporating varied cases, such as different asthma presentations, could reinforce key concepts and better prepare students for handling diverse clinical situations.

## IV. DISCUSSION

Beyond merely recognizing symptoms, CBL encouraged students to consider broader social and personal factors, such as poverty and healthcare access, which are critical in real-life pediatric practice. For example, in discussions of malnutrition, students critically engaged with these external factors, which faculty members viewed as essential for holistic learning. Integrated teaching further enhanced the learning process, allowing students to bridge theoretical knowledge with practical application across disciplines, such as pediatrics and emergency care.

Despite these benefits, the study also highlighted several challenges. Faculty reported that the time-intensive nature of CBL often led to sessions exceeding their planned duration. Another challenge was the lack of clearly defined learning outcomes, which sometimes resulted in unfocused discussions. Clear objectives for each case discussion could help streamline the process and ensure more efficient use of time. These findings are consistent with Hood Cattaneo (2017), who also identified the importance of having well-defined goals in CBL to avoid ambiguity and improve the effectiveness of learning sessions.

In terms of support, ongoing faculty training was considered essential for effective facilitation. Faculty recommended pilot sessions to identify and address potential issues early on. Limiting CBL group sizes to 6–10 students was also suggested to promote meaningful interaction, as larger groups tend to disrupt the dynamics of discussion, consistent with the findings of Sartania et al. (2022).

Finally, recommendations for improvement included fostering a more inclusive environment by actively encouraging quieter students to participate. Tailoring case scenarios to align more closely with students' learning needs was another suggestion, with varied case examples, such as different asthma presentations, proposed to reinforce key concepts and better prepare students for diverse clinical situations. These recommendations, if implemented, could further enhance the effectiveness of CBL in medical education.

## V. CONCLUSION

The insights gained from this study underscore the value of CBL in pediatric education while highlighting the importance of faculty

perceptions in shaping its implementation. Faculty members recognize the potential of CBL to enhance critical thinking, communication skills, and collaborative learning among students. However, challenges such as time constraints and the need for clear learning objectives must be addressed to maximize its effectiveness. Future research should further explore the impact of CBL on student learning outcomes and examine strategies for overcoming identified challenges. By understanding faculty perceptions and continuously refining CBL methodologies, educators can contribute to more effective teaching and learning experiences in pediatric education.

#### Notes on Contributors

Nilar Lwin provided pediatric expertise, contributed to the interpretation of the findings, and assisted in reviewing and revising the manuscript critically for intellectual content.

Tayzar Hein led the data collection process through focus group discussions, and played a key role in manuscript drafting and revisions.

Tun Tun Naing contributed to the conception, design, and coordination of the study.

Zaw Phyto contributed to the development of the study framework, assisted in facilitating the focus group discussions, and provided support in manuscript drafting and revisions.

Zin Min Htike provided technical expertise in qualitative data analysis, contributed to the organization and coding of themes, and played an active role in finalizing the manuscript.

Ye Phyto Aung assisted in the development of the study methodology, contributed to data analysis, and participated in drafting the manuscript and reviewing its final version.

#### Ethical Approval

Ethics approval was granted by the Ethical Review Committee of the DSMA, Ethical Review Board (2/ ERB/ 2024).

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#### Declaration of Interest

The authors of this research study declare that there are no conflicts of interest that could potentially influence or bias the outcomes, interpretations, or conclusions of the study. A conflict of interest is defined as any financial, consultant, institutional, or other relationships that may pose a risk of bias or conflict with the objectivity and integrity of the research.

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