# Driving Medical Education Forward Sawanpracharak at AMEE 2025

## Emergency airway and difficult airway management scenario with high-fidelity simulator as a teaching-learning tool for novice simulation-based learners

## Background

Emergency airway management presents a significant challenge for medical students, demanding critical skills with limited opportunities for real-world practice on live patients. Simulation-based medical education offers a valuable platform for acquiring knowledge, skills, and appropriate attitudes across all healthcare professions. This study aimed to evaluate the efficacy of a high-fidelity simulator-based training program in enhancing emergency and difficult airway management skills among novice learners.

## Summary of Work

Twenty-nine fifth-year medical students enrolled in an anesthesiology course participated in this study. All students were novices in high-fidelity simulation-based learning (SBL) and had no prior experience with intubation in real-life emergency airway situations. Prior to SBL, students received lectures and basic intubation training with part-task simulation under instructor guidance. A pre-test was administered one day before the SBL session. Two scenarios were designed: emergency airway management and difficult airway management. All students were divided into 16 leaders and 13 participants. Upon completion of the SBL program, all students underwent a post-test and completed a questionnaire.

## Summary of Results

The mean knowledge score was significantly higher in the post-test compared to the pre-test (9.9±1.0 VS 9.28±0.3, p-value<0.05). This study revealed no significant differences in student opinions regarding the prebrief, scenario running, and debrief sections between the leader and participant groups. The leader group perceived SBL with a high-fidelity simulator as a teaching-learning tool that was a more primary driver of learning, emphasizing the importance of holistic thinking and demonstrating greater enjoyment compared to the participant group. There was no difference in the amount of knowledge acquired by both groups.

**Submit No.** **2612**

## Discussion and Conclusion

Teaching SBL in emergency airway management using a high-fidelity simulator resulted in higher average scores for both the leader and participant groups of novice students. The leader group perceived this method as more effective in stimulating learning, emphasizing its ability to make learning enjoyable and foster comprehensive thinking compared to the perspective of the participant group. Novice students strongly recommended the integration of this method into future educational practices, suggesting its potential applicability across various subject areas.

## Take Home Message

Teachers should apply the outcomes of this study to utilize high-fidelity simulators to improve emergencysituation teaching. Teachers should apply the outcomes of this study to utilize high-fidelity simulators to improve emergency situation teaching.


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# Driving Medical Education Forward Sawanpracharak at AMEE 2025

## Integrating chatGPT into dermatology education: A comparative study of AI-assisted and traditional learning methods

## Background

Dermatologic diseases are primarily diagnosed through visual inspection. The integration of artificial intelligence (AI) in medical education is expanding, with tools like ChatGPT offering potential enhancements in clinical decision-making.

ChatGPT provides medical students with up-to-date references, aiding in lesion diagnoses and management. However, reliance on AI-driven diagnoses may lead to overconfidence and misinterpretation.

This study evaluates the impact of AI assistance on medical students proficiency in diagnosing and managing dermatologic lesions

## Summary of Work

A study was conducted with 226 medical students (66 fourth-year, 70 fifth-year, and 88 sixth-year) divided into two groups of 113 participants each.

The objective was to compare traditional learning methods with AI-assisted approaches in dermatology education. Participants examined various dermatological lesions, focusing on lesion description, diagnosis, investigation and management strategies. (AI used for academic writing)


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## Results

The AI-assisted group showed improvements in diagnosis, investigation and management over the non-AI group; however, these differences were not statistically significant. Subgroup analyses revealed that in non-infectious cases, the non-AI group outperformed the AI group in lesion description (90.30% vs. 58.93%, P < 0.01) and diagnosis (83.21% vs. 57.14%, P < 0.01), with no significant difference in investigation and management.

In infectious cases, the AI group achieved significant improvements in diagnosis (97.19% vs. 83.61%, P < 0.01), investigation (96.84% vs. 39.85%, P < 0.01), and management (100% vs. 30.94%, P < 0.01), though the non-AI group provided more accurate lesion descriptions using appropriate dermatological terminology (80.37% vs. 51.97%, P < 0.01).

## Discussion and Conclusion

AI offers valuable support for medical students engaged in the management of dermatological conditions, particularly in the context of infectious diseases where improvements in diagnosis, investigation, and management were observed. In contrast, for non-infectious dermatological conditions, AI did not enhance performance and demonstrated limitations in providing accurate lesion descriptions.

## Take Home Message

AI can be effective in aiding the management of infectious dermatological diseases. It is recommended that medical students be encouraged to utilize AI tools, especially in the context of infectious conditions, while being mindful of the limitations of AI in non-infectious scenarios.

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# Driving Medical Education Forward Sawanpracharak at AMEE 2025

## Development of Continuity Care Skills through the Implementation of Home Visit Program for Clinical Medical Students

## Background

One of the principles of family medicine is the provision of continuity care for patients. Implementation of a longitudinal home visit teaching program for medical students over three years in the clinical phase serves as a model for imparting this concept.

## Summary of method

A qualitative research design was employed to create this learning approach, focusing on longitudinal home visit teaching. Medical students were divided into groups of 3-4.

Each group followed one patient and their family for three years during their clinical years. Learning objectives were set according to the milestones of each academic year: 4th Year: home visits with staffs to understand the principles of home visit. 5th Year: Home visits with family medicine residents, focusing on summarizing holistic problems and providing comprehensive care.

6th Year: home visits alongside a multidisciplinary team, aiming to develop collaboration with professional teams. Data were collected from 30 logbook entries of 6th year medical students over three academic years.

Thematic content analysis was used to analyze skills throughout their three-year experience of continuous care and linking their learnings to the program's learning outcomes (PLO) of educational institute.


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## Summary of Results

Students honed doctor-patient relationship skills in building trust and understanding with patients and families. Students practiced effective communication skills. Collaboration with multidisciplinary teams was emphasized.

Students gained a deeper understanding of the human aspects, such as patients' thoughts, emotions, and family dynamics. Students understood holistic care concept and recognized the interplay between illness and its impact on families.

Students understood factors influencing disease treatment beyond medical Guidelines, considering determinants of Health such as family, society, or financial aspects.

## Discussion and Conclusion

The design enabled them to plan patient care systematically and foster essential humanistic and soft skills. Medical students saw the benefits of the continuity of care model as providing the greatest advantages to patients. These outcomes align with competencies in Patient Care, Professionalism, Communication Skills, Teamwork and Leadership, as outlined in PLOs.

## Take Home Message

Longitudinal home visit teaching provided medical students with a comprehensive understanding of continuous patient care which was a cornerstone of GPs. Educational institutions should adopt such approaches to cultivate medical students' understanding of sustained patient and family care.

**Submit No.** **1781**


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# Driving Medical Education Forward Sawanpracharak at AMEE 2025

## The Impact of Peer Feedback on Learning in a Simulation-Based Emergency Medicine Curriculum for Sixth-Year Medical Students

## Background

Intergenerational communication challenges, often referred to as the "generation gap," can hinder effective learning environments. These challenges are particularly relevant in educational settings where diverse perspectives and communication styles exist between teachers and students.

## Summary of Work

This study investigated the impact of peer feedback on the learning experience of sixth-year medical students participating in an emergency simulation.

Five students performed the simulation scenario, while the remaining observed and subsequently provided feedback.

Following peer feedback, a debriefing session led by instructors was conducted. Student satisfaction with both peer and teacher feedback was assessed through a questionnaire.

## Summary of Results

All students acknowledged the value of peer feedback, recognizing its potential benefits. However, 35% of students expressed discomfort in providing peer feedback, concerns about potential disagreement, and the possibility of unintentionally offending their peers.

Furthermore, 15% of students reported feeling guilty about receiving peer feedback.

Although 55% of students expressed a preference for teacher feedback, all students indicated that a combination of peer feedback followed by a teacher-led debriefing session represented the most effective learning approach.


## Discussion and Conclusion

Peer feedback can enhance student learning. Concerns regarding student discomfort and anxiety about providing constructive criticism require careful consideration.

The findings suggest that a blended approach, incorporating peer feedback within a structured framework guided by experienced instructors, may offer the most effective and supportive learning environment for medical students.

## Take Home Message

A blended approach, combining peer feedback with instructor guidance and debriefing, may optimize the learning experience for sixth-year medical students.

**Submit No.** **2052**


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# Driving Medical Education Forward Sawanpracharak at AMEE 2025

## Exploring High School Student Enrollment Factors and Curriculum Enhancement for a new Rural-Focused Medical Program.

## Background

The Faculty of Medicine Praboromarajchanok Institute, a new medical school, now oversees the CPIRD project previously managed by Mahidol University. This program recruits high school students from rural areas to return and serve underserved communities. A study is underway to explore factors influencing these students' enrollment in the new medical school and design an optimal curriculum for future cohorts.

## Summary of Work

The Faculty organized an open house at Sawanpracharak Hospital, a clinical training site for high school students from designated areas. The event included teaching-related activities, curriculum overviews, and insights into post-graduation career opportunities. Data was collected through questionnaires at the event's conclusion.

## Summary of Results

A survey of 101 students attending an open house revealed strong support for the program's mission to address healthcare workforce distribution, particularly in rural areas. The program's emphasis on family medicine and primary healthcare care was well-received. Factors influencing students' decisions to enroll in the newly established medical school were WFME-accredited curriculum 90%, job security after graduation 73.00%, availability of educational resources 71.28%, lower competition compared to older medical schools 70.00%, proximity of post-graduation workplace to their hometowns 69.69%. Notable key strength of the new medical school that attracted high school students, rated on a Likert scale (0–5), included its standardized curriculum (4.16 ± 0.99), guaranteed civil servant positions after graduation (4.16 ± 1.06), community-based curriculum (4.07 ±0.98) and, high teacher-to-student ratio (4.05 ± 1.06). Students expressed strong support for adherence to Medical Council standards and the integration of additional training in public health for community work 98.02%, research 96.04%, management 93.07%, and computer science 92.08% to enhance their preparedness or community-level healthcare.

**Submit No.** **2251**

## Discussion and Conclusion

The new medical school's focus on community-based education, accredited curriculum, efficient resource and strong career prospects are key strengths that resonate with prospective students. Integrating training in public health, research, management, and computer science will further enhance the program, equipping graduates with the skills needed to address modern healthcare challenges.

## Take Home Message

The program's community-focused approach and career-oriented features attract prospective students from rural area. Expanding the curriculum with broader training will better equip graduates to address healthcare challenges in rural communities.


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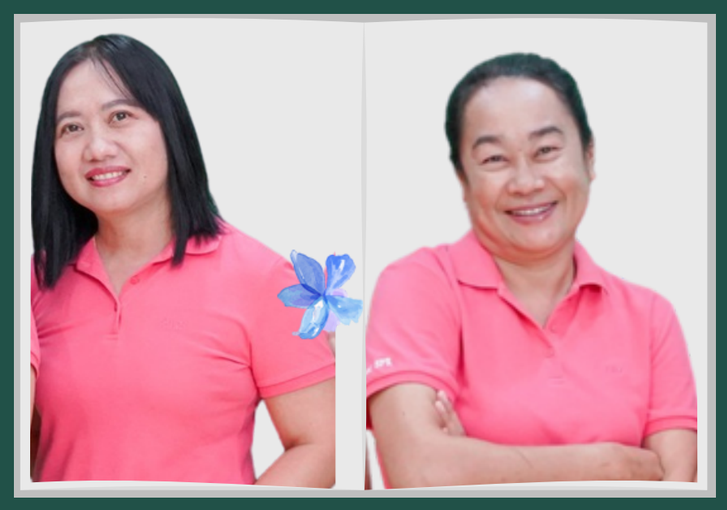


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# Driving Medical Education Forward Sawanpracharak at AMEE 2025

## Home Visits as a Tool to Enhance Medical Students' Communication Skills and Understanding of Patients

## Background

Home visits offer healthcare providers valuable opportunities to understand patients within their own environments and observe social and environmental factors that influence health. In community-based medical education, home visits serve as learning tools for caring for complex, chronically ill patients and understanding social determinants of health.

## Summary of Work

Home care education was conducted as part of the Family Medicine rotation for 4th-year medical students at Sawanpracharak Hospital, Thailand. The program integrated structured home care into the curriculum to enhance students' patient care skills and understanding of patient experiences.

At the beginning of the rotation, each group of students was assigned a patient for two home visits under preceptor supervision. Selected patients included elderly individuals and those with chronic illnesses. Before visits, students attended a didactic class on communication strategies, patient-centered interviewing techniques, and methods for observing social determinants of health.

During visits, students conducted comprehensive assessments including evaluating medical conditions, observing home environments, and building patient relationships. Following each visit, students participated in debriefing sessions and discussed treatment plans with faculty preceptors. Focus group interviews were recorded and analyzed using thematic analysis.

## Summary of Results

We identified three themes from the collected data. Students reported significantly increased communication confidence, gained deeper understanding of patient-centered medicine principles, and highlighted the value of preceptor guidance before and after home visits.

## Discussion and Conclusion

Home visits provide a transformative learning experience, fostering skills in communication and patient centered care. The structured preparation and mentorship from preceptors were key enablers of student success. Future studies could explore aspects of communication skills development during home visits.

## Take Home Message

Home visits are a powerful educational tool that enhances medical students' communication skills and understanding of patient-centered care.

**Submit No.** **3750**


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# Driving Medical Education Forward Sawanpracharak at AMEE 2025

## Leveraging AI and Cross-Cultural Feedback for Refining Ophthalmology Curriculum for Medical Students

## Background

External feedback, particularly from international educators, helps identify gaps that may not be visible from within.

This study explores how cross-cultural insights, supported by AI tools, can enhance a Thai ophthalmology curriculum for medical students and improve its relevance and quality.

## Summary of Work

The Thai ophthalmology curriculum was translated into English using AI tools like ChatGPT for easier international review.

Educators from Thailand and South Korea, each represening different healthcare contexts, provided feedback through a structured curriculum mapping process to ensure alignment with local and global educational standards.

## Summary of Results

Thai educators recommended focusing on prevalent local conditions such as diabetic retinopathy, cataracts, and glaucoma. In contrast, a Korean educator with experience in tertiary care proposed the inclusion of advanced topics like oculoplastic diseases.

Both groups highlighted the importance of enhancing student engagement through bedside teaching and hands-on procedural training, emphasizing the need to tailor these approaches to the available resources.

**Submit No.** **3675**

## Discussion and Conclusion

The study demonstrates that AI can streamline curriculum development by facilitating the collection of international feedback. This approach offers a more efficient and scalable method for refining curricula, ensuring adaptability across diverse healthcare settings.

By incorporating cross-cultural insights, medical education can be enriched, ultimately leading to improvements in both training quality and patient care.

## Take Home Message

Cross-cultural collaboration plays a vital role in identifying gaps in medical curricula and enhancing their relevance to diverse healthcare contexts.

AI tools can support this process by facilitating the efficient collection and integration of international feedback into curriculum development.

Refining curricula through such global collaboration can ultimately lead to improved medical education and better health outcomes.


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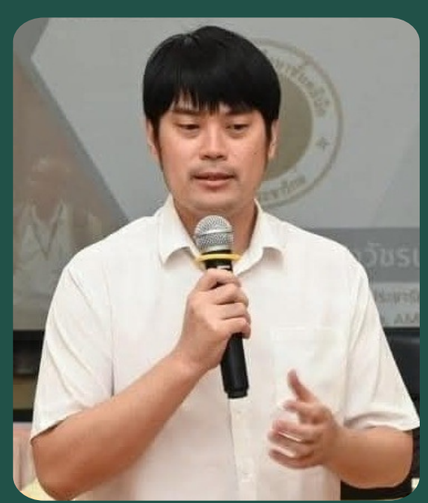


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