

ORIGINAL ARTICLE

Effectiveness of a Developed Workshop Compared with Interactive Lectures on Psychiatric Interviewing among Medical Students at the School of Medicine, Mae Fah Luang University

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KEYWORDS

workshop; interactive lectures; psychiatric interviewing; effectiveness

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Received: July 15, 2025

Revised: November 1, 2025

Accepted: November 6, 2025

ABSTRACT

Psychiatric interviewing is a crucial component in the care of patients with mental health conditions, requiring both theoretical knowledge and practical skills. This necessity underpins the ongoing efforts to explore and develop the most effective teaching methods to enhance medical students' competencies in this area. The present study was driven by the objective to compare the effectiveness of a developed workshop-based instructional model and the conventional interactive lecture format in teaching psychiatric interviewing. This study employed a retrospective observational design, utilizing data from a total of 264 fourth-year medical students at Mae Fah Luang University. Assessment tools included a post-instruction satisfaction questionnaire and a structured evaluation of students' knowledge and skills in psychiatric history-taking. Data were collected from two student groups: those who participated in interactive lectures between 2016 and 2019, and those who received workshop-based instruction between 2020 and 2024. Data analysis was performed using independent t-tests. The findings revealed that students in the workshop group scored significantly higher than those in the interactive lecture group in terms of rapport-building skills and active listening ($p < 0.001$). However, the demonstrating empathy toward patients remained relatively low in both groups. In contrast, students in the interactive lecture group demonstrated significantly better theoretical knowledge ($p < 0.001$). In conclusion, the workshop model proved more effective in developing practical skills, while the interactive lecture format was superior for enhancing theoretical understanding. These results suggest that an integrated approach, combining workshop-based learning with interactive lectures, may more effectively equip medical students with both the skills and knowledge required for competent psychiatric interviewing. Nevertheless, further attention is needed to improve students' abilities in empathic understanding. This study provides valuable insights for the future development of psychiatric education curricula.

Introduction

In contemporary medical education, there is a growing emphasis on student-centered learning, reflecting the global shift toward more active, engaging, and personalized instructional models. Despite this paradigm shift, an ongoing debate persists regarding the most effective teaching methodologies for clinical training, particularly in complex and nuanced areas such as psychiatry¹. With a variety of instructional formats available, ranging from traditional lectures and workshops to case-based discussions and self-directed learning, educators continue to explore how best to meet diverse learner needs. No single pedagogical method has demonstrated unequivocal superiority across all contexts. Thus, effective curriculum design must remain flexible and responsive, integrating learners' characteristics, student feedback, and faculty expertise to optimize educational outcomes². Lectures, long considered

the cornerstone of medical education, retain a critical role in delivering comprehensive foundational knowledge. Their effectiveness, however, is greatly enhanced when interactivity is embedded into their structure. Interactive lectures that promote dialogue, questions, and critical analysis have been shown to stimulate higher-order thinking and maintain learner engagement³. This format fosters a dynamic classroom environment in which students not only absorb information but also learn to apply and interrogate it. In contrast, workshops represent a fundamentally different approach, emphasizing experiential, hands-on learning. By engaging learners in simulations, role-play, collaborative activities, and immediate feedback, workshops actively develop essential clinical competencies. This form of instruction is particularly well-suited to skills-based learning, where knowledge alone is insufficient without the ability to apply it in practice.

The teaching of psychiatric interview skills offers a compelling case study in the need for multifaceted educational strategies. As a central component of fourth-year medical training, psychiatric interviewing goes beyond conventional history-taking. It demands a unique integration of medical knowledge with advanced communication skills, emotional intelligence, and the ability to establish therapeutic rapport. The ability to listen actively, empathize sincerely, and interpret both verbal and nonverbal cues is paramount. Mastery of these competencies directly influences diagnostic accuracy, treatment planning, and the overall quality of patient care⁴. Interactive lectures in psychiatric interviewing can be particularly effective in promoting conceptual understanding and analytical thinking. They enable students to explore theoretical models of mental health, diagnostic criteria, and clinical decision-making. However, the inherently human and interpersonal nature of psychiatric care also requires immersive training environments where learners can practice and reflect on their communication behaviors. Workshops fill this gap by simulating real-world clinical encounters, allowing students to role-play as both clinician and patient. These settings provide invaluable opportunities for peer feedback, faculty guidance, and personal reflection, each of which contributes to the development of confidence, empathy, and professionalism. Several studies have highlighted the value of workshop-based instruction in enhancing psychiatric interviewing skills. Participants typically report higher confidence, improved interpersonal communication, and greater readiness to manage psychiatric patients in clinical settings⁵. Despite these promising outcomes, direct comparisons between interactive lectures and workshops in psychiatric education remain limited in number and scope. More empirical evidence is needed to determine the optimal balance between theoretical instruction and experiential learning in this domain.

At Charoenkrung Pracharak Hospital, a core clinical training site for Mae Fah Luang University since 2016, psychiatric interviewing has become a focal point of fourth-year medical education. The hospital's training program recognizes the pedagogical challenges of teaching such a complex and sensitive skill and aims to equip students with both the knowledge and personal qualities essential for compassionate, evidence-based care. Given the increasing demands placed on future physicians to engage with patients not just diagnostically but holistically, the selection of the most appropriate and effective teaching strategy is not just educationally significant, but it is ethically imperative. Psychiatric interviewing has been an integral part of the fourth-year medical curriculum since the inception of the psychiatry rotation at Charoenkrung Pracharak Hospital in 2016. Internal evaluations over the past nine academic years have indicated that while students generally achieve satisfactory scores in theoretical assessments, performance in practical components, particularly rapport building, active listening, and empathic engagement, has been inconsistent. Annual satisfaction surveys have further revealed that students often express a desire for more hands-on practice and real-time feedback during their psychiatric training. Department observations echo these findings, noting that although interactive lectures effectively deliver conceptual frameworks, they may not provide sufficient opportunities for students to internalize and apply these skills in clinical

simulations. These institutional trends underscored the need for a systematic evaluation of teaching strategies to identify the most effective approach for balancing theoretical knowledge with practical skill development in psychiatric interviewing. The objective of this study was to compare the effectiveness of two teaching methods: interactive lectures and developed workshops in psychiatric interviewing by evaluating fourth-year medical students' knowledge, skills, overall satisfaction, perceived learning effectiveness, and the ability to apply these skills.

Materials and Methods

This research was conducted as a retrospective observational study comparing two naturally occurring cohorts (interactive lecture vs. workshop) within a routine-to-research (R2R) context. The study population consisted of 264 fourth-year medical students who had completed the psychiatry course at Mae Fah Luang University between the academic years 2016 and 2024. All fourth-year medical students completing the psychiatry course during the study period were included. No random sampling was performed. Exclusion criteria included students who had deferred their studies, withdrawn, or were no longer enrolled prior to taking the psychiatry course.

Sample size

The sample size for this study was estimated using the

$$n = \frac{2(Z_{1-\alpha/2} + Z_{1-\beta})^2 \sigma^2}{\Delta^2}$$

formula for comparing two independent means:

where $Z_{1-\alpha/2} = 1.96$ for a 95% confidence level, $Z_{1-\beta} = 0.84$ for 80% statistical power, σ is the standard deviation, and Δ is the minimum detectable difference between groups.

Assuming a standard deviation (σ) of 10 and a desired minimum difference (Δ) of 5 points in outcome measures, the calculated sample size per group is approximately 63 participants, totaling 126 for both groups combined. In comparison, the actual sample size used in this study included 264 fourth-year medical students who completed the psychiatry course between 2016 and 2024, which exceeds the calculated sample size. This larger sample size enhances the study's statistical power and robustness.

Data collection

Data collection involved gathering knowledge assessment scores, student satisfaction surveys, and clinical performance ratings from actual patient interviews. The instruments, developed by the institution in collaboration with experts in medical education and psychiatry, included the following components. The student-rated measure was a satisfaction questionnaire utilizing a five-point Likert scale assessing content relevance, delivery quality, learner engagement, and perceived skill improvement. The validation process involved a separate cohort of 64 fourth-year medical students (aged 22.15 ± 1.05 years), who completed the assessments at two time points spaced two weeks apart to evaluate test-retest reliability. This instrument demonstrated a content validity index (CVI) of 0.82 and a test-retest reliability coefficient of 0.85. The questionnaire was administered once to all students at the end of the learning session.

An educator provided ratings for students (1) overall knowledge level and (2) participation in discussion, on a five-point scale (5 = Excellent, 4 = Good, 3 = Moderate, 2 = Fair, 1 = Poor). This assessment was conducted by the same educator across all academic years and validated using the same cohort of 64 students for test–retest reliability. It yielded a CVI of 0.85 and a test–retest reliability coefficient of 0.89. The assessment was administered once individually to each student at the end of the learning session.

Another educator-rated measure involved psychiatric clinical performance ratings, which consisted of structured evaluations derived from actual patient interviews, scored on a ten-point scale with clearly defined criteria and categorized into four domains: Overall Interviewing Skill, Rapport Building, Active Listening, and Empathy. Each student's performance was independently rated by five psychiatrists, who had undergone regular inter-rater reliability training. Inter-rater reliability was calculated from these independent ratings, resulting in a coefficient of 0.90. Content validity was assessed by 10 experts, who provided a CVI of 0.89 for this instrument. Each student was evaluated once on an individual basis immediately after completing the real patient interview.

The data were collected from two sequential cohorts. The first cohort consisted of 126 students who completed their psychiatry rotation between 2016 and 2019 and underwent interactive lectures. The second cohort included 138 students who completed their psychiatry rotation between 2020 and 2024 and participated in workshop-based learning. This workshop began with a brief review of the primary topics on psychiatric history-taking that students had previously studied. A psychiatrist then conducted a simulated patient interview, allowing students to practice active listening by focusing on the patient's verbal communication and emotional expressions. This was followed by a group discussion to enhance comprehension. Subsequently, students practiced their speaking skills by articulating observations and reflections before the class. They alternated roles between interviewer and standardized patient using scenarios derived from actual clinical situations, which enabled them to engage from both perspectives. Finally, each student composed a clinical documentation report based on the mental history they collected. Throughout the workshop, a continuous process of reflection and feedback was implemented under the meticulous observation and guidance of a faculty psychiatrist.

Instructional conditions were standardized across cohorts, with identical course content delivered by the same educator according to a standardized lesson plan. Workshop standardized patients were trained by the educator, with refresher training annually, and where possible, the same standardized patients were used across years. Post-course knowledge assessments were conducted by the same educator each year, and inter-rater reliability for patient history-taking evaluations was verified annually. Data on certain student characteristics (e.g., prior academic performance, mental health, prior exposure to psychiatry) were not collected due to methodological constraints and feasibility considerations.

Data analysis

Descriptive statistics such as means, standard deviations, frequencies, and percentages were used to summarize continuous and categorical outcome measures. To assess the comparative effectiveness of interactive lectures versus workshop-based learning, inferential statistical tests were applied to outcome measures of interest. Continuous outcomes, such as student satisfaction rating scores, knowledge test scores, and skills assessment ratings, were compared between groups using independent t-tests. The entire research process described above is summarized in a flowchart, as illustrated in Figure 1.

Results

A total of 264 fourth-year medical students were included in the analysis, comprising 138 students in the workshop group and 126 students in the interactive lecture group. The mean age of participants was comparable between groups (22.34 ± 2.69 years vs. 22.05 ± 2.21 years). In terms of sex distribution, the workshop group consisted of 34 males (24.64%) and 104 females (75.36%), while the interactive lecture group included 41 males (32.54%) and 85 females (67.46%). Regarding regional background, approximately half of the students in both groups originated from the Northern region (50.72% in the workshop group vs. 46.83% in the interactive lecture group), with the remainder from other regions. Academic performance during preclinical years, as measured by GPAX, showed a similar distribution between groups. In the workshop group, 97 students (70.29%) achieved a $GPAX \geq 3.00$, compared with 90 students (71.43%) in the interactive lecture group. The majority of students in both groups reported being Buddhist (96.38% in the workshop group vs. 95.24% in the interactive lecture group), with only a small proportion identifying with other religions, as shown in Table 1.

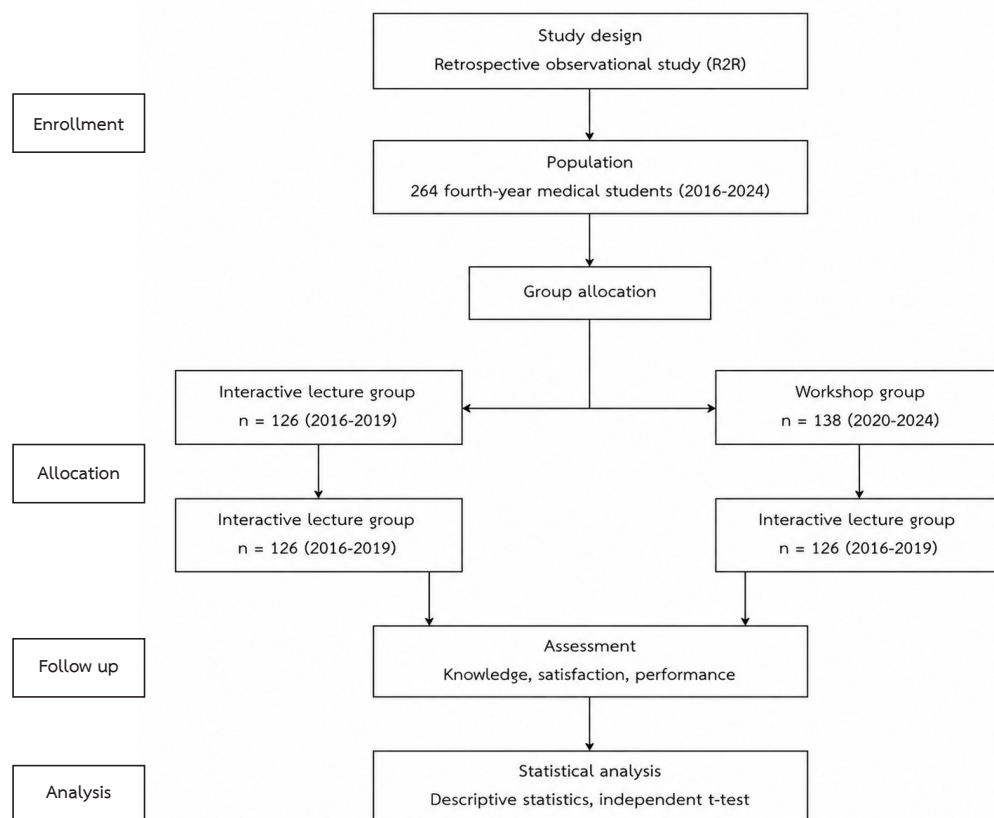


Figure 1 CONSORT flow diagram of this study

Table 1 Baseline characteristics between workshop and interactive lecture groups

Characteristic	Workshop n=138 (%)	Interactive lecture n=126 (%)
Sex		
Male	34 (24.64%)	41 (32.54%)
Female	104 (75.36%)	85 (67.46%)
Age		
Mean ± SD	22.34±2.69	22.05±2.21
Region of origin		
Northern region	70 (50.72%)	59 (46.83%)
Other regions	68 (49.28%)	67 (51.17%)
Preclinical GPAX		
≥3.00	97 (70.29%)	90 (71.43%)
<3.00	41 (29.71%)	36 (28.57%)
Religion		
Buddhist	133 (96.38%)	120 (95.24%)
Others	5 (3.62%)	6 (4.76%)

From Table 2, the student evaluation results show that students in the workshop group reported significantly higher overall satisfaction compared with those in the interactive lecture group (94.62±2.82 vs. 86.82±2.31; mean difference=7.80; $t=24.67$; $p<0.001$). Similarly, perceived learning effectiveness was slightly but significantly higher among workshop participants (93.46±4.28 vs. 92.23±3.52; mean difference=1.23; $t=2.56$; $p=0.011$). Application of knowledge showed a marked improvement in the workshop group (90.82±3.43 vs. 82.34±2.65; mean difference=8.48; $t=22.58$; $p<0.001$). Confidence in interviewing patients was also significantly greater in the workshop cohort compared with the lecture group (87.21±4.02 vs. 79.45±3.81; mean difference=7.76; $t=16.10$; $p<0.001$). These findings indicate that workshop-based instruction yielded higher levels of satisfaction, perceived learning, and practical application compared with lecture-based instruction, as shown in Figure 2.

Educator-rated outcomes regarding knowledge at the end of the learning session also revealed significant differences between the two groups. Students in the workshop group demonstrated lower post-training knowledge scores compared with those in the interactive lecture group (74.50±3.57 vs. 79.00±3.53; mean difference=-4.50; $t=-10.29$;

$p<0.001$), suggesting that lectures may be more effective for immediate cognitive knowledge acquisition. However, workshop participants scored significantly higher across all domains of performance and communication skills. Participation in discussion and response to questions was markedly better in the workshop group (81.25±4.02 vs. 66.75±3.78; mean difference=14.50; $t=30.20$; $p<0.001$). Overall interviewing skill was also superior in the workshop group (81.75±5.21 vs. 70.25±4.89; mean difference=11.50; $t=18.50$; $p<0.001$).

For specific domains of psychiatric interviewing, the workshop group consistently outperformed the lecture group. Rapport building (78.25±5.02 vs. 67.25±4.75; mean difference=11.00; $t=18.29$; $p<0.001$), active listening (80.50±4.85 vs. 74.25±4.55; mean difference=6.25; $t=10.80$; $p<0.001$), and empathy (70.75±5.25 vs. 64.25±5.10; mean difference=6.50; $t=10.20$; $p<0.001$) were all significantly higher among workshop students, as shown in Figure 3.

Taken together, these findings demonstrate that while interactive lectures may provide advantages in immediate knowledge acquisition, workshop-based instruction substantially enhances student engagement, communication, and clinical interviewing skills, highlighting its pedagogical effectiveness in psychiatric training.

Table 2 Comparison of course outcomes between workshop and interactive lecture cohorts using independent t-tests

Outcome	Workshop Mean ± SD	Interactive lecture Mean ± SD	Mean difference	t-statistic	p-value
Student's evaluation					
Overall satisfaction	94.62±2.82	86.82±2.31	7.80	24.67	<0.001
Perceived learning effectiveness	93.46±4.28	92.23±3.52	1.23	2.56	0.011
Application of knowledge	90.82±3.43	82.34±2.65	8.48	22.58	<0.001
Confidence in interviewing patients	87.21±4.02	79.45±3.81	7.76	16.10	<0.001
Educator's evaluation					
Knowledge level after psychiatric interview training	74.50±3.57	79.00±3.53	-4.50	-10.29	<0.001
Participation in discussion and response to questions	81.25±4.02	66.75±3.78	14.50	30.20	<0.001
Overall interviewing skill	81.75±5.21	70.25±4.89	11.50	18.50	<0.001
Rapport building	78.25±5.02	67.25±4.75	11.00	18.29	<0.001
Active listening	80.50±4.85	74.25±4.55	6.25	10.80	<0.001
Empathy	70.75±5.25	64.25±5.10	6.50	10.20	<0.001

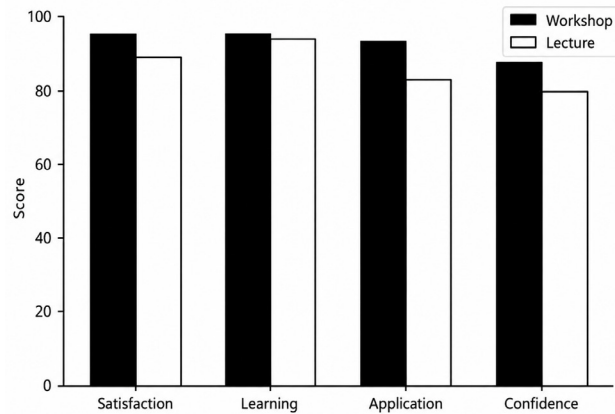


Figure 2 Comparison of student-evaluated outcomes between workshop and interactive lecture

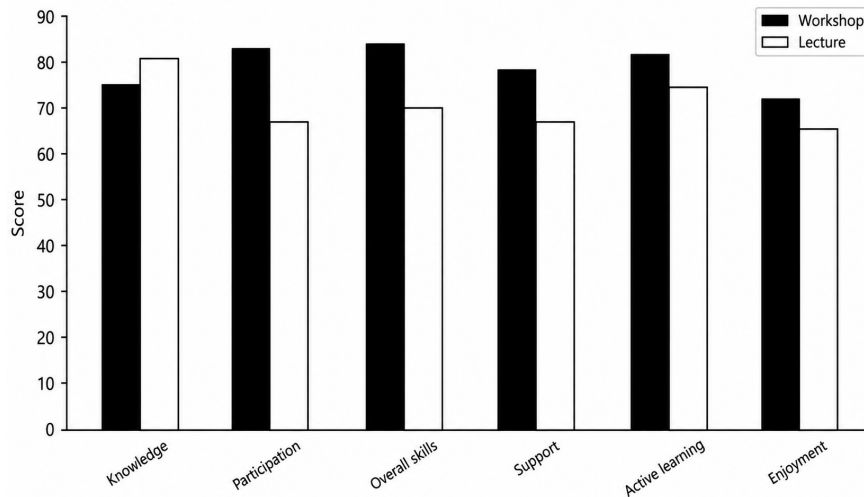


Figure 3 Comparison of educator-evaluated outcomes between workshop and interactive lecture

Discussion

This study provides compelling evidence that workshop-based instruction is more effective than interactive lectures in enhancing key aspects of psychiatric interviewing competence among undergraduate medical students. Student evaluations revealed that workshops yielded significantly higher levels of satisfaction, confidence, and perceived application of knowledge, while educator evaluations further confirmed superior performance in communication and interviewing skills. Notably, the most pronounced improvements were observed in rapport building, active listening, empathy, and overall interviewing competence, which are fundamental not only to psychiatric care but also to patient-centered medical practice. These findings align with contemporary literature emphasizing that experiential, learner-centered teaching methodologies foster deeper engagement, reflection, and internalization of

skills beyond simple knowledge acquisition^{6,7}. Through their immersive design, workshops provide opportunities for practice, immediate feedback, and guided reflection, thereby equipping students with the ability to engage patients on both cognitive and emotional levels⁸. Recent studies in health professions education echo this conclusion, showing that simulation-based and experiential pedagogies improve students' readiness for clinical encounters and enhance their professional identity formation. For example, a realist review in 2025 highlighted that longitudinal, integrative, and experiential experiences consistently yield stronger outcomes in both skills and attitudes toward patient care⁹.

At the same time, the results demonstrated that interactive lectures produced higher post-training knowledge scores than workshops. This suggests that lectures may remain advantageous for immediate cognitive knowledge acquisition, particularly in consolidating foundational

content. Such findings underscore the pedagogical principle that different instructional methods may suit different learning objectives. While workshops are particularly effective in developing higher-order competencies-application, analysis, and evaluation-interactive lectures continue to play a valuable role in delivering factual knowledge, particularly when they incorporate active elements such as questioning and structured discussion¹⁰. This distinction resonates with Bloom's revised taxonomy, highlighting the complementary nature of lecture-based and experiential approaches within a balanced medical curriculum. Recent evidence supports this synergy: a 2024 systematic review on video- and lecture-based learning reported significant effects on declarative knowledge acquisition, but limited effects on higher-order skills unless combined with interactive or reflective components¹¹. These findings emphasize that the strategic integration of lectures and workshops may maximize learning efficiency by matching teaching methods with specific educational outcomes¹².

The domain-specific gains observed in the workshop group further reinforce the value of experiential learning. Rapport building, active listening, and empathy, often regarded as challenging to cultivate through didactic teaching alone, were all significantly improved through workshop participation. These results are consistent with Kolb's experiential learning theory, which underscores the importance of concrete experience, reflection, and active experimentation in promoting deeper and more sustainable learning^{13,14}. By positioning students as active participants rather than passive recipients, workshops stimulate critical thinking, clinical reasoning, and the transfer of skills to real-world patient interactions¹⁵. This is further supported by updated evidence in medical education, where immersive, role-play-based workshops have been shown to strengthen students' confidence in handling complex patient scenarios and to improve long-term retention of communication skills¹⁶.

Furthermore, subjective learner outcomes strengthen the case for workshops as a pedagogical strategy. Workshop participants reported higher satisfaction and confidence, as well as a stronger perception of their ability to apply skills in clinical settings. These findings align with prior research showing that simulation-based, interactive environments enhance learner engagement, reduce performance-related anxiety, and improve preparedness for emotionally demanding patient encounters, particularly in psychiatric practice^{17,18}. Recent scholarship also emphasizes the affective domain of learning in medical education, with evidence suggesting that experiential training not only builds skills but also enhances empathy, resilience, and patient-centered attitudes¹⁹⁻²¹. These subjective benefits, though more difficult to measure, are increasingly recognized as vital to the holistic development of medical students.

Taken together, these findings suggest that workshop-based learning offers substantial pedagogical advantages in cultivating communication and interviewing skills, whereas lecture-based instruction continues to support knowledge acquisition. Rather than viewing these methods as competing, they should be seen as complementary. In line with global trends in medical education²², competency-based and outcomes-driven curricula that integrate both approaches are likely to yield the most well-rounded

physicians. By balancing factual knowledge with immersive skill development, medical schools can produce clinicians who are both technically competent and empathetically attuned, thereby advancing the quality of patient care^{23,24}.

Several limitations must be acknowledged. First, the single-institution design may limit generalizability to other academic or cultural contexts. Second, while standardized patients provided controlled evaluation conditions, they may not fully reflect the complexity of real-world clinical encounters or capture long-term skill retention. Third, outcomes were measured only immediately after the intervention, without longitudinal follow-up to assess sustained knowledge retention, clinical application, or behavior change. Fourth, although the instruments used demonstrated acceptable validity and reliability, they were originally developed for routine course evaluation rather than research purposes, raising concerns about measurement precision, psychometric calibration, and susceptibility to biases such as rater leniency/severity, halo effects, inconsistent rubric adherence, and the influence of non-content factors (e.g., instructor personality, course difficulty). In addition, validation of the instruments was conducted within the same population as the study cohorts, which may have introduced risks of overfitting and reduced external validity. Fifth, recall bias from retrospective data and threats to internal validity exist, as no baseline data were collected on prior knowledge, attitudes, or generational cohort differences, and no adjustments were made for these potential confounders. Students with factors potentially affecting outcome ratings (such as mental disorders, absenteeism, and major academic difficulties) were not excluded, which may have further confounded the results. The absence of internal controls may have allowed inherent differences between groups to influence outcomes. Moreover, evaluators were not blinded to group allocation, which could have introduced rater bias, particularly for subjective measures such as participation, empathy, and confidence. Missing data were excluded from the analysis, potentially reducing robustness. Finally, while statistically significant, the findings align closely with established pedagogical theory, representing a relatively low-novelty contribution, and the absence of multi-institutional or longitudinal validation further limits the advancement of the field.

Future research should employ a true experimental design with random allocation and parallel-group comparisons within the same academic period to minimize selection bias and cohort effects. Baseline learner characteristics (e.g., prior knowledge, attitudes, clinical exposure) should be measured and statistically controlled to enhance group comparability. Assessments should extend beyond immediate post-course evaluation to include long-term follow-up of knowledge retention, clinical application, and behavioral change, using psychometrically validated tools and rater calibration to minimize bias. Multi-institutional studies across diverse cultural and academic settings are recommended to strengthen external validity. Finally, future investigations should aim for higher-novelty contributions by integrating innovative instructional designs such as virtual patient simulations, AI-assisted feedback systems, or interprofessional team-based workshops to advance both pedagogical theory and clinical education practice.

Conclusions

This study suggests that workshop-based learning could be more effective in enhancing core psychiatric interviewing skills among undergraduate medical students. While interactive lectures have demonstrated value in fostering cognitive knowledge acquisition, the active, participatory nature of workshops may be more suitable for cultivating students' practical competencies, particularly in applying knowledge, establishing rapport, engaging in active listening, and demonstrating empathy. Although empathy scores were relatively lower compared to other domains, this skill remains an essential component of effective psychiatric care. The findings provide evidence in favor of integrating workshop-based methodologies as an element of undergraduate curricula for psychiatry and communication skills. It is recommended that educators adopt a strategically blended instructional approach that combines the strengths of lecture-based and experiential learning formats. Future evaluations could examine the longer-term impact of this approach on students' skill retention and application, such as in post-graduation settings.

Ethical statement

The study was approved by the Institutional Human Research Ethics Committee of Bangkok (protocol code S015hc/68_NA; approval date: 28 May 2025). Informed consent was obtained from all participants or their legal representatives.

Acknowledgements

The author would like to express sincere gratitude to the Department of Medical Education and the Department of Research Promotion, Charoenkrung Pracharak Hospital, for their generous support in the successful completion of this research project.

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