



Research Article

From Curriculum Transition to Maturation: A Mixed-Methods Evaluation of the Educational Environment in Outcome-Based Medical Education

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Abstract

Background: As outcome-based medical education (OBME) becomes established, students' experiences offer insight into strengths and unresolved implementation challenges. Earlier cohorts at the Defence Services Medical Academy (DSMA) reported broadly favourable educational environments alongside concerns about assessment, workload, faculty support and social life. **Objective:** To assess the educational environment of 26th Intake interns and examine experiences that contextualise their Dundee Ready Education Environment Measure (DREEM) scores. **Methods:** This explanatory sequential mixed-methods study surveyed 33 interns using the 50-item DREEM, followed by purposively sampled individual interviews with 10 students. Descriptive statistics summarised survey scores; interview transcripts were thematically analysed using MAXQDA. Findings were integrated through an explanatory joint display. **Results:** The mean overall DREEM score was 134.2/200. Domain means (mean $\pm$ standard deviation) were 32.4 $\pm$ 5.9 for Students' Perceptions of Learning, 29.6 $\pm$ 5.2 for Students' Perceptions of Teachers, 25.3 $\pm$ 4.4 for Students' Academic Self-Perception, 28.2 $\pm$ 4.8 for Students' Perceptions of Atmosphere and 18.7 $\pm$ 3.7 for Students' Social Self-Perception. Interviews identified five themes: growing adjustment to student-directed learning; improved but inconsistent assessment clarity; the importance of accessible feedback; peer-based learning support; and tensions between academic workload and social wellbeing. **Conclusion:** Interns generally viewed their environment positively, but their narratives identify differences in assessment communication, access to faculty and opportunities for rest and social interaction. These descriptive, single-cohort findings can inform local quality improvement; they do not establish that curriculum maturation caused changes from prior cohorts.

Keywords

Medical Education, DREEM, Educational Environment, Outcome-Based Medical Education, Mixed Methods, Curriculum Evaluation, Internship, Myanmar

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1. Introduction

Outcome-based medical education (OBME) organises curriculum decisions around the capabilities expected of graduates. Its implementation requires alignment between explicit learning outcomes, teaching and clinical activities, and the methods used to assess performance [1-4]. The resulting changes extend beyond course structure: students must increasingly plan and evaluate their learning, while educators provide guidance, feedback and opportunities to demonstrate competence.

Students encounter curriculum change through their day-to-day educational environment, including interactions with teachers and peers, institutional expectations, available resources and pressures outside formal teaching [5]. These experiences deserve evaluation alongside curriculum documentation and achievement data, because curricular intentions may differ from what learners actually encounter.

The Dundee Ready Education Environment Measure (DREEM) provides a structured way to capture these perceptions [6, 7]. It comprises 50 items across five domains: Students' Perceptions of Learning (SPL), Students' Perceptions of Teachers (SPT), Students' Academic Self-Perception (SASP), Students' Perceptions of Atmosphere (SPA) and Students' Social Self-Perception (SSSP). The total possible score is 200; a higher value reflects a more favourable appraisal of the environment.

Two earlier evaluations at the Defence Services Medical Academy (DSMA) examined the implementation of its outcome-based curriculum. Both reported a mean overall DREEM score of approximately 130/200, although their qualitative accounts described difficulties related to self-directed study, assessment expectations, workload, teacher availability and peer or social experiences [8, 9]. These studies provide institutional context rather than a control group for the present cohort.

Examining another intake is worthwhile because implementation conditions may change as teaching teams gain experience and programmes revise orientation, assessment and support systems. Nevertheless, students from successive intakes are different individuals, and differences in their scores cannot, on their own, demonstrate an effect of curriculum maturation.

The present study adds a 26th Intake snapshot and draws on individual interviews to interpret the survey profile. In contrast to treating a total DREEM score as a comprehensive judgment, the analysis investigates how specific experiences with teaching, evaluation, peers and workload relate to individual DREEM domains.

Aim: To evaluate the educational environment experienced by 26th Intake internship students in the DSMA OBME programme and to explore the experiences underlying their quantitative DREEM findings.

Research questions: (1) How do 26th Intake internship students perceive the educational environment across the five

DREEM domains? (2) What learning, teaching, assessment, social, and organisational experiences help explain the quantitative findings? (3) Which issues appear to persist or change when the 26th Intake findings are considered descriptively alongside the two earlier DSMA cohort evaluations?

2. Materials and Methods

2.1. Study Design

An explanatory sequential mixed-methods approach was adopted, with the questionnaire phase preceding the interviews [10]. Survey findings first established the pattern of students' ratings. Interview questions then probed experiences that might illuminate those patterns; the two strands were brought together during interpretation.

2.2. Study Setting and Participants

The setting was DSMA, Myanmar, and the target group comprised interns from the 26th Intake enrolled in the OBME programme. All 33 participating students contributed to the quantitative analysis. The findings describe this institutional cohort; no claim of representativeness beyond it is made.

2.3. Quantitative Instrument: DREEM

The DREEM instrument contains 50 statements rated from 0 (strongly disagree) to 4 (strongly agree), with negatively worded statements reverse-scored [6, 7]. Domain totals are calculated from their constituent items, and the summed overall result has a possible range of 0–200. Higher totals indicate more favourable student perceptions.

2.4. Quantitative Data Analysis

Data were summarised using the Statistical Package for the Social Sciences (SPSS). Participant descriptors were reported as counts and percentages, and the five DREEM domain scores as means and standard deviations (SDs). The overall mean was evaluated against standard descriptive DREEM interpretation categories.

Because the aim was descriptive and the number of participants was small ($n = 33$), we did not use the cohort data to test for statistically significant changes from the previously published intakes. Comparisons with earlier DSMA work are contextual and should not be interpreted as longitudinal evidence.

2.5. Qualitative Sampling and Data Collection

Purposive sampling was used to select participants for the qualitative phase. Ten internship students from the 26th Intake

participated in individual in-depth interviews (IDIs). Participants were selected to provide a range of experiences relevant to the quantitative DREEM findings and to allow further exploration of issues identified during the quantitative phase.

Semi-structured IDIs were conducted using an interview guide developed from the study objectives and the quantitative findings. The interviews explored students' experiences of transition to outcome-based medical education, learner-centred and self-directed learning, understanding of intended learning outcomes, assessment expectations, feedback, faculty accessibility, workload, peer-supported learning, social experiences, educational resources, and differences between their expectations and actual educational experiences.

All interviews were conducted in the Myanmar language to enable participants to express their experiences and perceptions freely and in sufficient depth. With participants' informed consent, the interviews were audio-recorded. Recordings were transcribed verbatim in Myanmar and checked against the original audio recordings for accuracy and completeness.

Quotations selected for publication were subsequently translated into English, with attention to preserving the original meaning, context, and intent of participants' statements. Translated quotations were checked against the corresponding Myanmar-language transcripts. All transcripts were anonymised, and identifying information was removed before analysis and reporting.

Ten internship students participated in the qualitative phase. Sample adequacy was guided by information sufficiency; later interviews largely confirmed previously identified patterns and yielded no substantially new themes relevant to the research questions.

Field notes were also used, where appropriate, to document contextual information and relevant observations during the interviews.

Interview recordings were transcribed and managed in MAXQDA qualitative analysis software. Researchers reviewed the transcripts repeatedly, assigned initial codes to relevant segments, compared related codes, refined broader categories and developed themes. Themes were checked against the accounts and then related back to the survey domains. The interpretation is grounded in these 10 interviews rather than assumed to reflect every member of the intake.

2.6. Mixed-Methods Integration

Integration linked the two phases in the interview guide, in the selection of issues for further exploration and in the joint interpretation of results. Table 3 connects domain-level survey observations to interview explanations, distinguishing findings supported by participant accounts from tentative interpretations.

2.7. Ethical Considerations

Ethical approval was obtained from the Ethics Review

Committee of the Defence Services Medical Academy. Informed consent was obtained from all participants before participation. Participation was voluntary, and students were informed that participation or withdrawal would not affect their academic standing. Confidentiality and anonymity were maintained throughout data collection, analysis, and reporting. Identifying information was removed from research data, and qualitative quotations were presented without personal identifiers.

3. Results

3.1. Participant Characteristics

Table 1. Characteristics of 26th Intake Internship Students Participating in the Quantitative Phase.

Characteristic	Category	n (%)
Participants	26th Intake interns	33 (100.0)
Sex	Male	33 (100.0)
Age	22-24 years	33 (100.0)
Clinical rotations completed	1-2 rotations	10 (30.3)
Clinical rotations completed	3-4 rotations	23 (69.7)

3.2. Overall DREEM Score

The mean total DREEM score was 134.2 out of 200, within the conventional "more positive than negative" category. This aggregate description does not imply that all aspects of the learning environment were experienced favourably by every participant.

3.3. DREEM Domain Scores

Table 2. DREEM Domain and Overall Scores Among 26th Intake Internship Students.

DREEM Domain	Mean $\pm$ SD	Interpretation
Students' Perceptions of Learning (SPL)	32.4 $\pm$ 5.9	Positive perception
Students' Perceptions of Teachers (SPT)	29.6 $\pm$ 5.2	Moving in the right direction
Students' Academic Self-Perception (SASP)	25.3 $\pm$ 4.4	Feeling more on the positive side

DREEM Domain	Mean $\pm$ SD	Interpretation
Students' Perceptions of Atmosphere (SPA)	28.2 $\pm$ 4.8	A more positive atmosphere
Students' Social Self-Perception (SSSP)	18.7 $\pm$ 3.7	Not too bad
Overall DREEM	134.2/200	More positive than negative

Domain scores indicate a broadly favourable educational profile, but the comparatively lower social self-perception result points to an area needing closer attention. Domain totals have different maximum possible values; therefore, their raw numerical magnitudes should not be used alone to rank the quality of experiences across domains.

3.4. Qualitative Findings

Individual interviews were analysed to identify experiences that could clarify the DREEM pattern. Five themes were developed, covering adaptation to outcomes-led learning, assessment communication, feedback from teachers, support from peers, and the competing demands of study and personal life.

3.4.1. Increasing Adaptation to Learner-Centred OBME

Students described a gradual shift from expecting detailed teacher direction toward greater responsibility for planning and monitoring their own learning. Initial uncertainty remained evident; however, participants described greater familiarity with outcome statements, self-directed learning, and the use of feedback than had been reported during the earlier phase of curriculum implementation.

"At first I expected teachers to guide every step, but now I plan my learning around the outcomes and ask for feedback when I need it."

This growing sense of learner autonomy was echoed by another participant, who emphasised the value of using the intended outcomes to guide independent preparation:

"Now I understand that the outcomes guide what I need to learn, so I can prepare more independently and ask teachers for help when necessary."

3.4.2. Assessment Expectations Are Clearer but Not Uniform

Students described improved understanding of the purpose and structure of assessment, while also reporting uncertainty about how consistently clinical performance, practical competencies, and theoretical knowledge were weighted across rotations. The theme therefore reflects progress in assessment communication alongside continuing concerns about consistency and constructive alignment.

"The assessment plan is clearer, but sometimes we are still unsure how much practical performance will count."

A similar concern was expressed by another student, who noted that greater clarity in the overall assessment structure did not always eliminate variation between rotations:

"We know the assessment structure better now, but the emphasis can still feel different from one rotation to another."

3.4.3. Faculty Feedback and Accessibility Remain Central

Accessible faculty members and timely feedback were described as important facilitators of adaptation. Students valued specific feedback linked to observed performance because it helped them understand how to improve. However, the perceived availability of faculty support varied among departments or rotations, indicating that the quality of implementation may depend partly on local teaching practices.

"When feedback comes immediately after the clinical task, I understand what to improve, but access differs between departments."

Another participant similarly highlighted the importance of specific feedback while drawing attention to differences in its availability across departments:

"Feedback is most helpful when the teacher explains exactly what I did well and what I should change, although it is not equally available in every department."

3.4.4. Peer-Supported Learning

Peer discussion, informal study groups, and sharing of strategies for interpreting learning outcomes were described as important sources of academic support. Peer learning appeared to help students manage unfamiliar requirements and provided a practical mechanism for exchanging explanations, clinical approaches, and preparation strategies.

"Our group helps each other understand the outcomes and prepare for clinical tasks."

This supportive role of peers was reinforced by another participant, who described how sharing understanding within the group made difficult learning tasks more manageable:

"When one of us understands a difficult outcome or clinical task, we share it with the group, and that makes learning easier for everyone."

3.4.5. Workload and Social Balance

Students valued the educational opportunities provided by the programme but described difficulty maintaining balance when assessments, clinical requirements, and other learning tasks clustered within short periods. Reduced time for social interaction and rest provides a plausible qualitative explanation for the relatively lower SSSP domain.

"The learning is useful, but when several requirements come together it is difficult to balance study and rest."

The effect of these busy periods on students' social and personal time was also described by another participant:

“During busy periods, clinical duties and assessments leave little time for rest or social activities, even though the learning itself is valuable.”

3.5. Mixed-Methods Integration

Read together, the questionnaire and interviews provide a

more nuanced picture than the overall DREEM category. Positive ratings of learning and teaching sit alongside accounts of variable assessment practices and access to feedback. Students' remarks about clustered academic obligations provide one possible explanation for persistent social pressures; these qualitative associations do not establish causality.

Table 3. Joint Display Integrating Quantitative DREEM Findings With Qualitative Explanations.

Quantitative Finding	Qualitative Explanation	Integrated Interpretation
Favourable SPL	Greater familiarity with outcomes and self-directed learning	Learner autonomy may be increasing as students adapt to OBME.
Favourable SPT	Faculty feedback valued, but accessibility varies	Teachers are a major strength, although consistency across rotations remains important.
Positive SASP	Students describe growing confidence in planning and monitoring learning	Academic confidence may develop with clearer outcomes and feedback.
Favourable SPA	Resources and learning climate generally valued	The broader learning atmosphere supports engagement despite workload pressure.
Relatively lower SSSP	Reduced social time and clustered requirements	Social wellbeing remains a continuing quality-improvement target.

4. Discussion

Among the 26th Intake interns, a mean DREEM score of 134.2/200 suggests that students generally viewed their educational environment favourably. Interview accounts nevertheless identify unevenness in assessment communication, feedback access and work–life balance. The central contribution of this study is the explanation of the local score profile, not a claim that later curriculum implementation directly improved outcomes.

4.1. Successive-Cohort Evaluation and Curriculum Maturation

The two earlier DSMA reports recorded overall DREEM results near 130/200 [8, 9], compared with 134.2/200 in the current sample. This small numerical difference is descriptive. Because the studies involved separate cohorts and did not control for possible differences in participants or delivery conditions, it cannot be taken as evidence of a statistically significant trend or a curriculum effect.

Recurring concerns in the institutional publications include expectations for independent learning, assessment practices, teacher availability and limited time for social activities [8, 9]. Their appearance in the present interviews suggests useful targets for follow-up evaluation, even where the overall environment is rated positively.

4.2. Learning and Adaptation to Student-Centred Education

The SPL domain was interpreted favourably, and interviewees described using defined outcomes to organise independent preparation. This experience is consistent with the curricular emphasis on active student involvement [1–4]. However, self-reported adaptation should not be equated with objectively demonstrated improvements in learning.

Students in earlier DSMA reports had described some difficulty adjusting to autonomous learning [8, 9]. Several current interviewees instead explained how outcomes became more usable over time. Differences in cohort composition and context mean that these accounts are best viewed as complementary perspectives rather than definitive evidence of progression.

4.3. Teachers, Feedback, and Faculty Accessibility

Students valued specific guidance from clinical teachers, yet reported that opportunities for feedback and direct support varied between rotations. This contrast helps interpret the SPT score: generally favourable impressions of teachers do not preclude local gaps in supervision or accessibility.

Faculty development is therefore a practical curriculum intervention rather than an optional adjunct. Evidence from medical education literature suggests that structured faculty-

development initiatives can strengthen teaching effectiveness and learner engagement [11]. At DSMA, consistency across departments may be particularly important. Common expectations for feedback, supervision, assessment explanations, and consultation could reduce variation in students' experiences across rotations. This emphasis on feedback is consistent with the wider literature examining assessment, feedback, and physicians' clinical performance [12].

4.4. Academic Self-Perception and the Role of Feedback

The SASP profile indicates a relatively favourable view of academic capabilities. Interview narratives link growing confidence to familiarity with explicit outcomes and feedback; however, the study did not independently assess competence or academic performance.

4.5. Assessment Alignment and Communication

Students described a recognisable assessment framework but uncertainty about how practical performance was weighted in some rotations. Such uncertainty matters because assessment shapes learners' priorities and preparation [13]. A clearer explanation of requirements, shared scoring criteria and consistent communication across clinical placements would address the issues identified in these accounts.

A practical response would include clearer assessment blueprints, explicit performance criteria, orientation to assessment methods, greater use of formative assessment, and faculty calibration across rotations. Student feedback should also be used to identify points where assessment instructions are technically available but not sufficiently clear in practice.

4.6. Educational Atmosphere, Workload, and Social Experience

A favourable atmosphere score coexisted with accounts of demanding schedules and variable opportunities for rest. The interview material suggests that curriculum experience depends not only on formal learning resources but also on how teaching, clinical tasks and assessments are timed.

The SSSP results and interview narratives highlight constrained social and personal time. Because the five DREEM domains have different score ranges, this concern is supported by the domain-specific interpretation and the interviews, rather than by comparison of raw domain means alone. Research on medical student distress has also considered associations with faculty support and the availability of wellbeing resources [14].

4.7. Implications for Continuous Quality Improvement

Rather than framing the 26th Intake as evidence that a cur-

riculum has reached a particular stage of maturity, these findings identify improvement priorities for DSMA. Repeated surveys could be paired with documented interventions and more comparable sampling to assess whether those changes are associated with later student experiences. Evaluation of competency-based medical education has likewise been examined in a systematized review of current practices [15].

Drawing on the current cohort's findings and earlier DSMA evaluations, practical priorities include structured orientation to learner-centred OBME; clear and consistent assessment guidance; faculty development in feedback and facilitation; improved access to supervisors across rotations; support for collaborative learning; and monitoring of workload and student wellbeing. Future evaluations should test proposed improvements rather than presume their effectiveness.

5. Strengths and Limitations

A strength of this study is the sequential connection between survey findings and interview exploration. Considering individual accounts alongside five domain scores makes it possible to identify locally relevant issues that would be obscured by the overall result alone.

Important limitations include the small, single-institution sample (33 survey participants and 10 interviewees), reliance on perceptions rather than observed educational outcomes, and the possibility of social desirability in interviews. Participants were all male, further restricting transferability to other learning settings. The comparison with earlier DSMA publications was descriptive, not a controlled or longitudinal analysis; differences may reflect cohort and context rather than curricular change. The study cannot demonstrate causality.

6. Implications for Medical Education

Local curriculum teams can use these findings to prioritise assessment orientation, feedback consistency and opportunities for student wellbeing. Future cycles could document changes implemented after each evaluation and examine item-level responses alongside interviews; this would provide a stronger basis for judging which actions are associated with improvement.

7. Conclusion

The educational environment was perceived as generally favourable by 26th Intake DSMA interns, with a mean DREEM score of 134.2/200. Interviews added detail about learners' growing familiarity with outcomes-led study, the value of peers and feedback, and ongoing uncertainty surrounding some assessments and workload demands.

Combining the questionnaire with interview accounts generated practical priorities for this institution. The findings are descriptive and do not establish that curriculum maturation caused

the higher overall score relative to earlier institutional reports.

Future educational-environment assessments should be linked with specific documented quality-improvement actions and, where feasible, comparable cohort sampling and educational outcomes.

Abbreviations

DREEM	Dundee Ready Education Environment Measure
DSMA	Defence Services Medical Academy
IDI	In-depth Interview
OBME	Outcome-Based Medical Education
SASP	Students' Academic Self-Perception
SD	Standard Deviation
SPA	Students' Perceptions of Atmosphere
SPL	Students' Perceptions of Learning
SPSS	Statistical Package for the Social Sciences
SPT	Students' Perceptions of Teachers
SSSP	Students' Social Self-Perception
MAXQDA	the Name of the Qualitative Data Analysis Software Used in This Study

Author Contributions

Ye Phyo Aung: Conceptualization, Data curation, Formal Analysis, Funding acquisition, Methodology, Project administration, Supervision, Validation, Writing – original draft, Writing – review & editing

Tun Tun Naing: Conceptualization, Methodology, Project administration, Resources, Visualization

Tayzar Hein: Data curation, Formal Analysis, Investigation, Software, Writing – original draft

Zaw Phyo: Data curation, Formal Analysis, Methodology, Software, Visualization, Writing – review & editing

Soe Thu Ya: Data curation, Formal Analysis, Investigation, Software, Writing – original draft

Pyi Hein Kyaw: Data curation, Formal Analysis, Investigation, Software, Writing – original draft

Tin Tun: Conceptualization, Methodology, Supervision, Validation

Myint Thein Naing: Data curation, Investigation, Writing – original draft

Lay Ko: Data curation, Formal Analysis, Methodology, Software, Visualization, Writing – review & editing

Data Availability Statement

The data are available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare no conflicts of interest.

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Biography



Ye Phyo Aung is a senior lecturer and head at Defence Services Medical Academy, Department of Medical Education, Yangon, Myanmar. He acquired his M. H. P. E in Medical Education from Maastricht University in 2017, and his fellowship from the International Association of Medical Science Educators in 2023. He participated as an Associate Editor in Medical Science Educator (MSE), The Asia Pacific Scholar (TAPS), and Medical Education (online) since 2021. He has participated in an international research collaboration in the medical education field in recent years. He currently serves as Secretary, Chair, Speaker, and Judge at national and international conferences.



Tun Tun Naing is currently working as an assistant Lecturer at the Department of Medical Education, Defence Services Medical Academy. He received MBBS in 2006, MMedSc (Public Health) in 2009, and a Diploma in Medical Education in 2015. He also got a Master of Public Policy from Meiji University, Tokyo in 2020 through the JICA Scholarship Program. He is also the joint secretariat of the Myanmar Military Medical Conference and now he is also working as a reviewer for The Asia Pacific Scholar (TAPS) and Frontier in Medicine. He also participates in local and international medical education and public health research.



Tayzar Hein is a distinguished medical educator at the Defence Services Medical Academy in Yangon, Myanmar. Beginning his career with an MBBS in 2006, he served in military medical roles. He earned a Master of Disease Prevention and Control (MMedSc) in 2012. Transitioning to education in 2016, he enriched his teaching expertise with a Diploma in Medical Education in 2017 and a Master of Medical Education, focusing on Case-based Learning (CBL) research from the University of Dundee. His work emphasizes the development of innovative teaching and learning methods and aims to improve teaching strategies at his academy and beyond.



Zaw Phyo has been a dedicated lecturer at the Defence Services Medical Academy (DSMA) in Myanmar since 2019. He holds a Master of Medical Science (MMedSc) in Healthcare Management (2013) and a Diploma in Medical Education (2019), both from DSMA. In 2023, he became a Fellow of the FAIMER Regional Institute of Indonesia (FFRI). At DSMA, he actively contributes as the secretary of the Assessment Committee, ensuring high standards in medical education. Additionally, he serves on the Curriculum Committee, where he assists in shaping the educational framework. Dr. Zaw Phyo's commitment enhances the quality of medical training at DSMA.



Soe Thu Ya is an Assistant Lecturer in the of Medical Education at the Defence Services Medical Academy. A physician-scientist specializing in psychiatry, He earned an M. B., B. S. in 2007, followed by a Master of Medical Science (M. Med. Sc.) in Mental Health in 2013 and a Doctorate of Medical Science (Dr. Med. Sc.) in Mental Health in 2023. His primary research interests lie at the intersection of molecular and genetic psychiatry, focusing on the biological mechanisms underlying mental health disorders. And he remain actively engaged in collaborative psychiatric research across both domestic and international platforms.



Pyi Hein Kyaw is an Assistant Lecturer in the Department of Medical Education at the Defence Services Medical Academy (DSMA), Myanmar, joining the department in 2025. He received his MBBS degree in 2009 and earned a Master of Medical Science (M. Med. Sc) in Environmental Health in 2014. He is currently pursuing a Diploma in Medical Education. Prior to his academic appointment, he served as a Battalion Medical Officer and later as a Staff Officer at the Directorate of Medical Services. His interests include medical education, curriculum development, assessment, environmental health, educational research, and the application of artificial intelligence in health professions education.



Tin Tun is a physician-scientist with over 30 years of experience in medical education, biomedical research, and academic leadership. He earned his Doctor of Medical Science (PhD) in Molecular Medicine from Kyoto University, Japan, under the mentorship of Nobel Laureate Professor Tasuku Honjo. He has held prestigious international research fellowships in Japan, the United Kingdom, and the United States, including appointments at the University of Oxford and Memorial Sloan-Kettering Cancer Center. He is currently Professor and Head of the Department of Biochemistry at Melaka Manipal Medical College, Malaysia.



Myint Thein Naing is Consultant Physician and Neurologist registered with the Myanmar Medical Council, with extensive experience in internal medicine, neurology, inpatient and outpatient care, undergraduate and postgraduate medical education, clinical research, curriculum development, and academic assessment. Experienced in leading multidisciplinary teams, supervising junior doctors and trainees, developing stroke services, and delivering patient-centred neurological care. Lecturer at the Defence Services Medical Academy with more than 15 years of involvement in medical education and clinical training.



Lay Ko is a Consultant Otorhinolaryngologist-Head and Neck Surgeon registered with the Myanmar Medical Council, with over 15 years of experience in clinical practice, medical education, and specialist training. He serves as a Associate Professor at the Defence Services Medical Academy and is actively engaged in clinical research, multidisciplinary care, and postgraduate medical education.

Research Field

Ye Phyo Aung: Medical and Health Sciences, Medical Education, Clinical Research

Tun Tun Naing: Medical and Health Sciences, Preventive and Social Medicine, Public Health, Medical Education

Tayzar Hein: Medical and Health Sciences, Preventive and Social Medicine, Public Health, Medical Education

Zaw Phyo: Medical and Health Sciences, Preventive and Social Medicine, Public Health, Medical Education

Soe Thu Ya: Mental Health, Molecular and Genetic Psychiatry, Medical Education

Pyi Hein Kyaw: Medical and Health Sciences, Preventive and Social Medicine, Environmental Health, Medical Education

Tin Tun: Medical and Health Sciences, Medical Education, Clinical Research

Myint Thein Naing: Medical and Health Sciences, Neurology Science, Clinical Research, Medical Education

Lay Ko: Medical and Health Sciences, Department of Otorhinolaryngology-Head and Neck Surgery, Clinical Research