

Research Article

Evolution of Academic Scholarship Across 31 Myanmar Military Medical Conferences: A Retrospective Documentary Analysis

Ye Phyo Aung* , Tun Tun Naing , Marlar Than 

Department of Medical Education, Defence Services Medical Academy, Yangon, Myanmar

Abstract

Sustained scientific conferences can contribute to institutional research culture by providing recurring opportunities for dissemination, scholarly discussion, mentorship, interdisciplinary collaboration and professional development. The Myanmar Military Medical Conference (MMMC) has evolved over more than three decades as an academic platform for military healthcare professionals. The objective is to describe the longitudinal evolution of the MMMC, focusing on scientific output, diversification of academic activities, medical education, research culture, military-medicine priorities and organizational adaptation. A retrospective descriptive documentary analysis was undertaken using official programme books and conference records from the 1st through the 31st MMMC. All documents were reviewed, and data were extracted by the author using a standardized extraction framework covering conference year, scientific papers, posters, symposia, educational activities, workshops, awards, themes, multidisciplinary and international participation, delivery format, and major innovations. Quantitative findings were summarized descriptively, while documentary findings were organized into predefined developmental domains. Where historical sources reported inconsistent numerical values, the consolidated historical series was used for longitudinal description and discrepancies with contemporaneous records were reported explicitly rather than silently reconciled. The documentary record demonstrates substantial expansion of scientific activity and diversification of academic formats. Historical records describe 23 papers at the outset of the conference. A consolidated retrospective record in the 30th MMMC programme documents 1476 papers, 822 posters and 209 symposia across the first 29 conferences. The 30th MMMC reported 72 papers, 112 posters and 23 symposia, while the 31st reported 71 papers, 69 posters and 13 symposia. On this basis, the available documentary sources record a total of 1619 papers, 1003 posters and 245 symposia through the 31 conferences. The programme progressively incorporated clinicopathological conferences, clinical sessions, debates, special scientific talks, award honouring, medical education and research-ethics workshops, multidisciplinary participation and international academic exchange. During the COVID-19 period, the conference adapted to digital and subsequently hybrid delivery. The 30th and 31st programmes further demonstrated engagement with artificial intelligence, mentoring, patient safety, combat casualty care, war surgery, rehabilitation and professional resilience. The MMMC evolved from a scientific paper-reading forum into a broad multidisciplinary academic platform. The findings suggest that its sustained continuity, diversification and adaptation provided an institutional platform that may have supported scholarship in military medicine. Future evaluation should move beyond presentation counts toward research quality, subsequent peer-reviewed publication, educational outcomes, collaboration and translation of findings into practice.

*Correspondence: Ye Phyo Aung (yephyoaung@dsma.edu.mm)

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Keywords

Military Medicine, Scientific Conference, Research Culture, Medical Education, Documentary Analysis, Academic Development, Myanmar

1. Introduction

Scientific conferences are important components of academic medicine because they allow investigators to disseminate findings, receive scholarly feedback, establish professional networks and develop scientific communication skills. Nevertheless, conference presentation is best regarded as part of a wider dissemination pathway rather than an endpoint. Systematic reviews have shown that only a proportion of research presented at biomedical conferences subsequently reaches full peer-reviewed publication [2, 3, 15].

Within military health systems, academic work occurs in an environment shaped by readiness, operational requirements, military culture, personnel mobility and changing mission priorities. These characteristics can create distinctive challenges for sustained research and stakeholder engagement [4]. A recurring military medical conference may therefore have value beyond the individual meeting by creating a predictable institutional forum for research visibility, professional exchange, mentorship and scholarly continuity.

The Myanmar Military Medical Conference (MMMC) has been conducted for more than three decades under the military medical research and development framework. Its programme books constitute an institutional archive documenting changes in scientific output, academic formats, educational priorities and conference delivery. The records show progressive development from a predominantly scientific paper-reading meeting toward a broader multidisciplinary conference incorporating posters, symposia, clinical and educational activities, awards, ethics, emerging technologies and operational military-health priorities.

This study aimed to describe the longitudinal academic evolution of the MMMC through systematic documentary analysis of its official programme books, with particular attention to scientific output, diversification of academic activities, medical education, multidisciplinary engagement, military-medicine priorities and major organizational innovations.

2. Materials and Methods

2.1. Study Design

This study used a retrospective descriptive documentary-analysis design. Documentary analysis provides a systematic method for reviewing and interpreting documents as research

data and is particularly useful for reconstructing institutional processes and changes over time [1].

2.2. Documentary Sources

Official MMMC programme books and available conference records from the 1st through the 31st conference constituted the primary sources [5-11]. These documents included forewords, conference dates, organizing and academic committee information, programmes at a glance, daily scientific programmes, paper and poster abstracts, symposia, special scientific talks, workshops, awards and other academic activities. The later programme also provided retrospective information on preceding conferences.

2.3. Variables and Data Extraction

A standardized extraction framework was used to record conference number and year; number of scientific papers, posters and symposia; clinicopathological conferences; clinical sessions; debates and special talks; preconference workshops; medical-education and research-ethics activities; conference themes; awards; multidisciplinary and international participation; delivery format; and notable academic innovations. All available documents were reviewed, and the data were extracted by the author. Numerical values and descriptive milestones were entered into a structured extraction record to permit comparison across conference years. When a later consolidated historical record and a contemporaneous programme reported different values for the same conference, the consolidated historical series was retained for the longitudinal quantitative description, and the discrepancy was reported separately. No attempt was made to infer whether discrepant values represented submitted, accepted, scheduled or presented contributions unless the source document explicitly stated the relevant category.

2.4. Historical Attribution

Institutional records highlight Brigadier General Kyaw Win (1988–1994) as the pioneer of the MMMC, with successive Directors playing a vital role in its continued expansion (Table 1).

Table 1. Leadership Chronology: Directors of Medical Services & MMMC Hosting History.

Tenure Range	Director of Medical Services	Hosted Annual Conferences
1988-1994	Brig. Gen. Kyaw Win	1 st MMMC to 4 th MMMC
1994-2002	Brig. Gen. Mya Thein Han	5 th MMMC to 12 th MMMC
2002-2011	Gen. Than Aung	13 th MMMC to 18 th MMMC
2011-2014	Gen. Myo Myint Thein	19 th MMMC to 21 st MMMC
2014-2020	Gen. Soe Win	22 nd MMMC to 27 th MMMC
2020-2026	Gen. Ko Ko Lwin	28 th MMMC to 31 st MMMC

2.5. Data Analysis

Quantitative information was summarized descriptively using counts, cumulative totals, and longitudinal patterns. Qualitative documentary findings were organized using predefined developmental domains derived from the study objectives: expansion of scientific output; diversification of academic formats; integration of medical education and ethics; multidisciplinary and international engagement; strengthening of military-medicine identity; and technological and organizational adaptation. The analysis was descriptive and did not test causal relationships between the conference and subsequent institutional research culture. Missing numerical values were not imputed.

2.6. Ethical Considerations

The study analyzes institutional conference documents and does not involve patient-level data or direct recruitment of human participants. The institutional ethics review committee permitted publication of the institutional historical materials.

3. Results

3.1. Historical Origins and Development

The early MMMC developed within organized military medical research activities and provided a structured forum in which military healthcare professionals could present scientific work and exchange professional experience. Institutional accounts identify Brigadier General Kyaw Win as the earliest

major contributor to this development. The significance of the early initiative became increasingly evident as the conference was sustained across successive decades through the dedicated efforts of his successors and the hardworking academic committee. What began as a scientific presentation forum progressively developed into a recurring academic institution encompassing research dissemination, professional development, medical education, multidisciplinary exchange and recognition of scholarly achievement.

3.2. Expansion of Scientific Output

The documentary record demonstrates substantial expansion in scientific activity. Historical programme records describe 23 scientific papers at the outset. The consolidated historical table in the 30th MMMC programme records 1476 scientific papers, 822 posters and 209 symposia across conferences 1-29 [10]. By the 25th conference, the scientific programme had expanded markedly, although some retrospective and contemporaneous programme records contain different poster counts for the same conference [9, 10]. Such discrepancies were retained as part of the documentary limitations rather than resolved by assumption.

The later conferences continued to demonstrate substantial scholarly activity. The 30th MMMC programme reported 72 scientific papers, 112 posters and 23 symposia [10], while the 31st programme reported 71 research papers, 69 scientific posters and 13 symposia [11]. The cumulative calculation was therefore: papers, $1476 + 72 + 71 = 1619$; posters, $822 + 112 + 69 = 1003$; and symposia, $209 + 23 + 13 = 245$. These figures indicate that high levels of scientific participation were sustained in the most recent completed phase of the conference.

Table 2. Selected Milestone Indicators.

Conference	Year	Scientific papers	Posters	Symposia	Selected academic development
1 st	1990	23	-	-	Beginning of consolidated historical record

Conference	Year	Scientific papers	Posters	Symposia	Selected academic development
6 th	1996	52	-	2	Early expansion of scientific paper activity
10 th	2000	54	12	1	CPC and debate documented
21 st	2014	32	32	12	Multidisciplinary programme and PBL workshop
25 th	2018	75	113	14	Marked expansion of poster activity
28 th	2021	75	84	24	Digital-era conference period
29 th	2022	77	74	27	Highest symposium count in 1 st -29 th record
30 th	2023	72	112	23	AI/Healthcare 4.0 and mentoring activities
31 st	2026	71	69	13	Combat casualty care, polycrisis and Meet the Experts initiative

3.3. Diversification of Academic Formats

The MMMC progressively evolved beyond scientific paper presentations. Programme books document the incorporation of posters, symposia, clinicopathological conferences, clinical sessions, debates, special scientific talks and competitive awards. This diversification transformed the conference from a predominantly paper-reading meeting into a comprehensive scientific and professional forum.

The development of best-paper and best-poster recognition was particularly relevant to the cultivation of younger investigators [5, 6]. For many clinicians, preparation and defence of a conference presentation may represent an early experience of scholarly communication and can provide a foundation for subsequent scientific writing and publication. Conference-to-publication studies in other biomedical settings suggest that structured follow-up after presentation is important if conference activity is to translate into durable scholarly output [2, 3, 12, 15].

3.4. Integration of Medical Education and Research Ethics

Medical education became an increasingly visible component of the MMMC. Programme records document preconference activities addressing problem-based learning, interprofessional education, simulation-based medical education, feedback, assessment and mentoring [5-8, 10, 11]. Research ethics and bioethics were also incorporated into conference-related educational activities. This development is consistent with the wider view that faculty development and continuing professional development are important mechanisms for strengthening teaching practice and professional learning [13, 14].

This development broadened the conference's academic mission. The MMMC increasingly functioned not only as a venue for research dissemination but also as a platform for

faculty development and improvement of teaching, assessment and professional practice.

3.5. Multidisciplinary and International Engagement

The programme records demonstrate participation across medicine, dentistry, nursing, medical technology and other health disciplines, together with invited national and international academic participation at different stages of the conference's development. This multidisciplinary character expanded opportunities for interaction beyond individual specialties and supported a broader conception of military health scholarship.

3.6. Adaptation and Emerging Priorities

The COVID-19 pandemic represented a major organizational challenge. Rather than interrupting the academic tradition, the conference adapted through digital delivery and subsequently hybrid approaches. This transition demonstrated institutional resilience and expanded the range of mechanisms available for scientific communication.

The 30th and 31st programmes also illustrate increasing responsiveness to emerging professional and operational priorities [10, 11]. Topics included Artificial Intelligence and Healthcare 4.0, mentoring, patient safety, combat casualty care, war surgery, rehabilitation, damage-control practice and resilience in an era of multifarious crisis. These developments demonstrate continuing alignment of the scientific programme with changes in medicine, technology and military healthcare.

4. Discussion

This documentary analysis demonstrates that the evolution of the MMMC can be understood through several interconnected processes: continuity, quantitative expansion, diversification of academic formats, integration of medical education and ethics, multidisciplinary engagement and adaptation to

changing technological and operational environments.

The increase in numbers of scientific papers, posters and symposia provides an accessible measure of academic activity, but numerical growth should not automatically be interpreted as increased research quality or impact. Conference scholarship becomes more meaningful when presentation is followed by peer-reviewed publication and, ultimately, by application of useful findings. Systematic reviews of biomedical conferences have demonstrated substantial attrition between presentation and full publication [2, 3, 15]. Future evaluation of the MMMC should therefore track the proportion of presented work subsequently published in peer-reviewed journals.

Another important finding is the progressive integration of medical education into the conference. The movement from traditional scientific sessions toward workshops on problem-based learning, simulation, feedback, assessment, mentoring and patient safety indicates recognition that academic development encompasses both production of knowledge and improvement of how healthcare professionals are educated.

The military context is also important. Research within military health systems must coexist with readiness requirements, operational commitments and institutional priorities. Published experience from military health research demonstrates that stakeholder engagement and research implementation can be influenced by military culture, personnel turnover and mission demands [4]. A sustained conference may help counter some of these challenges by providing a recurring institutional mechanism for visibility, networking, mentorship and continuity of scholarly work.

4.1. Implications for Academic Culture and Future Development

An important implication of the MMMC journey is that continuity can become an academic asset. A recurring conference creates repeated opportunities for clinicians, educators and other healthcare professionals to transform observations into research questions, undertake studies, prepare abstracts, defend findings and receive scholarly feedback. The present documentary analysis cannot establish that the conference caused changes in institutional research culture; rather, the findings suggest that the MMMC provided a sustained platform that may have supported the development and visibility of scholarship within military medical practice.

From the perspective of the Academic Subcommittee, the visible scientific programme represents only the final stage of a larger academic process. Abstract management, peer review, selection of presentations, programme construction, coordination with speakers and maintenance of standards require sustained teamwork and transparent academic governance. As a conference expands, the quality of these processes becomes as important as the number of presentations.

The next phase of development should therefore move from measuring academic activity toward demonstrating academic impact. Potential indicators include methodological quality,

subsequent peer-reviewed publication, participation and progression of young investigators, interdisciplinary and multi-centre collaboration, educational outcomes, implementation of research findings and measurable influence on clinical or military medical practice.

4.2. Strengths and Limitations

A major strength of this study is the use of primary institutional programme books spanning multiple decades rather than reliance solely on personal recollection. The archive permits reconstruction of changes in scientific activity, academic formats and institutional priorities.

Several limitations should nevertheless be acknowledged. Historical programme books vary in completeness, terminology and reporting format. Scheduled activities do not necessarily establish that every activity occurred exactly as planned. Some contemporaneous programme records and later retrospective summaries contain different numerical counts for the same conference, potentially reflecting differences between submitted, accepted, scheduled and displayed presentations. Furthermore, the available documents primarily measure academic activity rather than downstream outcomes such as publication, citation, implementation or changes in clinical practice.

5. Conclusion

The Myanmar Military Medical Conference has evolved from a relatively small scientific forum into a broad multidisciplinary academic platform within military medicine. Its documentary history demonstrates sustained scientific activity, diversification of presentation formats, incorporation of medical education and ethics, multidisciplinary and international engagement, and adaptation to digital technology and emerging operational priorities.

The enduring significance of the MMMC lies not simply in the number of conferences completed or presentations delivered, but in its sustained provision of a forum for scholarship across generations of military healthcare professionals. Future development should emphasize research quality, mentorship, transparent academic governance, subsequent publication, collaboration, educational outcomes, and translation of research into practice. Establishing prospective measures of these outcomes would strengthen future assessment of the conference's academic impact.

Abbreviations

AI	Artificial Intelligence
BEME	Best Evidence Medical Education
BMC	BioMed Central
CME	Continuing Medical Education
CPC	Clinicopathological Conference

DSMA	Defence Services Medical Academy
FRCP	Fellow of the Royal College of Physicians
JICA	Japan International Cooperation Agency
M. H. P. E	Master of Health Professions Education
MBBS	Bachelor of Medicine, Bachelor of Surgery
MMMC	Myanmar Military Medical Conference
MMedSc	Master of Medical Science
MRCP	Member of the Royal College of Physicians
MSE	Medical Science Educator
PBL	Problem-Based Learning
TAPS	The Asia Pacific Scholar

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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

Marlar Than: Conceptualization, Methodology, Supervision, Validation

Data Availability Statement

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

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Bowen GA. Document analysis as a qualitative research method. *Qualitative Research Journal*. 2009; 9(2): 27-40. <https://doi.org/10.3316/QRJ0902027>
- [2] Grover S, Dalton N, Sarkar S. Publications after conference presentations: a systematic review of published studies. *Indian Journal of Medical Ethics*. 2021; VI(1): 25-31. <https://doi.org/10.20529/IJME.2020.106>
- [3] von Elm E, Costanza MC, Walder B, Tramèr MR. More insight into the fate of biomedical meeting abstracts: a systematic review. *BMC Medical Research Methodology*. 2003; 3: 12. <https://doi.org/10.1186/1471-2288-3-12>
- [4] Rhon DI, Oh RC, Teyhen DS. Challenges with engaging military stakeholders for clinical research at the point of care in the U. S. Military Health System. *Military Medicine*. 2022; 187(7-8): 209-214. <https://doi.org/10.1093/milmed/usab494>
- [5] Defence Services Medical Research and Development Committee. 21st Myanmar Military Medical Conference Programme. Yangon, Myanmar: Defence Services Medical Research and Development Committee; 2014.
- [6] Defence Services Medical Research and Development Committee. 22nd Myanmar Military Medical Conference Programme. Yangon, Myanmar: Defence Services Medical Research and Development Committee; 2015.
- [7] Defence Services Medical Research and Development Committee. 23rd Myanmar Military Medical Conference Programme. Yangon, Myanmar: Defence Services Medical Research and Development Committee; 2016.
- [8] Defence Services Medical Research and Development Committee. 24th Myanmar Military Medical Conference Programme. Yangon, Myanmar: Defence Services Medical Research and Development Committee; 2017.
- [9] Defence Services Medical Research and Development Committee. 25th Myanmar Military Medical Conference Programme. Yangon, Myanmar: Defence Services Medical Research and Development Committee; 2018.
- [10] Medical Services Medical Research and Development Committee. 30th Myanmar Military Medical Conference Programme Book. Yangon, Myanmar: Medical Services Medical Research and Development Committee; 2023.
- [11] Medical Services Medical Research and Development Committee. 31st Myanmar Military Medical Conference Programme Book. Yangon, Myanmar: Medical Services Medical Research and Development Committee; 2026.
- [12] Scherer RW, Ugarte-Gil C, Schmucker C, Meerpohl JJ. Authors report lack of time as main reason for unpublished research presented at biomedical conferences: a systematic review. *Journal of Clinical Epidemiology*. 2015; 68(7): 803-810. <https://doi.org/10.1016/j.jclinepi.2015.01.027>
- [13] Steinert Y, Mann K, Centeno A, Dolmans D, Spencer J, Gelula M, Prideaux D. A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. *Medical Teacher*. 2006; 28(6): 497-526. <https://doi.org/10.1080/01421590600902976>
- [14] Cervero RM, Gaines JK. The impact of CME on physician performance and patient health outcomes: an updated synthesis of systematic reviews. *Journal of Continuing Education in the Health Professions*. 2015; 35(2): 131-138. <https://doi.org/10.1002/chp.21290>

- [15] Scherer RW, Meerpohl JJ, Pfeifer N, Schmucker C, Schwarzer G, von Elm E. Full publication of results initially presented in abstracts. *Cochrane Database of Systematic Reviews*. 2018; 2018(11): MR000005.
<https://doi.org/10.1002/14651858.MR000005.pub4>

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 also got FAcadMed in 2026. He participated as a reviewer 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 Pro-

gram. 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



Marlar Than has been a consultant at the Department of Medical Education, Defence Services Medical Academy (DSMA) in Yangon, Myanmar, since May 2017. Armed with degrees in MBBS, MRCP (UK), FRCP (London), and FRCP (Edin), she plays diverse roles as an Honorable Professor in the Department of Medical Education, Chair of the Advisory Committee, Course Coordinator in the Dip. Medical Education course, and Patron in the Curriculum Review and Assessment Committees of DSMA. Her forte lies in pedagogy, adult learning methodologies, and curriculum design, nurturing the professional evolution of budding physicians. Deeply immersed in medical education research and accreditation processes, Professor Marlar Than generously shares her insights through esteemed international publications, enriching the global discourse on healthcare 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

Marlar Than: Medical and Health Sciences, Medical Education, Clinical Research