

## Research Article

# Evaluation of Internal Quality Assurance System in Defence Services Medical Academy: Moving Toward Quality Culture

Mo Mo Than<sup>1,\*</sup> , Ye Phyo Aung<sup>2</sup> , Aung Paing Paing Soe<sup>1</sup> , Yan Naing Soe<sup>1</sup> ,  
Hein Htike<sup>1</sup> , Khine Kyaw Oo<sup>1</sup> , Tun Tun Naing<sup>2</sup> , Tayzar Hein<sup>2</sup> , Zaw Phyo<sup>2</sup> ,  
Si Thu Tun<sup>3</sup> , Marlar Than<sup>2</sup> , Titi Savitri Prihatiningsih<sup>4</sup> 

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

<sup>2</sup>Department of Medical Education, Defence Services Medical Academy, Yangon, Myanmar

<sup>3</sup>Department of Physiology, Defence Services Medical Academy, Yangon, Myanmar

<sup>4</sup>Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

## Abstract

The escalating number of higher education institutions globally has heightened the demand for credible education policies and quality assurance mechanisms. The establishment of organizations for quality assurance providers and accreditors has become widespread to meet this demand. The Myanmar Medical Council Accreditation Committee (MMCAC) was established in 2016 to ensure the quality and standard of medical practice in Myanmar. Defence Services Medical Academy (DSMA), one of Myanmar's medical universities, transitioned to an outcome-based integrated program in line with the World Federation for Medical Education (WFME) Basic Medical Education Standards. To evaluate the effectiveness of DSMA's internal quality assurance system and its progression towards a quality culture, this study explores faculty perceptions and practices regarding the internal quality assurance process. An explanatory sequential mixed method design was adopted, comprising quantitative surveys followed by qualitative in-depth interviews. Pre- and post-test surveys were administered to DSMA faculty members before and after an IQA training workshop. The surveys assessed knowledge, attitudes, and practices related to the internal quality assurance system. Qualitative data was collected through in-depth interviews with selected faculty members to delve deeper into their experiences and perceptions regarding the IQA process. Quantitative analysis revealed an improvement in faculty awareness and attitudes towards the IQA system post-training. However, challenges such as confusion about the functional place of the QA unit and concerns about disturbing academic freedom persisted. Qualitative findings highlighted varying levels of experience and awareness among faculty members, with unanimous recognition of the need to strengthen the IQA framework by adhering to international guidelines and fostering a culture of continuous improvement. Faculty attitudes towards the IQA process varied, with some viewing it as an extra burden and others recognizing its necessity for document organization and quality control. Faculty involvement in the IQA process varied, with departmental leadership playing a crucial role in promoting participation. While progress has been made in raising awareness and improving attitudes towards the IQA system at DSMA, challenges remain, indicating the need for ongoing efforts in awareness-building and perception management. Structural improvements, regular training programs, and ongoing evaluation are essential to strengthening the IQA framework and fostering a quality culture at DSMA. The successful implementation of quality assurance program depends on teamwork amongst leadership, academics, and all stakeholders.

\*Corresponding author: momothan@biochemdsma-edu.org (Mo Mo Than)

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## Keywords

Internal Quality Assurance, Quality Culture, Medical Education, Defence Services Medical Academy, Myanmar, WFME Standards

## 1. Introduction

The global number of higher education institutions is increasing, and thus the international mobility of students and graduates has increased. This increase may lead to a high demand for trustworthy and credible education policies, which may require quality assurance. In this way, the emergence of organizations for quality assurance providers and accreditors has become widespread [1]. The World Federation for Medical Education (WFME) was founded in 1972 by the World Medical Association (WMA) and the World Health Organization (WHO) at the World Conference on Medical Education, calling for greater cooperation between the health system and the education system, reflecting national needs, and continuing the lifelong education of medical staff to achieve quality in practice [2].

In this manner, the Myanmar Medical Council, with its inherent powers established under the Myanmar Medical Council Law (2015), is responsible for authorizing medical schools to license their graduates for practice in Myanmar. Thus, the Ministry of Health and Sports formed an accreditation committee under the Myanmar Medical Council (MMC) [3]. The Myanmar Medical Council Accreditation Committee (MMCAC) was set up on February 26, 2016, to establish a system of national accreditation of basic medical education programs to assure the quality and standard of medical practice in Myanmar. MMCAC is responsible for the accreditation process and course approval of both public and private medical education institutions [4].

Defence Services Medical Academy (DSMA) is one of the medical universities in Myanmar and was established in 1992. DSMA changed its medical education to an outcome-based integrated program in 2017 according to the WFME Basic Medical Education Standards and is preparing to be assessed by the MMCAC in the coming year. The Quality Management Office was also set up concomitantly, and its IQA process was ongoing systemically along with the guidelines of the WFME Basic Medical Education Standards [5].

Statements of the medical school mission are an important way to express a medical school's educational philosophy and focus and a means to help the school differentiate itself from other programs. Defining the endpoint of the learning process is a critical first step in the quality improvement process. The medical school's mission and objectives will inform all subsequent aspects of the quality assurance process. The medical school's objectives should be derived in close consultation with all stakeholders, and they need to be familiar with the

various healthcare settings in which the graduates will work.

Several published international competency frameworks can enlighten the process of defining curriculum objectives. In addition to helping to identify potential areas of teaching duplication, a thorough review of the curriculum utilizing an electronic database can provide crucial information regarding the connections that must be made between stated objectives, delivery strategies, and evaluation [6]. In a summary of a case-study approach and comparative analysis of Quality Assurance in an International Higher Education Area by Andrea Bernhard, the responsibility for higher education is increasingly being challenged by the turbulence of today's scientific developments [7]. Fransiskus Daromes, a lecturer from Indonesia, described that the implementation of core values in internal QA is not easy to implement entirely in the 2<sup>nd</sup> GCBSS-2015, Indonesia [8]. However, a case study of Quality Assessment in Higher Education within the Context of Sustainable Development in the Czech Republic showed that it is necessary to implement quality assurance and be internally driven to see the potential of higher education [9].

Research on the internal system for quality assessment of education results at a medical university in Russia concluded that the internal system of assessing the quality of education is directed at increasing the prestige of Russian higher medical education and its integration into the international educational space [10]. Higher education institutions, wherever they are needed to maintain the health of their organizations in the field of internal quality assurance management consistently and their academic quality as embodied in the three core values of higher education, namely student learning, research, and community service, can learn from the findings of internal QA evaluation research at a private university in Indonesia, namely Atma Jaya Catholic University, Jakarta (UAJJ) [11]. The result of research on internal quality assurance of the education program at higher educational institutions in Ukraine was the establishment of the fundamentals for ensuring the quality of educational programs at higher educational institutions, taking into account their innovative nature, and the evaluation of the strengths and weaknesses of the curriculum by the participants in the educational process [12].

The findings of the previous research studies shed light on the importance of the quality assurance system in the higher education context around the globe. A quality assurance system is a process from internal quality assurance (IQA) to external quality assurance (EQA) to accreditation. Internal

Quality Assurance, or IQA, is a term that is frequently used in the context of higher education worldwide. The application level of guaranteed IQA activities is associated with quality culture in higher education and the processes and structures through which the university can support the development of its internal quality culture [13]. IQA was referred to as an intra-institutional practice because it monitored and improved the quality of higher education. The development of the IQA system enhances the performance of the educational organization, and the IQA system requires transparency and accountability with appropriate strategies [2, 3].

Internal quality assurance includes monitoring, evaluation, and improvement. Among these processes, evaluation is one important process. The lack of evaluation in institutional (IQA) systems that have been implemented for three years in DSMA. DSMA is the first medical university to transform its undergraduate program into outcome-based integrated medical education in Myanmar. The faculty of DSMA should ensure its quality and be accountable for the quality of the training it provides. Therefore, the development of an institutional internal quality self-evaluation (i.e., IQA) is needed to perform a fairly comprehensive assessment of the activities of our new educational program. In the same way, the faculty's perspectives and beliefs were required to be explored in our institutional education activities according to the WFME Basic Medical Education Standards to achieve IQA development in DSMA. Most of the faculty of DSMA had limited experience in the self-evaluation process and limited faculty experience in IQA activities on its IQA system. Therefore, the study aimed to acquire the awareness, perception, attitude, and practice of faculty for the evaluation of the IQA process and quality culture (QC) development in DSMA.

## 2. Materials and Methods

This study was done using an explanatory sequential mixed method design (quantitative followed by qualitative analysis) based on the following research questions:

(a) Are our institutional faculties acquiring awareness, perception, attitude, and practice about the internal quality assurance (IQA) system after IQA training?

(b) What are their perceptions and beliefs about DSMA's IQA system?

For research question No. 1, anonymous self-administered questionnaires were used before and after attending the IQA online workshop. So, as an intervention, three days of online training on IQA were conducted at DSMA for faculty members of DSMA in October 2020.

Anonymous self-administered, five-point Likert scale questionnaires with 43 items were developed from the previous literature [13, 14] regarding IQA (Supplement Sheet 1), and they were distributed to the potential participants using the docs.google.com website via email (115 pre-test respondents) (Appendix 1). This study tool consisted of demo-

graphic information about the participants: age, gender, academic position, and prior participation in IQA. It also included an assessment of the participants' self-awareness of IQA principles and the participants' knowledge and attitude toward certain practices in the IQA system.

For intervention, the faculty members (academic administrators, pre-clinical teachers, and clinical teachers) attended the IQA training workshop, the IQA framework's basic structure, with nine areas encompassing various aspects of academic quality along with the guidelines of the WFME Basic Medical Education Standards, which lasted 3 hours per day for three days and was organized by the Medical Education Committee of DSMA.

After the training, in November 2020, the same questionnaire was administered again (Appendix 2). Unfortunately, because of the COVID-19 crisis, some faculty members were temporarily posted to treatment centers, and only 67 post-test responses to the questionnaire were obtained. The data from questionnaires was entered into a master sheet, and after data checking, post-test analysis was done using SPSS Statistics version 22.0. For purposes of analysis, the categories of "strongly agree" and "agree" were collapsed into one category. The positive responses to the available choices ("yes" as opposed to "no" and "uncertain"; and "strongly agree" and "agree" responses for those questions employing a Likert scale) were reported as percentages. Descriptive analysis with paired t-tests and chi-square tests was done for quantitative survey factor analysis.

For research question No. 2, qualitative research methodology was used as phase II of the study, and an in-depth interview was used as a study tool (Supplement Sheet 2). The ten participants were selected from phase I respondent faculty members of DSMA by the purposive sampling method. Themes of awareness, perception, attitude, and practice on the IQA of DSMA were identified in qualitative data with interpretative methodology. In-depth interview interpretation was analyzed by two co-authors who were experts in qualitative research based on triangulation using thematic analysis by MAXQDA software 2022. This study was approved by the Institutional Human Research Ethical Committee (REC) of the DSMA (15/Ethics/2020). Informed consents were obtained from all participants. The waiver of documentation of consent was granted by the REC, as these documents were the only link that could identify the participants. Questionnaires were returned anonymously, and hence no information was available that could identify the responders.

## 3. Results

This study represents the first reports from DSMA regarding the awareness, perception, attitude, and practice of DSMA teaching staff towards the IQA system before and after the IQA training workshop.

**Table 1.** Demographic data of DSMA faculty respondents.

Variables		Faculty Respondents (%)	
		Before workshop	After workshop
Designation	Professor	45	39
	Associate Professor	19	10
	Lecturer	13	24
	Assistant Lecturer	23	27
Teaching experience	≤ 5 years	54	39
	5-10 years	25	30
	≥ 10 years	21	31

The mean age of the respondents was around 40 years of age, and 80–90% were male, and the females were the remainder of the respondents. A maximum of the respondents had professor designations in the DSMA. Most of the respondents had teaching experiences of ≤ 5 years (Table 1).

**Table 2.** Awareness toward IQA process in teaching and learning.

No.	Questions	Faculty Respondents (%)	
		Before workshop	After workshop
1	When did DSMA start introducing a quality assurance system?	28.6	49.3**
2	Does DSMA have an IQA policy statement in the MBBS Program?	91.1	100*
3	Who is the most responsible person or persons for building a quality culture within DSMA?	84.8	95.5*
4	Why did DSMA introduce a quality assurance system?	90.2	26.9
5	What kind of structure is placed to support the internal quality assurance processes?	24.5	25.5
6	DSMA QA is designed by applying a ready-made model like ISO.	56.3	68.2
7	Does DSMA have an internal evaluation process that provides feedback to each department?	90.2	95.5
8	How many times per year is an internal evaluation conducted in DSMA?	40.2	55.2*

\*  $p < 0.05$ , \*\*  $p < 0.01$

After the IQA workshop, less than 50% of respondents still lack awareness of the QA system process “When, How, and Why” developed in DSMA. However, a 5–10% increase in awareness concerning feedback for evaluation and responsibility for quality culture in DSMA can be noted (Table 2).

**Table 3.** Perceptions toward IQA process in teaching and learning.

No.	Questions	Aggregated Answer (Agreement) (%)	
		Before workshop	After workshop
1	IQA stimulates identification of defects in teaching and learning process.	94.6	94.1
2	IQA helps staff members to apply their everyday academic life.	81.2	86.6
3	IQA enables the development of educational programs and curricula.	91.1	94.1
4	IQA stimulates staff members' professional development.	85.7	89.6
5	IQA enables staff members to make their personal contribution to the quality of education.	88.4	93.8
6	IQA encourages teamwork and collaboration among staff members.	91.9	92.6
7	IQA can disturb an individual's academic freedom.	37.0	31.0**
8	IQA empowers students by considering their opinions.	83.0	91.0
9	In DSMA, formal QA processes are done on regular basis.	73	83.5
10	DSMA has developed clear learning outcomes for the undergraduate program.	90.2	91
11	DSMA's learning outcomes for the undergraduate program are publicly available (for example via website).	53.7	52.3
12	In DSMA, curriculum design processes are done by the Curriculum Review Committee.	86.5	86.6
13	DSMA assessment methods and criteria applied are publicly available (for example, via the website).	40.9	40.3
14	The students are informed by the Year coordinator concerning assessment methods & criteria applied at the beginning of the Year.	81.2	85.1
15	Teaching staff are evaluated using student feedback forms.	79.5	82.0
16	Learning resources are regularly offered, monitored, and improved.	74.1	88.0
17	There is a process for monitoring individual students' progression via the students' logbook.	80.3	83.1
18	The results of the students' feedback are followed up by discussions in the meetings attended by staff members.	73.3	83.5
19	The results of the students' feedback are informed to them, and actions are taken based on their feedback.	68.2	74.6

\*  $p < 0.05$ , \*\*  $p < 0.01$ 

Although the perception of disturbing individual academic freedom decreased significantly from 37% to 31% of respondents after the training workshop, almost 70% of faculty still perceived IQA as disturbing to academic freedom. The IQA training workshop cannot improve the perception of the availability of DSMA assessment methods and criteria, and 60% of faculty still need to improve their perception of this procedure. Although the perception of students' feedback and actions improved from 68% to 75% after the workshop, about 25% of faculty were still required to have a 100 percent agreement perception (Table 3).

**Table 4.** Attitude toward IQA process in teaching and learning.

No.	Questions	Aggregated Answer (Agreement) (%)	
		Before workshop	After workshop
1	I often have negative attitudes about IQA.	20.5	17.9
2	I think IQA is the job of institutional administrators only.	86.6	86.6

No.	Questions	Aggregated Answer (Agreement) (%)	
		Before workshop	After workshop
3	Implementation of IQA makes me uncomfortable environment for academic activities.	83.9	83.6
4	I am doubtful about the work of IQA and its outcomes.	18.8	18.0
5	Implementation of IQA contributes to the increased workload.	63.1	49.3
6	I get nervous that I am not able to handle changes introduced by IQA.	33.0	25.8
7	IQA stimulates identification of defects in teaching and learning process.	75.9	75.3
8	Implementation of IQA contributes to administrative burden.	51.8	31.8
9	I think that overall, the current process of IQA in DSMA is effective.	82.2	80.3
10	I think that the implementation of IQA can enhance the quality culture in DSMA.	97.0	97.3

\*  $p < 0.05$ , \*\*  $p < 0.01$

The negative attitude toward IQA contributes to the increased workload, which decreased from 63% to about 50% of respondent faculty after the IQA training workshop. Most of the respondents had a positive attitude toward the IQA process, with an agreement response after the training workshop (Table 4).

**Table 5.** Practice toward IQA process in teaching and learning.

No.	Questions	Aggregated Answer (Agreement) (%)	
		Before workshop	After workshop
1	I support the implementation of changes offered by IQA.	91.1	89.4
2	I have been involved in some discussions about IQA changes.	73.2	71.2
3	I am trying to encourage my colleagues to adopt IQA changes.	80.4	87.3
4	I will work longer hours to successfully implement IQA changes.	65.8	70.8
5	I have been involved in the process of IQA at my department.	80.3	87.9
6	I have been involved in the process of IQA at my institution.	82.9	89.4

\*  $p < 0.05$ , \*\*  $p < 0.01$

Although more than 80% of faculty members were already involved in the IQA process, about 20% had no practice working longer hours for QA or having some discussion about IQA implementation (Table 5). Overall awareness, perception, attitude, and practice of DSMA faculty members toward the IQA system improved after the IQA training workshop.

After completing the phase I quantitative study, a qualitative study of phase II was followed based on the five themes: (a) *experience and awareness*; (b) *perception*; (c) *attitudes*; (d) *practice*; and (e) *overall concern* on the IQA of DSMA. These themes reflect the research question: What are their perceptions and beliefs about DSMA's IQA system?

Ten participants were selected from phase I respondent faculty members of DSMA for phase II, and in-depth inter-

view interpretation was done for the qualitative research study.

#### *a) Experience and Awareness of Institutional Quality Assurance Framework*

Most respondents had some experience with the IQA process, with varying levels of depth and involvement. All respondents were aware of the IQA framework's basic structure, with nine areas encompassing various aspects of academic quality.

Opinions of respondents on the IQA framework were mixed, with some finding it helpful for organization and documentation, while others criticized the lack of connection to actual teaching-learning activities. Challenges were responded to regarding documentation, continuity due to faculty



transfers, and alignment with international standards. Most respondents acknowledged the potential link between IQA and curriculum improvement, emphasizing its role in evaluating, regulating, and connecting various curriculum components. However, some concerns were raised about the current focus on document completion rather than practical implementation.

*"The quality assurance process is known as internal quality assurance and external quality assurance. External quality assurance is for internal quality assurance to practically re-implement the framework imposed by the higher education of governance. We need to be consistent with international regulations, and we also need to meet the educational outcomes of our institution. When the external bodies set up the quality assurance framework, we need to use the best possible methods to make it successful. If there is no quality assurance, it is like an organization without guidance and progress. By establishing an internal quality assurance framework, it is considered that internal quality assurance is an assurance regarding student quality learning."* (Respondent 06)

The findings suggest that DSMA's IQA framework has made considerable progress since its initiation. However, opportunities for improvement exist, particularly in areas like knowledge dissemination, documentation practices, and alignment with international standards. Strengthening the IQA framework requires a collaborative effort involving leadership, faculty, staff, and potentially external stakeholders. Fostering a culture of quality consciousness and continuous improvement will be crucial for DSMA to achieve its aspirations for excellence in medical education.

#### *b) Perception toward the Internal Quality Assurance Process*

The positive impacts were curriculum changes driven by Quality Assurance System (QAS), improvements in teaching methods, and alignment with international standards. However, difficulty transitioning from a teacher-centered to a student-centered approach, limited engagement of some faculty, and weak understanding and implementation in pre-medical year departments were challenges of the changes. The suggestions of the respondents were increased faculty awareness and participation, alignment with the integrated curriculum, and evidence-based documentation practices. The internal evaluation process was perceived as having several strengths, including regular monitoring and reporting, constructive departmental feedback, identification of strengths and weaknesses, undermined cooperation since COVID-19, reliance on the individual workforce for QAS expertise in departments, a heavy documentation burden, and a shortage of manpower. In this way, the recommendations of the respondents were improved communication among stakeholders, regular review and evaluation of the process, and faculty-friendly support from the Quality Assurance Unit.

*"Interpersonal relationships among departments are good enough. It would be better if the academic office would*

*monitor the needs of the departments and support their needs according to internal quality assurance feedback. The Quality Assurance department still needs staff to solve the issues that are not understood by faculty."* (Respondent 05)

Given the learning resources in the QAS process, updated teaching and learning materials, access to internet and multimedia resources, improved library facilities, and furniture for effective learning environments were needed. The concerns of the respondents were insufficient support for problem-based learning (PBL) teaching and the limitations of technology in hospital settings. Based on this perception, their suggestions were to collaborate with the academic office to assess department needs and allocate resources, invest in multimedia resources, and purchase furniture.

The overall suggestions for QAS improvement of respondents were endorsed: increased engagement of stakeholders such as the Academic principal's office, budget department, and Directorate of Medical Services should play a more active role; enhanced manpower and resources, for instance, additional staff for the QAU and computer clerks for departments are crucial; improved communication and collaboration, for example, strengthen partnerships between the QAU, departments, and the Academic Office; faculty participation and awareness, such as all faculty members should be actively involved in the QAS process and receive proper training; Streamlined documentation and support included addressing weaknesses in document management and providing faculty-friendly support from the QAU.

#### *c) Attitudes toward the Internal Quality Assurance Process*

In the attitude toward daily work impact, some respondents view QAS as an extra burden, while others perceive it as necessary for document organization and quality control. Completing internal audits and adapting to the QAS framework are time-consuming challenges for some departments. However, some faculty perceive QAS as part of routine work and highlight its benefits for student outcomes and accreditation as a positive attitude.

Respondent 02 commented that:

*"I think it depends on the individual. Most of them think it's an extra job."*

Respondent 04 remarked that:

*"The department will not be burdened by the document processing. By following the internal quality assurance process, the documents will be completed and organized. However, during an internal audit, it takes more time than usual. The rest of the time is not too much of a burden."*

In their attitude towards current quality assurance and accreditation processes, the respondents acknowledge progress made in implementing QAS and accreditation guidelines. Areas for improvement were needed for better communication and collaboration between departments, the academic office, and the administration. Several respondents highlighted DSMA's leading position in Myanmar's medical university accreditation efforts and took pride in DSMA's

progress. Some faculty emphasized the need for further resource allocation and personnel support to enhance the effectiveness of QAS and accreditation processes.

In their attitude towards quality culture development, the respondents expressed dedication to enhancing teaching and learning environments through QAS as a commitment to learning and improvement. Difficulties balancing QAS activities with daily work and limited access to resources were mentioned as challenges in practical implementation. The importance of internal audits, feedback, and faculty training for building a quality culture was stressed, with an emphasis on internal processes and training. Implementing year guidebooks, staff and student exchange programs, and regular reviews of internal quality assurance activities were proposed by the respondents to strengthen the quality culture at DSMA.

#### *d) Practice toward the Internal Quality Assurance process*

There were varying levels of involvement in the internal quality assurance process. The respondents reported diverse roles within the QAS process, including quality assurance officers, auditors, document managers, and department representatives. Some initially lacked a complete understanding of the Myanmar Medical Council Accreditation Committee guidelines but gradually improved through study and practice. While some acknowledge the importance of practical implementation, document processing and compliance with guidelines appear to be a primary focus. Interest, responsibility, and departmental pressure are all cited as reasons for participation.

In the encouragement of colleagues for QAS implementation, sharing information and instructions received at meetings and workshops is a common approach to informing colleagues through passive dissemination. Lack of understanding, workload, and limited encouragement from department heads hinder wider faculty involvement in the QAS process as a result of limited engagement.

*“The main problem is the teachers who have been recently transferred to DSMA. They do not understand the internal quality assurance process. There are a lot of things to do concerning nine areas, so they were scared. But as they learn, they have mastered the internal quality assurance process for about a year. While teaching them, I had to call together while telling.”* (Respondent 06)

*“Firstly, I tried to understand the internal quality assurance process myself and share it with others. Moreover, the head of the department ordered the staff in the department to study the internal quality assurance process so that everyone could understand it. In the current situation, the internal quality assurance process is mainly carried out by quality assurance officers. If the heads of departments could encourage subordinates, all the teaching staff would gradually follow.”* (Respondent 04)

Highlighting the importance of departmental leadership and encouragement in promoting faculty participation is a key finding for heads of departments. Some report success in increasing colleagues' understanding and participation

through sustained efforts and support in gradual learning.

#### *e) Overall concern about the Internal Quality Assurance process*

Several respondents expressed concerns about a perceived “disconnection” within the QAS process, calling for greater coherence and systematic implementation. Regular meetings, prompt audits, and ensuring continued momentum were emphasized to maintain the QAS system's effectiveness. The suggestions for structure and resources included assigning a dedicated responsible officer to the QAS department and streamlining its internal processes. A stronger practical connection between the QAS framework and the daily operations of teaching departments was also desired, moving beyond just document storage. Prompt dissemination of information about the QAS process, including department-specific requirements, was identified as crucial for enhancing faculty engagement. Additionally, respondents pointed to the need for more effective knowledge-sharing and awareness-raising efforts. Low student participation and limited understanding of the QAS process were highlighted as areas for improvement. Engaging students more actively in committees and providing them with training and support were suggested as potential solutions.

One respondent raised the question of whether the current QAS framework needs to be reviewed and adapted to the present context. Ongoing evaluation and flexibility in responding to changing needs were emphasized for sustained improvement. The need for regular training programs for QAS officers, particularly those conducting internal audits, was identified. Providing faculty members with access to QAS workshops and training opportunities can further enhance their understanding and involvement. Establishing clear and standardized criteria for implementing the QAS process was suggested as a way to ensure consistency and effectiveness.

## 4. Discussion

The study revealed a significant improvement in awareness and attitudes after the IQA training workshop. However, certain challenges, such as confusion about the functional place of the QA unit and concerns about disturbing academic freedom, persist, indicating the need for ongoing efforts in awareness-building and perception management. It needs to encourage organizational culture to improve self-awareness and quality culture in the institution. Rahnuma pointed out that the participants highly valued staff development as a crucial prerequisite for enhancing the caliber of staff and integrating quality control [15]. For the development of a strong organizational culture in a Higher Education Institution (HEI), it is essential to implement a learning and teaching approach that involves both staff and students. Implementing a top-down method to attain quality goals is not effective, as HEIs need to establish their quality management measures [15].

However, the participants in this study demonstrated var-



ying levels of experience and awareness, with unanimous recognition of the need to strengthen the IQA framework by adhering to international guidelines and fostering a culture of continuous improvement. This study also highlighted the positive impacts of the IQA process, such as curriculum changes and improvements in teaching methods, while acknowledging challenges in transitioning to a student-centered approach and limited engagement in some departments. The challenges may vary depending on the context and needs of the institution. The study in Bangladesh's HEIs highlights superior curriculum quality, but challenges persist in stakeholder involvement and feedback evaluation, as well as facility quality issues [16].

The attitudes of faculty members towards the IQA process varied, with some viewing it as an extra burden and others recognizing its necessity for document organization and quality control. These findings of the present study are in line with the previous literature, which showed that there are many critics of bureaucracy and extra workload in IQA [17-19]; however, if IQA is done correctly, it would improve the quality of the institutions [20].

To establish quality control and IQA processes sustainably, teamwork and collaboration among faculty members are essential, and it is questionable their belief in the quality management system of the institution. A review of the literature found that, as faculty participation has a major impact on the ongoing quality improvement of teaching and learning, faculty engagement and program success are closely related to internal quality assurance (IQA) of academic programs [21]. The main challenge is developing quality assurance processes due to universities lack a strategic plan and quality assurance unit, and despite expertise, most departments fail to follow recommendations [16]. The practice of faculty members in the internal quality assurance process showed varying levels of involvement, with diverse roles played within the QAS process. Encouragement from department heads and sustained efforts to increase understanding were identified as crucial factors in promoting faculty participation.

Concerns about the perceived disconnection within the QAS process were raised, requiring greater coherence and systematic implementation. Suggestions included assigning dedicated officers, enhancing practical connection, regular training, clear implementation criteria, and ongoing evaluation. Internal quality assurance in higher education involves standards, procedures, planning, and evaluation to encourage and enable individuals to achieve organizational interests, and it needs to create shared perspectives and provide basic values, purpose, and direction for the organization [8]. The study at UAJJ highlights the importance of maintaining the health of higher education institutions through consistent internal quality assurance management and academic quality, as reflected in the three core values of student learning, research, and community service [11].

In summary, this study indicates that while there has been progress in raising awareness and improving attitudes towards

the IQA system at DSMA, there are still challenges and areas for enhancement. To reinforce the IQA framework and promote quality culture at DSMA, the findings highlight the significance of a collaborative and continuous improvement strategy encompassing leadership among all stakeholders.

## 5. Conclusions

The current research emphasizes higher education's IQA improvements and problems. The research stresses the necessity of promoting self-awareness and practices in the workplace. It also emphasizes a holistic and inclusive approach to learning and teaching to create a good learning environment. This study also highlights that institutions must tailor quality management to our environment and goals. The research focuses on teamwork, consistent effort, and cohesive tactics to overcome these challenges. Future research should explore strategies to enhance faculty and student involvement to meet the educational outcomes in DSMA. Additionally, comparative studies with other institutions could provide insights into best practices for implementing and maintaining a robust IQA framework. Addressing these areas could help DSMA and similar institutions advance towards a more integrated and effective quality culture. In this way, DSMA could manage higher education in IQA by boosting its quality culture and educational landscape soon.

## Abbreviations

DSMA	Defence Services Medical Academy
EQA	External Quality Assurance
HEI	Higher Education Institution
IM	International Mobility
IQA	Internal Quality Assurance
MMC	Myanmar Medical Council
MMCAC	Myanmar Medical Council Accreditation Committee
PBL	Problem-Based Learning
QA	Quality Assurance
QAS	Quality Assurance System
SPSS	Statistical Package for the Social Sciences
UAJJ	Atma Jaya Catholic University, Jakarta
WFME	World Federation for Medical Education
WHO	World Health Organization
WMA	World Medical Association

## Supplementary Material

The supplementary material can be accessed at <https://doi.org/10.11648/j.her.20240903.13>

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## Author Contributions

**Mo Mo Than:** Principal Investigator, Corresponding Author, Conceptualization, Formal Analysis, Funding acquisition, Visualization, Methodology, Project administration, Writing – review & editing

**Ye Phyo Aung:** Conceptualization, Resources, Visualization, Methodology, Project administration

**Aung Paing Paing Soe:** Data curation, Software, Formal Analysis, Visualization, Methodology, Writing – review & editing

**Yan Naing Soe:** Data curation, Software, Formal Analysis, Validation, Visualization, Writing – original draft, Writing – review & editing

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

**Khine Kyaw Oo:** Data curation, Software, Formal Analysis, Investigation, Visualization, Methodology

**Tun Tun Naing:** Data curation, Software, Formal Analysis, Investigation, Visualization, Methodology, Writing – original draft, Writing – review & editing

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

**Zaw Phyo:** Data curation, Software, Formal Analysis, Investigation, Visualization, Writing – original draft

**Si Thu Tun:** Data curation, Software, Visualization

**Marlar Than:** Conceptualization, Supervision, Validation, Methodology

**Titi Savitri Prihatiningsih:** Conceptualization, Supervision, Validation, Methodology

## Data Availability Statement

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

## Conflicts of Interest

The authors declare no conflicts of interest.

## Appendix

[https://docs.google.com/forms/d/19HNBbqwXd9wleo\\_Mf dtJInJbmJuTPWVRugV2tKngTBI/edit?usp=drivesdk](https://docs.google.com/forms/d/19HNBbqwXd9wleo_Mf dtJInJbmJuTPWVRugV2tKngTBI/edit?usp=drivesdk)

<https://docs.google.com/forms/d/1w6HI46MuoTnZ-IM277 ri1BTbVk0AC4QgyUauo65s918/edit?usp=drivesdk>

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## Biography



**Mo Mo Than** is a Professor and Head of the Department of Biochemistry at Defence Services Medical Academy (DSMA), Myanmar. She graduated MBBS degree in 1995. She obtained a PG Diploma in Biotechnology (1998), MMedSc (Biochemistry) (2000) & Diploma in Medical Education (2007). Then she earned PhD (Biochemistry) in 2011. She's devoted to research, particularly in Molecular Genetics, Clinical Biochemistry, Endocrinology, Medical Education, and population genetics. She received training in research ethics from the University of Maryland, Baltimore, USA, in 2015, and became a FAIMER fellow (FFRI) in 2022. She's won accolades for her work and produced multiple publications both locally and internationally.



**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 2016, and his fellowship from the International Association of Medical Science Educators in 2023. 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 medical education fields in recent years. He currently serves as Secretary, Chair, Speaker, and Judge at national and international conferences.



**Aung Paing Paing Soe**, born on March 30, 1980, in Myanmar, is a Biochemist with many qualifications. He got his MBBS from Defence Services Medical Academy (DSMA) in 2005, then an MMedSc in Biochemistry in 2011, and a PhD in Medical Biochemistry in 2022, all from DSMA. He also has a Diploma in Medical Education from DSMA in 2015. Living in Yangon, Myanmar, he worked as a Medical Officer, demonstrator, and assistant lecturer at DSMA before becoming a Biochemist at the Defence Services Medical Research Center in Nay Pyi Taw, Myanmar. He's experienced in teaching and does research on various topics, like clinical Biochemistry and population genetics.



**Yan Naing Soe** completed his MBBS in 2007, followed by an MMedSc in Biochemistry in 2012. He pursued his Doctor of Medicine (MD) in Biochemistry from 2017 to 2020 at the Armed Forces Medical College (AFMC), Pune, India. He received the Gold Medal Prize of AFMC for his outstanding performance in the MD (Biochemistry) exam held by Maharashtra University of Health Sciences (MUHS), Nashik, India. In 2022, he earned a Diploma in Medical Education. Currently, he is a PhD candidate in Medical Biochemistry at the Defence Services Medical Academy (DSMA), Yangon, Myanmar. Dr. Yan Naing Soe has contributed to numerous international publications in Clinical Biochemistry.



**Hein Htike** is a highly educated professional in the field of Medical Biochemistry. He earned his MBBS degree in 2006, followed by an MMedSc in Biochemistry in 2013. Continuing his academic journey, he obtained a Diploma in Medical Education in 2016 and completed his PhD in Medical Biochemistry in 2022. Dr. Hein Htike currently serves as an affiliated faculty member at the Military Institute of Nursing and Paramedical Sciences (MINP) in Yangon, Myanmar. His primary interest lies in the fascinating world of Molecular Biology, to which he dedicates his expertise and passion.

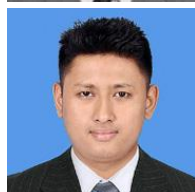




**Khine Kyaw Oo** is an accomplished researcher with a PhD in Immunology from Mahidol University (2019). His doctoral thesis focused on developing a peptide antagonist against Periostin to tackle doxorubicin resistance in breast cancer. He earned his MMedSc in Biochemistry from DSMA in 2012, investigating plasma vitamin C and malondialdehyde levels in chronic alcoholic drinkers. Dr. Khine Kyaw Oo holds an MBBS from DSMA (2007). His accolades include the Young Researcher Award (2014), the Consolation Prize (2014, 2018), and the Siriraj Scholarship (2015–2019). He's published in esteemed journals and is a member of several scientific societies, with interests spanning Immunology and Molecular Biology.



**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). He also participates in local and international medical education and public health research.



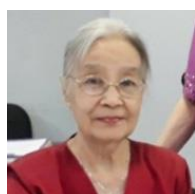
**Tayzar Hein** is a distinguished medical educator at the Defence Services Medical Academy in Yangon, Myanmar. Beginning his career with an MBBS in 2006, he served in military medical roles. He earned a Master of Disease Prevention and Control (MMedSc) in 2012. Transitioning to education in 2016, he 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 Phyto** 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 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 Phyto's commitment enhances the quality of medical training at DSMA.



**Si Thu Tun** was born in Yangon in 1984. He studied Physiology and Medical Education at the Defence Service Medical Academy. With a passion for Medical Education & Research, he embarked on a career in Medical Education & Research. Throughout his journey, Dr. Si Thu Tun has achieved notable accomplishments, such as working as an assistant secretariat at the Ethical Board of Defence Service Medical Academy and introducing student-led objective tutorials at Defence Service Medical Academy. He is known for his dedication to Quality Medical Education, and his work has implemented a modern teaching environment in the Defence Service Medical Academy. Currently, Dr. Si Thu Tun resides in Yangon, where he continues to develop medical and educational development as an administrator of the Moe Kaung Nursing Training Program.



**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.



**Titi Savitri Prihatiningsih** is a Professor in Medical Education and Bioethics at the Faculty of Medicine at Universitas Gadjah Mada in Yogyakarta, Indonesia. She finished her MD at Universitas Gadjah Mada in 1993, then went on to study health management, planning, and policy at Leeds University in the UK. Later, she earned her Master and PhD in Medical Education from Dundee Medical School. She holds various roles, including President of SEARAME, Secretary of the Indonesian College of Medicine, and member of several important councils and boards. Her work focuses on curriculum development, quality assurance, social accountability, and accreditation in health profession education. She has published many books and articles on these topics.

## Research Field

**Mo Mo Than:** Medical and Health Sciences, Biochemistry, Molecular Biology, Medical Ethics, Medical Education, Population Genetics

**Ye Phyto Aung:** Medical and Health Sciences, Medical Education, Clinical Research

**Aung Paing Paing Soe:** Medical and Health Sciences, Biochemistry, Molecular Biology, Medical Education, Population Genetics

**Yan Naing Soe:** Medical and Health Sciences, Clinical Biochemistry, Molecular Biology, Medical Education

**Hein Htike:** Medical and Health Sciences, Biochemistry, Molecular Biology, Medical Education

**Khine Kyaw Oo:** Medical and Health Sciences, Biochemistry, Molecular Biology, Medical Education, Immunology

**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 Phyoe:** Medical and Health Sciences, Preventive and Social Medicine, Public Health, Medical Education

**Si Thu Tun:** Medical and Health Sciences, Physiology, Medical Education

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

**Titi Savitri Prihatiningsih:** Medical Education, Teacher Education, Educational Technology, Teaching Methods, Medical and Health Sciences, Public Health and Nursing