

IMPACT OF BASIC FORMAL TEACHER TRAINING ON THE TEACHING SKILLS OF DOCTORS IN A MEDICAL SCHOOL AFTER THE COVID-19 PANDEMIC

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ABSTRACT: This study explored the impact of formal basic teacher training on the lecturing skills of physicians who serve as faculty in a Philippine medical school after the COVID-19 pandemic. An investigative mixed-method triangulation methodology was utilized to examine data collected from three groups: the faculty themselves, their supervisors, and medical students. They were asked about the lecturing skills of the faculty focusing on five areas: explaining learning objectives and outcomes, selecting content, creating audio-visual aids, using effective communication skills, and managing virtual classrooms. Based on the recorded answers to three different validated questionnaires and the responses to three different focused group discussions, the formal teacher training course helped enforce the importance of explaining the learning objectives and outcomes but only provided minimal contributions as far as selecting content, creating audio-visual aids, using effective communication skills, and no contributions in managing virtual classrooms were concerned. Because post-pandemic classrooms have maintained indispensable virtual class settings, basic teacher training courses must emphasize upgrading the faculty's online lecturing skills, especially in content selection, audio-visual aids creation, effective communication, and virtual classroom management.

Keywords: teacher training, teaching skills, medical school, COVID-19

1. INTRODUCTION:

Faculty Entry Competencies in Philippine Medical Schools

Philippine medical schools employ almost exclusively licensed physicians to comprise their teaching staff. They conventionally select their medical teachers to comprise their teaching staff based on knowledge of content, clinical skills, and teaching capabilities due to their own experience of how they were taught (Cate et al., 2014; Lim and Choy, 2014 as cited by Bilal, 2017) [1] rather than their educational knowledge (Kamel, 2016). [2] The University of the East Ramon Magsaysay Memorial Medical Center (UERMMMMC) College of Medicine currently maintains a staff of 294 medical specialists, who are content experts in the 17 major medical disciplines needed to teach the medical curriculum prescribed by the Commission of Higher Education (CHED) and Philippine Regulatory Commission (PRC). Over the last three decades, the medical teaching staff is expected to possess not only content expertise in medicine, but also appropriate skills and qualifications for teaching in higher education curricula that change perpetually to address the expanded scope of knowledge, educational technologies, and active teaching approaches.

Doctors who teach in medical schools are required to undergo teacher training courses to complement their content expertise with formal andragogy [3]. Most medical schools offer a variety of programs and activities to help faculty improve their skills as teachers and educators (Steinert, et al as cited by Wijnen-Meijer, [4]

In the Philippines, to capacitate the medical faculty in meeting the new standards set for medical education, the Association of Philippine Medical Colleges (APMC) from 2015 to 2018 has conducted a series of in-service seminar workshops designed to equip the faculty to perform their professional roles as instructional designers, facilitators of learning, assessors of student achievement, and educational leaders and managers as part of their continuing professional

development (CPD) initiatives and meet the requirements of Republic Act (RA) 10912. Sana *et al.*, [5] At UERMMMMC, faculty members are required to undergo a formal basic teacher training course that includes seminars and workshops mainly on adult pedagogy, the creation of learning outcomes, applying appropriate teaching-learning activities, and assessment. This basic teacher training course is part of a larger faculty development program (FDP) which includes personal and professional leadership coaching and research capacitation. These physician-teachers need to be trained enough to deal with the rapid changes and shifting paradigms in medical education, health care delivery systems, and clinical care.

Faculty development refers to a range of activities that are perceived to help academicians improve their professional skills that are vital for carrying out their teaching, research, or administrative activities in medical education (Kwan *et al.*, 2009 as cited by Bilal, 2017; Alsagheer, 2021). [1] [6] Faculty development in medical education was defined as planning and undertaking activities to improve the teaching skills of medical faculty, designing improved curricula, and enhancing the overall culture of medical school institutions (McLean et al 2008 as cited by Alhassan, 2020) [7] At UERM College of Medicine, FDPs are tasked with the Medical Education Unit (MEU) and the Research Institute for Health Sciences (RIHS). More specifically, the Faculty Teacher Training Committee and the Faculty Development Committee under the MEU provide teacher training and professional development respectively. RIHS conducts research training for the faculty. All faculty members of the College of Medicine are required to attend the Basic Teacher Training Course before being allowed to handle curricular delivery to the medical students. According to Gunersel [8], teachers who attended workshop-based courses had improved their teaching and assessment methods. It is generally perceived that the UERM College of Medicine faculty members have benefitted from these training and development programs.

The COVID-19 Pandemic and Commission on Higher Education Response for Philippine Medical Education

Traditionally, medical education is delivered through a variety of face-to-face, campus-focused activities. For decades, doctors, nurses, and allied health professionals have been trained by observing and learning from experienced clinical practitioners through work-integrated learning, like the “apprenticeship model” (Bleakley, as cited by Kumar, *et al.*). [9]

However, due to the COVID-19 pandemic all in-person opportunities for formal and informal learning have ceased and health professional courses have been required to move to exclusive delivery through online education (Alsuyihili, *et al.*, as cited by Kumar, *et al.*, [9]. In 2020, UNESCO reported the widespread effects of the COVID-19 pandemic on the political, economic, cultural, educational, and medical landscapes. Schools were shut down leading to stoppages in all transmission of formal education to around 87% of students worldwide. By March 2020, the pandemic of the coronavirus disease 2019 (COVID-19) forced medical schools in the Philippines to stop face-to-face learning activities and shift to an online curriculum. Before the COVID-19 pandemic, medical schools in the Philippines had never had to implement online learning on this massive scale. The Commission on Higher Education’s guidelines on the Doctor of Medicine program had not set standards and minimum resource requirements for online learning. (Baticulon *et al.*, 2021) [10] In 73 Philippine medical schools, the pandemic has forced radical changes in medical academic activities both in the classroom and hospital wards. The Philippine Commission on Higher Education (CHED) and the Association of Philippine Medical Colleges (APMC) issued advisories on vaccination, emergency responses, and alternative guidelines for students at the medical schools to continue the academic activities of all 73 medical schools. Medical schools are forced to adapt to infection control and prevention measures by shifting activities to online learning. (Rahayu, 2020) [11]

Online education is the delivery of learning materials using the internet for student-student and student-teacher interaction and for distributing educational materials (Kumar, *et al.* 2021). [9] A study by Motte-Signoret, *et al.* in 2021 [12] showed that 89% of students strongly agreed that online teaching was an appropriate way of delivering courses during the Covid-19 pandemic. In the Philippines, to address the need for improved educator skills, within days of the suspension of classes, the faculty of Ateneo School of Medicine and Public Health convened the first of a series of in-service sessions on remote teaching and online learning. (Baquiran and Plata, 2022). [13] In UERMMM, the medical faculty members had to deliver the curriculum exclusively via e-learning from 2020 to 2022. Online learning has required adjustment by both teachers and learners to adapt to new learning styles with a focus on active learning and technological support required for the delivery of teaching (Jowsey, *et al.*, 2020 as cited by Kumar, *et al.* 2021). [9] The curriculum had to undergo a major revision in content, teaching-learning activities, and assessments otherwise medical school calendar would delay the students. The faculty was forced to review the curricular content and reduce

them to the most essential. They limited their teaching strategies based on their capability to comprehend new online teaching apps and forego other curricular activities like laboratories and preceptorial rounds. Lastly, they had to contend with the proctoring of online exams and evaluate students based on available indicators.

Persistence of Online Distance Virtual Lectures

Medical education models should be improved according to the actual situation to ensure the quality of teaching while taking into account the physical and psychological health of students [14]. When the pandemic was declared controlled in July 2022, educational institutions must recognize and comprehend the short and long-term effects of the pandemic on their curriculum. All the academic activities of the Philippine Medical Schools gradually normalized and attempted to return to pre-pandemic operations. While curricular content was reverted and face-to-face examinations were re-established, the teaching mode of teachers and students was still facilitated by online delivery of the curriculum. In recent years, medical education and online education have shown a good trend of complementing and promoting each other. There is even an increasing trend of reliance on continuously observing COVID-19 protocols in school-hospital settings (Deng, *et al.*, 2023) [14]. Virtual lectures are already considered the norm in current medical education, especially in large class environments. According to the study of Stoian *et al.* in 2022, students prefer teachers to use electronic educational resources in face-to-face **learning activities** (online materials for lectures and practical activities) [15]. At UERMMM, the College of Medicine Faculty has adopted virtual lectures as the main strategy to deliver medical knowledge at all year levels. There is a broadening consensus on the importance of teaching quality that has emerged during an era of increasing educational accountability. (Atkinson *et al.* 2009; De Fraine *et al.* 2002; Leithwood and Earl 2000; Liu and Zhao 2013; Flores 2012; Walker and Ko 2011 as cited. by Bilal, 2017). [1] FDPs fill the role of perpetually endorsing educational improvements and strategies (Ghazvini, *et al.*, 2014; Jones *et al.*, 2015 as cited by Bilal, 2017) [1]. At UERM, the basic teacher training course has continued to guide the faculty with their modular seminars and workshops to address the faculty’s need to be taught adult pedagogy, creation of learning outcomes, selection of content, application of appropriate teaching-learning activities, and assessment. However, the faculty find themselves improvising by relying on their initiatives to learn and navigate their online lecturing skills. The emergence of virtual classes has identified new competencies: the use of learning management platforms, online teaching strategies, and the management of virtual classes. The main contention of most of the faculty is that physical and virtual lecturing are very similar and produce the same efficiency as far as content delivery. In the study by Motte-Signoret, *et al.*, 2021 [12], about one-third of the respondents thought that this kind of online curriculum should continue after the resolution of the crisis. There were significant differences of feeling among types of learners, with medical students disagreeing or strongly disagreeing with the proposal of continuing online teaching after the crisis has resolved. There are indisputable logistic advantages of not requiring a large physical

classroom and the flexibility to pre-record and preview lectures which are very suitable for the self-paced strategy and self-study methods of learning behavior of modern-day students. The general perception of the low level of engagement in both physical and virtual lecturing is hardly felt and the use of new technology in medical andragogy is excessive and distracting. However, there is no formal research to substantiate this claim. The impact of this change to teaching and learning, on both learners and teachers, is largely unknown (Kumar, et al, 2021) [9]

Objectives of the Study

This study investigates the impact of basic formal teacher training on the lecturing skills of doctors in a medical school after the COVID-19 pandemic. The perspectives of the UERM College of Medicine faculty, their supervisors, and students will supply data and context as to the relevance and appropriateness of mandatory teacher training despite the increasing reliance on virtual platforms for lectures.

The research aims to justify the current program or provide a basis for modification. More precisely, this paper determines the level of effectiveness of the basic teacher training course as reflected in the lecturing performance of the faculty in terms of:

1. Explaining the intended learning objectives and outcomes
 - i. Aligning with the program and course objectives of the curriculum and syllabus respectively
 - ii. Integrating with the previous and future lectures
 - iii. Aligning with the content, teaching-learning activities, and evaluation tools
2. Selecting content
 - i. Appropriating correct, concise, and complete content
 - ii. Applying updates from the latest clinical practice guidelines
- iii. Curating related research
3. Designing audio-visual aids
 - i. Applying appropriate visual designs
 - ii. Utilizing suitable online platforms
4. Utilizing effective communication skills
 - i. Using clear and fluent verbal communication
 - ii. Using applicable non-verbal communication
5. Managing the classroom environment
 - i. Using proper time management
 - ii. Encouraging relevant student participation

2. MATERIALS AND METHODOLOGY

Research Design

This study used a mixed method by using quantitative data generated by validated questionnaires administered to faculty, faculty supervisors, and students, and qualitative themes of contextual analysis from focused group discussions by faculty and students.

Samples and sampling techniques

The study included exclusively the faculty members and students of the UERM College of Medicine.

The first group was the supervisors, or “middle managers” composed of the department heads and academic coordinators who were purposively selected from the 17 departments because of their knowledge of their colleagues’

teaching proficiency, specifically their lecturing skills. The second group was the faculty members who were requested to rate their lecturing skills. The third group was the students who were requested to rate their teachers’ lecturing skills.

For each group, there were 10 members selected to comprise a focus discussion group to be interviewed and provide a context of the data generated from the questionnaires. For the first group, five faculty staff from the basic sciences and five faculty staff from the clinical sciences were purposively and conveniently chosen for better representation across departments. For the second group, another set of ten faculty staff (5 each from the basic and clinical sciences) were chosen separately from the participants of the initial questionnaire. In the last group, another set of ten students (4 freshmen, 3 sophomores, and 3 juniors) were chosen separately from the participants of the initial questionnaire. The participants for focus groups two and three were selected from those who didn’t answer the questionnaire to prevent them from having preconceived biases during the discussions and to let them interpret their colleagues’ answers.

Research Locale

The study was conducted at UERM College of Medicine from October 2023 to January 2024.

Data Collection

Quantitative data was collected using three separate validated questionnaires previously developed to evaluate a faculty based on lecturing performance. It is implemented by the MEU Secretariat through a Google Form incorporated in the Canvas Learning Management System that was implemented during the pandemic.

The first questionnaire is a peer evaluation administered to the faculty supervisors who observed the lecturer. The second questionnaire is a self-evaluation administered to the faculty who delivered the lecture. The third questionnaire is a student evaluation administered to the class of students who listened to the lecturer. All the questionnaires were answered immediately after the lecture by the faculty.

The questionnaires included several open-ended questions for comments. These comments were discussed and contextualized by three groups of ten composed of faculty members and students in a focused group discussion. Emerging themes from the perspectives of the members of the focus groups were analyzed and triangulated with the quantitative data.

3. RESULTS:

Peer Evaluation

There was a total of 386 respondents to the study. Thirty-four (34) respondents from the first group of faculty supervisors, 123 respondents from the second group of faculty self-evaluators, and 209 respondents from the third group of student assessors. Three groups of 10 participants from each group comprised the focused groups. The participants in groups two and three did not answer the questionnaires.

The first group of supervisors (n=34) was composed of 17 department heads and 17 academic officers of each department. They represented 100% of the targeted responders for this group as all participated in answering the questionnaire.

Table 1. Analysis of Lecturers' Explanation of Intended Learning Objectives and Outcomes according to Faculty Supervisors' Evaluation (n=34)

Assessment	n	%
Excellent	14	41.18
Above average	9	26.47
Average	10	29.41
Poor	1	2.94

The supervisors gave their peers respectable ratings of excellent (41.18%) and above average (26.47%) when asked to assess their faculty's performance in explaining the intended learning objectives and outcomes of their assigned lectures. The first focus group attributed the Basic Teacher Training Course to the heightened awareness of the faculty to explain the alignment of the intended learning objectives and outcomes with the program and course objectives and outcomes at the beginning of their lectures. They noted that the faculty members lecturing at the beginning of the semester were more active in explaining the learning outcomes of their lectures while those lecturing in the middle of the semester placed more emphasis on aligning the learning outcomes of previous and succeeding lectures. They noted that they didn't recall any mention of alignment with other aspects of the instructional design (content, teaching-learning activities, and evaluation) throughout the observation period.

Table 2. Analysis of Lecturers' Selection of Content according to Faculty Supervisors' Evaluation (n=34)

Assessment	n	%
Excellent	16	47.06
Above average	15	44.12
Average	3	8.82
Poor	0	0

The supervisors highly rated their peers as excellent (47.06%) and above average (44.12%) when asked to assess their faculty's performance in selecting content for their lectures. The first focus group didn't attribute the Basic Teacher Training Course to the excellent or above-average capacity of the faculty lecturers to select appropriate content for their lectures. They would rather credit the educational background of the faculty as the main reason why they choose correct, concise, and complete content. They also added that the faculty staff teaching the clinical sciences can apply updates from the latest clinical practice guidelines and curate related research better than the basic science faculty.

Table 3. Analysis of Lecturers' Creation of Effective Audio-Visual Aids according to Faculty Supervisors' Evaluation (n=34)

Assessment	n	%
Excellent	3	8.82
Above average	19	55.88
Average	11	32.35
Poor	1	2.94

The supervisors rated their peers mainly as above average (55.88%) and average only (32.35%) when asked to assess their faculty's performance in creating effective audio-visual aids for their lectures. The first focus group partially

attributed the Basic Teacher Training Course the faculty lecturers' capability to create effective audio-visual presentations. They estimated that 90% used Microsoft PowerPoint, 9% used Macintosh Keynote and less than 1% used Canva. They claimed that they already knew how to use these computer applications but were limited only to superficial functions. They mentioned that more workshops focused on animation, external links, and the use of creative templates are needed during basic teacher training. They suggested that there must be a separate module on maximizing the audio-visual capabilities of Zoom as an online platform.

Table 4. Analysis of Lecturers' Communication Skills according to Faculty Supervisors' Evaluation (n=34)

Assessment	n	%
Excellent	15	44.11
Above average	13	38.24
Average	6	17.65
Poor	0	0

The supervisors rated their peers highly as excellent (44.11%) and above average (38.24%) when asked to assess their faculty's communication skills during their lectures. The first focus group minimally attributed the Basic Teacher Training Course to the faculty lecturers' communication skills. They claimed that the lecturers are highly effective speakers due to their experience communicating with different audiences (mentors, co-residents, fellow trainees, nurses, patients, etc.) during their medical training. They observed that even the soft-spoken lecturers are made audible on Zoom. They assert that those in the clinical sciences also have more experience speaking in front of large audiences during specialty conventions and conferences. They mentioned that the basic teacher training course on communication skills, both verbal and non-verbal, and the art of lecturing was designed more for live lecturing and was ineffective in online lecturing.

Table 5. Analysis of Lecturers' Classroom Management Skills according to Faculty Supervisors' Evaluation (n=34)

Assessment	n	%
Excellent	16	47.06
Above average	14	41.18
Average	4	11.76
Poor	0	0

The supervisors rated their peers highly as excellent (47.06%) and above average (41.18%) when asked to assess their faculty's classroom management skills during their lectures. The first focus group didn't credit the basic teacher training course for the faculty lecturers' classroom management skills. They observed that face-to-face versus online lecturing required different sets of classroom management skills. The basic teacher training course only touched on face-to-face scenarios. They added that online class management required another faculty to monitor student participation while the lecturer was delivering the lecture. Another faculty moderator should oversee checking for Wi-Fi connections, screen sharing functions, chat monitoring, and screen attendance and participation. They noted that since portions of lectures were pre-recorded, the time to view the video and then explain would sometimes extend the lecture beyond the allocated

schedule.

Self-Evaluation

There were 123 faculty respondents to the questionnaire for self-evaluation. There were 44.7% (n=55) from the basic sciences 53.7% (n=66) from the clinical sciences and 0.016% (n=2) unidentified.

Table 6. Analysis of Lecturers’ Explanation of Intended Learning Objectives and Outcomes according to Faculty Self-Assessment (n=123)

Assessment	n	%
Excellent	78	63.42
Above average	44	35.77
Average	1	0.81
Poor	0	0

The faculty gave themselves very high ratings of excellent (41.18%) and above average (26.47%) when asked to assess their performance in explaining the intended learning objectives and outcomes of their assigned lectures. The second focus group attributed the basic teacher training course for their high compliance to explaining the intended learning outcomes and objectives to start their lectures. They considered these steps as a “calibrating” measure that aligns their lecture with the course. They also thought that explaining their objectives and outcomes provided a “location” for their lecture in the course map about other topics in the course. They admitted that without the basic teacher training course on learning objectives and outcomes, they would not emphasize this aspect in their lecture. While they were aware that their learning objectives and outcomes should be aligned with the content, teaching-learning activities, and evaluation tools, they didn’t have to explain it in class.

Table 7. Analysis of Lecturers’ Selection of Content according to Faculty Self-Assessment (n=123)

Assessment	n	%
Excellent	53	43.09
Above average	61	49.59
Average	8	6.50
Poor	1	0.81

The faculty gave themselves very high ratings of excellent (43.09%) and above average (49.59%) when asked to assess their performance in selecting the content of their assigned lectures. The second focus group minimally attributed the basic teacher training course to their selection of content for their lectures. They claimed that their background as content experts already provided ample basis as to what should be included in the lectures. The only contributions of the basic teacher training course to content selection were limiting the scope based on the learning outcomes appropriate for the student’s year level and presenting in a stepwise manner from simple to more complex knowledge. They also noted that the basic teacher training course also basic teacher training course reminded them to include provisions of the Universal Health Care Law on what a primary health care physician should be able to know and perform. However, the details of

their overall content was still based on previous knowledge from past medical training.

Table 8. Analysis of Lecturers’ Creation of Effective Audio-Visual Aids according to Faculty Self-Assessment (n=123)

Assessment	n	%
Excellent	78	63.42
Above average	44	35.77
Average	1	0.81
Poor	0	0

The faculty gave themselves very high ratings of excellent (63.42%) and above average (35.77%) when asked to assess their effectiveness in creating audio-visual aids for their assigned lectures. The second focus group minimally attributed the basic teacher training course for their creation of effective audio-visual aids used for their lectures. They said that their skills in using Microsoft PowerPoint still relied on their past experience. The basic teacher training course just gave them simple pointers regarding font sizes, color and contrast, and the amount of visual content per slide but did not provide enough hands-on training on more advanced functions of Microsoft PowerPoint like animations and insertion of downloadable videos. However, despite a small craving to visually improve their slide decks, they still consider a simple presentation to be adequate for transferring knowledge if all the facts are posted to serve as students’ notes. They claim that they just serve to aid their discussion and should not distract students from the important concepts being taught. They reported that during the pandemic, they tried to infuse gamification apps in their slides which generated more participation from the students, but the transfer of knowledge was similar.

Table 9. Analysis of Lecturers’ Communications Skills according to Faculty Self-Assessment (n=123)

Assessment	n	%
Excellent	64	52.03
Above average	57	46.34
Average	1	0.81
Poor	1	0.81

The faculty gave themselves very high ratings of excellent (52.03%) and above average (46.34%) when asked to assess their communication skills during their assigned lectures. The second focus group gave minimal credit to the basic teacher training course for their communication skills during their lecture. They claimed that their speaking prowess was already evident before they entered teaching. The basic teacher training course mainly focused on giving tips on speaking live in front of a large audience which is rarely conducted even after the pandemic because of convenience. The basic teacher training course however indirectly helped them communicate with young learners in their lecture on adult andragogy. They said that although content delivery via verbal communication was straightforward, they must be reminded of how best to talk to the millennial and Generation Z students. The use of “taglish” and emojis is deemed helpful in eliciting responses from a silent virtual audience.

Table 10. Analysis of Lecturers' Classroom Management Skills according to Faculty Self-Assessment (n=123)

Assessment	n	%
Excellent	29	23.58
Above average	69	56.09
Average	22	17.89
Poor	3	2.44

The faculty gave themselves respectable ratings of excellent (23.58%), and above average (56.09%) when asked to assess their classroom management skills during their assigned lectures. The second focus group did not attribute any benefit from the basic teacher training course for their virtual classroom management because there were no seminars or workshops for this purpose. However, they still rated themselves high in this skill because of the inherent feature of the Zoom platform to control and monitor the conduct of the audience. Unwarranted noise and inappropriate screens may be muted or turned off. Because many lectures employed pre-recorded videos, the time allotment to deliver content was predictable. When the recorded lecture was not clear, the lecturers resorted to using the chat box and Canvas discussion boards to expound on the topic eliminating the need to extend class hours. The main problem for class management was internet connectivity or technical issues including uploading and downloading large files, livestreaming, and low understanding of Zoom functions. They suggested that a new course on online class management be included as a separate topic in the basic teacher training course.

Student evaluation

There was a total of 209 student respondents to the study. There were 51.2% (n=107) freshmen, 31.6% (n=66) sophomores, and 17.2% (n=36) juniors. Note that all didactic lectures are only delivered from year levels I to III. There are no more didactic lectures during senior year as they are purely assigned clinical rotations. The ten students who volunteered for the focus group discussions did not answer the questionnaire to prevent any preconceived bias before the focus group discussions. The third focus group was informed that their teachers attended Basic Teacher Training Courses before they were allowed to lecture.

Table 11. Analysis of Lecturers' Explanation of Intended Learning Objectives and Outcomes according to Student Evaluation (n=209)

Assessment	n	%
Excellent	86	41.15
Above average	96	45.93
Average	22	10.53
Poor	5	2.39

The students gave their lecturers very high ratings of excellent (41.15%) and above average (45.93%) when asked to assess their teachers' performance in explaining the intended learning objectives and outcomes during their lectures. The third focus group noted that the learning objectives and outcomes were always mentioned at the start of the lectures but were explained with waning consistency towards the end of the semester. They appreciated that the importance of learning outcomes was explained early in the

semester and that they already formed the habit of incorporating the learning objectives when studying the details of the content towards the end of the semester. They claimed minimal awareness that the learning outcomes and objectives must be integrated with previous and future lectures and aligned with the content, teaching-learning activities, and evaluation tools of the lecture.

Table 12. Analysis of Lecturers' Selection of Content according to Student Evaluation (n=209)

Assessment	n	%
Excellent	52	24.88
Above average	106	50.72
Average	47	22.49
Poor	4	1.91

The students gave their lecturers respectable ratings of excellent (24.88%) and above average (50.72%) when asked to assess their teachers' performance in selecting content for their lectures. The third focus group believed that the faculty lecturers were qualified experts in their disciplines which explains why they can select appropriate content for their lectures. They believe the extensive specialty training of the faculty is the main reason why they choose correct, concise, and complete content. They also added that the faculty staff teaching the clinical sciences can apply updates from the latest clinical practice guidelines and curate related research better than the basic science faculty.

Table 13. Analysis of Lecturers' Creation of Effective Audio-Visual Aids according to Student Evaluation (n=209)

Assessment	n	%
Excellent	67	32.06
Above average	88	42.11
Average	44	21.05
Poor	10	4.78

The students gave their lecturers respectable ratings of excellent (32.06%) and above average (42.11%) when asked to assess their teachers' performance in creating effective audiovisual aids for their lectures. The third focus group agreed that most of the faculty can use effective audio-visual presentations. They estimated more than 90% used Microsoft PowerPoint. They also understood that slide decks are merely visual aids that also serve as their notes. The students prefer audio-visual aids or pre-recorded voice-annotated slide decks saved in the Canvas LMP since they can view them during asynchronous study periods which helps them review. Overall, they are satisfied with the audio-visual aids if they are given enough time to view them repeatedly.

Table 14. Analysis of Lecturers' Communication Skills according to Student Evaluation (n=209)

Assessment	n	%
Excellent	58	27.75
Above average	111	53.11
Average	34	16.26
Poor	6	2.87

The students gave their lecturers respectable ratings of excellent (27.75%) and above average (53.11%) when asked

to assess their teachers’ communication skills during their lectures. The third focus group discussed that the faculty have good communication skills when delivering their lectures online. They notice that many faculty read their slides first and then try to discuss the contents. They mentioned the contributions of Zoom in terms of adjusting the sound levels and the use of the chat box as another form of verbal communication. They understand that virtual classes for lectures provide limited engagement for a lecturer to provoke student participation, especially in a very large audience.

Table 15. Analysis of Lecturers’ Classroom Management Skills according to Student Evaluation (n=209)

Assessment	n	%
Excellent	76	36.36
Above average	93	44.50
Average	29	13.88
Poor	11	5.26

The students gave their lecturers modest ratings of excellent (36.36%) and above average (44.50%) when asked to assess their teachers’ classroom management skills during their lectures. The third focus group reported that the faculty lecturers displayed acceptable classroom management skills. Since all lectures have been conducted online since the pandemic, the lecturers appeared to have adapted comfortably to the virtual classes. They also noted additional valuable participation of the other faculty members. Students are also comfortable with lecturers who allow them to put off their screens and participate through the Chatbox. They observe that the time allotted was generally observed and that additional topics for discussion may be continued through Canvas LMP Discussion Boards. They expressed concerns when their internet connection was unstable which forced them to shut off their screens or be disconnected.

In a separate topic discussion, when asked to prioritize basic teacher training course topics, the faculty supervisor groups requested updated courses in the creation of audio-visual aids (76.5%), and communication skills (47.1%). They admitted upgrading the technological applications of online audio-visual presentations is worth exploring even if they are comfortable that they have adequately facilitated overall learning with their lecturing skills. They identified the need for interactive, digital audio-visual multi-media apps that can replace the non-verbal communication that was lost in online teaching. They also felt that an improvement in communication skills is associated more with understanding the andragogy and mental status of Generation Z learners rather than academic factors. They concluded that the basic teacher training was still relevant but also suggested that workshops addressing areas on audio-visual creation and communication skills should not only be taught to the new faculty but also to the veteran faculty staff as a refresher course.

In a separate topic discussion, when asked to prioritize basic teacher training course topics, the faculty lecturers requested updated courses in interactive gamification and supplementary instructional videos from YouTube or Lectorio to be used in flipped classroom strategies. They suggested that the content can be delivered through a simple

but direct annotated video asynchronously but can be enhanced by highly interactive virtual applications synchronously. They expressed concerns however that these applications, although engaging might mask the actual intended learning.

4. DISCUSSION

Physicians are hired as teachers in Philippine medical schools mainly because they are content authorities in medicine rather than trained education experts. Institutional Faculty Development Programs assume teacher training and development to fill this gap to enhance curricular delivery. At UERM, a formal basic teacher training course is mandated for all faculty before being given lecturing assignments. A seminar and workshop to enhance lecturing skills include how to 1. Explain intended learning outcomes and objectives, 2. Select appropriate content, 3. Design audio-visual aids, 4. Utilizing effective communication skills, and 5. Manage the classroom environment. These five areas of lecturing were measured using validated questionnaires and focus group discussions to assess the impact of basic teacher training.

In the area of explaining learning outcomes & objectives, basic teacher training for the high was given high ratings by the three groups and was credited for the heightened awareness of the faculty to explain their alignment with the program and course objectives and outcomes. This was impactful at the beginning of the school year. The basic teacher training course was credited for the faculty’s high compliance with explaining the intended learning outcomes and objectives to start their lectures. They admitted that without the basic teacher training course on learning objectives and outcomes, they would not emphasize this aspect in their lecture. It was very important to provide a “location” for their lecture in the course map about other topics in the course. It was noticed that the practice of explaining the learning outcomes and objectives waned as the semester progressed. However, the students already appreciated the importance of the practice early in the semester and they already formed the habit of incorporating them when studying the details of the content towards the end of the semester.

In the area of selecting appropriate content, the faculty scored high in the three groups but gave minimal credit to the basic teacher training for the excellent rating. The faculty credited their extensive educational training as the main reason how they chose correct, concise, and complete content. They claimed that their background as content experts already provided ample basis as to what should be included in the lectures. The only contributions of the basic teacher training course to content selection were limiting the scope based on the learning outcomes appropriate for the student’s year level and presenting in a stepwise manner from simple to more complex knowledge. They also noted that the basic teacher training course also basic teacher training course reminded them to include provisions of the Universal Health Care Law on what a primary health care physician should be able to know and perform. However, the details of their overall content were still based on previous knowledge from past medical training. The students’ perceptions agreed with the rationale and even argued that the faculty staff teaching the

clinical sciences can apply updates from the latest clinical practice guidelines and curate related research better than the basic science faculty. Knowles Principles of Andragogy as explained by Lowe and Borkan, 2021 [16] identifies the criteria for selecting lecture content. This should guide content experts in emphasizing topics for adult learners.

In the area of designing audio-visual aids, the faculty was given only respectable scores and minimally attributed the basic teacher training for the faculty lecturers' capability to create effective audio-visual presentations. It was observed that they utilize only the basic functions of Microsoft PowerPoint. The faculty admitted the limited contributions of the basic teacher training as they still relied on their previous experience using Microsoft PowerPoint. The basic teacher training course just gave them simple pointers regarding font sizes, color and contrast, and the amount of visual content per slide but did not provide enough hands-on training on more advanced functions of Microsoft PowerPoint like animations and insertion of downloadable videos. However, the faculty defended the effectiveness despite the simplicity of their audio-visual aids because it lessens the distractions introduced by complicated animations. Their experience during the pandemic wherein they introduced gamification apps generated more participation, but the transfer of knowledge was similar. The students appreciated simple slide decks as they served as valuable notes delivered through virtual classes. According to Lowe and Borkan, 2021 [16], ineffective lecturing is delivered with heavily bulleted slides replete with large quantities of information. A well-designed slideshow is a crucial aspect of an effective presentation that incorporates both the complementary visual (written words) and the auditory channel processes (speech). Effective slide design that stimulates the visual channel while the auditory channel incorporates the speaker's words must be the focus of this specific area in basic teacher training.

In the area of utilizing effective communication skills, the faculty were given excellent ratings by the three groups. However, they only minimally attributed the basic teacher training to their communication skills. They claimed that their speaking prowess was already evident before they entered teaching and they harnessed the skill from their experience communicating with different audiences (mentors, co-residents, fellow trainees, nurses, patients, etc.) during their medical training. The basic teacher training course mainly focused on giving tips on speaking live in front of a large audience which is rarely conducted even after the pandemic because of convenience. They mentioned that the basic teacher training course on verbal and non-verbal communication skills and the art of lecturing was designed more for live lecturing and was ineffective in online lecturing. However, they credited the basic teacher training course for indirectly helping them communicate with young learners in their lecture on adult andragogy. They said that although content delivery via verbal communication was straightforward, they must be reminded of how best to talk to the millennial and Generation Z students. The students reported that the faculty have good communication skills when delivering their lectures online. According to Wilchia, 2020, the evidence suggests that virtual teaching is effective, and institutions are working to further develop these

resources to improve student engagement and interactivity. [17] Fortunately, the inherent technical advantage of Zoom to control sound levels and use emojis and chat boxes as another form of non-verbal communication was deemed helpful. They understood that virtual classes for lectures provide limited engagement for a lecturer to provoke student participation, especially in a very large audience. Lowe and Borkan, 2021[16] provided guidelines for effective communication and they include asking rhetorical questions, making learners "think of a case", showing a video, polling for responses, and writing an answer.

In the area of managing the classroom environment during their lectures, the faculty was rated highly by their supervisors and peers. However, they did not attribute any benefit from the basic teacher training course for their virtual classroom management because there were no seminars or workshops for this purpose. They observed that face-to-face versus online lecturing required different sets of classroom management skills. The basic teacher training course only touched on face-to-face scenarios. They appreciated the inherent feature of the Zoom platform to control and monitor the conduct of the audience. However, it needed another faculty to monitor student participation while the lecturer was delivering the lecture. The conduct of online classes required a different managerial skill set that was not taught in the basic teacher training. The students were more concerned with internet connectivity for their online classes than their teachers' classroom management. Lowe and Borkan, 2021 [16] enumerated several effective strategies for remote teaching. These strategies include identifying technological set-up, practicing Zoom functions like screen sharing, defining Q&A space, using breakout rooms, inviting participants to answer the chat space, providing links, and soliciting student feedback for technological improvements.

5. CONCLUSION AND RECOMMENDATIONS

Faculty development programs have emerged as a necessity in medical schools to complement the content expertise and clinical experiences of their faculty with lecturing skills. The study identified the impact of an existing teacher training course to enhance the teaching skills of content experts delivering the medical curriculum.

The teacher training course is given credit for increasing the awareness of the faculty of the importance of explaining the learning outcomes and objectives at the start of the semester. It provided alignment to course outcomes and objectives and direction within the curriculum map. However, it was given minimal credit in content selection, creation of audio-visual aids, and use of effective communication. The high scores for these areas were attributed to previous educational training and experience. Furthermore, it was not given any credit for the faculty's good classroom managerial skills because it only touched on live lectures which is now non-existent with the persistence of virtual lectures.

The findings of this study recommend that basic teacher training should continue emphasizing the importance of explaining intended learning outcomes and objectives, especially at the start of the semester to provide curricular alignment and direction. It should conduct a needs-analysis

survey to identify areas for improvement in content selection, the creation of audio-visual aids, and the use of effective communication. It should also create a new module on classroom management for virtual classes.

6. REFERENCES

- [1] Bilal, Guraya SY, Chen S. The impact and effectiveness of faculty development program in fostering the faculty's knowledge, skills, and professional competence: A systematic review and meta-analysis. *Saudi J Biol Sci.* **26**(4): 688–697 (2019)
- [2] Kamel AMF. Role of faculty development programs in improving teaching and learning. *Saudi Journal of Oral Sciences.* **3**(2) 61-68 (2016)
- [3] Steinert Y, Mann KV. Faculty Development: Principles and Practices. *J Vet Med Educ* **33**(3):317-24 (2023)
- [4] Wijnen-Meijer M. Learning to teach in medical education. *GMS J for Med Educ.* **39**(1) (2022)
- [5] Sana EA, Atienza MA, Arcadio RL, Gruet EB, Gonzaga NC, Chan RD, Mejia AD. Faculty Perceptions and Applications of the In-service Training Programs of the Association of Philippine Medical Colleges. *ACTA Medica Philippina.* **56**(7):18-29 (2022)
- [6] Alsagheer AS, Ghoneim FM, Heba Mohtady H. Exploring the Effectiveness of Faculty Development Program on Medical and Health Related Sciences Education *Journal of Ecophysiology and Occupational Health.* **21**(4) 153-158 (2021)
- [7] Alhassan A. Implementing Faculty Development Programs in Medical Education Utilizing Kirkpatrick's Model. *Advances in Medical Education and Practices.*13: 945-954 (2020)
- [8] Gunersel AB, Etienne M. The Impact of a Faculty Training Program on Teaching Conceptions and Strategies. *International Journal of Teaching and Learning in Higher Education.* **26**(3) 404-413 (2014)
- [9] Kumar A, Sarkar M, Davis E, Morphet J, Maloney S, Ilic D, Palermo C. Impact of the COVID-19 pandemic on teaching and learning in health professional education: a mixed methods study protocol. *BMC Medical Education* **21**:439 (2021)
- [10] Baticulon RE, Sy JJ, Alberto NRI, Baron MBC, Mabulay REC, Rizada LGT, Tiu CJS, Clarion CA, Reyes JCB. Barriers to Online Learning in the Time of COVID-19: A National Survey of Medical Students in the Philippines. *Med Sci Educ.* Feb 24;31(2):615-626. (2021) doi: 10.1007/s40670-021-01231-z. PMID: 33649712; PMCID: PMC7904236.
- [11] Rahayu GR, Utomo PS, Riskiyana R, Hidayah RN. Opportunity Amid Crisis in Medical Education: Teaching During the Pandemic of COVID-19. *J Multidiscip Healthc.* **15**:2493-2502 (2022)
- [12] Motte-Signoret, E., Labbé, A., Benoist, G., Linglart, A., Gajdos, V., & Lapillonne, A. Perception of medical education by learners and teachers during the COVID-19 pandemic: a cross-sectional survey of online teaching. *Medical Education Online,* **26**(1) (2021)
- [13] Baquiran RS, Plata KC. Experience of a Medical School in the Philippines on the Sudden Shift to Online Learning amidst COVID-19. *ACTA Medica Philippina.* **56**(14):42-50 (2022)
- [14] Deng, H, Jiang Y, Han Q, et al. The Impact of Covid-19 on online medical education: a knowledge graph analysis on co-term analysis. *BMC Med Educ* **23**, 203 (2023)
- [15] Stoian CE, Farcasiu MA, Dragomir GM, Gherhes V. Transition from Online to Face-to-Face Education after COVID-19: The Benefits of Online Education from Students' Perspective. *Sustainability.* **14**(19) (2022)
- [16] Lowe RC, Borkan SC. Effective Medical Lecturing: Practice Becomes Theory: A Narrative Review. *Med Sci Educ.* Jan 12;31(2):935-943.
- [17] Wilchia RJ. Effectiveness of Virtual Medical Teaching During the COVID-19 Crisis: Systematic Review. *JMIR Medical Educ* **6**(2) (2020)