

## Evaluation of the Joint Master of Health Professions Education: A Distance Learning Program between Suez Canal University, Egypt, and Maastricht University, The Netherlands

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### Abstract

**Objectives:** To evaluate the implementation of the Joint Master of Health Professions Education (JMHE) as a distance learning program as regards the e-learning process, the educational resources, the administrative process and the educational units of the JMHE from the students', graduates' and faculty point of view.

**Subjects and methods:** A descriptive study was held to evaluate the JMHE program (Process-Based, formative program evaluation). The target groups were all graduates of the Joint Master of Health Professions Education (71 graduates), fifth round students (82 students) and all planners and co-planners of the program (9 faculty). Two methods for data collection were used in this study, self administered questionnaires for the graduates, students and the Faculty, and review the JMHE documents.

**Results:** Through the target groups' perspectives and documents review, the study resulted in an agreement among the majority of the JMHE graduates and students who rated the program as "very good" or "excellent" as regards its relevance to their professions, meeting their expectations, being a challenging, professional distance learning program, meeting its educational objectives, its organization suitability, suitability of its duration to cover educational activities, in addition to its impact on increase in their knowledge in health professions education and acquisition of distance learning skills.

Enhancing capacity building and career development in Health Professions Education at all levels (national, regional, and international) was the most agreed upon point of strength (95% of graduates and 85% of students).

All of the graduates (100%) and the majority of the students (87.5%) mentioned their satisfaction from the JMHE program as a whole, so all the graduates (100%) and the majority of the students (90%) would recommend it to their colleagues.

Dependence, reluctance and lack of commitment among some of the group members was the most agreed upon points of weakness (53% of the graduates and 87.5% of the students)

**Conclusion:** The Joint Masters of Health Professions Education is meeting its goals and objectives. Its theory is designed to achieve the intended outcomes and its operations make the theory effective. Being a distance learning program was an advantage for many of the program participants and facilitated their learning to a great extent. Most of the program participants were satisfied with the program and most of them also stated that they recommended the program to their peers.

**Keywords:** Health professions education; Distance learning; Formative process evaluation; Medical education; Group dynamics

### Introduction and Rationale

As the quality of life of the human beings depends on the psychological and physical well-being, health professionals play a crucial role in helping people to prevent disease and restore health. The quality of the whole process of developing education for health professionals, educating these professionals and ensuring health care delivery deserves the full attention of both professionals and educators [1].

The Joint Master of Health Professions Education (JMHE) offered by Suez Canal University and Maastricht University was developed by distance learning with the aim of providing participants with the intellectual means needed to attain JMHE program objectives as: design, plan and implement a relevant course for health professionals based on rational principles of learning and instruction, and design, plan and implement an adequate process of evaluation and student assessment strategy. The rationale behind being a distance-learning, joint program is to combine the academic Maastricht experience with

the practical Suez Canal experience while reducing costs and adding more relevance to health conditions in the area [1].

The JMHE program is a 52 weeks credit-hour-based program. It is conducted entirely through distance learning. The program is focusing on the acquisition of knowledge and skills relevant to career development and research in health professions education. The program started to accept candidates from Health professions institutions in 2005 and five batches have been graduated [1].

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Successful distance education systems involve interactivity between teacher and students, between students and the learning environment, and among students themselves, as well as active learning in the classroom. Although students feel that the accessibility of distance learning courses far outweighs the lack of dialogue, there is still a considerable concern about telecourses when compared to face-to-face classes [2].

Distance learning challenges accreditation by altering what we mean by “higher education institution” replacing or augmenting lecture halls with chat rooms, campuses with the World Wide Web, and communities of learning with the borderless networks of cyberspace [3].

As such program evaluation of distance learning programs is important to judge the value or worth of education and training programs [4] and its achievement of its outcomes.

Being a distance learning program, the JMHPE program is in much need for a comprehensive and documented program evaluation in order to fully understand how the program works, to assess its progress, to determine if the program is efficient and proactively predict and deal with any challenges that might face the program.

## Subjects and Methods

A descriptive study was held to evaluate the JMHPE program (Process-Based Evaluation and formative program evaluation). The study was conducted at Suez Canal University International Center for training in Medical Education and Distance Learning. The target groups were all graduates of the Joint Master of Health Professions Education (71 graduates), fifth round students (82 students) who finished more than 4 units (about half of the program duration), and all planners and co-planners of the program (9 faculty).

Three types of data collection methods were used in this study, self administered questionnaires for graduates, students and block planners.

## Results

The response rates were 84.5% among graduates (60 graduates out of 71), 49% among students (40 students out of 82), and 89% among faculty (8 faculty out of 9); the ninth being one of the authors.

For the geographical distribution of the JMHPE graduates and students, it was from different countries in the Middle East, Africa, North America, and Far East.

From the Middle East region was the most of the fellows from Egypt, Saudi Arabia and Yemen. But from other countries in the middle east like Sudan, Libya, Jordan, Pakistan, Syria, Iraq, Morocco, Qatar, Lebanon and Somalia. Also from Ghana, Canada, India and Philippines far from the Middle East.

80% of the graduates and students rated the registration process of the program as excellent and the remaining 20% rated it as very good.

An agreement was found among the majority of the JMHPE graduates and students who rated the program as “very good” or “excellent” as regards its relevance to their professions, meeting their expectations, being a challenging, professional distance learning program, meeting its educational objectives, its organization, suitability of its duration to cover educational activities and the increase in their knowledge in health professions education field.

As for the main points of strength of the JMHPE; enhancing

capacity building and career development in HPE at all levels (national, regional, and international) was the most agreed upon point of strength (95% of graduates and 85% of students) Table 1. According to the faculty the main points of strength; included flexibility, partnership with a European university, and dissemination of the important Medical Education field in the region.

On the other hand dependence, reluctance and lack of commitment among some of the group members were the most agreed upon points of weakness of the program according to 53% of the graduates and 87.5% of the students as shown in Table 2. According to the faculty the main points of weakness; included Lack of cooperation between some fellows in doing the group assignments, strict pre-requisites for fellow’s selections to join the JMHPE program and No elective courses in the program.

As regards using distance learning as a method of learning for a master in Health Professions Education, five of the block planners agreed that the distance learning is an appropriate medium for a master in Health Professions Education while the remaining see that a combination between distance and on campus learning is more appropriate.

Integrating interactive lectures supported by audiovisual aids is the main recommendation for improvement of the program mentioned by both graduates and students (68% and 87.5% respectively) as shown in Table 3. On the other hand, some of the block planners suggested adding other methods for assessment; as on-line exam (e.g. using MCQs) based on a determined specific time-limit, assessment of the presentation skills utilizing Video conferencing and using Mel- Web discussion for JMHPE students around certain topics not covered by the program but use complementary topics to the program. Regarding the educational units’ organization 91% of the study population rated as “excellent” or “very good”.

The JMHPE graduates’ opinion concerning the most beneficial unit “Total quality management and accreditation in Health Professions Education” as the most beneficial unit (36.7% of the graduates), followed by unit 8 “Measuring health professions competencies” (15% of the graduates), followed by “Program Evaluation” and “Community Based Education incorporating Problem Based Learning” (10% of the graduates).

The evaluation of the learning material from the graduates’ and

Points of strength	Graduates		Students	
	No	%	No	%
Flexible and convenient distance learning program.	55	92	33	82.5
Enhances capacity building and career development in HPE at all levels (national, regional, and international).	57	95	34	85
Only credible certificate (master degree) by distance learning in HPE in the Eastern Mediterranean Region.	52	87	33	82.5
Good selection of topics that was relevant to the program’s goals.	49	82	32	80
Supportive and well qualified director, staff and, management team.	50	83.3	20	50

**Table 1:** Points of strength of the JMHPE program from the graduates’ and students’ point of view

Points of weakness	Graduates		Students	
	No	%	No	%
Dependence, reluctance and lack of commitment among some of the group members.	32	53	35	87.5
References unclear, not related to its assignments and poor quality in units 2, 3 and 7.	22	37	20	50
Delay of the feedbacks in some units especially in units 2, 3, 4 and some aspects in unit 7.	16	27	22	55
Accessibility to learning resources through the electronic library of Maastricht University (eleum.unimass.nl) very difficult and hard.	15	25	6	15

**Table 2:** Points of weakness of the JMHP program from the graduates' and students' point of view

Suggestions for improvement	Graduates		Students	
	No	%	No	%
Adding Evidence Based Medicine with topics as critical appraisal and meta-analysis and professionalism.	35	58	17	42.5
Using the Chat rooms for students and block planners at certain time. (Prescheduled chat discussion).	37	62	32	80
Integration of some interactive lectures supported by audiovisual aids	41	68	35	87.5
Online short tests at the end of each unit will be helpful in reflecting the achievement level of each member.	34	57	27	67.5
Change unit 3 (curriculum analysis and course design) to be more related to HPE rather than general education.	41	68	21	52.5

**Table 3:** Suggestions for improvement of the JMHP program recommended by the study population

students' points of view showed that the majority of the graduates and students consider the learning material as relevant, valuable and readily available 76.6% to 97.5% rated these as "very good" or "excellent". However only, 56.6% of the graduates and 62.5% of the students consider the learning material frequency of update as "very good" or "excellent".

The evaluation of the JMHP Suez Canal University website and blackboard from both graduates' and students' points of view. About 85% of the graduates rated the website as "very good" or "excellent" as regards ease of browsing and accessibility, while the students rating the same aspects of the website 92.5% and 95% respectively. On the other hand the evaluation of the JMHP Maastricht University website and blackboard revealed that 53.3% of the graduates and 60% of the students rated the website as "very good" or "excellent" as regards ease of browsing and accessibility. only 50% of graduates and students rated the effectiveness of the electronic library of Suez Canal University website as "very good" or "excellent". On other hand only 28.3% of the graduates and 32.5% of rated the effectiveness of the electronic library of Maastricht University website as "very good" or "excellent".

Regarding the overall satisfaction about the program, all of the graduates (100%) and the majority of the students (87.5%) were satisfied with the JMHP program as a whole that all the graduates (100%) and the majority of the students (90%) mentioned that they would recommend it to their colleagues (Figure 1).

## Discussion

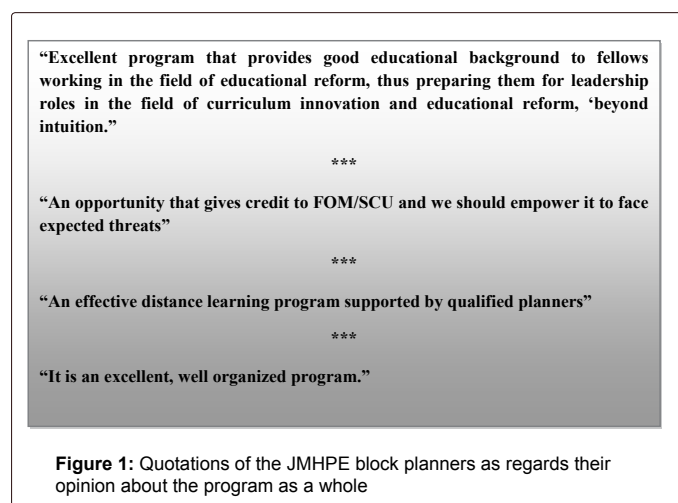
Time and geographical constraints make distance education a convenient and appealing option for many students. Also, distance education is a wave of the future, particularly with a recent increased emphasis on re-educating a workforce engaged in a lifetime of learning. Distance Learning (DL) has evolved to span a broad spectrum of technology uses, known variously as distributed education, distance education, and, more recently, e-learning to refer to online distance learning [5].

Evaluation of distance learning programs is a relatively new topic that is not yet comprehensively studied. Researches in such topic are few, especially in the field of health professions education. European universities known to offer degrees in health professions education were contacted at the beginning of this study, and no data were available about comprehensive evaluation of their programs.

Medical education is a specialized area of study that requires experience and knowledge of contemporary literature, research methods, curriculum planning, assessment of students, faculty development, evaluation of programs and curricula and the application of concepts of andragogy to all scenarios of teaching and learning.

Student satisfaction serves as an indicator of effective Distance Learning. While other measures are needed to assess student outcomes, regular checks on student satisfaction are especially informative, especially during the conversion phase of on-campus course work to the online environment [6].

Concerning the overall evaluation of the JMHP program, 90% (97.5% of students and 87% of the graduates) of the study population rated the program as extremely relevant to their needs as health professions educators and that it added very much to their knowledge and skills relevant to their career. The program has met its objectives as agreed upon by 86% of the study population (95% of the students and 80% of the graduates) and it met the expectations of the learners as agreed upon by 92% of the study population (100% of the students and 87% of the graduates). The increasing levels of satisfaction (among



**Figure 1:** Quotations of the JMHP block planners as regards their opinion about the program as a whole

students versus graduates) highlight the continuous improvement that takes place in the program from year to year. These differences are not expected to be biased due to the student's still being under evaluation by the JMHPPE management team as responses to the students' questions were anonymous.

Ninety five percent of the graduates and student (100% of the graduates and 87.5% of the students) were satisfied with the JMHPPE program as a whole. These satisfaction rates are consistent with the results of Bold [7] during the Evaluation of a Distance Learning Master's Degree in Family Studies, where 86% of the 28 respondents reported a positive satisfaction rate in their first distance learning experience.

Relevance of the JMHPPE program to health professions education, as agreed upon by 86.6% of the graduates and 97.5% of the students, as well as the potential of the program to enhance capacity building and career development, as agreed upon by 95% of the graduates and 85% of the students and might explain the interest of health professionals to join it.

The JMHPPE program consists of 9 distance learning educational units completed during an annual 52 weeks (1 calendar year) which are as follows: Leadership and Management in Health Professions Education, The Nature of Student Learning and Learning Environment, Curriculum Analysis and Course Design, Development of Professional Skills: Acquisition, Training, and Assessment, Total Quality Management and Accreditation, Research Methodology and Bioethics, Program Evaluation, Measuring Health Professions Competencies, Community-Based Education incorporating Problem-Based Learning [1].

Comparing the units themes to other Health Professions Education Masters in reputable European Universities offering similar programs as Maastricht University, the Netherlands and Dundee University, United Kingdom, it was evident that the program units provide appropriate coverage of the important issues that are relevant for a career in the field of educational development and research for the health professions. However, more emphasis on curriculum design versus analysis was required according to the participants. The JMHPPE also, has the advantage of being much more affordable in terms of fees and duration, where the other programs require longer time that ranges between 2 to 6 years. Yet this might be attributed to the existence of elective units for those students willing to proceed with more advanced levels as in Maastricht University MHPE or the presence of a wide menu of options from which the student chooses according to own needs as in the case of Dundee specialized health professions education units as anesthetists units, general practice, surgery...etc.

There are many inherent challenges to evaluating distance education courses, some of which include the fact that distance education courses are often the product of a team of professionals, including instructional designers, producer/directors, and technical specialists, working alongside faculty. The technology used in instruction is integral to the teaching and learning processes; therefore, it is important to assess the technology's effectiveness alongside the faculty member's teaching effectiveness. Because these two elements are intertwined, it is understandable that the evaluation process can become very complex [8].

The main educational resource in the case of distance electronic education is usually the electronic blackboard and/or the virtual classrooms. These resources noticed to be an integral part of the JMHPPE website at Suez Canal University. The utility of the website and its related learning resources were evaluated from the learners' point

of view. Easiness of accessibility and browsing was agreed upon by the majority of these groups of the study population 90% (about 92% of the students and 85% of the graduates). While as far the Maastricht University website and blackboard from the learners' point of view, easiness of accessibility and browsing was agreed upon by the graduates; (53.3%) and (45.2%) respectively, and by the students; (60%) and (52.5%) respectively. This could be explained by the difficulty in dealing with the sophisticated high technology of Maastricht versus Suez Canal websites. Yet, the fact that the Maastricht blackboard provides access to the main university library facilities including downloadable journals helps the students much with their studies. Baker [9] notes that the technological issues make it difficult to provide students with equal access to course materials in a distance learning program

Other logistics related to the mechanisms of enrolment in the JMHPPE program like the registration processes and delivering the educational materials, helping students to get started as well as preparing and conducting the graduation ceremony were evaluated to be very satisfactory by the majority of the alumni as well as students.

The JMHPPE has enabled the graduates as well as students to acquire and improve a scale of professional skills that are cardinal to their career. The acquired skills among graduates were that the program enhances mostly acquisition of distance learning skills and lifelong learning (90% and 86.7% respectively). The importance of these findings are explained by Cheung D [10] who identified a number of forces that make lifelong learning a necessity; more jobs and careers require frequent learning; more people change jobs and careers often and need to learn additional skills and knowledge; people are living longer and find that learning adds quality to their life; and technological and economic progress should enable people to work shorter hours and allow them to have more time for other activities, including learning. According to students, the program enhances mostly acquisition of distance learning skills (92.5%). The study in the JMHPPE was considered the first experience for most of graduates and students with distance electronic education. The nature of the assignments that is dependent on critical appraisal of the literature is expected to be the main factor that led 85% of the students to mention critical thinking as acquired skills through the program.

As regards management skills and computer skills, 72.5% and 55% of students and 61% and 73.4% of graduates acquired efficient management and computer skills respectively. These findings are consistent with the results of Bold [7] where about 76% of the study population agreed that the skills developed during the program were distance learning, lifelong learning skills, computer skills as well as management skills.

The most evident points of strength of the JMHPPE from the point of view of the students and graduates were that this program was the only credible certificate (Master Degree) by distance learning in Health Professions Education in the Eastern Mediterranean Region (82.5% of the students and 87% of the graduates) as well as the flexibility of the program (82.5% of the students and 92% of the graduates) and the tangible evidence in capacity building of the learners (85% of the students and 95% of the graduates). These results correlates with the main advantages of the distance learning as mentioned in literature, where there may be no alternatives for many students. Distance education offers flexibility and convenience, allowing geographically isolated students, and students with conflicting time commitments, to continue their education. A distance option also provides students with the opportunity to take two courses that are offered at the same time [11].

Again these findings are consistent with the results of Bold [7] where about 70% of the respondents agreed that the most important points of strength of the program are that the distance learning is saving time and Fuel in not having to drive the long distance to class, about 60% agreed that convenience or flexibility was cited by respondents as a best liked feature and 50% was also embedded in other answers as there was freedom to choose when and how to do work was liberating, not being tied to a classroom at a set time each week is nice.

One of the disadvantages of distance learning is that it may allow students to become lazy, using the online component as a crutch. Group projects may be more difficult for distance students as it may not be possible for students to meet face-to-face. Therefore, students may not be able to learn from each other as effectively. Furthermore, there may be less satisfaction without group interaction [12]. This disadvantage of distance learning programs constitutes the most evident point of weakness of the JMHE program according to students and graduates is related to group dynamics, e.g., dependence, reluctance and lack of commitment among some of the group members (87.5% of the students and 53% of the graduates). The barriers to communication in addition to the short time group members remain working together might jeopardize the normal phases of group dynamics up to the performing phase if not well guarded for. According to the majority of the faculty, the main point of weakness related to this point is the lack of cooperation between fellows in group work.

A major challenge of evaluation in distance education emanates from the very distance that exists between the learner and the teacher. This distance creates a situation whereby the control of the teacher is reduced, so the teacher's ability to completely have control over the evaluation processes is consequently reduced. It is imperative that the educator, in distance education, explores evaluation strategies that provide for increased ways in which the learner can be assessed and guided for individual growth and development [13].

One of the disadvantages of distance learning is that there is no live communication between the student and the instructor. Many instructors feel that the face-to face contact and the student/teacher interaction are critical to learning. Lack of this personal element also makes it more difficult for instructors to stimulate, or motivate students. Students can feel a sense of isolation and a lack of support [14].

Five of the block planners (62.5%) agree that the distance learning is an appropriate medium for a Master in Health Professions Education while 37.5% of the planners see that face to face learning ensures interaction and guarantee comprehension and mutual understanding of needs and expectations. These findings are consistent with the results of Bold [7] where 70% of respondents mentioned that not having the face to face communication, the distance instructor being not readily available, or do not return "call" (e-mails) in a timely manner, lack of enough interaction with the professors, and more homework compared to regular classes are amongst the disadvantages of the distance learning programs.

## Conclusion

The JMHE has enabled the graduates as well as students to acquire and improve a scale of professional skills that are cardinal to their career. The acquired skills among graduates were that the program enhances mostly acquisition of distance learning skills and lifelong learning. According to students, the program enhances mostly acquisition of distance learning skills and critical thinking.

Finally, this study which is up to our knowledge the first study to

evaluate a health professions education distance programs highlights the fact that the JMHE is successfully accomplishing an important part of the mission of the Medical Education Department, Faculty of Medicine at Suez Canal University that states "improving the health professions education at the national, regional and international levels as evidenced by the increase in the relevant knowledge and skills of the participants".

This study was about the evaluation of the JMHE process as a distance learning program. Further studies may focus on investigating the attainment of the program intermediate- term and longer- term outcomes which require longer follow up periods and larger number of graduates to reach an objective judgment of the outcome.

The study concludes that the Joint Masters of Health Professions Education is an effective credible masters program that helps many health professionals' gain and master essential skills in health professions education that are essential for their careers. Being a distance learning program was an advantage for many of the program participants and facilitated their learning to a great extent. Most of the program participants were satisfied with the program and most of them also stated that they recommended the program to their peers.

We may also conclude that the JMHE is a sustainable program. Evidence on this include the increasing number of applicants from round to round, the expansion of the program to include fellows from different regions and different countries and self-dependence of the program as regards its resources (financial, technical, and physical).

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