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Reem Al-Subait & Margaret Elzubeir

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# Evaluating a masters of medical education program: Attaining minimum quality standards?

REEM AL-SUBAIT & MARGARET ELZUBEIR

King Saud Bin Abdulaziz University for Health Sciences, Saudi Arabia

## Abstract

**Background:** As more Masters of Medical Education programs (MMEPs) become available, the quality of these programs will be under increased scrutiny.

**Aims:** We applied World Federation for Medical Education (WFME) quality standards in an internal evaluation process involving participants and faculty to determine: (i) if our MMEP met minimum quality standards (ii) if WFME standards provided a useful framework to evaluate minimum standards in our context and (iii) whether the program was perceived as developing future educational leaders.

**Methods:** A cross-sectional researcher developed survey, interviews and secondary data analysis were utilized for data collection. Quantitative data were analyzed using SPSS version 16. Descriptive statistics were generated. Fisher's exact test determined statistically significant differences between groups. Qualitative data were analyzed using a framework analysis.

**Results:** All students attending the MMEP 2007–2010 ( $n=67$ ) and faculty ( $n=11$ ) were invited to participate; 48% students and 91% faculty responded. Quantitative and qualitative results demonstrated positive perspectives regarding all three aspects of our enquiry. Nevertheless, needed improvements were identified in the areas of availability of human and physical resources, feedback and aspects of the research experience.

**Conclusions:** Impact on quality of health professions education in the Kingdom and participant educational leadership development are particularly important social responsiveness features of the program. Refinement of the evaluation instrument and WFME standards to ensure clarity and relevance to local contexts as well as a future expected imperative to move beyond social responsiveness to social accountability in health professions education, are future challenges discussed.

## Background

Health care education is changing at a rapid rate internationally and many Masters programs in medical education have been introduced over the past two decades to assist teachers of undergraduate and postgraduate health care professional students to keep abreast of changes and improve their effectiveness (Pugsley et al. 2008). These programs usually attract health professionals who already have a basic professional degree but who have had little formal introduction to educational theory. Although there are variations in the design and delivery of these programs, typically they aim to increase the academic expertise of participants and have a duration of 2–8 years part-time (Cohen et al. 2005; Pugsley et al. 2008). However, variations in provision (Pugsley et al. 2008) raise concerns about quality standards in Masters of Medical Education programs (MMEPs) internationally.

The Department of Medical Education, College of Medicine, King Saud Bin Abdulaziz University for Health Sciences, in Riyadh, Saudi Arabia initiated the first MMEP in the Kingdom in 2006. Approximately, 18–20 students are admitted annually. The program is of 2 years duration organized into 10 blocks of between 4 and 6 weeks. Example of blocks include: Learning and Cognition, Curriculum and Instruction, Program and Faculty Evaluation, Organization, Management and

## Practice points

- Increasing availability of MMEPs internationally will likely be accompanied by calls for assurance that they meet basic minimum standards.
- Past and present participants, faculty and education managers are in a unique position to determine whether these programs meet minimum quality standards.
- With modifications to ensure sensitivity to cultural and educational contexts, breadth and depth, the WFME quality framework is well suited to the evaluation of MMEPs in the region and beyond.
- With their blend of participants from different healthcare disciplines and functions MMEPs can have a unique impact on meeting individual, local and national needs for development of educational leaders.
- Social responsiveness can be linked to the design of programs to address personal and professional development.

Leadership. A total of 42 credit hours is assigned to the program (Appendix 1). It is designed to be flexible and practical and is available only part-time to be compatible with the needs of busy clinicians and non-clinicians who have

*Correspondence:* R. Al-Subait, Department of Medical Education, College of Medicine, King Saud Bin Abdulaziz University for Health Sciences, Mail Code 3118, PO Box 22490, Riyadh 11426, Saudi Arabia. Tel: 00966554475550; fax: 0096614700804; email: E-mail: reemksa43@live.com

multiple commitments. Teaching strategies are highly student centered and comprised of student-led presentations, problem-based learning, student projects complemented with student-led seminars, workshops and interactive lectures. The program is highly focused on preparing participants to assume or enhance their educational leadership roles in a variety of health professional education and training programs (e.g., medicine, dentistry, nursing, pharmacy, and radiography). Participants are required to undertake a research or program development component and to write it up in the form of a thesis. Contributing internal and external faculty are highly knowledgeable medical educators with practical experience and scholarly accomplishments in their fields.

It is well recognized that high standards in medical education internationally, can only be realized through a combination of excellent educational opportunities for students and systematic evaluation of the quality, worth and value of these programs. According to Fitzpatrick et al. (2004), program evaluation is defined as “the identification, clarification and application of defensible criteria to determine an evaluation object’s value (worth or merit) in relation to those criteria.” This process generally involves determining standards to assess quality, collecting appropriate information and applying the standards to evaluate the effectiveness, value and impact of a program.

Although all our postgraduate programs are fully accredited by the Saudi Council for Health Professions, the World Federation for Medical Education (WFME) recommend using their global standards as a tool for quality assurance and development of undergraduate and postgraduate medical education. Judging from the number of medical schools which have adopted the standards as a guide in their educational reforms or as a template for achieving accreditation and recognition of programs, the standards can be said to be having considerable impact on medical education internationally (Maccarick 2010a, b; Maccarick et al. 2010).

A more comprehensive description of the development of the WFME standards is provided elsewhere (WFME 2000), however, the following are some key guiding principles applied in the development of postgraduate standards (WFME 2000, p. 27):

- *Standards should be concerned with broad categories of the content, process, educational environment and outcome of postgraduate medical education.*
- *Standards should be formulated in such a way that, in addition to respecting global core requirements they will acknowledge necessary regional and national differences in the educational program, and allow for different local, national and regional profiles and development.*
- *The value of the standards must be tested in evaluation studies in each region.*

Furthermore, since the Masters of Medical Education (MME) is fairly new to King Saud Bin Abdulaziz University for Health Sciences, Saudi Arabia, and is the only one currently in the Gulf area, an official institutional aspiration was to develop leaders in the field of healthcare education. Hence, this study was conducted in response to three main guiding questions: (i) applying an international evaluation framework, to what

extent does the MMEP meet minimum quality standards? (ii) how useful are the broad categories of the WFME standards in evaluating a MMEP? and (iii) does the MMEP have an impact on educational leadership development of participants?

## Materials and methods

### Background and design

The aim of this study was to answer the above-mentioned three guiding questions, from perspectives of all stakeholders (teaching staff, program directors, coordinators and students). A mixed method design was applied using primary data from questionnaires and primary and secondary interview data.

The intent of the investigators in applying this mixed method design was “expansion” as both methods of data collection afford the researcher ability to tell the full story. As Greene et al. (1989) indicated, a study with this intent aims to provide scope and breadth by including multiple components (e.g., qualitative methods to evaluate program processes and quantitative methods to evaluate program outcomes).

For the purpose of answering the first and second research questions, The WFME (2003) basic standards were applied. These standards are well known internationally. There are 9 areas and 38 subareas. Subareas are defined as specific aspects of an area, corresponding to performance indicators and standards are framed to specify attainment at two levels: minimum standards (musts) and standards for quality development (shoulds). Because of the exploratory nature of this study, only global minimum standards were considered. Determination of the value of these standards as core requirements would be followed by a future study aiming to determine whether quality standards were also being achieved.

Additionally, an in-house evaluation tools were developed to determine the process and outcomes of the program; particularly the extent to which the program is having an impact on educational leadership development of participants (research question iii).

### Participants

Participants were all male and female students attending the MMEP 2007–2010 (i.e., from four cohorts) who indicated their consent to participate in answering a questionnaire ( $n=67$ ). Additionally, all internal and external faculty involved in the delivery of the Masters Program, were invited to participate ( $n=11$ ). The Program Coordinator and the Chairman of the Department of Medical Education were also invited to participate in separate interviews.

### Data collection and analysis

This study employed a mixed method approach to data collection. A cross-sectional survey incorporating the WFME standards, together with open-ended questions, interviews and

secondary data analysis was utilized. The three data collection methods are described below:

(i) A researcher developed cross-sectional survey based on the WFME Standards.

These standards are structured according to 9 areas and 38 subareas. The nine areas are:

- (1) mission and outcomes;
- (2) training process;
- (3) assessment of trainees;
- (4) trainees;
- (5) staffing;
- (6) educational resources;
- (7) evaluation and monitoring of training process;
- (8) governance and administration;
- (9) continuous renewal.

Utilizing these components as a framework for the researcher-developed questionnaire, participants of all four groups entering the MME program (MMEP) (2007–2010) and faculty members were asked to rate the extent to which they perceived the MMEP met basic standards in terms of quality on a five-point Likert scale where 5 = very effective, 4 = moderately effective, 3 = neutral, 2 = somewhat ineffective 1 = ineffective and 0 = not applicable. At the end, open-ended questions were asked about satisfaction with the MMEP and suggestions for improvements of the program.

Printed questionnaires were distributed manually, others by e-mail, administered in English and requested demographic information about participants (e.g., age, gender, health profession background, etc.) at the beginning.

(ii) A further researcher developed survey was developed and administered to all local faculty members in the Department of Medical Education and one external international expert in medical education who contributed to the program. These were open-ended questions which asked about general impressions/perceptions regarding structure and academic content of the MMEP; administration and management of the MMEP; preparation of participants for effective educational leadership; strengths and weaknesses of the MMEP.

(ii) Participants were provided with a covering letter informing them of the purpose of the study and the voluntary nature of participation.

In order to maintain the integrity of the small sample size, the WFME questionnaire was pre-tested on two members of the Department of Medical Education to determine clarity and completeness.

(ii) Analysis of primary and secondary data

Retrospective interview data with the first batch of students prior to graduation was accessed from the Department of Medical Education. Answers to questions were analyzed and common themes identified around. Quantitative data were entered and analyzed using SPSS Version 16. Descriptive statistics were generated for both student and faculty questionnaires (frequencies and percentages). To determine statistically significant differences in responses of groups, the Fisher's exact test was applied. A  $p$ -value of less than 0.05 was considered statistically significant. Qualitative data were

analyzed using a framework analysis which involves the researcher familiarizing herself with the raw data, identifying themes, coding and interpreting themes (Pope et al. 2000).

Ethical approval was obtained from the Ethical Review Committee of the College of Medicine.

## Results

### Quantitative results

Descriptive analysis (frequencies and percentages) was performed on questionnaire responses relating to the WFME standards and sub-standards from perspectives of MME students ( $n=32$  out of a total 67, representing a response rate of 48%) and faculty ( $n=10$  out of a total 11, representing a response rate of 91%.)

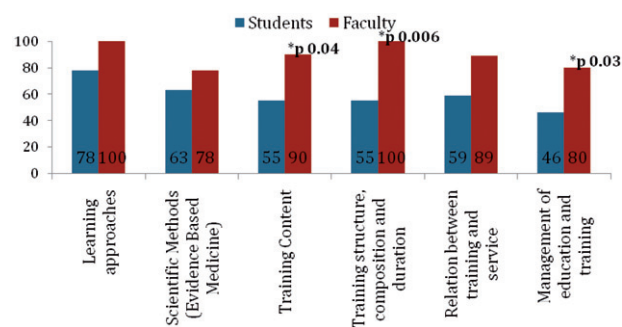
*Demographic characteristics of faculty and students.* Eight male and two female members of the faculty participated in the study. Six faculty had Masters degrees or equivalent, four held PhDs or equivalent. Eight were full time and two were part-time.

Regarding student participants, participants of all four batches (i.e., groups) completed the survey. There were 5 (16%) from Batch 1, 4 (13%) from Batch 2, 11 (34%) from Batch 3, and 12 (38%) from Batch 4.

A total of 17 (53%) were females and 15 (47%) were males. Ages ranged from 25 to 46 years (Mean 35.2 + 5.7). A total of 26 (81) had involvement in Medical Education while 6 (19%) had no involvement in Medical Education prior to entering the program. A total of 5 (16%) were employed in Health Service Education, 11 (36%) were Medical Doctors, 7 (23%) were from Allied Medical Services departments; 4 (13%) were employed in Dental Services, 3(10%) were from Pharmacy and 1 (3%) from computer sciences.

*Comparisons between students' and faculty ratings regarding effectiveness of the program in terms of meeting basic WFME postgraduate standards.* Figure 1 shows that there were statistically significant differences between faculty and students' opinions regarding attainment of quality standards subareas of teaching, learning, and training process.

With regard to teaching, learning, and training process, faculty responses about effectiveness were statistically



**Figure 1.** Comparisons between faculty *vs* students' responses regarding the effectiveness of MME teaching, learning, and training process.

significantly higher for the “training content” ( $p=0.04$ ), “training structure, composition and duration” ( $p=0.006$ ) and “management of education and training” ( $p=0.03$ ).

Table 1 shows comparisons between students and faculty responses for the Program Settings and Educational Resources component revealed that faculty responses regarding effectiveness of “training in other settings and abroad” were significantly higher than for students ( $p < 0.001$ ). Comparisons between students and faculty responses for the Program Participants component were only significantly different for “number of program participants” ( $p=0.02$ ) with more faculty than students rating this aspect of the program as effectively meeting basic quality standards.

Table 2 shows that there were no statistically significant differences between students and faculty responses for the Assessment of Teaching and Learning component.

There were some components of the WFME standards that only faculty could meaningfully evaluate because of their knowledge and experience as program providers. These areas included effectiveness of students and trainees; staffing, governance and administration and continuous renewal. Table 3 shows that over 70% of faculty agreed on the effectiveness of the program in most of these areas. Only in the

areas of support and counseling of students and trainees, involvement of stakeholders in staffing; funding and resource allocation, requirements and regulations did less than 70% of faculty rate aspects as effective.

Qualitative results

Written responses to five questions regarding quality of the program were elicited from 10 of 11 internal and external faculty involved in delivery of the MMEP (90% response) (Appendices 2 and 3). A total of 28 of 32 (87%) students responded to two open-ended questions about satisfaction with the program and suggestions for improvement. In addition, the researcher analyzed secondary data consisting of interviews with the first Batch graduating from the MMEP in 2009 ( $n=8/16$ ). Themes emerging from the data are described and illustrated below.

*Satisfactions, limitations and suggestions for improvement of the MMEP.*

- (a) *Satisfaction because program had met (or was meeting) personal and professional development expectations*

**Table 1.** Differences between faculty and students rating regarding effectiveness of aspects of program participants and settings.

	Students ( $n=32$ )		Faculty ( $n=10$ )		$p$ -Value
	$n$	Percent	$n$	Percent	
<i>Differences between faculty and students rating regarding program participants</i>					
Number of program participants	23	(72)	10	(100)	0.02*
Working conditions	24	(75)	5	(56)	0.14
Participant multidisciplinary representation	25	(78)	7	(70)	0.44
<i>Differences between faculty and students rating regarding program settings and educational resources</i>					
Classes	19	(61)	5	(50)	0.43
Physical facilities and equipment	16	(52)	7	(70)	0.23
Teams	18	(60)	8	(89)	0.17
Research	7	(23)	4	(44)	0.23
Training in other settings and abroad	10	(46)	10	(100)	<0.001*

Notes: When significant differences occurred faculty effectiveness ratings were higher than that of students. Students and Faculty used a five-point ordinal response scale: 1 = poor; 2 = below average; 3 = average; 4 = above average; 5 = excellent. \* $p < 0.05$ .

**Table 2.** Differences between faculty and students' rating regarding effectiveness of teaching and learning aspects of the program.

	Students ( $n=32$ )		Faculty ( $n=10$ )		$p$ -Value
	$n$	Percent	$n$	Percent	
<i>Differences between faculty and students rating regarding assessment of teaching and learning</i>					
Assessment methods	18	(60)	7	(70)	0.35
Relation between assessment and teaching and learning	16	(53)	7	(70)	0.35
Feedback to program participants	9	(32)	7	(70)	0.23
<i>Differences between faculty and students rating regarding evaluation of teaching and learning process</i>					
Feedback from participants to participants	12	(40)	6	(67)	0.19
Using participant performance	12	(41)	6	(67)	0.19
Involvement of stakeholders	13	(43)	4	(50)	0.63

**Table 3.** Faculty effectiveness ratings in areas of WFME standards and subareas that were considered more appropriate for faculty (vs students) to evaluate.

	Effective	Percent
<i>Effectiveness of mission and outcomes</i>		
Statements of mission and outcomes	8	80
Participation in formulation of mission and outcomes	6	75
Professionalism and autonomy	8	89
Training outcomes	8	89
<i>Effectiveness of students/trainees</i>		
Admission policy and selection	7	70
Support and counseling of students	4	44
<i>Effectiveness of staffing</i>		
Appointment policy	7	88
Obligations and development of faculty teaching	7	78
Involvement of stakeholders	4	57
<i>Effectiveness of setting and educational resources</i>		
Information technology	7	70
Educational expertise	10	100
<i>Effectiveness of program and faculty evaluation</i>		
Mechanism for program evaluation	6	67
Authorization and monitoring of training settings	5	63
<i>Effectiveness of governance and administration</i>		
Governance	8	89
Professional leadership	8	80
Funding and resource allocation	6	60
Administration	7	70
Requirements and regulations	6	67
<i>Effectiveness of continuous renewal</i>		
Continuous renewal of the MMEP	7	78

Open-ended comments on the WFME questionnaire indicated that on the whole both faculty and students were satisfied with the program and considered it effective in terms of meeting basic WFME standards, their own personal expectations and helping to improve educational approaches in health professions education generally in the Kingdom.

Indeed, both students and faculty saw it as an innovative program in the Gulf region, concerning educational leadership, improving educational skills, attitudes and knowledge. They particularly liked the applied student-centered approaches. Faculty also perceived the program to meet community needs, provide appropriate interactions between faculty and students, male and female participants.

Participant and faculty comments include:

Yes, I am satisfied and happy that I know all about the new methods of education and how to implement and organize the educational program starting from curriculum, evaluation and assessment, faculty development, etc. (MME Student)

Yes it does [prepare participants for effective educational leadership], especially with the group working, some of the students are leaders in their area, some will be, it depends on the students' backgrounds (MME Faculty).

(b) *Assessment feedback, research and faculty limitations*

Some faculty and students identified limitations of the program. However, the focus of these limitations differed.

While students were more concerned about organization, assessment feedback and the Research Block, faculty were more concerned about human and physical resource availability for the program. The following quotes illustrate:

Improve feedback to students, making it more specific for each block. Some blocks didn't have any feedback. (MME Student).

I am satisfied but I think MME program can be improved by multiple feedback to the students (MME Student)

More staff is needed... (MME Faculty)

(c) *Improvement suggestions*

Education managers, faculty and students made similar suggestions for improvement in the areas identified above:

Needs more staff, more resources, more organization, feedback, more time for some Blocks, no elective Blocks (MME Coordinator).

Research project should start with Block 1 and continue to the end of program because the last 3 months are not enough (MME Student)

(d) *Usefulness of the WFME standards as a means of internal evaluation of the MMEP*

When asked to comment on the usefulness of the WFME standards framework as a means of evaluating the MMEP, Education Managers unanimously agreed on its usefulness:

... Very helpful, Covers all areas (including) selection of students, worldwide used, modifiable according to community needs (Head of Department of Medical Education).

*Analysis of interview data from first batch to graduate from the MMEP. Reasons for applying for the program* were mostly about a combination of personal interest and career progression as current and future educational leaders in the Kingdom, although a few expressed an interest in obtaining the qualification as an end in itself.

*Most liked aspects of the program* were involvement in an innovative, authentic learning environment, interaction with peers within teams and interaction with national and international faculty with expertise in the field. The following comment illustrates:

The program has succeeded in being problem-based, practical and student-centered. The workshops and external speakers were very beneficial.

*Future plans:* Following graduation, most members of this first group planned to reflect on and apply what they had learned as educational leaders in their own disciplines. Some planned to also conduct educational research as PhD students. These quotes illustrate:

To think critically and reflect on our educational approaches;

To pursue my PhD as soon as possible;

"My plan is to start applying what I learned in my job.

Asked to consider what they might be doing 5 years following graduation from the program, students saw themselves primarily continuing to contribute to the development

of healthcare education in the Kingdom, eventually acquiring leadership roles, acting as role models and to have completed PhDs.

For example:

I hope that I could contribute to the development of educational programs in the Kingdom.

The majority of students commended the Masters program for improving skills and knowledge of student centered, adult learning principles. One student however identified limitations imposed by decision makers in the workplace to the application of learning following graduation:

I was involved in teaching before joining the masters program and I believe that the Masters did polish my skills in teaching; I am more student centered and applying adult learning principles . . . . I am trying to apply what I have learned from the Master, although there might be some barriers which are related to administrative and decision making which could affect application.

## Discussion

This study has documented that overall, both faculty and students perceive the MMEP effective in terms of meeting the majority of WFME basic standards and on the whole believe it meets the educational leadership needs of participants and the Kingdom, is innovative, draws on cognitive psychology research to underpin its teaching and learning strategies and emphasizes self-directed and peer learning.

Impact was assumed from what stakeholders said about the effect of the program on personal and professional development and participants intended practical application of learning. Both students and faculty perceived benefits included increased knowledge and skills, introduction to a community of practice, new career paths and education research opportunities. Hence, similar to other programs (Steinert & McLeod 2006), the MMEP moves beyond improvement of teaching and learning skills to provide health care professional educators with opportunities to increase knowledge and skills in a range of aspects and develop as educational leaders and scholars. These findings have at least two implications. First, increasing mobility of our graduates will put pressure on receiving institutions to acquire up-to-date information on the nature and quality status of courses they previously attended. Second, a key aspect of organizational development is providing opportunities for education and training of the next generation of leaders – sometimes referred to in the literature as succession management or succession planning (Fulmer & Conger 2004). An important requirement of the process is an underlying belief that top talent must be managed for the greater good of the organization. This can be said to have been the strategy of senior executives who organized, encouraged or sponsored MMEP participants to register on the course. However, succession management also entails deciding which employees to place in key roles and in this regard the investigators are hopeful that in a traditionally male dominated

leadership environment, more female candidates will emerge assuming key positions.

Graduates of the program are nevertheless, being prepared as change agents and the program can be said to be serving the needs of the postgraduate medical education community in Saudi Arabia. It is questionable however, whether the availability of one MMEP in the Kingdom can meet the needs of all aspiring medical educators. Although participants did not make direct comments about the availability of the program in other national locations, in comparison to faculty, fewer rated attainment of basic standards in the subarea of “training in other settings and abroad.” The program is now also available in Jeddah through a video link, but there is a perceived lack of availability of programs within the country. Equality of opportunity, social responsiveness, responsibility and accountability are increasingly being discussed in the medical education community (Boelen & Woollard 2011). Aspiring to improve the quality of health professions education, leading policy makers and organizers of the program can be said to be striving to go beyond mere awareness of these terms.

However, collaborative partnerships with other health professions education institutions internationally, identification and verification of whether programs have met standards and needs will be necessary to broaden and deepen the impact and to move beyond social responsiveness to social accountability. Indeed, as Boelen and Woollard (2011, p. 618) state “Current standards used to assess the quality of medical education, as promoted by several education organizations including the World Federation for Medical Education (2003) are being revisited with SA in mind”.

In our study, main areas of statistical differences between faculty and participants were in the WFME domain regarding teaching, learning, and training process. Under the Training Process component, more faculty than students perceived MMEP training content; training structure, composition and duration and management of education and training met basic standards. Since WFME postgraduate standards are related to service-based settings, no uniform interpretation of questionnaire components as applied to educational settings can be guaranteed in this study (an important limitation of the study). Future work is therefore needed to refine and clarify the subareas of the WFME standards for students and faculty. In our study, 70% of faculty agreed on the effectiveness of the program in most areas but it should be noted that this does not mean they saw it as an unqualified success. However, there was convergence of participants’ and faculty opinions regarding the research component of the program which was perceived as least effective. In this regard, our findings are similar to that of Pugsley et al. (2008) who found variations in quality of taught and research elements of several UK-based MMEPs. In our case, the research (and program development) component follow taught elements of the program and some students appear to have found the 3 months timeframe for thesis completion difficult to achieve. Starting earlier and extending the timeframe for completion of this component to 6 months is recommended.

There was also convergence between faculty and participants’ perceptions (quantitative and qualitative) regarding

need for more faculty and a better research experience. With few, very busy faculty, quality research supervision is likely to be affected. Indeed, in a rapidly changing educational environment such as our own, it is important that human resource management issues are addressed in ways that enable the organization to maintain its competitive advantage. Attracting and retaining well qualified and motivated staff are challenges that executive managers of the University must grapple with. Another identified weakness of the program was in the area of assessment feedback to students. The WFME basic standard states that “Constructive feedback on the performance of the trainee must be given on an ongoing basis” but participants and faculty reported needed improvements. Feedback for learning and achievement is crucial and insufficient feedback impedes accurate judgment and decision-making of learners (Hattie & Timperley 2007). It is important that faculty are not only made formally aware of their obligations to fulfill the wide ranging roles of guidance, support and feedback but are also facilitated in developing knowledge and skills to do so.

Quality in medical education can be judged from different perspectives and using different criteria. The study showed that WFME standards are considered highly relevant to the evaluation of quality standards across the medical education continuum. Others have reported the process of developing a rapid appraisal tool for evaluating the quality of higher education utilizing the WFME template in an environment in which a well-developed accreditation process is not yet available (Galukande et al. 2009) and of utilizing the WFME standards for institutional self-evaluation purposes (Galukande et al. 2009; Macarrick, 2010a, b). These authors report finding the framework and resulting process easy to use, easy to replicate and applicable to the development of any educational program. Continued utilization in our context should promote confidence in the quality of provision and that adherence to minimum international standards are being safeguarded.

It may however, be tempting to place undue emphasis on a set of standards simply because they are readily available and interpretable; they must also be modifiable. The WFME encourage modifying the framework to fit cultural and local needs while engaging in internal and external audit procedures. Included in the range of future outcomes should be graduate destinations, completions and attrition rates. Furthermore, quality standards demand not only that claims be made about achievements, but also demand sharing best practices across institutions (Wartman & Steinberg 2011), ideally leading to benchmarking standards against best local and international norms. Benchmarking is an increasingly popular tool for self-evaluation and self-improvement, enabling institutions to monitor and compare quality with that of other institutions with similar characteristics (Henderson-Smart et al. 2006). It can therefore also be used to support evolution of local standards and regulation of quality in the region.

Finally, the real benefits of this exercise have been to take stock of the strengths and weaknesses of the MMEP and to take the opportunity to increase a shared understanding of its

complexities. Readers should however, exercise caution in generalizing the results to all MMEPs because number of respondents was low, data were collected at only one institution and analyses at the level of statistical differences between groups were based on multiple tests performed on a small data set, which can increase the chance for error. Furthermore, while the study aimed to include all stakeholders, omission of perspectives of senior managers who nominated or supported participants to undertake the program was due to time constraints of the study. A follow-up study in this regard is likely to provide further information regarding the extent to which the program met expectations of this group.

## Conclusions

As more MMEPs become available nationally and internationally, their quality will come under increased scrutiny. National and international recognition of quality can be achieved by applying basic international standards in the evaluation process of any program. Our application of these standards to the first MMEP in the Kingdom has demonstrated that the program is perceived as meeting minimum standards, is having an impact on quality of health professions education in the Kingdom, personal and professional development. The WFME standards provide a useful framework to consider the activities of any healthcare education program although refinements will be necessary to ensure they reflect sensitivity to cultural and local educational contexts and help guide and support continuous renewal.

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**Declaration of interest:** Reem Al Subait was a Masters in Medical Education Program participant 2009–2011.

## Notes on contributors

REEM AL-SUBAIT, BSc, MME, medical technologist, Senior, King Abdulaziz Medical City in Riyadh, is a lecturer in the Department of Medical Education, King Saud bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia.

MARGARET ELZUBEIR, BA, PhD, is a professor of Medical Education, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia.

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## Supplementary material

The following files are available online at [informahealthcare.com/mte](http://informahealthcare.com/mte)  
Appendices 1–3.