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Development, Implementation and Evaluation of a Master's Degree in Healthcare Management and Quality: Recording our Experience

Dr. Waleed Albedaiwi

Abstract
The present paper presents our experience of introducing a Master program in healthcare management and quality in a newly founded Saudi university specialized in health sciences. The mission of the program was to advance the quality and efficiency of the Saudi healthcare system through providing for qualified professionals in health management, quality and communication. To this end, close cooperation with other universities and research centers was sought in developing and implementing the program, applying international educational standards. Our results from the assessment survey conducted with the first cohort of students, although limited in scope, indicated an overall satisfaction from the program. Yet, to substantially assess the program, a follow-up survey could be conducted with graduates' employers, delving into the changes that have taken place in their skills, knowledge and attitudes as a result of their participation in the two year study program. Additionally, a participants' pre-program evaluation has been planned to be implemented with the future cohorts of the program participants.
Keywords: Master's Program, Healthcare Management, Program Development, Assessment.

Introduction

Individuals and institutions approach the challenges of program development from many different points of view (philosophical, historical, social, economic, and political contexts) with different practical strategies (and financial constraints) and with different and overlapping sets of skills. A successful outcome to this process requires a strong interest and commitment to the concept (Lewis, 2005).

Many universities and educational institutions now offer healthcare management and quality higher degree programs to provide opportunities for students who would like to pursue further studies in healthcare management and quality. Developments at national level in Saudi Arabia, are represented by the establishment of a national body called Central Board for Accreditation of Healthcare Institutions (CBAHI website).

Almost all healthcare institutions striving for quality and undergoing voluntary or involuntary processes of accreditation, indicated a need for graduate programs in healthcare

management and quality geared to health care professionals. Establishment of other bodies that are related to the field and, informal and formal, discussions at national meetings with healthcare administrators indicated shared feelings of such a need. Of equal importance, increased attention among medical institutions to the field of healthcare management and quality as a discipline has been emerging with increasing numbers of healthcare management and quality professionals. Healthcare managers play vital roles in healthcare such as strategic management, service (or operational) management and Managing (through) people (Baker, 2002; Llewellyn, 2001; Degeling, 2003).

However, there is lack of statistics on the number of healthcare management professionals in Saudi Arabia or on how many hospitals have qualified administrators and managers. Healthcare management programs in the region lack the healthcare quality component, not designed for healthcare professionals or not recognized by the Ministry of Higher Education. The later deficiency may incur difficulties for students' career, while the premier diminishes the quality of the program (Um Alqura University and King Saud University websites).

Hence, in this article, we describe the process of the development and implementation of a Master's degree program and the first cohort of graduates' views on the program.

An Account of the Processes

Planning, Needs Assessment and Development of the Program

The idea to develop a master's degree in healthcare management and quality stemmed from the College of Public Health & Health Informatics (CPHHI), which is based in King Saud Bin Abdulaziz University for Health Sciences (KSAU-HS). The college was established in 2005 with one program which is the Health Informatics Master's Program. In subsequent years, the college expanded to a comprehensive, vertically integrated, multilevel, multidisciplinary college offering programs locally (Riyadh), nationally (Saudi Arabia) and regionally (Middle East) to healthcare professionals. However, for now, the College occupies a limited temporary space awaiting the establishment of the new buildings for the whole KSAU-HS. With the establishment of the College, there was a need for teaching faculty with advanced education and training in the fundamentals and principles of healthcare management and quality to expand the scope of the college and examine college outcomes.

The planning phase is very important in developing any program. Planning for the program required several working groups to address curriculum; finances; administration and instruction. Commitment and support were obtained from both faculty as well as the administrative leadership. An integral part of this planning included needs assessment, willingness to receive training, and interest in a collaborative programs. In Saudi Arabia, a need has been identified for advanced graduate studies in healthcare management and quality to develop the next generation of healthcare management and quality professionals and to train them in research methods to validate their efforts. This need was also identified by formal needs assessment at CPHHI at KSAU-HS. The results of the needs assessment permitted to surface concerns and propose actions and solutions as needed.

Thence, in fall 2006, the CPHHI collaborated with the Liverpool School of Tropical Medicine (LSTM) to develop a master's degree in healthcare management and quality, targeting health care professionals. The program was developed and designed to provide health care professionals the opportunity and credentials to advance their healthcare and quality

management skills by acquiring knowledge in the fundamentals and science of healthcare management and quality, and related research; to learn new trends and perspectives in healthcare and quality management process; and to enhance their professional growth and careers. The development and implementation of the master's degree program was a unique and complicated process and experience that required an intense and cooperative interface between CPHHI and LSTM.

University management was enthusiastic about the concept of a master's degree in healthcare management and quality, tailored to health care professionals, as they had recently implemented a master's degree in health informatics program, their first master's degree program, and were open to similar programs. Planning for the program required several working committees to address curriculum; finances; management, quality, instruction; and technology. The program curriculum was modeled after the developed Curriculum and Instruction major and was approved by the CPHHI as Instruction major. Approval as a Curriculum and Instruction program was sought by the university leadership and then by Saudi Ministry of Higher Education Channels. The CPHHI realized that establishing a master's degree program to accommodate health care at KSAU-HS would require significant input from health care professionals. Therefore faculty from the CPHHI, College of Medicine and LSTM met into groups.

The curriculum development team of CPHHI collaborated with the LSTM, UK. The curriculum was developed to meet the standards of the national Ministry of Higher Education and National Commission for Academic Accreditation & Assessment (Ministry of Higher Education and National Commission for Academic Accreditation & Assessment websites). The courses included:

- Introduction to policy development, strategic and quality management and quality
- Quality Assurance Evidence Based Medicine Health Information Systems
- Financial management and quality of health care
- Planning, monitoring and evaluation Health insurance models and applications Health Economics
- Human resources management and quality and development
- Organization and personal development
- Selected topics in Systems Management and quality and Health Quality
- Study design and research methods
- MA Thesis in Systems Management and quality and Health Quality

Program Implementation

As the curriculum underwent revision by the Curricula Committee, work proceeded in the other aspects and was ready for being started in its current format by fall 2007. Thirteen participants, from the disciplines of Medicine, Nursing, Pharmacy, Dental and Health Management were recruited to enroll in the program. This group was generally successful. One participant left the program at the end of the first semester due to scholarship in his medical specialty. With the revisions from the input of the Curricula Committee the master's degree program was offered nationally and regionally in the fall of 2007. The 42-credit-hour program included 36 hours of required course work, six credit hours of thesis. As of the second semester of 2009, 21 participants were actively enrolled, five physicians, six nurses, four dentists, one health

administrator and five pharmacists from all over the kingdom of Saudi Arabia.

Program Review and Improvement: Problems and Solutions

As with any new program, there were experienced several problems with the development, implementation, management and quality of the program. Nonetheless, we feel that we have been successful in our collaboration. Since it is likely that similar cooperative efforts and ventures in learning will occur here and in other institutions, we deemed important to share our experience in identifying these problems and the solutions we were able to work out collaboratively. These problems included but were not limited to:

Time and Human Resources

Difficulty was encountered in recruiting a pool of instructors willing and experienced to teach in KSA. Due to the limited number of academic staff qualified in Healthcare Management and quality in Saudi Arabia, the CPHHI needed to apply the modular system in teaching. This system allowed the staff from LSTM to reside in KSA for one month to finalize their course module and so on for all courses. Only one course was given at a time for the whole month. This allowed more flexibility with regards to academic staff time from LSTM.

Logistics and Communication

Due to the program being offered by CPHHI in collaboration with LSTM, some logistical and communication difficulties were faced. The joint management and nature of the program helped to keep this particular problem to a minimal. We established a graduate council among CPHHI and LSTM for academic affairs of the program. Day to day management of the program was granted by Department of Health Systems and Quality at CPHHI.

Different grading system among CPHHI and LSTM

The grading and marking system in LSTM is different from the one used in CPHHI. (Table 1). We've managed this problem by applying a factor in deciding the final grade. This factor is 1.286. So the following formula was developed: LSTM mark X 1.286 = CPHHI mark.

Table 1. Grading System at KSAU-HS

Mark	Points	Grade	Course Grade
95 – 100	5.00	A+	Excellent Plus
90 less than 95	4.75	A	Excellent
85 less than 90	4.50	B+	Very Good Plus
80 less than 85	4.00	B	Very Good
75 less than 80	3.50	C+	Good Plus
70 less than 75	3.00	C	Good
65 less than 70	2.50	D+	Pass Plus
60 less than 65	2.00	D	Pass
Less than 60	1.00	F	Fail
	1.00	WF	Withdrawn with Failure
	1.00	DN	Denied
	1.00	DS	Disciplinary Action
	--	NP	Non-grade Pass*
	--	NF	Non-grade Fail*
	--	IC	Incomplete*
	--	IP	In Progress*
	--	W	Withdrawn*
	--	EX	Exempted*

Student Feedback

Methods

Students' views on the program were recorded, using the UK Student National Survey questionnaire (The Higher Education Funding Council for England website). A Likert scale of 1 to 5 is used by this survey tool, where 5 stands for definitely agree and one for definitely disagree. To reduce bias, blank unnamed forms were distributed to the first cohort 11 graduating students, in hand. The filled in forms were returned on the same day to the department secretary, who in turn took care of the data entry. A hundred percent response rate was achieved. Responses to the questionnaire were spread, calculated and analyzed using a Microsoft Office Excell Worksheet. Means and percentages were calculated for the survey sections.

Results

Students in general agreed that academic staff were good at explaining issues (mean=4.55), that the staff made the program interesting and that they were enthusiastic (mean=4.45 and 4.36 respectively). Additionally, they indicated that the program was intellectually stimulating (mean=3.91). Students' views on assessment and feedback varied, with means ranging from 2.82 to 4.09. They also indicated that the academic support they received was sufficient (mean=4.04), while they found the topics and the knowledge acquired useful (mean=4.23). Furthermore, students were satisfied with the organization and management of the program (mean=4.00 to 4.18), and to a lesser extent with the learning resources provided (mean=2.81.to

3.36). They generally assumed that the program enhanced their personal development (mean= 4.36 to 4.55). The program overall satisfaction mean was 4.00. Percentages of agreement with statements regarding the program are illustrated in Table 2.

Table 2. Percentages of agreement with statements regarding the program

The National Student Survey Questions	Percentage of Agreement
Teaching	
• Are staff good at explaining things?	100%
• Have staff made the subject interesting?	82%
• Are staff enthusiastic about what they are teaching?	82%
• Is the course intellectually stimulating?	91%
• Average percentage of agreement	88.75%
Assessment and Feedback	
• Have the criteria used in marking been made clear in advance?	55%
• Are assessment arrangements and marking fair?	82%
• Has feedback on your work been prompt?	27%
• Have you received detailed comments on your work?	36%
• Did feedback on your work help clarify things you did not understand?	63%
• Average percentage of agreement	52.6
Academic Support	73%
• Have you received sufficient advice and support with your studies?	91%
• Have you been able to contact staff when you needed to?	73%
• Was good advice available when you needed to make study choices?	79%
• Average percentage of agreement	
	73%
	82%
Organization and Management	82%
• Does the timetable work efficiently as far as your activities are concerned?	79%
• Have any changes in the course or teaching been communicated effectively?	27%
• Is the course well organized and running smoothly?	45%
• Average percentage of agreement	45%
	39%
Learning Resources	
• Are the library resources and services good enough for your needs?	91%
• Have you been able to access general IT resources when you needed to?	91%
	82%

• Have you been able to access specialized equipment, facilities or rooms when you needed to?	85 %
• Average percentage of agreement	100%
Personal Development	
• Has the course helped you to present yourself with confidence?	
• Have your communication skills improved?	
• As a result of the course, do you feel confident in tackling unfamiliar problems	
• Average percentage of agreement	
Overall Satisfaction	

Discussion

Recording student satisfaction is a new concept in Saudi Arabia. Reviewing relevant literature we identified only a single article discussing this vital issue (Aldosary, 1999). This made it very difficult to make any comparisons of this survey with local or regional programs.

The teaching part of the questionnaire showed overall agreement with the questions with percentages ranging from 82 to 100 percent. This may be interpreted as reflecting the success of the choice to establish collaboration with LSTM. The assessment and feedback section of the questionnaire produced anticipated results due to the time taken to process grades among LSTM and KSAU-HS. The grades had to go through a process of audit and approval in both institutions. This mainly caused issues with the promptness of assessment and feedback. From the academic support and organization and management perspective, there was recorded an overall satisfaction with communication with the academic staff. The dissatisfaction expressed concerning learning resources, including library and IT, may be interpreted in terms of the temporary establishments where the program took place in. Finally, the personal development section of the questionnaire reflected the perceived satisfaction concerning graduates' personal development, confidence and optimism as regards their abilities and careers.

Furthermore, a comparison has been carried out between the results of the current student survey and the results of the England National Student Survey for year 2009 (Table 3).

Table 3. Comparison between results of the current student survey and of the England National Student Survey for year 2009

Questions	Our Study Results % Satisfied	National Student Survey Results 2009
Teaching	88.75	83
Assessment and feedback	52.6	65
Academic support	79	74
Organization and	79	72
Learning resources	39	80
Personal development	85	79
Overall satisfaction	**82**	**81**

In consistence with the National Student Survey 2009 results (The Higher Education Funding Council for England website), satisfaction with the teaching aspect of the program scored the highest level of satisfaction among other parts of the questionnaire, and overall satisfaction was around 80%. Inconsistence though, with the National Student Survey 2009 results, was recorded in the poor satisfaction with learning resources. As mentioned before, this may be interpreted by the temporary building the program was carried in.

Hence, developing the program for qualifying a new generation of successful healthcare management and quality researchers seems to have been a wise decision. From our perspective, the most important lesson learned from this experience is the need to establish a collaborative, peer relationship with colleagues who have the expertise, experience, and depth of knowledge in education to create a successful program. In this respect, we deem the following suggestions to be critical in developing, implementing and sustaining a program:

- Maintain a strong peer relationship with colleagues based on mutual respect for each other's knowledge, abilities, and personal worth.
- Obtain conceptual and financial support for the program from the leadership of the collaborative parties involved.
- Perform a needs assessment in order to recruit good instructors with interest and experience in teaching and involve them in planning discussions from the onset.
- Market the program on an ongoing basis using different media. Report program results at national meetings as a means of disseminating information about the program.
- Provide effective orientation both in technology and program structure to participants and new instructors.
- Respond to queries from individuals interested in the program in a timely manner.
- Understand healthcare professionals tend to be straightforward in their feedback, have high expectations of their instructors and program administrators, and require simple, organized instructions.
- Be positive and patient with inevitable administrative problems. Develop the infrastructure to address problems as they arise.
- Encourage feedback from current participants and graduates and be prepared to make changes as needed.

Limitations of the Study

As mentioned, recording student satisfaction is a new concept in Saudi Arabia. Reviewing relevant literature revealed only a single article discussing this vital area (Aldosary, 1999). This made it very difficult to make any comparisons of this survey with local or regional programs.

Additionally, a participants' pre-program evaluation would have been helpful in recording their prior knowledge, skills and attitudes on the profession of healthcare management, and be used as reference framework for subsequent evaluations. Also, the program was not benchmarked with other similar programs.

However, the issues raised herein may serve as ideas for future research.

Conclusion

The present paper presented our experience of introducing a Master program in healthcare management and quality in a newly founded Saudi university specialized in health sciences.

The mission of the program was to advance the quality and efficiency of the Saudi healthcare system through improved management, quality and communication. In detail, the program strived to produce qualified healthcare management and quality specialists and researchers who can effectively partner with healthcare professionals in systematically developing, applying, and evaluating healthcare systems to respond to the changing dynamics in healthcare. To this end, close cooperation with other universities and research centers was sought in developing and implementing the program, applying international educational standards.

Our results from the assessment survey conducted with the first cohort of students, although limited in scope, indicated an overall satisfaction from the program. Yet, to substantially assess the program, a follow-up survey could be conducted with the graduates' employers, seeking to evaluate them. We suggest that semi-structured interviews with the employers of the graduates could be conducted, delving into the changes that have taken place in their skills, knowledge and attitudes as a result of their participation in the two year study program. If employers and possibly some end users (peers and colleagues) could identify areas of change and improvements, it would substantially enhance the effectiveness of the program. Additionally, a participants' pre-program evaluation has been planned to be implemented in the future cohorts of the program participants. Finally, further research is needed to determine the statistics of healthcare management professionals in Saudi Arabia, and of qualified administrators and managers in hospitals.

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References

Aldosary A. (1999). Students' Academic Satisfaction: The Case of CES at KFUPM," JKAU. *Engineering Science, 1*(1), 99-107.

Baker, G. R. (2002). Healthcare managers in the complex world of healthcare. *Frontiers of Health Services Management, 18*(2), 23–32.

Central Board for Accreditation of Healthcare Institutions, Saudi Arabia (CBAHI), website http://www.cbahi.org.

King Saud University website. Accessed on January 31st, 2009. http://economics.kau.edu.sa/content.aspx?Site_ID=120&lng=EN&cid=38412&URL=www.kau.edu.sa.

King Saud University website. Accessed on January 26th, 2010. http://cba.ksu.edu.sa/file/high/edoc_1246881982.pdf.

Llewellyn, S. (2001). 'Two-way windows': clinicians as medical managers. *Organisation Studies*, *22*(4), 593–623.

Ministry of Higher Education, Saudi website, www.mohe.gov.sa. Accessed on January 26th, 2009.

National Commission for Assessment and Academic Accreditation Website. Accessed on March 26th, 2009.

Results of UK National Student Survey for the years of 2009 webpage. Accessed on January 17th, 2010. http://www.hefce.ac.uk/pubs/rdreports.

The Higher Education Funding Council for England website http://www.hefce.ac.uk. Accessed on March 26th, 2009.

Um Alqura University website http://www.uqu.edu.sa/page/en/1291. Accessed on January 31st, 2009.

Appendix

The Master's Program in Systems Management and Health Quality Manual

Introduction

The Master's program in health systems management and health quality is geared to overcome the severe shortage of qualified capabilities in the field of health systems management and health quality. Graduates of the program shall contribute to the development and application of health systems management and health quality at hospitals and health centers, and solve the problems that may hinder the advancement of health systems management and health quality and its utilization.

Due to the difficulties facing Saudi students interested in obtaining a graduate degree from an overseas university, the School of Public Health and Medical Informatics offers the Master's degree in health systems management and health quality to the international standards in this specialty with a view to becoming the beacon of progress and advancement in health systems management and health quality in our dear country.

Mission

The mission of the Master's program in health systems management and health quality is based on the significance of building national cadres of a high caliber in the field of designing, developing, and applying health systems management and health quality, rendering administrative and technical consultations to the health sector organizations, qualifying graduates of great skills with an administrative background and expertise in the latest applications of health systems management and health quality , with a view to occupying the leading positions in these organizations, in addition to introducing knowledge and administrative technology to the local health systems management and health quality.

Objectives

The Master's program in health systems management and health quality aims to meet the needs of the Saudi health sector for the national cadres specialized in the health systems management and health quality capable of introducing knowledge, applying health systems management and health quality, and promoting the professional services of the health sector. The program also aims to graduate specialists and researchers of an excellent level of national capabilities in managing health systems and health quality, and providing health organizations with technical consultations. The key objectives of the program are as follows:

1. Keeping pace with the technology and systems of health systems management and health quality in the Kingdom, expanding and disseminating research works
2. Contributing to enriching all branches of human knowledge via the studies specialized in the filed of health systems management and health quality, in addition to serious pursuit of scientific and creative technological advancement to discover new facts
3. Enabling distinguished students who hold university degrees to continue their graduate studies in the Kingdom
4. Preparing professional and academic capabilities and highly qualifying them in the filed of health systems management and health quality
5. Encouraging academic capabilities to keep track of the fast advancement of science and technology, excel in creativity and innovation, and promote the scientific research

while directing it to tackle the local issues

6. Participating in promoting the quality of the university programs in a way that interacts with the programs of the graduate studies

Medium of Instruction

English shall be the medium of instruction due to lack of scientific references in Arabic and the shortage of teaching staff.

The Title of the Degree

Master of Sciences in Systems Management & Health Quality

System of the Study

The Master's program study depends on courses and a thesis. Students should study at least four semesters. Credit units are thirty of graduate courses plus six credits for the thesis. Total credit hours are thirty-six.

Methodology depends on advanced media of instruction and state-of-the-art information technology and communications. Materials shall be collected from reality where opinions and ideas are exchanged in small working groups. The course shall be conducted in credit hours. Students are requested to submit a master thesis at the last year of study under the supervision of a faculty member at the School.

Plan of the Study

The program consists of a study plan for courses and the thesis. Here is the detailed study plan that indicates the study requirements.

First Semester Courses

No	Code	Course Title	Level	Credit Hours
501	HMQ	Introduction to policy development, strategic and	1	3
502	HMQ	Quality Assurance	1	3
502	PUH	Evidence Based Medicine	1	3
503	HMQ	Health Information Systems	1	3
Total Credit Hours				12

Second Semester Courses

No	Code	Course Title	Level	Credit Hours
504	HMQ	Financial management of health care	2	3
505	HMQ	Planning, monitoring and evaluation	2	3
	HMQ	Optional Course from Group 1	2	3

	HMQ	Optional Course from Group 2	2	3
Total Credit Hours				12

Optional Courses

Group1: Students should select a single course of this group after consulting the academic advisor

No	Code	Course Title	Level	Credit Hours
506	HMQ	Health insurance models and applications	2	3
507	HMQ	Health Economics	2	3

Group2: Students should select a single course of this group after consulting the academic advisor

No	Code	Course Title	Level	Credit Hours
508	HMQ	Human resources management and	2	3
509	HMQ	Organisation and personal development	2	3

Summer Semester

No	Code	Course Title	Level	Credit Hours
519	HMQ	Select topics in Systems Management and Health	2	3
Total Credit Hours				3

Third Semester Courses

No	Code	Course Title	Level	Credit Hours
520	PUH	Study design and research methods	3	3
600	HMQ	MA Thesis in Systems Management and Health Quality	3	6
Total Credit Hours				9

Fourth Semester Courses

No	Code	Course Title	Level	Credit Hours
600		MA Thesis Completion	4	6
Total Credit Hours				6