STUDY PROJECT

REVAMPING OF MSC MEDICAL ADMINISTRATION COURSE

A CRITICAL ANALYSIS

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MSc (Medical Administration) Course

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ABSTRACT

Title : Revamping of MSc Medical Administration Course, A Critical Analysis

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Background : The ever increasing challenges and complex issues along with introduction of new trends and advances in healthcare management requires acquisition of equally advance level of professional knowledge, competencies and leadership qualities by the future health administrators and policy makers. This study project "Revamping of MSc Medical Administration Course , A Critical Analysis" is aimed to afford such an opportunity.

Methods : Detailed analysis of the existing format of MSc Medical Administration, indepth review of literature on the subject, comparison with leading national and international healthcare management degree programs and interviews of senior medical Administrators, policy makers, faculty members.

Results : One of Pakistan's oldest and prestigious degree in healthcare management, MSc Medical Administration, recognized by HEC and PM&DC, is quite successful in imparting competencies and skills required for health administrators and managers. For enhancement of its recognition and further improvement in development of core competencies, professional skills of the future health administrators to successfully understand, develop, and resolve the existing and ever emerging new challenges in healthcare management certain adjustment in curriculum, development of permanent faculty, modifications in assessment system and change of degree nomenclature are required.

Key Words : MSc Medical Administration, AFPGMI, GDMO, HEC

MeSH : Army Medical Corps, Human Resource Development

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INTRODUCTION

1. The foundation for a strong and effective health workforce able to respond to the 21st century priorities requires matching effectively the supply and skills of health workers to population needs, now and in the future. The vision that by 2030 all communities should have access to trained and supported health workers with a minimum core set of competencies, requires combining the adoption of effective policies at national, regional and global levels with adequate investment levels to address unmet needs (1).

2. The health care industry has diversified considerably in the past 50 years. Not only have there been advances in the disciplines of clinical medicine and therapeutics, the industry has undergone massive restructuring. The primordial concepts of therapeutics as the sole duty of health care providers, is now but a small fragment of the health care industry (2). Financial constraints and evolution of other industries has mandated diversification of the health care industry to stay abreast with the current medical environments. Resultantly, new avenues and disciplines have sprouted, apart from clinical specialties, where none existed. These disciplines are adjuvant to the clinical disciplines and help foster the cohesion necessary to ensure provision of cost effective quality health care.

3. Military health care system has evolved primarily for provision of medical services at the vantage point of facilitating its operations. An ancillary aspect is deliverance of health care at the individual level. Thus, at the operational level, military health care delivery strives to achieve the health care needs of the dependent forces during peace so as to conserve / safeguard its maximal fighting

potential in wartime. In this regard the primary focus is deliverance of timely primary health care across a heterogeneous spectrum of military operations. To help achieve this aim, its mission is twofold; provision of health services support at all tiers / through all operations and promotion of own troops health protection through active prevention (3). The provision of health care at the individual level caters for the indoor / outdoor treatment of troops and dependents through clinical specialists consultations at various service hospitals.

4. Officers, inducted into the Army Medical Corps are expected to perform diverse duties in the field without having been given any formal training on how to accomplish the assigned tasks. Majority of the learning for these officers is adhoc and ill-defined based on individual trial and error, in the first 10 years of their military career. Through their career progression at 13 years of service and beyond, they attend a three month course which supposedly prepares them for command responsibilities of static and field medical units. Those who are lucky enough to be promoted as Lieutenant Colonel after having completed their command duties are selected for MSc in Medical Administration, which is the only other course they will undertake in their professional career, which may span over three decades. The successful officers are given the pivotal role of policy formulation for conceived future military medical needs, be it at peace or war footings. Eventually on retirement these same officers who had dedicated their lives to Army Medical Corps are ill equipped to constructively continue their lives and financial status. This realization even while in service breeds disharmony and demoralization.

5. MSc Medical Administration Course is of paramount importance in career progression of General Duty Medical Officers (GDMO). It is a promotion pre requisite and is aimed to provide the future leadership which is fully capable of meeting the ever increasing challenges in health care administration. Graduates of this course have rendered their services at the top executive levels in the health care system nationally as well as in the Pakistan Army demonstrating its effectiveness.

6. Army Medical Corps operates a comprehensive health care delivery system for provision of a wide range of medical facilities to the personnel and families of Pakistan defence forces during peace and war. It has a robust system comprising of primary, secondary and territory level health care facilities, specialized clinical/ training institutes and a field medical system, ensuring causality evacuation chain in the field. These services are integrated at various tiers to achieve the purpose of continuum of patient care as well as optimization of available scarce resources. The Corps provides these healthcare services free of cost to the entitled clientele.

7. MSc Medical Administration Course was started at Armed Forces Medical (AFM) College Rawalpindi in 1981 (5) and is one of the oldest and prestigious degree in medical administration in the Pakistan. In the present format, it is a 66 credit hours program comprising of 19 courses, including a study project. The duration of the program is 2 years which has been further divided into four terms of three months duration each and 1 year administrative/on job training including practicum report and a study project. Examinations are held at the end of every

term and total marks are 1100, including 200 marks reserved for practicum and defense of study project. Successful candidates are awarded a degree of MSc Medical Administration by the Quaid-i-Azam University, Islamabad.

8. Each year about 35 GDMOs, in the rank of colonel and lieutenant colonel are selected by General Headquarters Military Secretary (MS) Branch, to join this course. The course commences in the month of august each year. The officers selected have 20 to 25 years of clinical and administrative experience including command experience of a field medical unit or a Class C or Class D Combined Military Hospital.

9. AFPGMI is affiliated with Quaid-i-Azam University, Islamabad for its MSc Medical Administration program. MSc Medical Administration course is duly recognized by Pakistan Medical and Dental Council (PMDC) which is the supreme regulatory body for medical education and practices in the country. Academic council of the university is the competent body to approve or amend the syllabus or any other training parameters.

10. One of the most important requirement to establish the credibility of a degree program, within own organization as well as among academic entities is accreditation. It requires conforming of entire course work and training to the national or international education quality standards for that degree program. MSc Medical Administration has to meet these standards set by regulatory bodies like Higher Education commission of Pakistan (HEC) (6), PMDC and the university concerned as a mandatory requirement for recognition and acceptance of the degree.

11. MSc Medical Administration course initial curriculum was developed after consulting US Army-Baylor University Masters in healthcare Administration program (5). Baylor University is a prestigious university in United States of America and it conducts various healthcare management courses for US Army and other health professionals.

12. MSc Medical Administration course was started in August 1981 at AFM college in affiliation with Quaid-i-Azam University. The first batch comprised of eleven students, including seven AMC officers and four civilian doctors. Initially the program duration was 44 weeks but afterwards it was increased to 52 weeks in 1989. In 2015 course was redesigned to 2 years duration, 1 year contact learning and 1 year distant learning including Practicum Report and Study project/Thesis.

13. **Instructional Objectives**. The MSc degree program in Medical Administration has the following instructional objectives:-

a. To identify, analyse and describe the components, to include their functional integration in health care system.

b. To develop skills in the management of human, financial and material resources.

c. To develop and critically evaluate abstract concepts and effectively communicate ideas and thoughts.

d. To utilize the scientific methods in problem solving and decision making in qualitative and quantitative terms.

e. To develop a knowledge of and an appreciation for the clinical as well as administrative elements of healthcare delivery institutions.

f. To develop a code of personal ethics, a philosophy and a dedication to the high ideals and standards of medical administration.

g. To develop potential for planning and management of medical care delivery in situational settings.

h. To develop the skills for the effective employment of medical services in the field, in support of various military operations.

14. **Revision of Syllabus**. Syllabus of MSc Medical Administration program was revised in 2009/10 and implemented in 2011 (5) after merger of existing and addition of new subjects. MSc serial 31 was the first course to complete training according to revised syllabus.

15. **Work Already Done** Previously Lt Col Fayyaz Ahmed Malik of MSc serial 32 did a study project on the subject with the title of “Restructuring of MSc Medical Administration program on modern educational lines” (5). No other study project could be found on the subject. There is always room for further improvement in any educational program. This study has been undertaken to identify the gaps if any in the curriculum and to suggest changes for further improvement leading to desired learning outcomes.

SECTION –I
PAST AND PRESENT

1. Army Medical Corps inherited well-developed medical support systems at the time of independence from the British. Traditionally, training and development of consultants and GDMOs (HCAs) were being conducted by Royal Indian Medical services. Post-independence, biggest issue was continuity of training in all domains of health care, in this backdrop; phased training effort was launched and evolved over the decades since then. The initiatives of training GDMOs (HCAs) were as:-

a. Senior officers Management course was the earliest initiative in collaboration with Army school of Logistics, with the aim to train officers in health care management. The course was of 10 weeks duration and covered scope of various domains of required hospital management at the time.

b. On job evaluation and focused internships of 08 weeks duration was another main training activity. It was designed towards teaching the applications of taught health care management principals in various capacities in military hospitals.

c. Medical Administration degree program, the landmark course was started in 1978.The course was of 26 weeks duration and focused curriculum was designed to cover the gaps identified by the studies conducted by AFM College (AFPGMI, presently) at the time. After formal approval, program was launched.

d. After 2courses, Masters in Medical Administration program replaced old courses after accreditation from Quaid-e-Azam University, Islamabad in 1981.The course was extended to 52 weeks duration and since than it has served training to all HCAs of Army Medical Corps and achievement seen in improved health care outcomes of military health care system.

2. Over the span of seven decades, the continual effort is very evident in evolution of training needs:-

a. Constant evaluation of needs of military health care system on a broader spectrum.

b. Dynamically evolving curriculum design and implementation over the period based on gaps identified in studies mentioned above leading to reviews seen in previous programs, such as:-

(1) SOM course design

(2) MSc course 1981

(3) MSc 2009

(4) MSc 2015

c. Over the period, teaching methodologies have also been reviewed regularly and newer concepts were constantly inducted at various timeframes aimed towards better outcomes, such as:-

(1) Class room didactic teachings (traditional concepts).

(2) Internships.

(3) Projects, thesis, research areas.

(4) Military operational exercises.

d. The courses so implemented had a well-designed evaluation / assessment methods applied over the time, such as:-

(1) Traditional exams.

(2) Research evaluations, thesis writing, publications.

(3) Course reports/ career management in the light of Pakistan. Army regulations published by training branches from time to time.

3. The program was accredited and had a good standing over the time such as recognition and acceptance by HEC,PM&DC and QAU.

SECTION –II

FORMAT OF EXISTING MSc MEDICAL ADMINISTRATION COURSE

1. Over the last 30 years, we have turned curricular change into an art form. Today, every special-interest group, government agency, publisher, school board member, district specialist, principal, or teacher with a cause, a penchant, or something new to sell has a large list of rationales for undertaking curricular change and a toolkit full of ploys to bring it about. Change in curriculum has taken on the mantle of newness. So intoxicating is newness that change has become a community value, a raison d'être, an end in itself.

Course Objectives

2. The objectives of course were envisioned to:-

   a. Provide selected AMC officers theoretical knowledge of various theories, practices and standards in health care system management

   b. Give students detailed and in-depth teaching of managerial concepts and efficient financial management with the focus towards delivery of efficient health care

   c. Teach and train officers for organizational development to enable them for effective delivery as per the military needs both in peace and war

Methods of Teaching Adopted

3. Teaching methodologies adopted are mainly on the lines of Adult Interactive Learning Methodology. Major methods of teaching are:-

a. Classroom based lectures.

b. Interactive discussions.

c. Quizzes, questions/ answer sessions.

d. Spot tests.

e. Problem based home-assignments.

f. Syndicate and group work.

g. Short presentations.

h. Research work and study project.

i. Academic visits – inland as well as abroad.

j. Continuous medical education activities.

4. **Academic Visits**

a. **Inland Study Tours**. Mostly 2-3 visits for academic purpose of different Provincial Capitals are undertaken, mainly comprising of healthcare organizations of public and private sectors, Provincial Health Departments, pharmaceutical companies and policy/ teaching institutions.

b. **Foreign Academic Visits**. Each year one but sometimes a couple of countries are visited to study their healthcare systems with the aim to gain knowledge of best practices in these systems.

5. **Continuous Medical Education**. Under mentioned CME activities are part of overall learning process that includes:-

a. Clinic - o – Pathological Conference in which wide range of topics are covered.

b. Lectures are delivered by guest speakers who are usually leading professionals in their domains (about 35 - 40 lectures in the course duration).

c. Seminars (at least 1-2) are arranged by students every year on themes related to medical administration and health promotion.

MSc Course Faculty

6. Faculty of MSc Medical Administration comprises of permanent faculty and visiting faculty, as following:-

a. **Permanent Faculty**. Permanent faculty of AFPGMI teaching MSc Medical Administration class includes:-

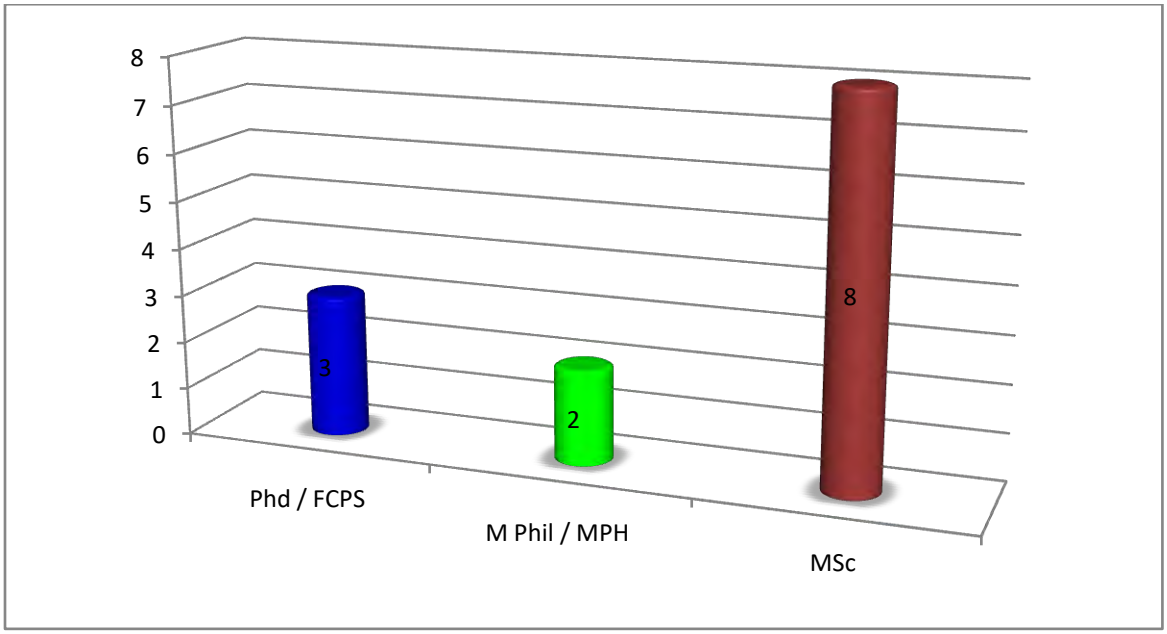
(1)	Commandant (Major General):	1
(2)	Directing Staff (Brigadiers):	2
(3)	Course Director (Brigadier):	1
	Total:	**5**

b. **Visiting Faculty**

(1)	PhD qualified teachers:	2
(2)	MSc / M Phil:	10
	Total:	**12**
	Grand Total:	**17**

7. Qualification of MSc faculty is illustrated as under:-

Faculty Qualification



Course Structure

8. **Subject Wise Course and Credit Hours**. Distribution of courses and their credit load term wise is as under:-

a. **Year-1**

(1) **Term-I**

Serial	Code	Subject	Credits
(a)	MMA303	Human Resource Management and Organizational Behaviour	4
(b)	MMA-304	Patient Care and Health Systems Analysis	4
(c)	MMA306	Supply Chain Management	4
(d)	MMA313	Project Management	4
Total			**16**

(2) **Term-II**

Serial	Code	Subject	Credits
(a)	MMA314	Epidemiology	3
(b)	MMA318	Reproductive and Child Health	2
(c)	MMA315	Occupational and Environmental Health	4
(d)	MMA310	Biostatistics	2
	MMA316	Research Methodology	3
Total			**14**

(3) **Term-III**

Serial	Code	Subject	Credits
(a)	MMA308	Health Education and Promotion	3
(b)	MMA301	Health Economics	3
(c)	MMA307	Public Health Administration	3
(d)	MMA311	Health Policy and Planning	3
(e)	MMA302	Financial Management and Analysis	4
Total			**16**

(4) **Term-IV**

Serial	Code	Subject	Credits
(a)	MMA305	Management Information System	2
(b)	MMA319	Long Term Care	2
(c)	MMA312	Comparative Geo-Medical Health Care System	2
(d)	MMA309	Quality Assurance in Health Care	3
(e)	MMA317	Nutrition	2
Total			**11**

b. **Year – II**

(1) Practicum - 2 Credit Hours

(2) Study Project - 3 Credit Hours

Grand Total - 62 Credit Hours

Students Assessment and Evaluation System

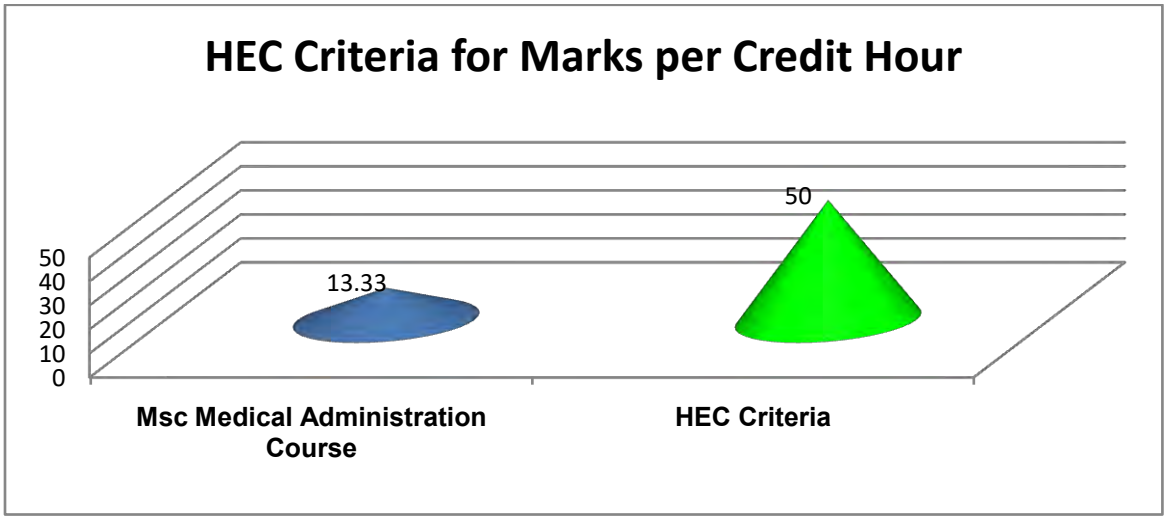
9. At the end of each term examinations are held under the arrangement of Quaid-i-Azam University consisting of two papers, paper A and paper B, including the courses undertaken during that term. Teacher of each subject submits twice the number of questions to be asked in the paper. Controller of Examinations, Quaid-i-Azam University sets through moderation the final paper. Papers marking is carried out by teachers in their respective subjects. The papers are submitted to Registrar of Quaid-i-Azam University who compiles and declares final results of each term.

10. Subjects included in each paper and distribution of marks are as under:-

Phase – I				
Term	**Paper**	**Subject**	**Paper Pattern**	**Total Marks**
I	A	(1) MMA303- Human Resource Management and Organizational Behavior (2) MMA304- Patient Care and Health Systems Analysis	3 Questions 3 Questions	100
	B	(1) MMA306- Supply Chain Management (2) MMA313- Project Management	3 Questions 2 Questions	75
II	A	(1) MMA314- Epidemiology (2) MMA310- Biostatistics (3) MMA316-Research Methodology	2 Questions 1 Questions 3 Questions	100
	B	(1) MMA318-Reproductive and Child Health (2) MMA315-Occupational and Environmental Health	2 Questions 3 Questions	75
III	A	(1) MMA311- Health Policy and Planning (2) MMA301- Health Economics (3) MMA308- Health Education and Promotion	3 Questions 2 Questions 1 Questions	100
	B	(1) MMA302- Financial Management and Analysis (2) MMA307-Public Health Administration	3 Questions 2 Questions	75

IV	A	(1) MMA319- Long Term Care (2) MMA317- Nutrition (3) MMA312- Comparative Geo-Medical Healthcare System	3 Questions 2 Questions 1 Questions	100
	B	(1) MMA309- Quality Assurance in Healthcare (2) MMA305- MIS in Health Care	3 Questions 2 Questions	75
University Exams Total				**700**
		Internal Assessment		**200**
Phase-II	A	Thesis / Study project	Defense only	140
	B	Practicum Report	Submission only	60
Grand Total				**1100**

11. **Distribution of Assessment Marks per Credit Hours of Syllabus**. HEC criteria states that 50 marks be allocated in assessment for every credit hour of syllabus or course work while in MSc Medical Administration course each credit hour has an assessment weight age of 13.3 marks as per current assessment system (6).



12. **Quaid-i-Azam University Grading System**. The grading system of University for final evaluation is as given below:-

a. Grade „A": 80% or above

b. Grade „B": 65-79%

c. Grade „C": 50-64%

d. **Failures**. Students securing less than 50% marks in any examination are declared failed in that subject/ term. Those failing in any paper are permitted to clear that paper in the supplementary examination which is held within 3 months of the declaration of the final term result. Any student who has more than two failures at any stage ceases to be the student of the University.

13. **Military Assessment and Evaluation System**. Military evaluation system consists of a course report and course grades according to the laid down guidelines for military courses and training and includes:-

a. **Course Report**. AFPGMI compiles a course report which includes assessment of various personality traits, qualities and conduct of student during course duration. This report is then made part of officers career profile maintained at GHQ Military Secretary Branch.

b. **Students Grading**. Students are placed in grades according to marks obtained as following:-

(1) **Grade D** 90 % and above marks

(2) **Grade A** 76 – 89.99 %

(3)	**B Plus**	66 – 75.99 %
(4)	**B High**	61 – 65.99 %
(5)	**B Average**	56 – 60.99 %
(6)	**B Low**	50 – 55.99 %
(7)	**B Minus**	Fail

Employment after MSc Course

14. Post MSc Medical administration Course, officers are posted to different stations to undertake diverse nature of assignments related to healthcare management. Examples of Certain assignments are:-

a. **Staff Appointments.** At General Headquarters (GHQ) Medical Directorate, Medical Directorates of Naval Headquarters (NHQ) and Air Headquarters (AHQ), where they are involved in strategic level technical administration and policy making.

b. **Hospital Administration**. Command and staff appointments in various hospitals of Pakistan Army, Navy and Air Force.

c. **Field Medical Logistics.** As Directors/ Deputy Directors Medical Services at Corps and Divisional Headquarters.

d. **Instructional and Staff Appointments.** At teaching institutions of Army Medical Corps.

e. **Foreign Assignments.** In healthcare setups of friendly countries and United Nations Peace Keeping Missions.

Affiliation and Accreditation

15. AFPGMI is affiliated with Quaid-i-Azam University Islamabad, for MSc Medical Administration course and it awards degrees to the successful students. Quaid-i-Azam University is a reputed University among Pakistan"s public and private sector universities, duly recognized by Higher Education Commission of Pakistan. MSc Medical Administration is recognized by Pakistan Medical and Dental Council as post graduate medical qualification and it has been assigned category II-a by PMDC.

Selection of students

16. Selection of suitable candidates for MSc Medical Administration is carried out as under:-

a. **General Duty Medical Officers (GDMO)**

(1) **Selection Criteria**. Selection of GDMOs for MSc Medical Administration is carried out by General Headquarters Military Secretary (MS) Branch as per following criteria:-

(a) Service Seniority.

(b) Good record of service.

(c) Two command Officers Efficiency Reports (OER) as Lieutenant Colonel.

(d) Medical category „A" Low medical category officers are selected subject to approval by the medical board.

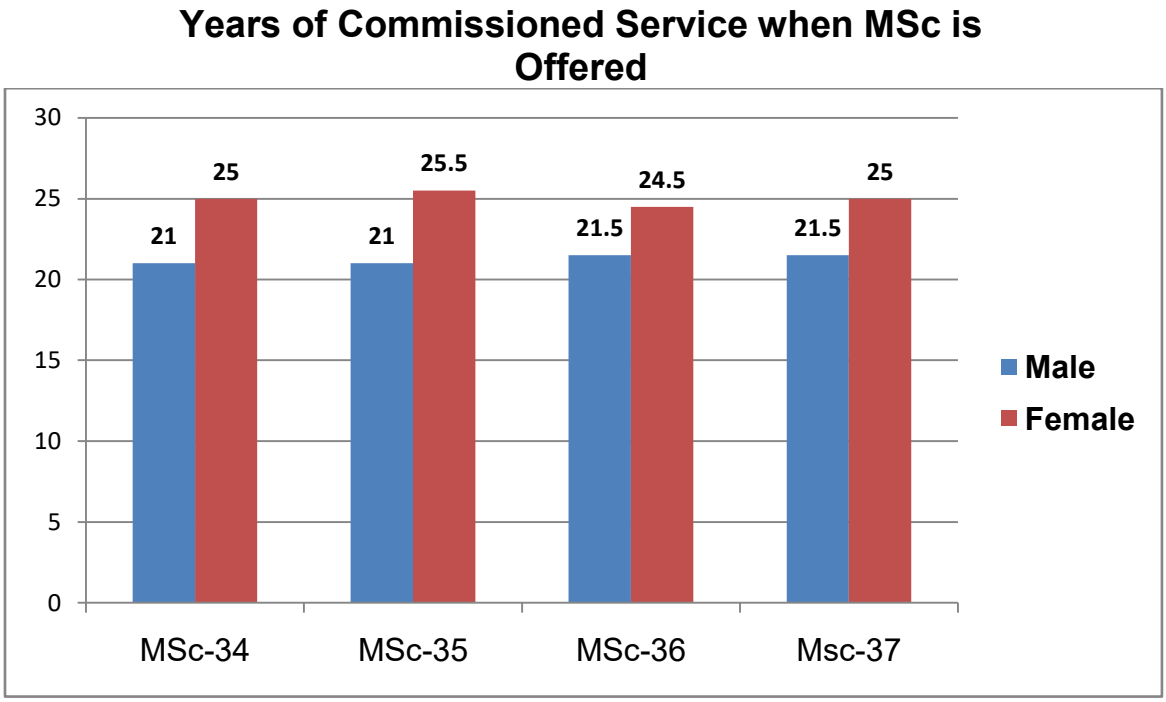
b. **Civilian Medical Officers Intake**

(1) Applications are sought by General Headquarters Medical Directorate through Federal / Provincial Health Departments from suitable candidates duly recommended by respective Health Department.

(2) Applicants who are recommended and spared by their Health Department are called for an interview at AFPGMI Rawalpindi and final selection is carried out.

Service Requirement for GDMOs Selection

17. As per Quaid-i-Azam University requirement minimum service limit is 16 years for MSc Medical Administration Course, however, service at which this course is presently being offered to GDMOs is approximately 21.25 years for male officers and 25 years for lady officers (last four courses data).



18. The annual intake previously varied from 6 to 32 for military and zero to four for civil students), however for the last four years 32-35 GDMOs of Army Medical Corps (AMC) are selected every year including 1-4 female GDMOs as their number varies each year.

SECTION-III

COMPARATIVE HEALTH CARE MANAGEMENT DEGREE PROGRAMS

National Degree Programs

1. Health Services Academy Islamabad and Agha Khan University Karachi are the two leading and reputed healthcare teaching institutions in Pakistan offering MSc degrees in healthcare management. Their course work and programs are given as under:-

a. **Health Services Academy Islamabad MSc Health Economics and Management– Curriculum (7)**

(1) **Semester Wise Course Subjects and their Credits Hours**

(a) **Semester I: Public Health (Core Courses) – Credits 16**

Course No	Course	Credits
HME-401	Foundations of Public Health	4
HME-402	Comparative Health Care System	4
HME-403	Quantitative Methods	4
HME-404	Research Methods	4
	Total credits	**16**

(b) **Semester II: Health Economics (Core and Optional)– Credits 16**

Course No	Course	Credits
HME-310	Microeconomics for Health	3
HME-311	Macroeconomics Health	3
HME -312	Economic Evaluation of Health Care Programs	3
HME-313	Health Care Finance	3
HME	*Optional course	4
Total	*** One optional course offered from a list of 6 course)**	**16**

(c) **Semester III :Health Management (Core and Optional) – Credits 16**

Course No	Course	Credits
HME-314	Hospital Management and Long Term Care	3
HME-315	Human Health Resource Management	3
HME-316	Health Policy Management and Evaluation	3
HME-317	Health Management Information Systems	3
HME	Optional Course	4
Total	**One optional course offered from a list of 6 courses)**	**16**

(d) **Study Project and Marks Distribution**

Course Title	Marks			
	Proposal and Dissertation Writing	Viva Voce Examination	Total Marks	Passing Marks
Research project / Dissertation	300	300	600	300

(2) **Final Evaluation – Semester Wise**

	Semester I Papers	Semester II Papers	Semester III Papers	Ongoing Assessment (Semester 1+II+III)	Research Project/ Dissertation/ Viva Voce	Total Marks	Passing Marks
Total Marks	400	400	400	1200	600	3000	1800

b. **Methods of Assessment / Examination**. The students are evaluated during each course on the basis of:-

(1) Formative assessment which is a mix of the tests, end of course examination, class and home assignments, class participation, interactive discussions, practical exercises and/or group works depending on the course outline (ongoing assessment).

(2) Summative assessment is based on the end of semester/term examination papers. Summative assessments are held at the end of semester and comprise of two semester examinations (sessional and terminal) papers each.

c. The Dissertation work is assessed through a viva voce examination on the basis of a structured format covering the quality of the project, work performed in the field, data generation and analysis and presentation of results, discussion and conclusions presented as a written report. Fifty percent marks are reserved for the ongoing (formative) assessment and fifty percent for the semester examination paper and dissertation (summative assessment). Candidates obtaining less than 50% in any of the examinations stands failed in that paper/semester of the MSc -HME. A student failing in a paper (when scores of semester examination and ongoing assessment are less than fifty percent) is not allowed to clear that paper in the supplementary examination to be held within 3 months of the declaration of the result of the semester. However, a student accumulating more than two failures at any stage ceases to be a student of the University. Each credit corresponds to 50 marks in the examination. Twenty-five (25) marks per credit are for the formative (ongoing) assessment and25 marks for summative (end semester exam) assessment. The distribution of marks for each examination is shown above.

(1) Candidates passing all the semester examinations are declared to have passed the HME program and awarded the degree. The final evaluation of the students is carried out as per the existing university regulations. The

minimum passing marks in each of the subjects are 50%, however the overall cumulative minimum marks required for passing the HME program are 60%.Grading of course work is as under:

(a) Grade “A” 80% or higher

(b) Grade “B” 60% to 79%

(c) Grade “C” 50% to 59%

(d) Fail Less than 50%

2. **Agha Khan University Msc Health Policy and Management – Curriculum**

a. **Program Structure.** The two-year program comprises 4 semesters involving coursework, placement/internship and thesis. Teaching methods are interactive and diverse comprising of lectures, tutorials, discussions, presentation of studies, e-learning, and site visits. It has a continuous evaluation system involving presentations, midterm and final assessments during each semester (8).

b. **Course Work**. Students are offered four to five courses to equip them with the required skills, each semester. They earn 43 credits over the duration of the program through their course work. The compulsory courses (37credits) include:

(1) Public Health Core courses: Epidemiology, Biostatistics, Ethics Rights and Equity, Social and Economic Determinants of Health, Health Economics.

(2) Management Courses: Organizational Management, Quality Management in Health Services, Human Resource for Health, Strategic Planning, Cost Effectiveness and Cost Analysis Effectiveness and Cost Analysis.

(3) Policy and Systems Courses: Comparative Organization of Health Care Systems, Program Monitoring and Evaluation, Health Care Financing, Health Promotion and Education, Health Policy Analysis and Formulation, Health Sector Reform, Public Health Law

(4) Research Courses: Protocol Development, Qualitative Research Methods, Health Systems Research.

(5) Disease Specific Courses: Environmental and Occupational Health, Reproductive Health, Injury Prevention and Control.

c. The elective courses (6 credits) include:-

(1) Disease Specific Stream: Reproductive Health / Injuries Prevention and Control/ Environmental Health.

(2) Management Stream: Human Resources for Health/ Strategic Planning Systems and Policy Stream: Health Financing/ Health Promotion.

d. **Thesis**. The preparation of the thesis takes place in the second year of study and involves protocol writing, data collection and thesis writing, supported by a multi-disciplinary thesis committee. A thesis may employ qualitative, quantitative, a combination of both, or any other acceptable research technique; data collection can be undertaken in the student"s hometown.

e. **Placement** Individual students are placed for supervised learning in the public or private sector, or in international donor organizations in the health sector, providing opportunity for on-site learning. This is undertaken at the end of the first year and each student is supervised by mentors. Some of the organizations where students have recently undertaken placement include Ministry of Public Health Afghanistan, Gonoshasthaya Kendra Dhaka, EPI Program Sindh, MCHIP Program, JHPEIGO, and John Snow International-Deliver Islamabad, Marie Stops Society, Indus Hospital, Civil Hospital, Karachi.

f. **Standalone Courses** The Program offers the option of flexibility accumulating standalone courses towards an MSc HPM degree. Students can accumulate up to 9 credits of coursework (equivalent to 3-4 courses). Students with a high GPAcan enter directly into the Master"s program while those below the required GPA will need to write the Admission Test in subsequent years to

be accepted into the Master"s program. The following are offered as standalone courses each year:-

Ser	Course	Credit Hours
(1)	Organizational Management	3
(2)	Quality Management in Health Services	3
(3)	Program Monitoring and Evaluation	2
(4)	Injury Prevention and Control: Principles and Practice	2
(5)	Injury Prevention and Control: Principles and Practice	2
(6)	Health Sector Reform	2
(7)	Strategic Planning for	2
	Health	2
(8)	Human Resource for Health	2
	Total Credits	**20**

g. **Program Resources** The MSc in Health Policy and Management Program is run by a diverse and highly qualified team of faculty which includes full time faculty, hospital directors from AKUas well as part-time and visiting faculty from national and international organizations such as WHO, UNICEF, World Bank and JHPEIGO to provide a blend of theory and practice, and latest national and international trends. Field visits to Aga Khan University outreach sites, NGO and government sites are provided for first-hand field learning.

International Degree Programs

3. **US Army Baylor University - Master of Health Administration – Curriculum**. US Army Baylor University Masters of health administration course work was consulted by AFPGMI in the initial development of MSc Medical Administration curriculum. US Army Baylor University trains US Army as well as other healthcare professionals in healthcare management offering various degree programs to them. Semester wise course work and credits hours distribution is as under:-

Semester	Course Title	Course Number	Credits
Semester 1	Ethics in Health Care	HCA 5105	1
	U.S. Healthcare System	HCA 5301	3
	HMIS	HCA 5317	3
	Organizational Theory & Behavior	HCA 5322	3
	Finance I	HCA 5350	3
	Managerial Economics	MECO 5331	3
	Advanced Excel Concepts	HCA 5106	1
	Total Hours		**17**
Semester 2	Seminar in HR Management	HCA 5231	2
	Healthcare Jurisprudence	HCA 5336	3
	Population Health	HCA 5389	3
	Finance II	HCA 5353	3
	Quantitative Analysis I	HCA 5410	4
	Total Hours		**15**
Semester 3	Health Policy	HCA 5213	2
	Finance III	HCA 5318	3
	Marketing Management	MMKT 5470	4

	Total Hours		**9**
Semester 4	Leadership in Complex Organizations	HCA 5329	3
	Operations Management/Healthcare Quality	HCA 5606	6
	Total Hours		**9**
Semester 5	Health Strategic Management	MMGT 5425	4
	Total Hours	**04**	**04**
	Total Required Elective Hours	**3**	**3**
	Total 5 Semesters -57	*Minimum credit hours required for didactic year	
	52-Week Residency		9
	Administrative Residency	HCA 5961	
	Total Hours		**66**

4. **Harvard School of Public Health - Master In Health Care Management**

a. **Academic Year- I**

Serial	**Course**	**Credits**
(1)	Marketing	2.5
(2)	Case-Based Intro to EH & EPI	2.5
(3)	Social and Behavioral Determinants of Health	2.5
(4)	Communication Skills for Managers	1.25
(5)	Financial Transactions and Analysis	2.5
(6)	Cost Accounting and Control Systems	2.5
Total		**13.25**

b. **Academic Year – II**

Serial	Course	Credits
(1)	Health Care Management Practicum	5
(2)	Field Project throughout Academics	2
(3)	Competitive Strategy	2.5
(4)	Provider Payment Systems and Policy	2.5
(5)	Field Project in Quality Improvement	2.5
(6)	Innovative Problem Solving and Design Thinking	2.5
Total		**17**

c. **Year - I**

(1) Statistical Reasoning in Public Health I.

(2) Statistical Reasoning in Public Health II.

(3) Introduction to Microeconomics (*for students in need of prerequisite*).

(4) Introduction to US Health Care System.

(5) Current Topics in Public Health.

(6) Legal and Ethical Issues in Health Services Management.

(7) Managed Care and Health Insurance.

(8) Fundamentals of Management for Health Care Organizations.

(9) Approaches to Managing HCO: Cases and Applications.

(10) Fundamentals of Budgeting and Financial Management.

(11) Quantitative Tools for Managers.

(12) Foundations of Organizational Leadership.

(13) Fundamentals of Financial Accounting.

(14) Strategic Planning.

(15) Financial Management in Healthcare I.

(16) Financial Management in Healthcare II.

(17) Health Management Information Systems.

(18) Human Resources in Health Organizations

(19) Marketing in Health Care Organizations.

(20) Medical Practice Management.

(21) Healthcare Quality and Patient Safety: Management Perspectives

(22) MHA Case Competition.

(23) MHA Seminar in Health Finance and Management (*all four terms*).

(24) Healthcare Consulting Practicum.

(25) Health Economics for Managers

(26) Epidemiologic Inference in Public Health I

d. **Year - II**

(1) Introduction to Health Policy.

(2) MHA Field Placement (*all four terms*).

(3) MHA Capstone Presentation.

e. **The University of Scranton Pennsylvania.**

Foundation Courses - 12 credit hours	HAD 500: Healthcare Organization and Administration HAD 501: Healthcare Financial Management I HAD 505: Healthcare Statistics and Research Methods HAD 519: Healthcare Services and System
Core Courses - 32 credit hours	HAD 502: Healthcare Law HAD 504: Human Resources Management HAD 506: Healthcare Economics and Policy HAD 508: Leadership in Health Administration HAD 509: Administrative Issues HAD 515: Healthcare Planning and Marketing HAD 521: Healthcare Financial Management II HAD 522: Healthcare Operations and Quality HAD 523: Healthcare IT Management HAD 525: Healthcare Ethics HAD 580: Internship in Healthcare
Advanced Electives - 3 credit hours One course to be chosen.	HAD 510: Hospital Administration HAD 512: Medical Practice Administration HAD 513: Long Term Care Administration HAD 517: Global Health Management HAD 526: Grants Writing and Management

5. **Johns Hopkins Bloomberg School of Public Health - Masters in Health Administration – Curriculum.** The MHA Program requires a minimum 0f 70 credits of didactic coursework.

Year – I	
a.	140.611.02 Statistical Reasoning in Public Health I
b.	140.612.01 Statistical Reasoning in Public Health II
c.	221.619.01 Introduction to Microeconomics (for students in need of prerequisite)
d.	300.651.01 Introduction to US Health Care System
e.	300.862.81 Current Topics in Public Health
f.	306.663.01 Legal and Ethical Issues in Health Services Management
g.	309.620.01 Managed Care and Health Insurance
h.	312.601.01 Fundamentals of Management for Health Care Organizations
i.	312.602.01 Approaches to Managing HCO: Cases and Applications
j.	312.603.81 Fundamentals of Budgeting and Financial Management
k.	312.604.01 Quantitative Tools for Managers
l.	312.610.01 Foundations of Organizational Leadership
m.	312.617.01 Fundamentals of Financial Accounting
n.	312.623.01 Financial Management in Healthcare I 312.624.01 Financial Management in Healthcare II
o.	312.633.81 Health Management Information Systems 312.635.01 Human Resources in Health Organizations
p.	312.660.01 Marketing in Health Care Organizations 312.675.01 Medical Practice Management
q.	312.678.01 Healthcare Quality and Patient Safety: Management Perspectives
r.	312.861.01 MHA Case Competition

s.	312.867.01 MHA Seminar in Health Finance and Management (all four terms)
t.	312.869.01 Healthcare Consulting Practicum
u.	313.610.01 Health Economics for Managers
v.	340.721.60 Epidemiologic Inference in Public Health I
Year – II	
a.	300.600.81 Introduction to Health Policy
b.	312.810.01 MHA Field Placement (all four terms)
c.	312.862.01 MHA Capstone Presentation

SECTION –IV

PROGRAM DESIGN & ACCREDITATION

1. Evolution of traditional education

a. Curriculum design frameworks

(1) Over the last 30 years, curricular change has turned into an art-form. Today, every special-interest group, government agency, publisher, educationist specialist or teacher with a cause, a penchant, or something new to sell has a large list of rationales for undertaking curricular change and a toolkit full of ploys to bring it about. Change in curriculum has taken on the mantle of newness. So intoxicating is newness that change has become a community value, a raison d'être, an end in itself.

(2) At the start of the century, curricular policies in several countries tended to be subject-based, and often criticized for being generally out of date and overloaded. They were also criticized for being too theoretical and paying scant attention to the development of competencies and skills (10). The changes in the labour market, the re-organization of work worldwide, increasing pressure to improve the economic competitiveness of countries within globalised economies have led many countries to revise their curricular content and pay much more attention to skills, competencies and the

notion of flexibility. Hence, curricular changes in the past 15 years included an emphasis on developing literacy and numeracy skills (the so-called foundational skills) (11), and a general shift from a highly specified content-based to a minimally specified outcomes-based curriculum, with increased attention to the development of a set of competencies and skills. Consequently, competency-based curriculum was introduced in several countries across the globe. According to some, such reforms sought to subordinate education to economic needs and to align the development of competencies and skills with the needs of the economy. Furthermore, the content of curriculum has been an important site of contestation in many contexts.

(3) Curriculum design debates relates to the relevance of curriculum, which is often viewed as poorly relating to the socio-economic and cultural contexts where schooling is taking place. This was (and still is) a problem in countries/ sectors where imported curriculum models or scripts were used at schools which poorly takes the local context into account. In the dominant curriculum paradigm, the Western canon is positioned as opposition to the knowledge of local, and/or indigenous across the globe. Hence the curriculum was divorced from their own reality.

b. **Pedagogical Approach**

(1) In the majority of classrooms in low and middle income countries, pedagogical practices are described as authoritarian, rigid, formalistic, teacher-dominated and lecture-driven. Students‟ activities are often limited to memorizing facts and reciting them to the teacher or reproducing such knowledge during exams (12). Various studies confirmed that this type of teaching and learning practices foster memorization and rote learning. Such practices do not encourage spontaneity or taking initiative, nor stimulate cognitive development, or the development of conceptual learning, critical thinking and problem solving skills. There has also been a growing understanding among educational stakeholders that traditional teaching styles do not facilitate student learning, and is largely responsible for low levels of education quality. In the past decades, several countries across the world have adopted reforms of teaching and learning based on constructivist principles (12). Such reform efforts often emphasized a move away from teacher-centred instruction to child-centred pedagogy, which was framed as student-centred pedagogy, active learning or learner- centred education in different contexts. These pedagogical approaches typically aimed at stimulating active

learning by involving students more in their learning processes, encouraging the use of various teaching and learning methodologies, the use of learning materials, and stimulating classroom participation through increased interactions between students and between students and teachers.

c. **Educational Assessment**

(1) In the past decades, we have observed an increased attention to issues of measuring educational achievement worldwide. This growing interest or what some call as „ obsession" with assessment stems from a number of diverse factors including (13):-

(a) A shift in focus from input factors to educational outcomes, and from process to results.

(b) Increasing attention to accountability as a result of decentralization policies and global managerial education reforms.

(c) Pressure to improve teaching and learning.

(d) Improving the efficiency of allocation of resources.

(e) Enrolment pressure arising from population increase and growing numbers of primary graduates intending to make transition to higher levels of education.

(2) Furthermore, in recent year focal shift occurred, from a primary concern with education quantity and increasingly emphasizing on quality improvements in programs. This new focus is paralleled with a remarkable increase in the use of educational assessment in order to measure gains and losses in educational quality (14). Assessment involves some contested issues such as “who gets tested, what gets tested, when tests occur, how and why a test takes place”. Broadly speaking, student achievement is assessed through four different types of measurement tools.

(a) First one is concerned with school-based assessment aimed at assessing student achievement levels at a regular basis against curricular goals.

(b) The second type is public examinations often administered at the end of primary or other levels for the purposes of certification and governing the transition to higher levels of education.

(c) Third, national assessments are conducted in various countries to regularly and systematically measure what students have learnt at school. The results of such exams are used to inform education policy making in order to, among others, allocate scarce resources, monitor standards or promote

accountability. Finally, international assessments (e.g. PISA, PIRLS, TIMMS) are conducted by international committees that co-ordinate the work of national team of researchers. They examine samples of students from many countries and compare their achievement levels.

(3) The assessment of students" learning within classroom environments is an integral component of teaching and learning processes (14). Research evidence indicates that the quality of how teachers assess their students might be deficient in various ways. These weaknesses include:-

(a) Use of poorly focused questions, predominance of questions that require reproduction of factual knowledge, often in brief answers.

(b) Evocation of responses that involve repetition rather than critical analysis and reflection.

(c) Lack of procedures designed to improve students" higher-order cognitive skills, and teacher bias.

(4) With some notable exceptions, classroom assessment has not received much attention in education reforms intended to improve education quality in the past decade. However, there have been interventions in various contexts to move beyond summative assessment and testing, and to

incorporate assessment measures that help to evaluate the learning process as well. Such shifts in assessment policy often involved increasing the significance of continuous assessment as opposed to examinations. Nevertheless, studies have shown that continuous assessment is highly challenging for teachers due to inadequate in-service teacher training on assessment techniques, large classroom sizes, poor facilities, and a shortage of learning materials.

(5) The shift to competency-based curriculum in an exam-oriented education system influenced teachers‟ classroom practices. In this sphere, several teachers expressed concerns about the academic achievement of their students and their performance at the entrance exams for secondary schools due to *convictions that the new curriculum emphasizes the development of competencies at the expense of knowledge acquisition (11).*The unintended, negative influences include narrowing the delivered curriculum, ignoring what is not examined, emphasizing learning styles that are superficial or short-term (e.g. memorizing, rehearsing and rote learning), and devoting much time to activities intended to prepare students for the exams. Most national examinations in developing countries require a high level of factual recall, and do not assess

competencies or critical/ creative thinking skills. The quality of such examinations influence teachers‟ pedagogical choices in various ways. Consequently, investment in strengthening the quality of examinations would improve the quality of teaching and learning practices and education quality in general. Moreover, while they measure student knowledge, they rarely examine issues encompassing values, attitudes and other non-cognitive skills.

d. **Model developments/ evolution**

(1) The focus within curriculum should be balanced between knowledge, competencies and skills, and none should be emphasized at the expense of the other. In this respect, curricular systems need to make sure that students‟ access to „powerful knowledge‟ is guaranteed. Textbook quality and availability is highly important in this regard (15).

(2) A narrow approach to learning, understood as measurable learning outcomes in numeracy and literacy, can result in sidelining these core dimensions of quality and diminishing other subjects and essential skills, values and relations, such as creativity, curiosity, critical thinking, civic-mindedness, solidarity, cooperation, self-discipline, self-confidence, co-responsibility, dialogue, compassion, empathy, courage, self-awareness, resilience, leadership, humility, peace,

harmony with nature, thus detracting from achieving the overall purpose of education (16). In line with this perspective, education evaluations should be holistic and formative, grounded on national parameters and respecting cultural and linguistic diversity, while focusing on systems as a whole and being developed with the active engagement of teachers, students and parents".

(3) The debate on reforming pedagogical practices should refrain from positioning the notions of teacher-centred and student-centred learning in opposite locations. Furthermore, such debates need to move away from a focus on the „problematization" of implementation process and in particular of teachers. Instead, efforts should be made to develop and apply more structured alternatives and to develop context-specific pedagogical approaches. Since teaching and learning are contextualized activities, there can be no justification for a universal and homogenizing pedagogy (17).

2. Comparative Health Leadership Models (summarized)

Source	Population/ Focus	How model was developed	Structure
Ross, Wenzel, Mitlying (2002)	- General (students/ health administrators at all levels) - in depth treatment of competencies relevant to health administration	Author experience; review of older models	4 clusters; 24 competencies
ACMPE (2003)	Medical group management professionals	Expert panels	5 competency clusters
AUPHA (2004)	Graduate students/ early careerists	Expert panels; review of older models	3 clusters; 35 competencies
Garman, Tyler and Darnell (2004)	Early, mid/ senior level administrators/ identify behavior alcompetencies that distinguish higher from lower performers	Content validation with expert panels	7 clusters; 26 competencies
NCHL (2004)	General (students/ health care administrators)/ develop a benchmark model of core competencies for the profession	Qualitative met analytic review of prior competency models; refinement based on practitioner inputs	3 clusters; 26 competencies
HLA (2005)	General health care administrators at all levels/ develop & disseminate resources for core competencies in health administration across sub-disciplines	Collaboration of 6 x major health administration professional bodies	5 clusters; 300 competencies
Dye and Garmen (2006)	Senior level executives / support self-development in areas that differentiate the highest performers from other strong performers	Experiences of experts in field	4 clusters; 16 competencies

3. **Few Models Discussed**

a. **Dreyfus Model**. More than three decades ago, Dreyfus brothers have described a five-stage model of skills acquisition, primarily applicable to pilot training. Since then this model has been found applicable to the skills acquisition in various fields including playing chess and driving. In the original Dreyfus and Dreyfus model (19):-

(1) A learner starts acquiring skills as a novice at one end to achieve expertise on the other.

(2) Towards the lower end of this spectrum, performance isrule-based and non-contextual, while towards the higher end,the performance tends to become fluid and intuitive.

(3) Competence is a point in the middle of this spectrum of improving performance.

(4) The exact criteria used to define competence in healthcare would depend on the task in question, particular discipline and context in which the task is being taught or assessed. But in general terms at the level of competence the individuals have some experience, they are able to make some autonomous decisions but they deal with complexity, based on rules and analysis of the situation.

(5) While there might be some debate in healthcare, how individuals achieve each level of performance on this model and which criteria should be used to define the levels, still

this model has been modified and adapted to explain skills acquisition in nursing and medicine. This model clearly indicates that skills acquisition is an ongoing process which ranges from novice to expert. Individuals use optimal training, deliberate professional practice and extended domain-related activities to incrementally improve their performance.

(6) Individuals reach the level of competence on this spectrum by training and reach the levels of proficiency and expertise by deliberate practice. „Training" can be defined as a process of acquisition of new skills or components of skills taught by others and „Deliberate Practice" can be summarized as self-directed rehearsal, facilitated or un-facilitated by tutors. As training and deliberate practice are not mutually exclusive and individuals can use both of these together at any point on the skills acquisition curve to improve their performance. At the same time, training could be a less prominent feature compared to deliberate practice towards the higher end of skills acquisition, but the contrary might not be essentially true, as novices can use training and deliberate practice together to refine their skills (11).Training will move them from the level of incompetence

to novice, and from this point onwards they can use both training and deliberate practice to improve their skills.

(7) General curve of skills acquisition reproduced from ten Cate (2010).

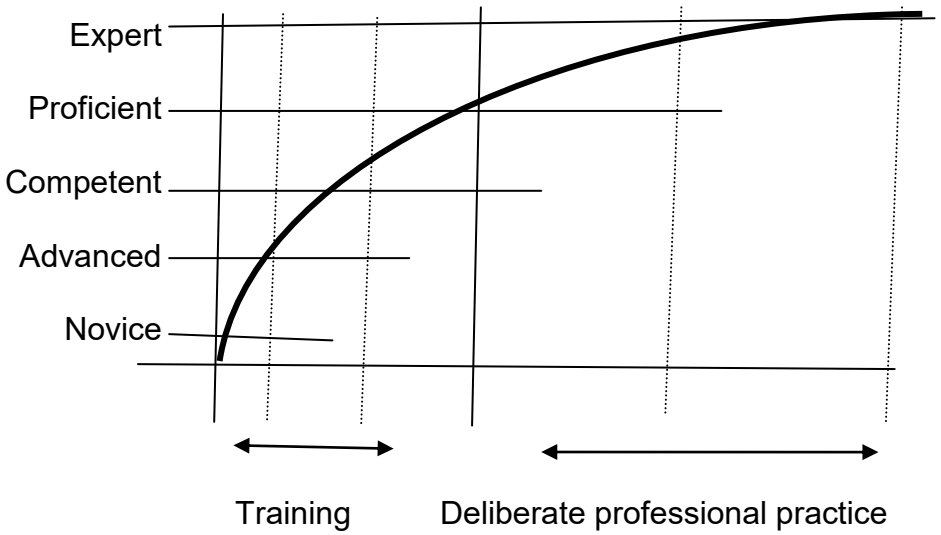


Fig 2.1

b. **<u>Health Care Leadership Model</u>**

(1) The Healthcare Leadership Alliance(HLA) is a consortium of major professional associations in the healthcare field:-

(a) American College of Healthcare Executives (ACHE).

(b) American College of Physician Executives (ACPE).

(c) American Organization of Nurse Executives (AONE).

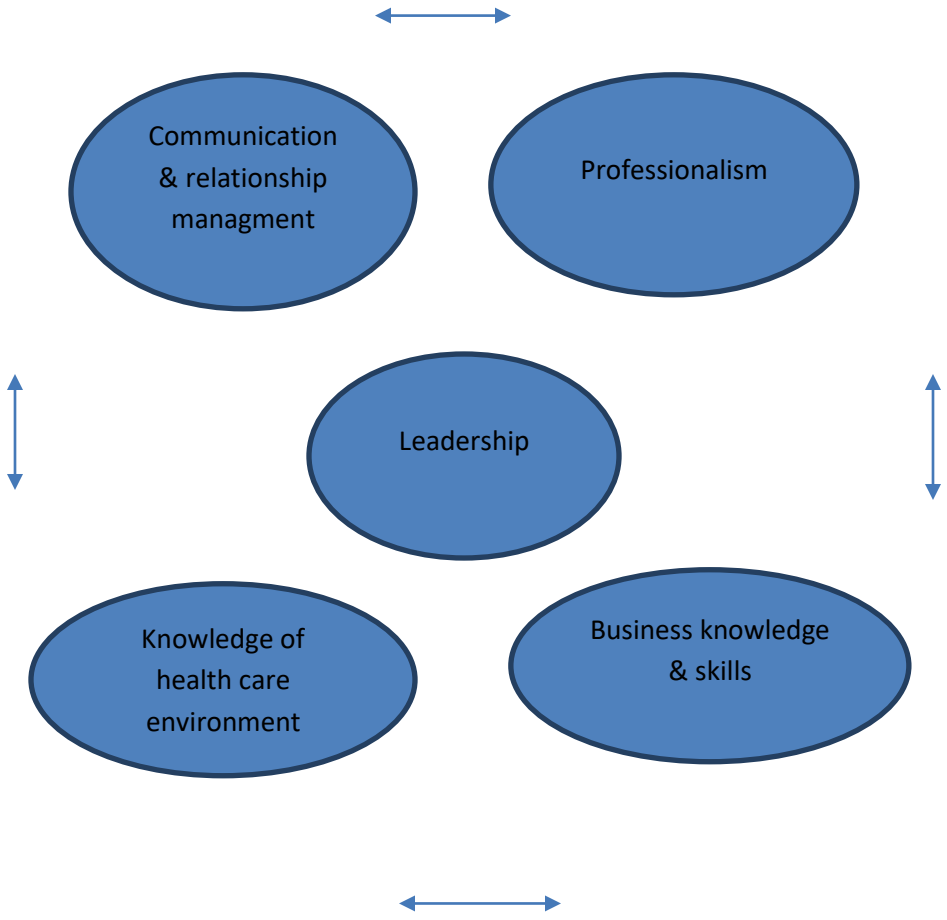
(d) Healthcare Financial Management Association (HFMA).

(e) Healthcare Information and Management Systems Society (HIMSS).

(f) Medical Group Management Association (MGMA).

(g) The American College of Medical Practice Executives (ACMPE).

(2) The health care model formulated after an extensive surveys and effort was:



(3) The Task Force determined that these KSAs clustered into five competency domains that were common among the membership of all six associations:-

(a) **<u>Communication and Relationship Management</u>**. The ability to communicate clearly and concisely

with internal and external customers, to establish and maintain relationships, and to facilitate constructive interactions with individuals and groups

(b) **Leadership**. The ability to inspire individual and organizational excellence, to create and attain a shared vision, and to successfully manage change to attain the organization's strategic ends and successful performance

(c) **Professionalism**. The ability to align personal and organizational conduct with ethical and professional standards that include a responsibility to the patient and community, a service orientation, and a commitment to lifelong learning and improvement

(d) **Knowledge of the Healthcare Environment**. The demonstrated understanding of the healthcare system and then environment in which healthcare managers and providers function

(e) **Business Skills and Knowledge**. The ability to apply business principles, including systems thinking, to the healthcare environment; basic business principles include:-

i. Financial management.

ii. Human resource management.

iii. Organizational dynamics and governance.

iv. Strategic planning and marketing.

v. Information management.

vi. Risk management, and

vii. Quality improvement.

(4) In keeping with the current focus on outcomes and evidence-based management, these five domains were viewed as common competencies or competency domains. While "competency" can be defined in a variety of ways, the Task Force adopted a definition from Ross, Wenzel, and Mitlyng (2002). Competencies are clusters that transcend unique organizational settings and are applicable across the environment. That is, the domains identified by the Task Force are generic and demonstrable.

(5) The process resulted in the creation of the HLA Competency Directory, an Excel-based interactive tool, it contains a series of filters that allow the user to sort by skills versus knowledge, core versus specialty, keyword, skill area, or professional association. This design enables the user to customize searches according to the user's need or circumstance. The Directory contains 300 competency statements organized under the five domains of the HLA model. The vast majority (232 or 77.3 percent) of the skills

and knowledge listed are common to all the management professions represented by the HLA associations; only 68 specialty competencies were identified.

c. **Overview of HLA competency directory**

(1) The Healthcare Leadership Alliance (HLA) has created the HLA Competency Directory, an interactive tool to ensure that current and future healthcare leaders have the training and expertise they need to meet the challenges of managing the nation"s healthcare organizations. The competency statements were based on extensive psychometric research, including job analysis studies, by each of the associations. These competencies were categorized under five domains:

(a) **Communication and Relationship Management.** The ability to communicate clearly and concisely with internal and external customers, establish and maintain relationships, and facilitate constructive interactions with individuals and groups.

i. Relationship Management: The ability to build and maintain relationships with internal as well as external stakeholders that are anchored in trust and where decision-making is shared.

ii. Communication Skills. Be able to utilize verbal, written and presentation skills to communicate

an organization"s mission, vision, values and priorities to diverse audiences.

iii. Facilitation and Negotiation: The ability to move a group toward a conclusion, guiding the group collectively through substantive discussion, compromise and consensus.

(b) **Leadership**. The ability to inspire individual and organizational excellence, create and attain a shared vision and successfully manage change to attain the organization"s strategic ends and successful performance.

i. **Leadership Skills and Behavior**. The ability to exercise appropriate leadership styles and behavior, employ critical thinking skills, and advocate for the organization and its values in the community and public policy arena.

ii. **Organizational Climate and Culture.** Foster a culture that values diversity, promotes teamwork, and engenders a commitment to the purpose and values of the organization.

iii. **Communicating Vision.** Establish and communicate a compelling vision for the

organization that guides strategy formulation and direction.

iv. **Managing Change.** Be able to promote organizational development and continuous improvement, and use systems thinking to enact change in complex organizations.

(c) **Professionalism**. The ability to align personal and organizational conduct with ethical and professional standards that include a responsibility to the patient and community, a service orientation, and a commitment to lifelong learning and improvement.

i. **Personal and Professional Accountability**. Practice and advocate ethical decision-making and actions, promote patients‟ rights and responsibilities, effectively manage stress and personal resources, and act in accord with professional roles and norms.

ii. **Professional Development and Lifelong Learning**. Participate in proactive career planning and continually update professional knowledge.

iii. **Contributions to the Community and Profession**: Mentor or coach others in the

workplace, provide service to the community that improves community health status and standards of care, and adds to the professional body of knowledge by teaching, research or other means.

(d) Knowledge of the Health Care Environment: The understanding of the health care system and the environment in which health care managers and providers function.

i. **Health Care Systems and Organizations.** Demonstrate an understanding of how the various components of the health care system are organized and financed, and how they interact to deliver medical and healthcare.

ii. **Health Care Personnel.** Understand the professional roles, responsibilities, and values of the range of healthcare professionals in order to foster effective relationships and promote an optimal care environment.

iii. **The Patient's Perspective**. Understand the patient experience, demonstrate a commitment to patients" rights and responsibilities, and

ensure that the organization provides a safe environment for patients and their families.

iv. **The Community and the Environment** Monitor trends in the local and national environment to the delivery of care, demonstrate a familiarity with the regulations impacting health care delivery, and understand the impact of public policy decisions on cost, quality and access to care

(e) **Business Skills and Knowledge**. The ability to apply business principles, including systems thinking, to the health care environment.

i. **General Management**. Demonstrate analytic and problem solving skills, and understand the impact of individual decisions on other parts of the organization and the environment.

ii. **Financial Management**. Understanding of financial analysis, reimbursement techniques and strategies, and financial outcome measures. Application of financial analysis and planning to achieve organizational objectives.

iii. **Human Resource Management**. Understanding of the rights and protection of employees, effective workforce planning, and performance management.

iv. **Organizational Dynamics and Governance**. An understanding of governance structures and the ability to foster trust and effectively support governance systems and achieve organizational goals.

v. **Strategic Planning and Marketing.** Setting organizational direction and strategies based on an understanding of the market and market forces, and communicating an organization‟s capabilities and strengths to consumers.

vi. **Information Management**. An understanding of how technology can be used to promote managerial and clinical efficiency and improve health care delivery. The ability to effectively manage information resources and plan for future needs.

vii. **Risk Management**. Knowledge of liability and compliance regulation, the ability to employ

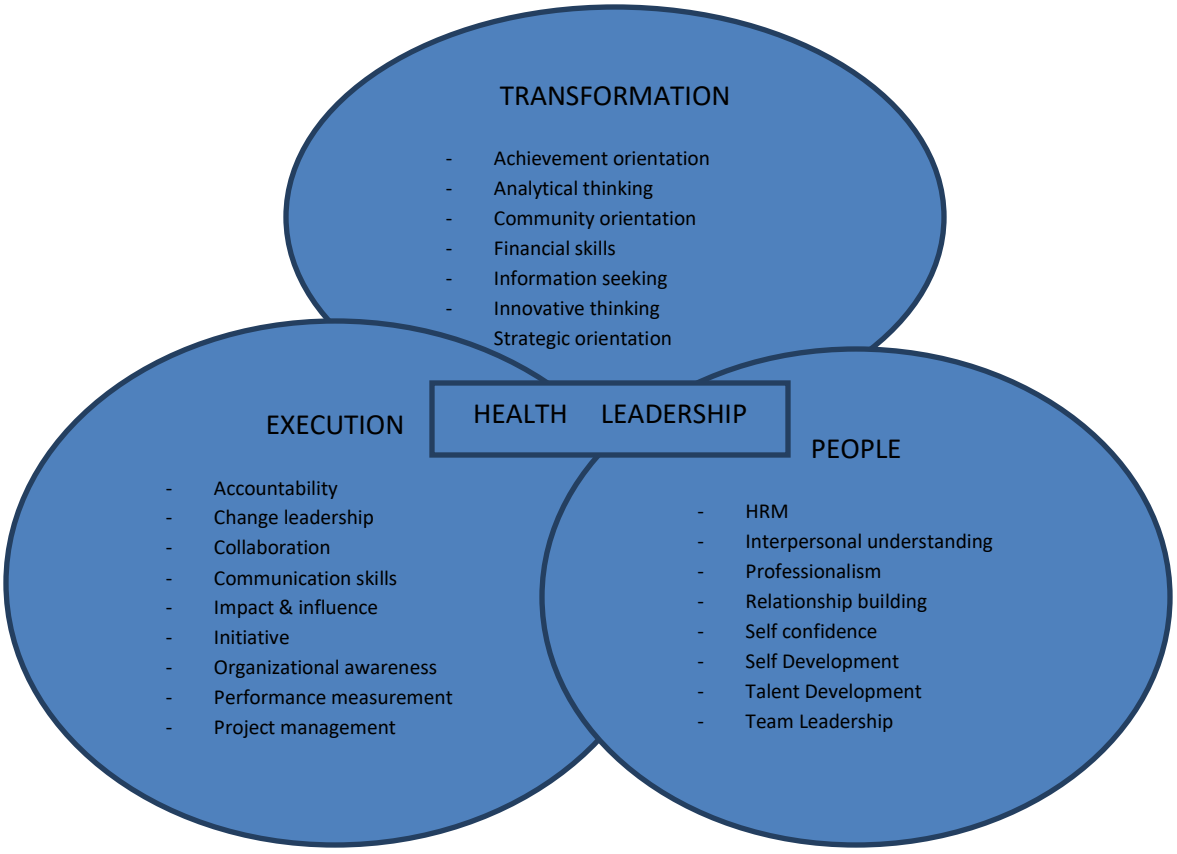
strategies to mitigate risk, avoid malpractice and plan for disasters.

viii. **Quality Improvement.** Application of techniques that continually improve the quality of care provided, patient safety, organizational performance, and the financial health of the organization

d. **National Center of Healthcare Leadership(NCHL) Model**:

(1) The models based on the definition of “competency” as those behavioral and technical characteristics (competencies) that discriminate outstanding leadership performance from typical performance across the health professions. The model includes three domains - transformation, execution, and people and18 behavioral competency categories or constructs and eight technical competencies. Competencies in the HLCM are“ scaled” to describe how the competency is demonstrated as positions/roles increase in scope, complexity, or sophistication. The scales are termed “levels of competency.” Each HLCM competency is defined using three to six levels of performance.

(1) The model can be diagrammatically explained as:



MATERIALS AND METHODS

Aim

1. To improve the existing MSc Medical Administration course for achievement of quality healthcare delivery system.

Objectives

2. The objectives of the study are:-

   a. To compare the existing curriculum of MSc Med Administration with leading similar degree programs.

   b. To identify gaps in the existing curriculum.

   c. To make recommendations for improvement in MSc curriculum.

Methodology

3. Following methodology was adopted:-

   a, **Study Design.** Qualitative study.

   b. **Study Area.** The study was conducted at AFPGMI,NUMS and HEC.

   c. **Duration of Study.** The study was conducted within 1 year after approval of the synopsis

   d. **Study Population:-**

      (1) Students from previous 03 x MSc courses.

      (2) Faculty taught during last 03 years.

      (3) Policy makers at Medical Directorate.

      (4) Commandants of A class military hospitals in Rawalpindi.

(5) Retired Health Care Administrators

e. **Sampling.** purposive sampling was carried out for data collection. Data was `collected by conducting in depth semi structured interviews from HEC representative, NUMS,AFPGMI faculty, trainees of previous 3 MSC courses, policy makers, Commandants A class military hospitals at Rawalpindi and retired HCAs.

f. **Plan of Analysis:-**

Thematic content analysis was carried out. Data transcribed, translated and coding done from open to axial to emerge the themes. Analysis done as under:-

(1) Transcribe

(2) Translate

(3) Open Coding

(4) Axial Coding

(5) Themes

(6) Interpretation

g. **Data Collection Procedure:-**

(1) **Inclusion Criteria.** Students of previous 3 MSc courses, faculty members, policy makers at Medical Directorate and Commandants of A class military hospitals.

(2) **Data Collection Method.** Responders list prepared, Permission sought from concerned authorities through application. Formal letters sent to previous 3 MSc qualified

officers. Purpose of the study explained to all selected participants and informed consent obtained from them.

(3) **Data Collection Tools.** A semi-structured interview guide was prepared and used for in depth interviews. It was pre tested.

4. **Ethical Consideration**

a. Verbal consent was taken from respondents before starting the interview.

b. Data confidentiality and anonymity maintained.

c. Objectives of the study were explained to the respondents.

d. Approval of study was obtained from Internal Review Board, AFPGMI Rawalpindi.

e. Permission / informed consents were obtained from each respondent. Participants' anonymity i.e. confidentiality of the data will be maintained.

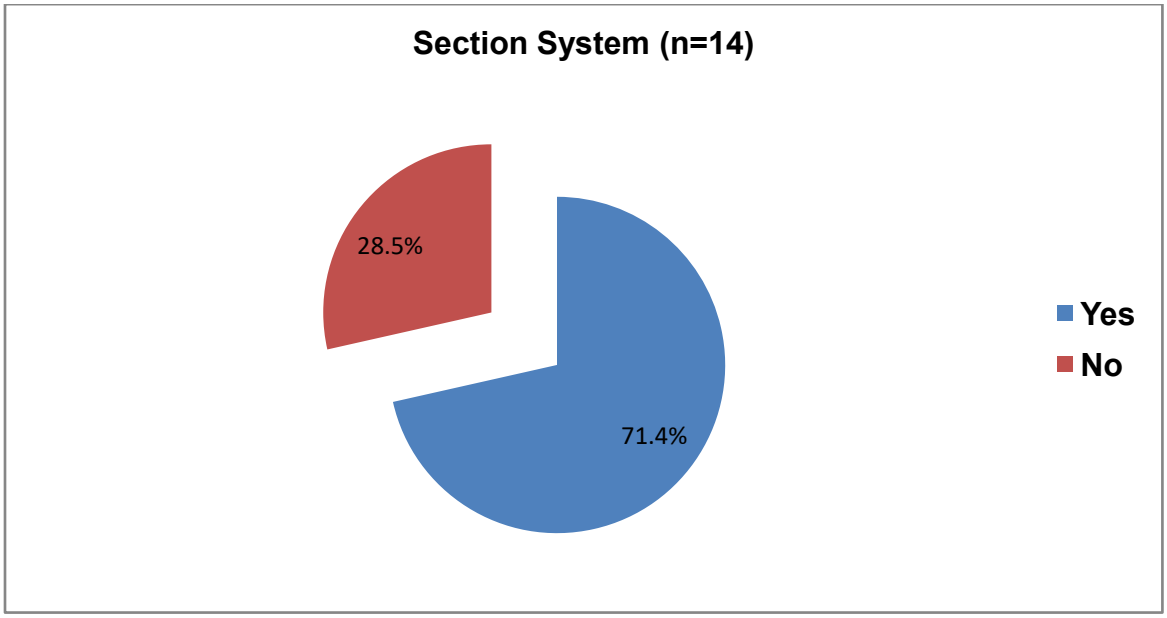
SECTION - I

FINDINGS BASED ON INTERVIEWS

Interviews of Commandants, Deputy and Assistant Commandants of 3 A class Hospitals, 5 AFPGMI faculty members, 6 policy makers at Medical Directorate

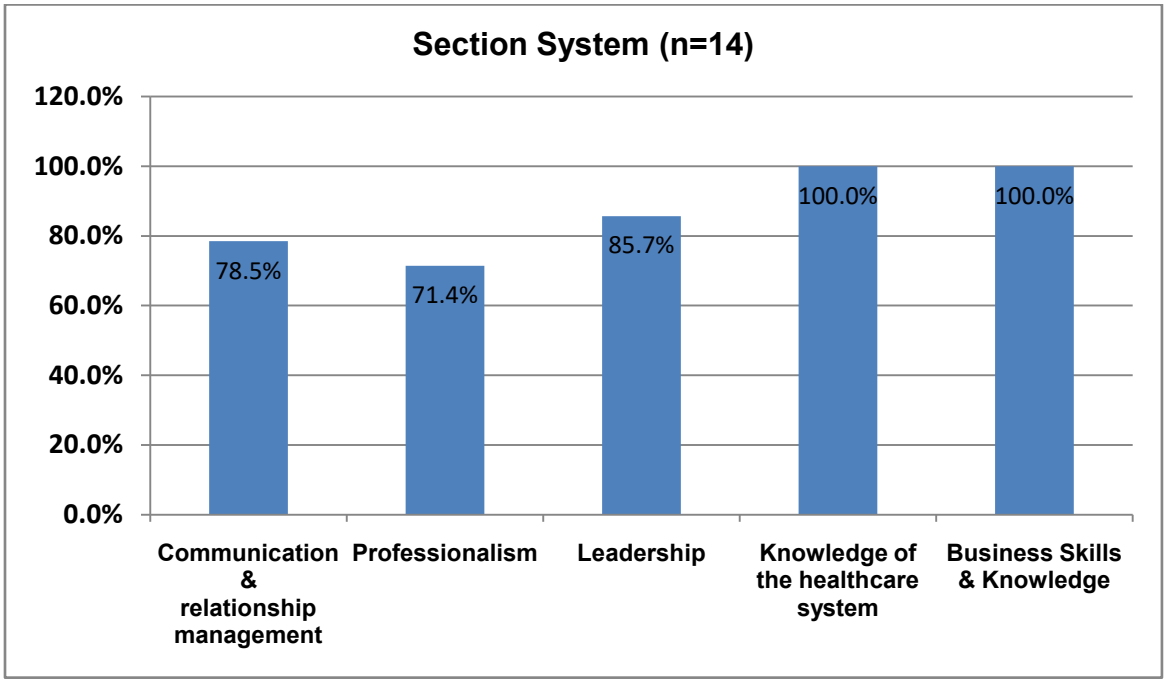
Semi structured interviews were conducted from the above mentioned. 10 questions were asked from respondents and their responses as given below.

1. **Question NO 1**. Is current MSc Medical Administration curriculum in your opinion compatible to that of reputed national & international universities offering masters in health administration?



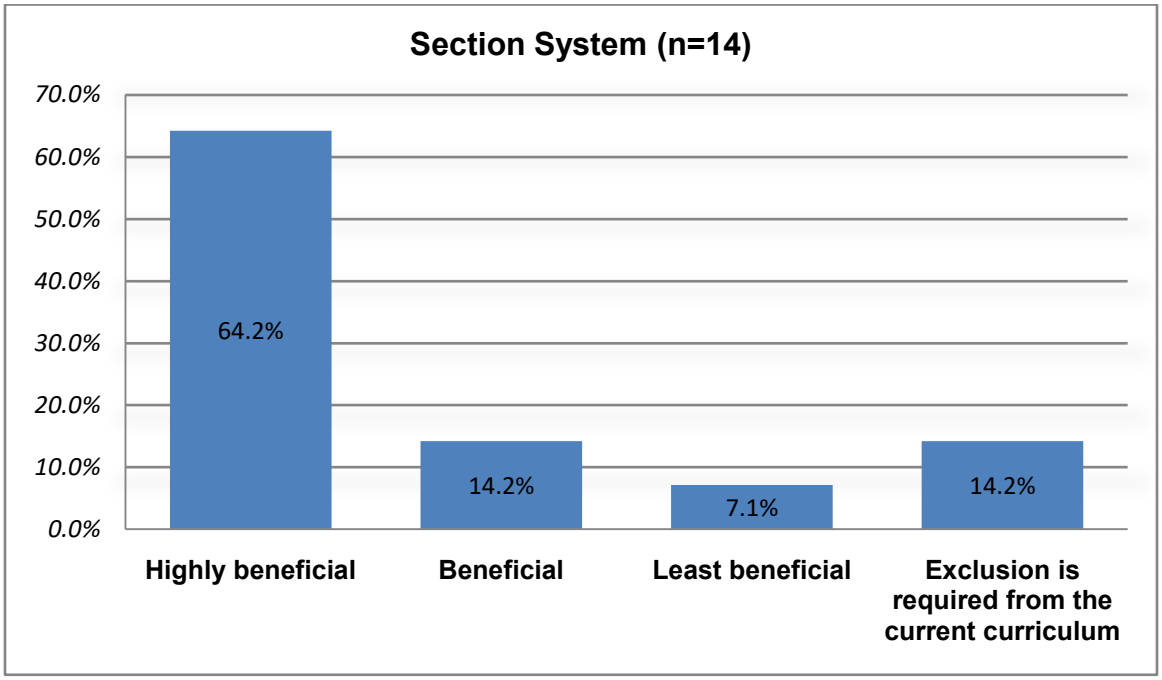
2. **Inference**. Majority of the respondents (71.4%) said that it is compatible to other leading national and international degree programs, however considerable number of respondents (28.5%) said that improvement is required.

3. **Question NO 2**. According to the Healthcare Leadership Alliance Competency Model, a healthcare administrator/ manager should have the following five basic competencies



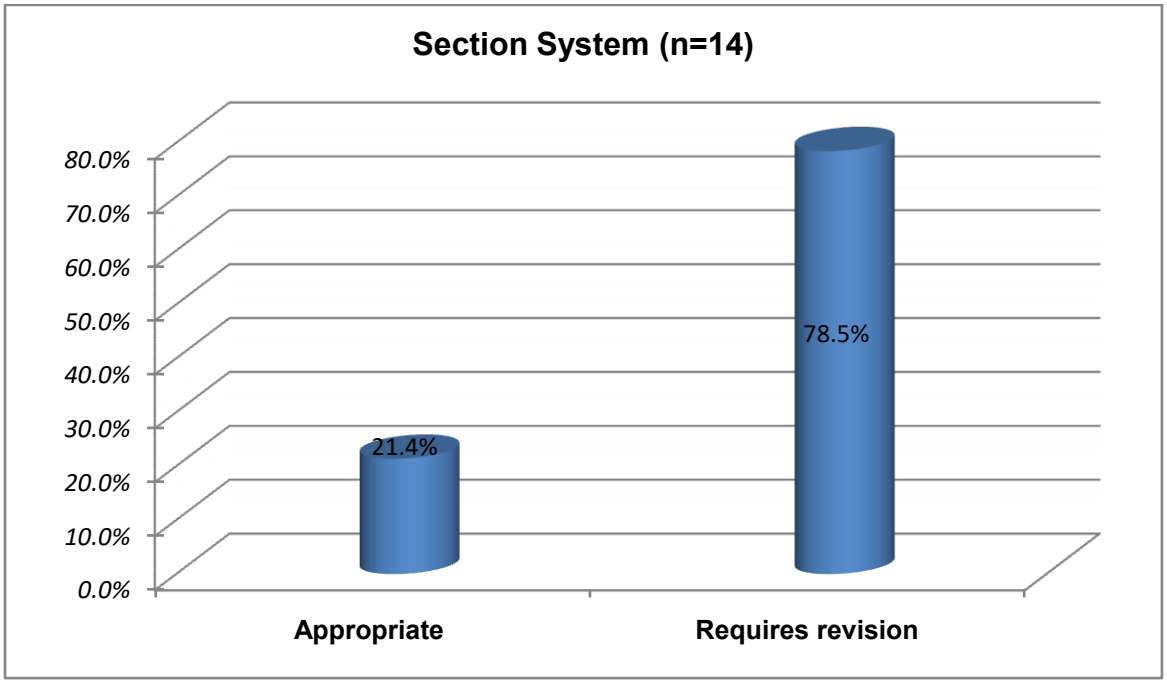
4. **Deduction. Overwhelming number of respondents agreed that a healthcare administrator / manager should have the above basic competencies.**

5. **Question NO 3**. List of MSc subjects and their topics currently taught are attached for reference. Please grade from the given options usefulness of these subjects for HCAs?



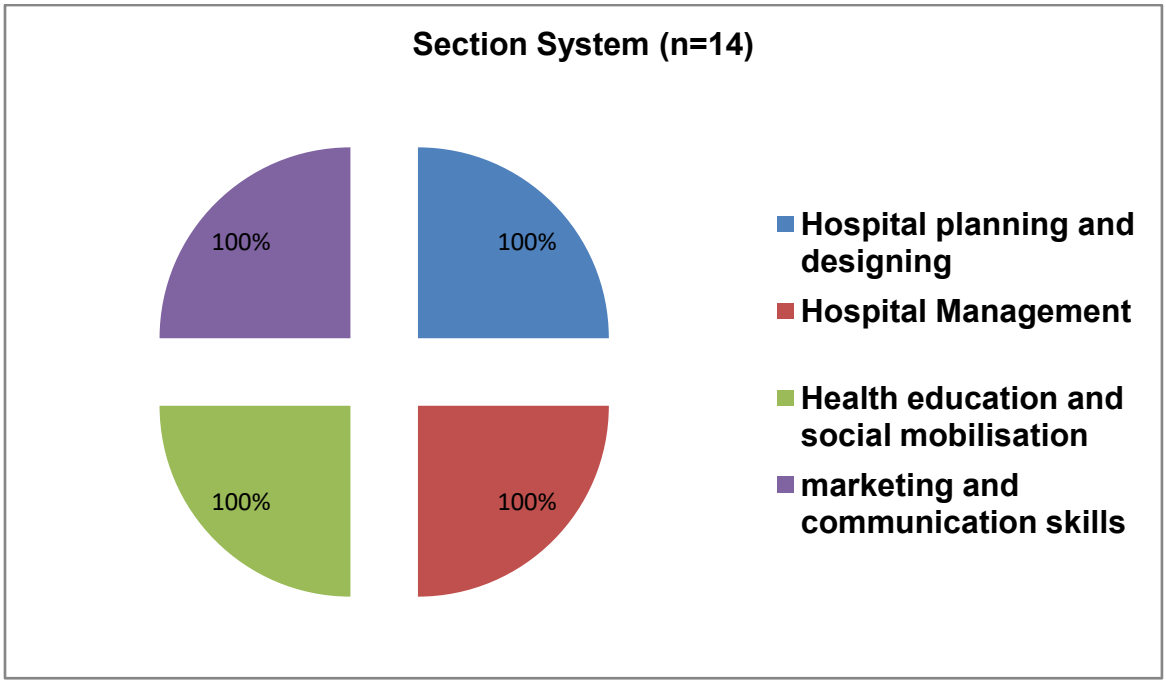
6. **Deduction.** Majority of the respondents (64.2%) were of the opinion that the subjects taught are highly beneficial while others were of the opinion that changes are required in subjects. Some also opined that subjects like long term care, nutrition and reproductive health should be discontinued.

7. **Question NO 4**. In your opinion the current MSc curriculum taught is appropriate or it requires revision?



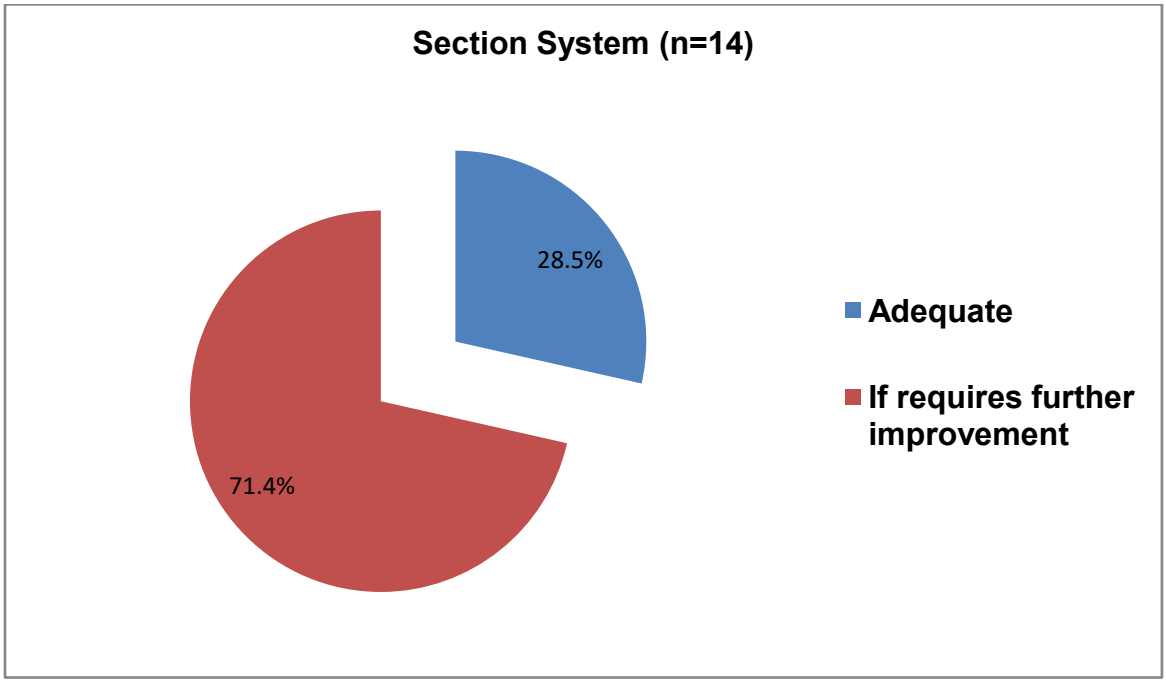
8. **Deduction**. Overwhelming majority (78.5%) opined that MSc curriculum requires revision.

9. **Question NO 5**. In each of the subjects what topics/contents/workshops and practicals should be added to enhance knowledge and basic skills in healthcare administration and for staff appointments of the trainees?



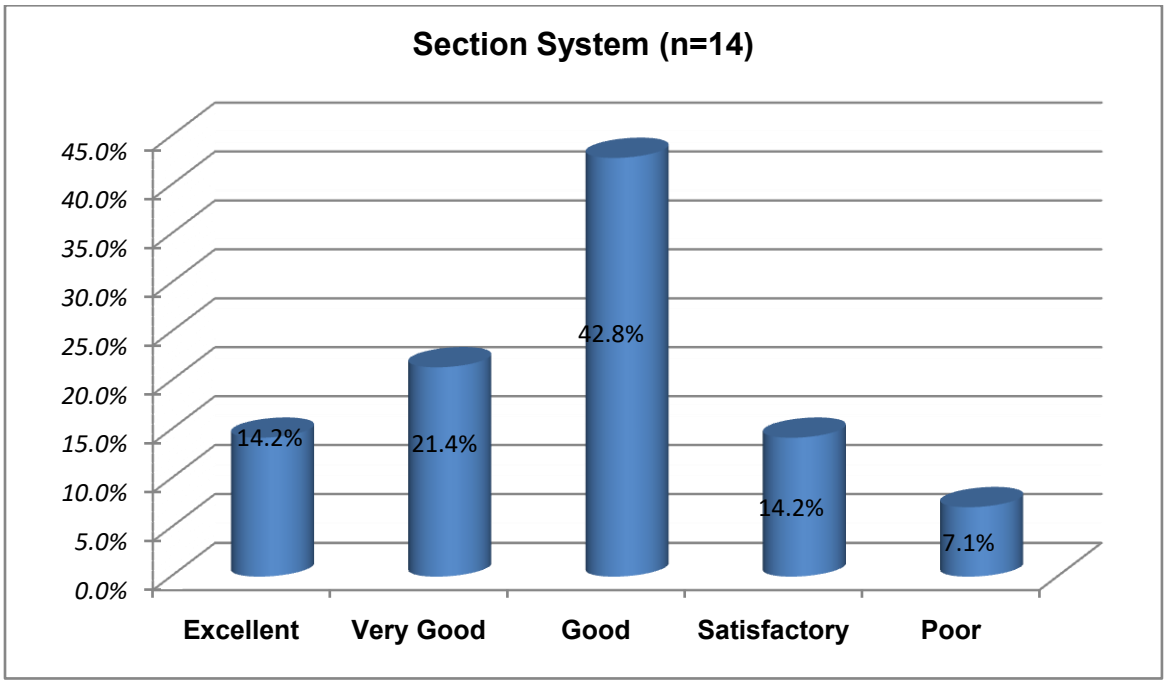
10. **Deduction**. All of the respondents (100%) were of the opinion that these subjects should be included in the curriculum.

11. **Question NO 6**. The present teaching methodologies consists of lectures, classroom discussions, seminars and study tours. Are these teaching methods adequate in your opinion? If otherwise what new methodologies can be adopted in your view?



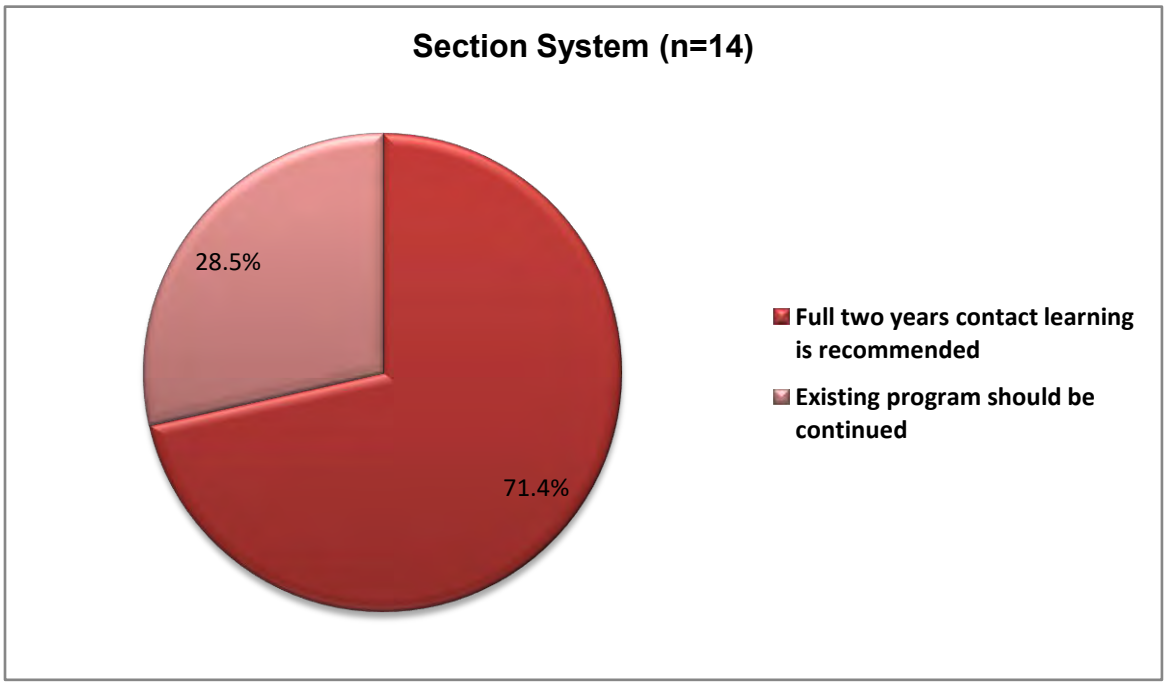
12. **Deduction**. Majority of the participants (71.4%) opined that present teaching methodologies requires further improvement with more practical and scenario based teaching.

13. **Question NO 7**. Please grade the current evaluation criteria.



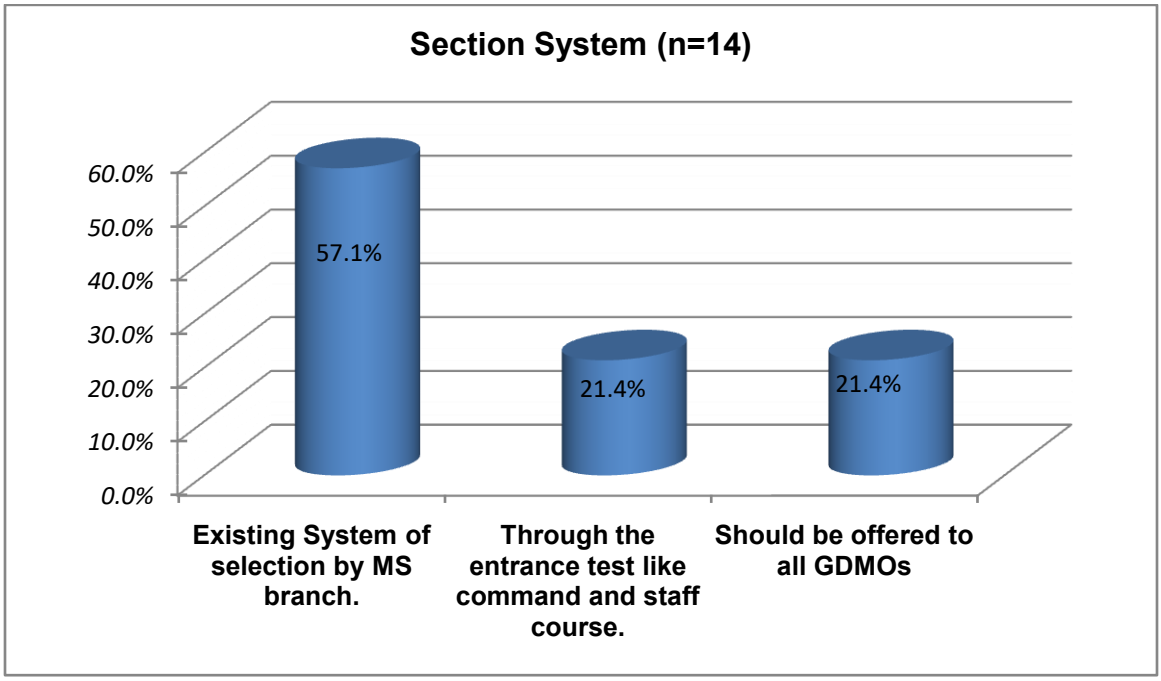
14. **Deduction**. Majority of the respondents graded the current evaluation criteria as good and considerable number as very good.

15. **Question NO 8**. Duration of current course is two years,1 year contact learning and 1year nonresidential practical. In your opinion full time 2 years presence is required or only 1 year contact learning is enough as practiced currently?



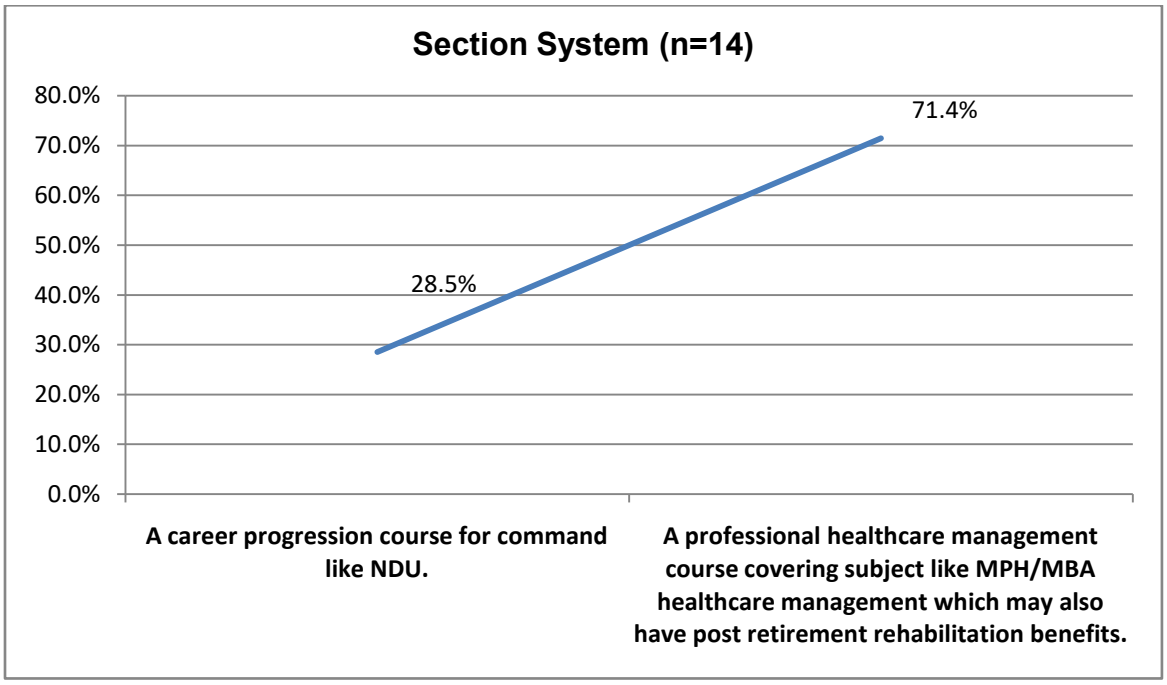
16. **Deduction**. Majority of the respondents (71.4%) were in favour of existing system while remaining (28.5%) were in favour of full 2 years contact learning.

17. **Question NO 9**. What should be the selection system for MSc Medical Administration program?



18. **Deduction**. 57.1% were in favour of existing system of selection by MS Branch while remaining opined in equal numbers for the other two options.

19. **Question NO 10**. In your opinion MSc should be.



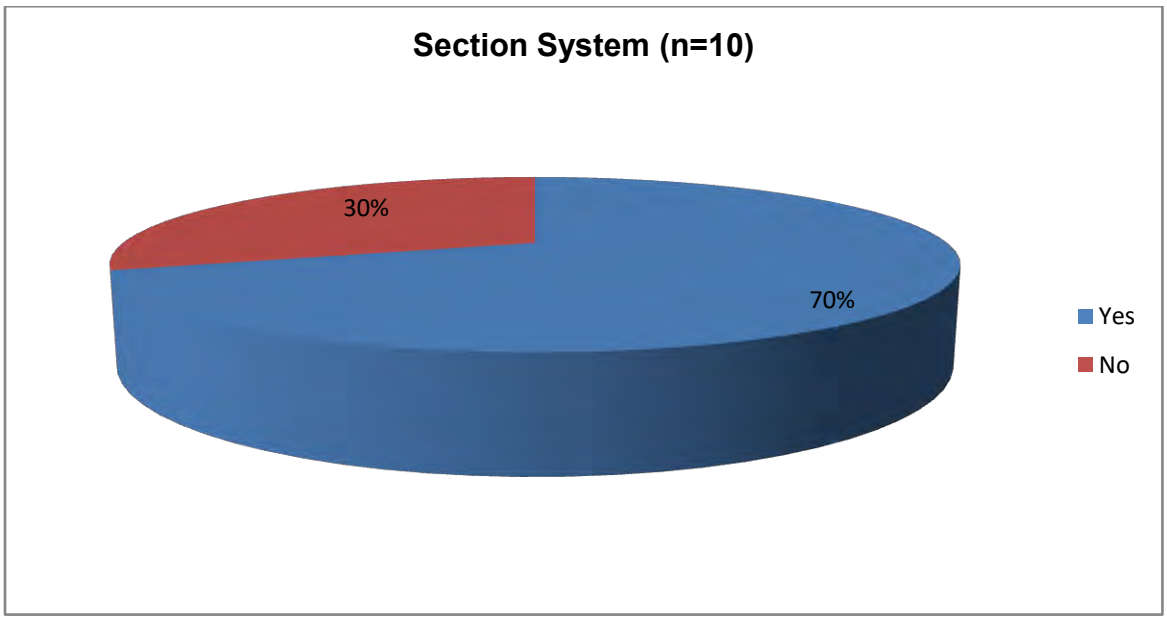
20. **Deduction**. Majority of the respondents (71.4%) were in favour of a professional healthcare management course covering health care management and hospital administration.

SECTION – II

Interviews of 10 Students of 3 Previous MSc Courses and Retired Officers

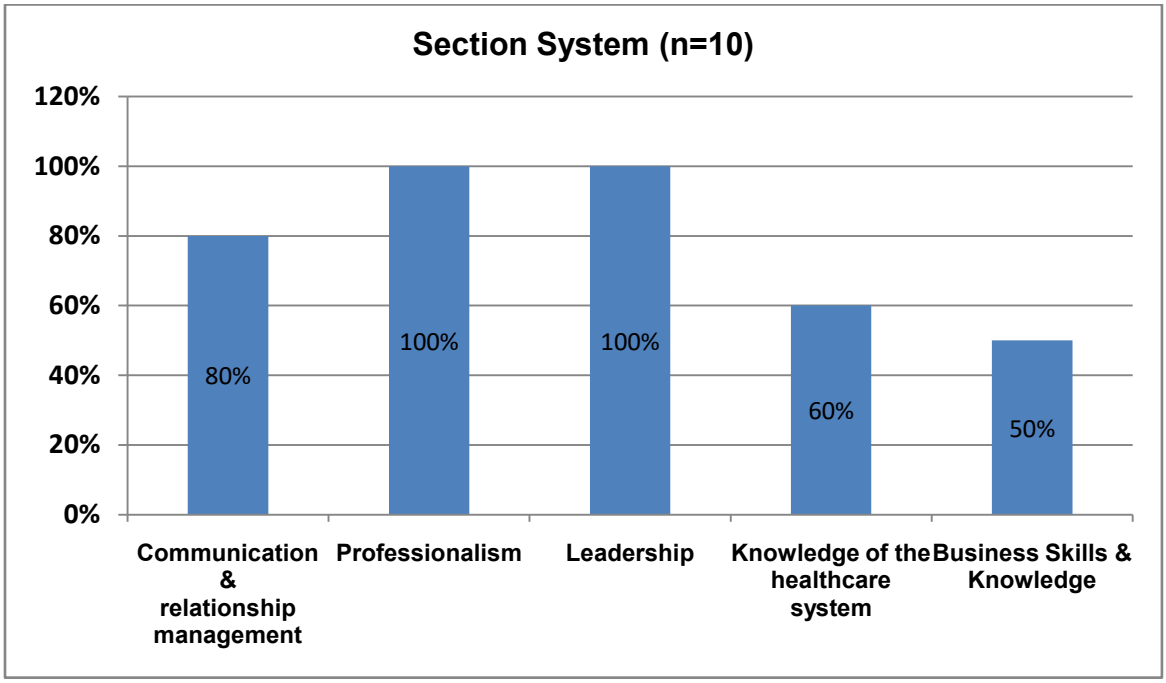
Semi structured interviews were conducted from 10 students of previous MSc and retired officers. 10 questions asked from each respondent. Responses are given as below.

1. **Question NO 1**. Is current MSc Medical Administration curriculum in your opinion compatible to that of reputed national & international universities offering masters in health administration?



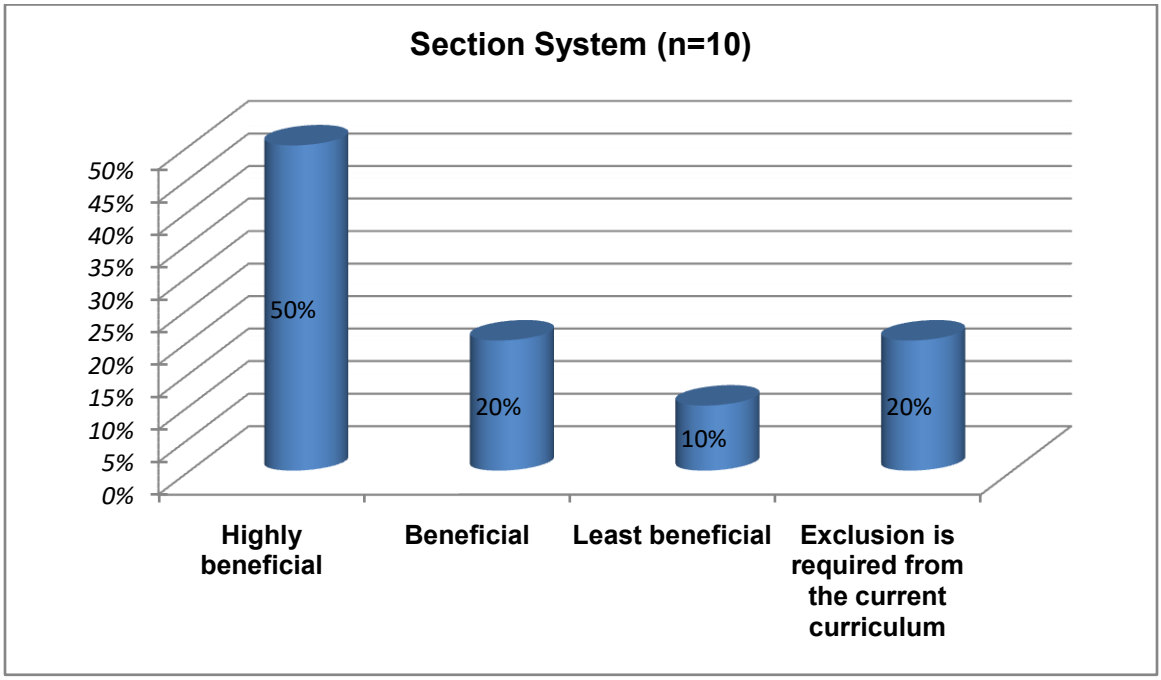
2. **Inference**. Majority of the respondents (70%) said that it is compatible to other leading national and international degree programs, however considerable number of respondents (30%) said that improvement is required.

3. **Question NO 2**. According to the Healthcare Leadership Alliance Competency Model, a healthcare administrator/ manager should have the following five basic competencies.



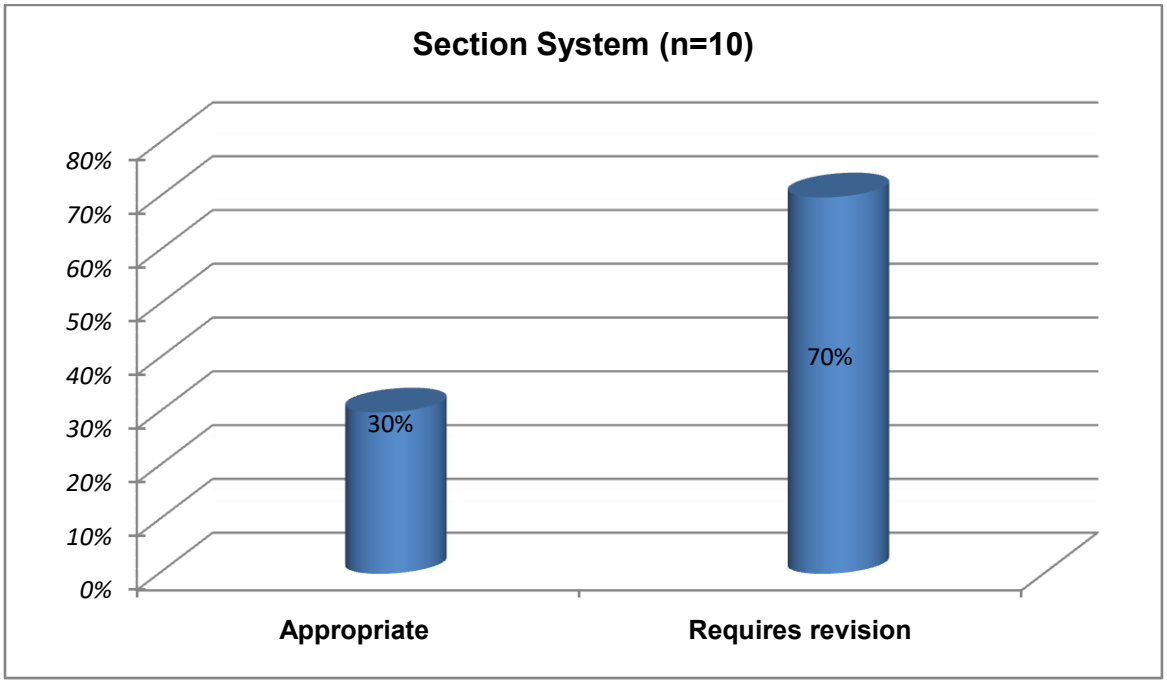
4. **Deduction.** Majority agreed that a healthcare administrator should have these five basic competencies.

5. **Question NO 3**. List of MSc subjects and their topics currently taught are attached for reference. Please grade from the given options usefulness of these subjects for HCAs?



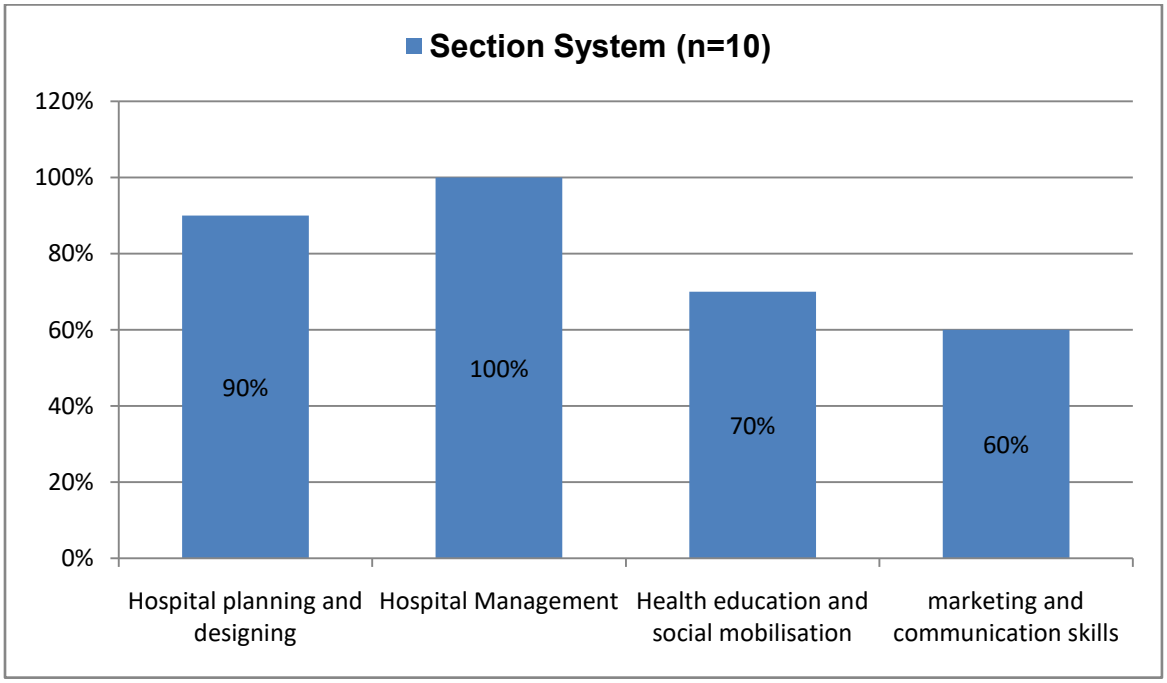
6. **Deduction.** Majority graded the subjects start as highly beneficial.

7. **Question NO 4**. In your opinion the current MSc curriculum taught is appropriate or it requires revision?



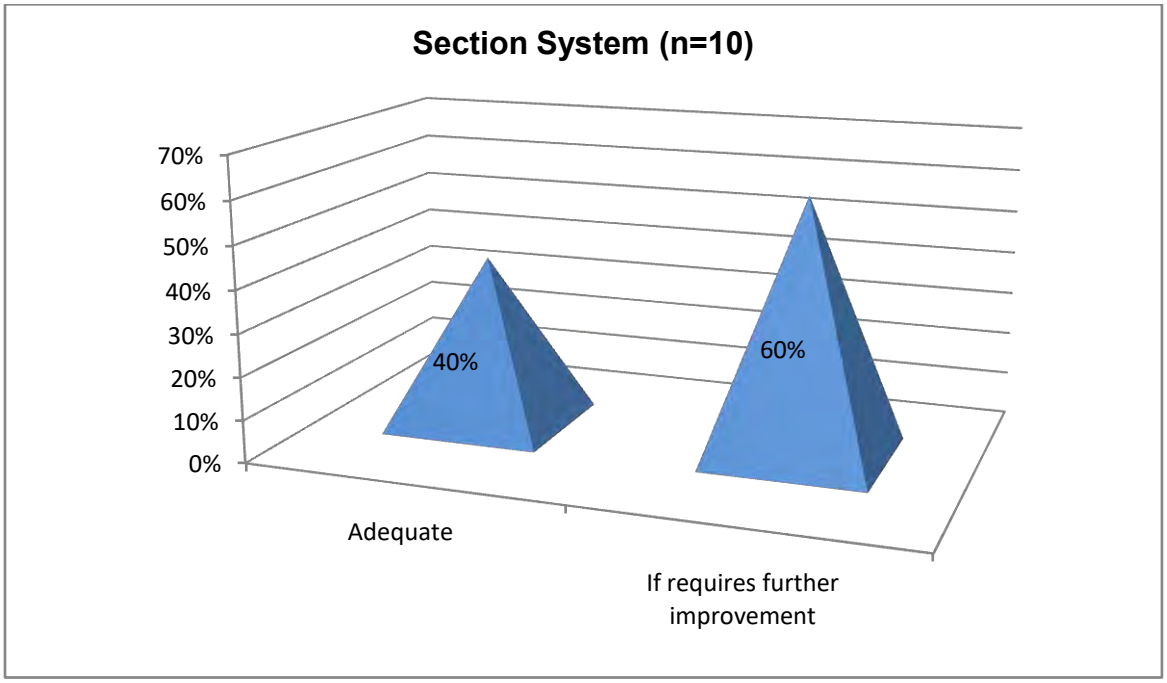
8. **Deduction**. Majority (70%) opined that MSc curriculum requires revision.

9. **Question NO 5**. In each of the subjects what topics, contents, workshops and practicals should be added to enhance knowledge and basic skills in healthcare administration and staff appointments of the trainees?



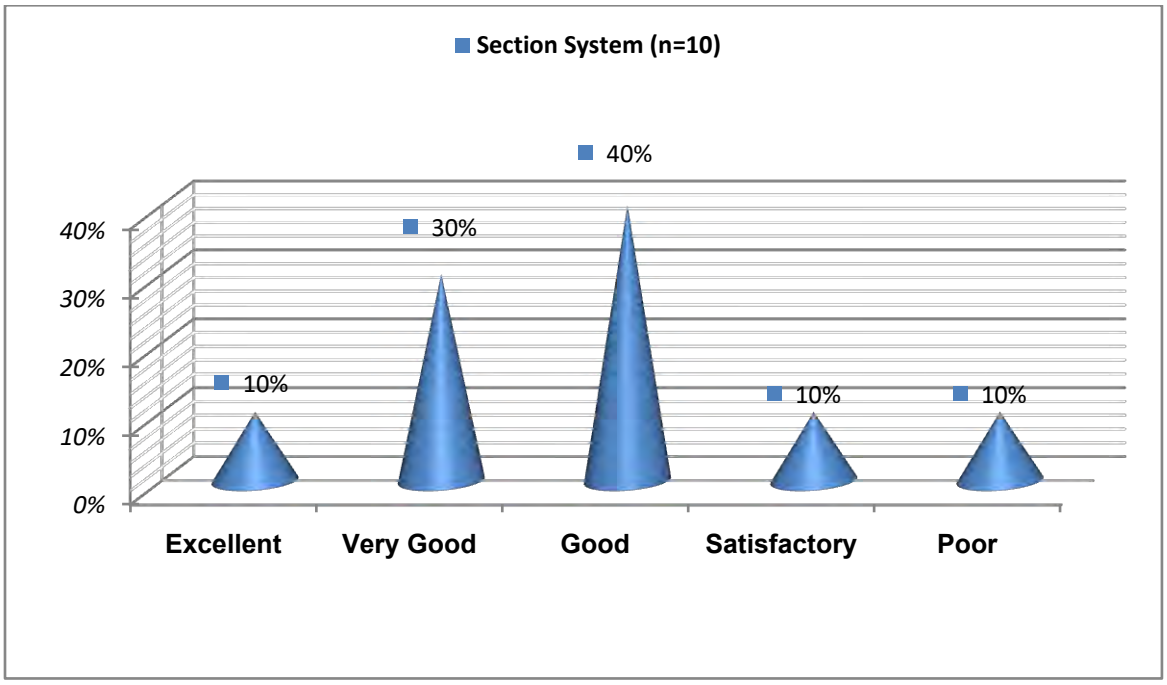
10. **Deduction**. Overwhelming majority opined that MSc curriculum requires revision as shown in the graph.

11. **Question NO 6**. The present teaching methodologies consists of lectures, classroom discussions, seminars and study tours. Are these teaching methods adequate in your opinion? If otherwise what new methodologies can be adopted in your view?



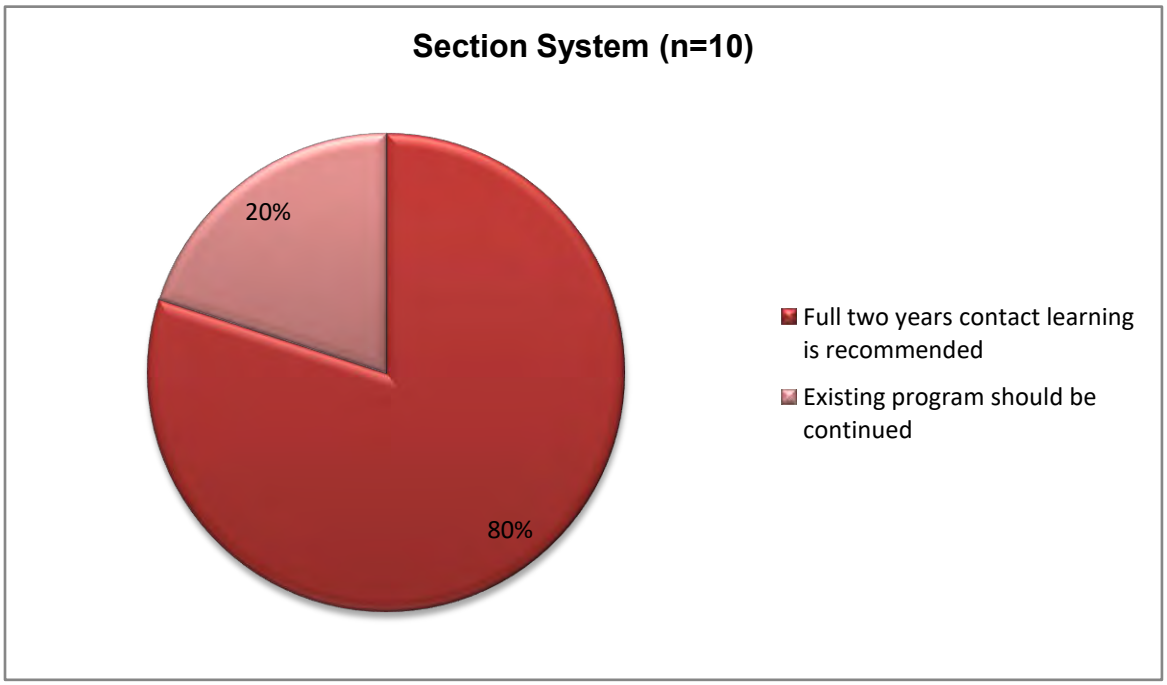
12. **Deduction**. Majority of the participants (60%) opined that present teaching methodologies requires further improvement with more practical and scenario based teaching.

13. **Question NO 7**. Please grade the current evaluation criteria.



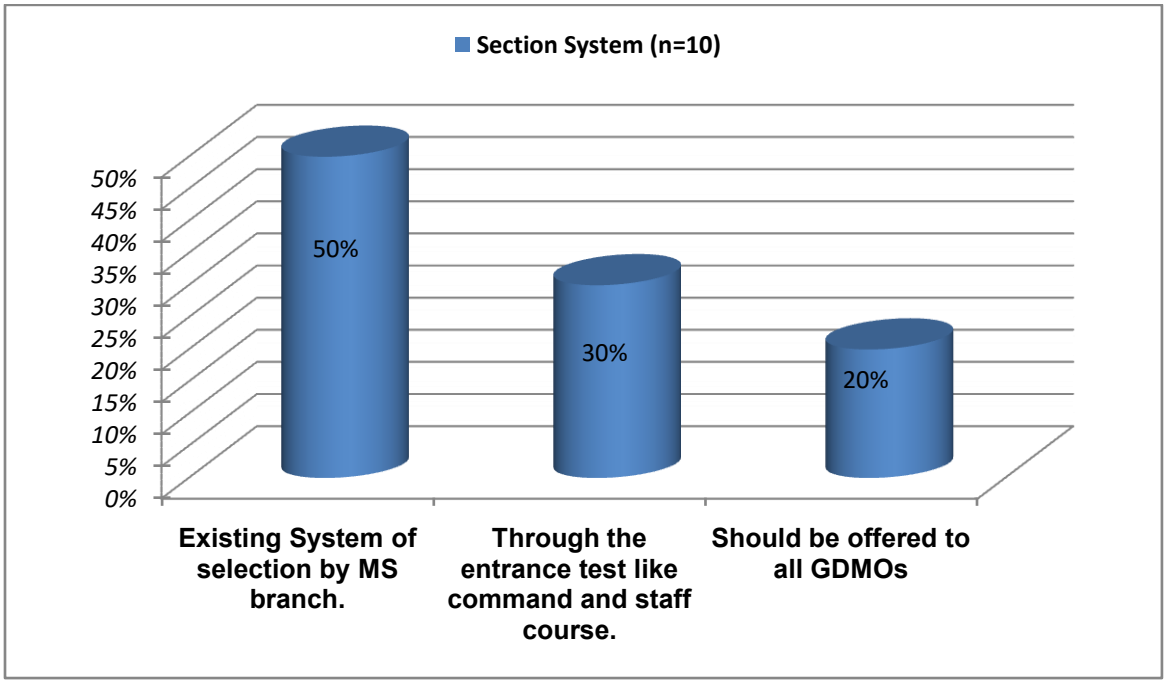
14. **Deduction**. Majority of the respondents graded the current evaluation criteria as good and considerable number as very good

15. **Question NO 8**. Duration of current course is two years,1 year contact learning and 1year nonresidential practical. In your opinion full time 2 years presence is required or only 1 year contact learning is enough as practiced currently?



16. **Deduction**. Majority of the respondents (80%) were in favour of existing system of 1 year contract learning 1 year distant learning.

17. **Question NO 9**. What should be the selection system for MSc medical administration program?

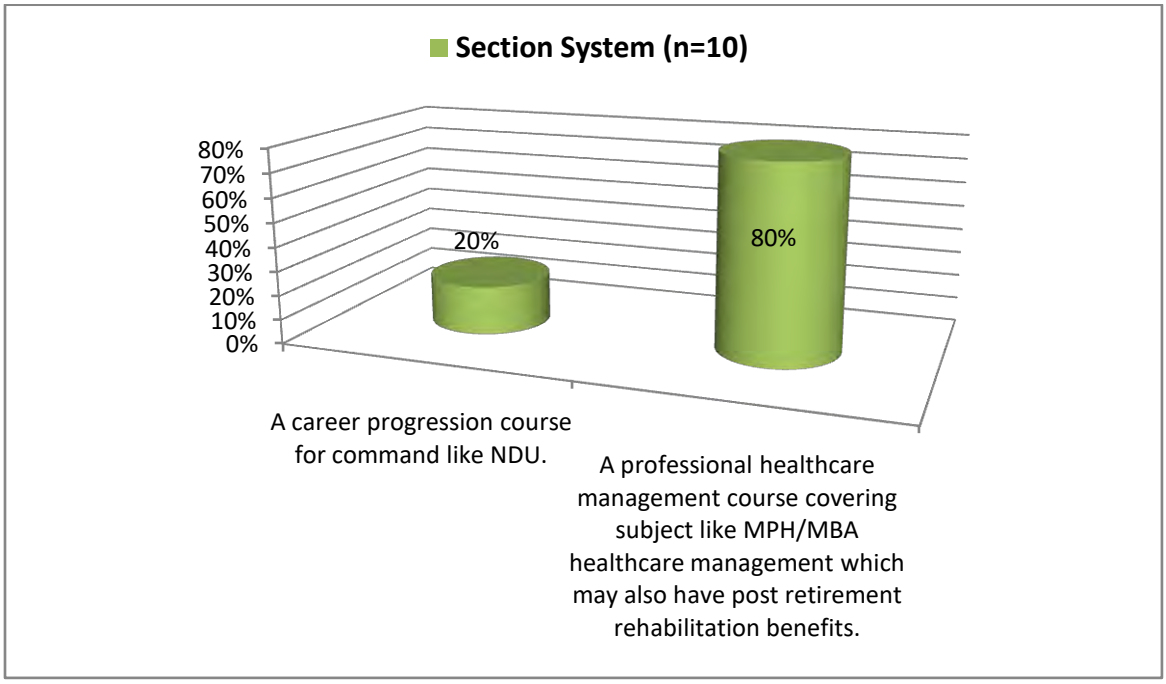


18. **Deduction**. 50% were in favour of existing system of selection by MS Branch while remaining opined in favour of other two options as shown above.

19. **Question NO 10**. In your opinion MSc should be:-

a. A career progression course for command like NDU?

b. A professional healthcare management course covering subject like MPH/MBA healthcare management which may also have post retirement rehabilitation benefits?



20. **Deduction**. Majority of the respondents (80%) were in favour of a professional healthcare management course covering health care management and hospital administration, however the also suggested that suitable assessment and teaching methodologies of NDU be adopted.

SECTION - III

DISCUSSION

1. Interviews of Commandants, Deputy and Assistant commandants of 03 class- A hospitals, 05 faculty members, 06 policy makers at Medical Directorate and interviews of 10 students of 03 previous MSc courses as well as retired officers.

a. 71.4 % officers opined that MSc is a compatible course in content to national and international universities curriculum of related degree programs. However, supported the course revision and inclined focus towards hospital management and health policy management more than public health traditional topics:-

(1) Subjects like long term care, nutrition, reproduction and child health care be discontinued or can be taught at some other forum in workshops etc.

(2) Hospital planning and designing, hospital management, health education and social mobilization, marketing and communication skills subjects be included.

(3) Also more emphasis is required on Budgeting and financial management in hospital as significant number of respondents were not satisfied with their skills in this domain.

b. Teaching methodologies applied to present courses include didactic teaching, presentations by students and workshops.71.4 % of interviewed officers and faculty members were very critical of the strategies applied including assessment/ evaluation methods applied. These needed to be modified on recent designed learning methods based on case/ problem based studies and evaluations.

c. Duration of program showed a very varied response from interviewed officers.80% were of the opinion that it shall be a 02 years program comprising 1 year of resident teaching and 1 year of distant learning as practiced presently.

d. The program is already designed as a career progression course and shall have an entrenched, well defined competencies aimed towards organizational goals and objectives of Pakistan military health care system as perceived by our medical doctrine. 78.9% to 100 % of interviewed officers agreed upon designed domains of HLA model, as:-

(1) 78.5% agreed upon importance of communication & relationship management as a skill and to be taught in curriculum.

(2) 71.4% to 85.7% emphasized in the development of leadership model and domain in teaching and training of trainee officers.

(3) 100% officers put emphasis on building and updating of knowledge base of trainee officers and to teach them skills to implement learned competencies to best use.

e. A sizeable majority was focused on employment of non-specialized faculty. Dearth of specialized faculty in healthcare administrators, gives rise to dissatisfaction among students which in- turn leads to non-achievement of organizational goals & objectives.

f. Previous MSc students said that 2 years duration program is good and it has benefitted them. Majority of retired officers considers it beneficial, post retirement.

g. The nomenclature of program also generated quite a discussion and dissatisfaction was observed among interviewed population of officers in this regard. 100% thinks that a market acceptable nomenclature shall be adopted for better comprehension of market stakeholders.

SECTION – IV

RECOMMENDATIONS

1. **Revamping Target Parameters** Following were identified as target parameters:-

   a. Curriculum Adjustment and Degree nomenclature.

   b. Assessment System.

   c. Faculty Development

Parameters For Dynamic Curriculum Design

2. Beyond a one-size-fits all approach to curriculum development

   a. A one-size-fits-all approach to curriculum development needs to be abandoned and replaced with a differentiated approach. Universal solutions do not fit within diverse education realities, especially in today"s technology intensive health care environment

   b. Context Borrowing/ Blind replication: Very often failures are not due to technicalities or implementation problems, rather, reflect „the fundamental contradictions that arise when (policy) solutions are borrowed from educational systems where the problems are entirely different". When context is not adequately considered in education policy transfer, it usually lead to negative or unintended outcomes. Sometimes, such differences might be so large that it would be difficult to imagine that they were the result of the same global policy. Ignoring such contextual capacities might lead to

unintended and unexpected consequences and modifications aimed at improving education quality might inadvertently undermine quality. Therefore, adequate attention to context should be given while adopting curriculum policies from global agendas or while borrowing them from other countries and contexts (17).

3. **Involvement of Teachers in Curriculum Development and Implementation**

   a. Teachers and other stakeholders should be involved in the entire policy process, from formulation to evaluation (15). Although teachers are widely recognized as the real driving forces in educational reforms, change agencies, hardly act accordingly. In many cases, teachers/ stake holders were not or only sideways involved in the initiation, preparation, design and development of a new curriculum proposal and they were often positioned as passive implementers of externally driven changes. Stake holders/ policy makers/ faculty involvement will guarantee that changes are based on needs analysis and correspond to the priorities and necessities identified by AFPGMI. In fact, success largely depends on the extent to which local actors agree with the urgency of the modifications, their objectives and the means to reach them.

4. **Avoiding Quick-Fix Approaches**

   a. Attention and energies of policy makers are focused on the „what" of desired change and they tend to neglect the „how". Misjudging

the ease of implementation is one of the frequent mistakes in educational policymaking and if implementation stage is not well planned and structured, it likely may result in unexpected outcomes and develop redundancies in existing system. Hence, a „quick fix" approach needs to be avoided.

b. The implementation phase should be carefully planned and organized, (14) communicated clearly and efficiently to the stake holders involved in implementation including policy makers for quality analysis and improved future interventions for a dynamically evolving system and achievement of desired outcomes.

5. **Policy Alignment**

a. Educational policies need to be aligned. If a new education policy (e.g. curriculum emphasis on the development of competencies) contradicts another newly introduced policy or an existing policy, than its implementation will encounter serious setbacks. Therefore, the alignment of the new policies with existing policies should be carefully examined, and possible conflict between them should be addressed (18).

6. **Providing sufficient resources for implementation of changes**

a. Curriculum modifications/ changes, beyond punctual and isolated interventions, need to make sure that the necessary conditions (e.g. learning materials, quality of teacher/ trainer, monitoring and supervision) and the enabling environment are guaranteed within

AFPGMI. The resource/ time constraint is very evident in non-resident portion of the academic year. This has become a limiting factor and generating issues in employment areas and not fulfilling the desired results.

7. **Proposed MSc Curriculum**

a. Nomenclature : MS- Healthcare policy and Management.

(1) As per HEC national qualification frame work of Pakistan for admission in MS or Mphil degree programs 16 years of schooling is required. Therefore nomenclature of MSc Medical Administration is suggested to be changed to MS Healthcare Policy and Management (6).

b. Program Duration : 18 to 24 months

c. Equivalency : Level-II B/ Mphil

e. Curriculum Design : As below

8. **Curriculum Design**

Ser	Competency	Entails	Strategy to Develop	Subjects
a.	Leadership	Able to cultivate an environment in which all employees can contribute to their full potential in support of the organization mission	Teaching Internship	Human Resource and Management Organizational Behaviour
b.	Knowledge of	The demonstrated	Teaching	Project

	health care management.	understanding of the health care system and the environment in which health care managers and providers function	Visits/ study tours	Management Supply Chain Management Health policy Health systems
c.	Business skills and knowledge	Ability to apply business principles, Including systems thinking, to the healthcare environment	Teaching Internships Visits/ study tours	Financial Management Research methodology Statistics and Epidemiology Quality Assurance
d.	Professionalism	Ability to align personal and organizational Conduct with ethical and professional standards that Include a responsibility to the patient and community, service orientation, and a commitment to life long learning and improvement	Internships Teaching	Health Education Ethics Seminar special issues
e.	Communication and relationship management	How clearly leaders understand the people they work with and how effectively they use that knowledge in building high performance working relationships	Teaching Workshops internships	Marketing

9. **Semester Wise Break Down – Curriculum(Summarised)**

Semesters	Subject	Credits
First	Human Resource Management and Organizational Behaviour	04
	Health economics	02
	Statistics and Epidemiology	3
	Research Methodology	03
	Total	**12**
Second	Supply Chain Management	04
	Health Financial Management	02
	Project Management	4
	Health Systems	02
	Total	**12**
Third	Quality Assurance	02
	Health Policy	03
	Health Education	02
	Health Informatics	04
	Seminar – Environmental and Occupational Health	02
	Total	**12**
Fourth	Thesis	06
	Total	**44**

Curriculum and course description

10. Detailed syllabus of MSc Medical administration alongwith courses description is as under:-

a. **Health Economics.**

(1) Basic economic concepts.

(2) Market demand, supply and elasticity.

(3) Microeconomic - costs, productivity and competitive markets.

(4) Microeconomics - monopoly and factor markets.

(5) Microeconomics - economic growth and business cycles.

(6) Microeconomics - inflation, unemployment and stabilization.

(7) Government spending, taxation and deficits.

(8) Physicians in the marketplace.

(9) Hospital in the marketplace.

(10) Political economy of health in Pakistan.

b. **Financial Management and Analysis**

(1) Fundamentals of financial management.

(2) Cost: basic concepts.

(3) Budgeting: Introduction and types, process of budgeting.

(4) Audits.

(5) Financial statements.

(6) Depreciation and cash flows.

(7) Theory and practice of cost benefits and cost effect analysis.

(8) Types of financing in health care institutions.

(9) Factors affecting health care financing.

(10) Financial management in hospitals.

(11) Costing in hospitals.

(12) Cost containment in hospitals.

(13) Healthcare Contracting and Negotiations.

(13) Financial administration of health in Pakistan.

c. **Human Resource Management and Organizational Behaviour**

(1) Management theory, approaches, concepts and application.

(2) Organizational structure and practice.

(3) Introduction to Human Resource Management and functions of managers.

(4) Selection and recruitment process.

(5) Training needs.

(6) Performance appraisal, evaluation technique and biases.

(7) HR audit.

(8) Balance score card.

(9) Leadership – Basic concepts.

(10) Leadership – styles and leadership grid.

(11) Motivation.

(12) Motivation and leadership in hospital.

(13) Decision making: Basic concepts.

(14) Group decision making.

(15) Organization theory and its application in hospitals.

(16) Diversity and group dynamics.

(17) Hospital conflicts and their management.

d. **Patient Care and Health Systems Analysis**

(1) Introduction to system theory.

(2) Elements and system models.

(3) Game theory.

(4) Queuing theory and linear programming.

(5) Health care systems: Basic concepts.

(6) Micro health system: Kiel Mann model.

(7) Macro health systems: WHO Model.

(8) System approach to health care management.

(9) Health indicators and their use.

(10) Health system functions.

(11) Health system outcomes.

(12) Health system analysis.

(13) Health system strengthening.

(14) Evolution of hospitals.

(15) Response to illness and hospital experience.

(16) Health politics.

(17) Linking the micro and macro health models.

e. **Management Information System**

(1) Medical informatics: Introduction and basic concepts.

(2) Coding and classifications.

(3) Human – computer interaction in health care.

(4) Costs and benefits in information systems.

(5) Database management systems.

(7) Electronic health records.

(8) Medical imaging.

(9) Patient centred information systems.

(10) Modeling of health care information systems development.

(11) Hospital information systems (Clinical use, technical choices.

(12) Security in medical information systems.

(13) Global information systems and its importance in Public health.

f. **Supply Chain Management**

(1) Introduction to supply chain and logistics.

(2) Supply chain drivers and metrics.

(3) Designing the supply chain networks.

(4) Planning: Demands and supply in a supply chain.

(5) Demand forecasting.

(6) Aggregate planning and predicting variability.

(7) Planning and managing inventories in a supply chain.

(8) Managing economics of scale/ uncertainty in supply chain inventory.

(9) Optimal level of product availability: An introduction and application in supply chain.

(10) Designing and planning transportation networks.

(11) Sourcing, pricing and revenue management in a supply chain.

(12) Information Technology in supply chain management.

(13) Use of multiple software.

(14) Introduction to ERP.

(15) Performance indicators and Quality Assurance in supply chain management.

(16) Military Medical Logistics.

(17) Introduction and overview of medical operational logistics.

(18) Logistic support in full spectrum of operations: Offensive, defensive, NBCD environment and Low Intensity Conflicts (LIC).

g. **Health Education and Promotion**

(1) Basic Principles of Health Education.

(2) Health Promotion: Theory and practice.

(3) Social context of health education.

(4) Methods and practice of health education.

(5) Research in health education and promotion.

(6) Planning, managing and evaluation health education and promotion programs.

(7) Communication in health promotion.

(8) Basic concepts normative principles of health care ethics.

(9) Public Relations: Concept and process.

(10) Hospital and PR: Complaints by patients.

(11) Modern trends in hospital PR.

(12) PR in Military Hospitals.

(13) Health care jurisprudence: Basic concepts.

h. **Research Methodology**

(1) Observation methods.

(2) Key information interviews.

(3) SPSS Workshop.

(4) Review of available literature and writing introduction.

(5) Formulation of research objectives/ study questions.

(6) Choosing appropriate study design, population and sample.

(7) Writing methodology, results, discussion, recommendations.

(8) Submitting results of project as research article for publication.

i. **Biostatistics**

(1) Definition and introduction to Bio-statics and its importance.

(2) Classification and tabulation of data.

(3) Frequency distribution.

(4) Normal distribution and discrete probability distributions .

(5) Sources of data.

(6) Presentation of data.

(7) Statistical tables, graphs, diagrams.

(8) 1 session for practical applications.

(9) Confounding in epidemiological studies.

(10) Confidence interval of mean and proportion.

(11) Hypothesis testing, comparing two proportions.

(12) Comparison of two proportions – exercise.

(13) Measures of central variation.

(14) Measures of central tendency.

(15) 1 session for practical applications.

(16) Sampling techniques and sample size estimation.

(17) Measures of dispersion and practical.

(18) Correlation and its application.

(19) Regression.

j. **Health Policy and Planning**

(1) Introduction to health policy and planning (planning cycle and its steps)

(2) Policy perspectives-Macro policy.

(3) Policy perspectives-Micro policy.

(4) Policy perspectives: A comparison between macro and micro level policies.

(5) Devolution plan: Past to present.

(6) Impact of other national policies on health system.

(7) Health sector reforms: What and Why?

(8) Health sector reform: Role of stakeholders and stakeholders analysis.

(9) Policy versus planning.

(10) Role of international commitments on health policies (SDGs)

(11) Research and policy.

(12) National policies and their implications and national health outcomes: Sustainability issues.

(13) Evidence-based policy making.

(14) Advocacy.

(15) Leadership and policy.

(16) District health system and devolution.

k. **Project Management**

(1) Introduction to project management, basic concepts / definitions.

(2) Project selection.

(3) Project initiation (project planning and scheduling).

(4) Implementation process.

(5) Evaluation techniques (PERT/CPM).

(6) Project cost management.

(7) Project time management.

(8) Project risk management.

(9) Termination of the project.

(10) Introduction to software and practice sessions.

(11) Hospital design and planning.

(12) Conversion of existing Hospital Building and transition planning.

I. **Epidemiology**

(1) Epidemiology: An introduction and definitions.

(2) Concept of ecological triad.

(3) Agent characteristics, extrinsic and intrinsic properties.

(4) Reservoir and its properties.

(5) Host characteristics.

(6) Herd immunity.

(7) Models of disease causation.

(8) Determinants of health and disease.

(9) Concept time, place and person.

(10) Measures of disease frequency and risk.

(11) Descriptive, cohort, case-control and intervention study designs.

(12) Randomization.

(13) Contingency tables and exercise.

(14) Interpretation of epidemiological studies, causality, random errors, bias and confounding.

(15) Design, carry out, analysis and report investigation of disease out breaks.

(16) Preventive strategies and measures of public health impact.

(17) Screening: Concepts and application in control of disease of public health importance.

m. **Environmental and Occupation Health - Special Seminar**

Special Seminar and workshops under the DS to be conducted covering relevant topics on the subject with special emphasis to national and international current issues confronted in the desired domain.

n. **Quality Assurance in Health Care**

(1) Introduction, definitions and basic concept of quality.

(2) Dimensions of quality.

(3) Deming principles of quality.

(4) Total quality management techniques.

(5) Introduction and application of ISO-9000 standards.

(6) EMS, introduction and application.

(7) Lab standards: Introduction and overview of standards.

(8) International standards for hospitals: JCI and JACHO.

(9) Risk management

(10) Patient safety and factors affecting.

(11) Reporting of adverse events and errors.

(12) Six Sigma - Introduction and application (Tools/ techniques).

(13) Quality Assurance in health care.

Faculty Development

11. Faculty of MSc Medical Administration Program mostly consists of visiting and part time faculty. Awell qualified and research oriented faculty is essential for success of any postgraduate training program. Integration of education and research is the mainstay of any such program as practiced internationally and advocated by HEC. Faculty development will ensure a team of newly developed permanent highly qualified faculty as well as the faculty comprising of

experienced and senior health administrators. A proposed faculty development plan is:-

a. Selection of two students with instructional Aptitude from MS Healthcare Policy and Management Course for:-

(1) PhD in healthcare management from a renowned university/ Institution - Time Frame: 4 years

b. PhD Qualified GDMOs will join AFPGMI.

(1) Beginning of PhD program at AFPGMI under supervision of newly trained faculty.

(2) Selection of two students per supervisor for PhD in healthcare management

c. PhD students will become part of permanent MS faculty and teach MS students as well.

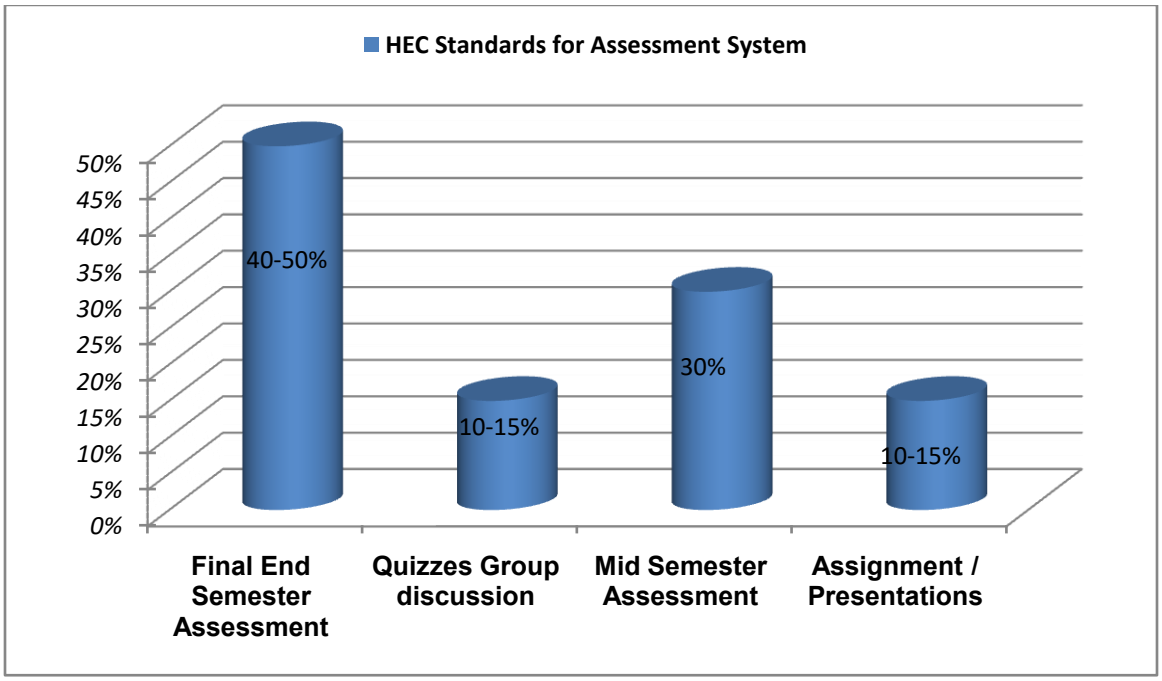
(1) Development of a teacher spool with structured career pathway and rotation of pool members according to service requirement and exhibited performance.

Assessment System

12. Assessment is one of the most important part of any learning program as it is a motivation for learning and should, therefore, be based on validity, reliability and objectivity. Presently in MSc Medical Administration at AFPGMI

80% marks are allocated to summative assessment while 20% for internal assessment. As per HEC recommended system of assessment, internal assessment by the concerned institution should carry 50-60% weightage, whereas final or external university assessment should have 40-50% weightage.

13. **Proposed Assessment Methodologies.** Assessment system based on HEC guidelines for a master level program is illustrated as under:-



14. **Advantages**

a. It is a balanced system of assessment including both summative and formative assessments.

b. Students can be assessed according to desired learning outcomes and behavior with desired flexibility.

c. Helps in Assessing presentation and communication skills in addition to knowledge assessment.

d. It generates critical thinking with inclusion of problem based assignments and syndicate work.

e. Helps in differentiating between different shades of student performance.

15. **Proposed Assessment Methodology**

a. **Assessment Sys**

(1)	**Summative**		**-**	**60%**
	(a)	**Year-I**		
		i. Exam	-	47%
	(b)	**Year-II**		
		i. Study Project	-	10%
		ii. Practicum Report	-	3%
(2)	**Formative**		**-**	**40%**
	(a)	**3 Terms**		
		i. Individual Presentations(IPs)	-	6%
		ii. Syndicate Discussion	-	5%
		iii. Tutorial Exercises(TEs)	-	5%

iv.	Personality Assessment	-	3%
v.	Foreign Study visits/Inland tours	-	4%
vi.	Strategic Exercise Module(SEM)	-	4%
vii.	Map Exercise	-	4%
viii	Synopsis	-	2%
ix.	Assignments	-	6%
x.	Physical Efficiency Test(PET)	-	1%

16. **Comparison of current MSc and proposed MS courses**

Ser	Title	Current MSc	Proposed MS
a.	Nomenclature	MSc Medical Administration	MS Healthcare Policy and Management
b.	Course Duration	2 Years	2 Years
c.	Year - I	4 Terms (3 Months each term)	3 Terms (4 Months each term)
d.	Year - II	1 Year Study Project and Practicum Report	1 Year Study Project (Thesis)
e.	Summative Assessment	8 Theory papers-80% Short essay questions(SEQs)	13 Theory papers -60% (SEQs 80% + MCQs 20% in each paper)
f.	Internal	20%	40%

	Assessment		
g.	Credit Hours	62 (57 + 3 + 2)	44 (38 + 6)

17. **Course Report**

a. **End of Phase – I**

(1) Provisional course report is suggested to be initiated on the basis of academic achievements

b. **End of Phase – II**

(1) Final course report is proposed to be initiated on the basis of provisional course report with inclusion of 2nd year performance

CONCLUSION

1. Healthcare Administrators have tremendous influence on the availability, accessibility and quality of patient care in a healthcare system. They are expected to ensure a highly effective, efficient, affordable, ethically sound, technically proficient and clientele satisfier healthcare system with the primary aim of preservation of health in the communities. These goals requires equally matching competence of healthcare managers in their professional knowledge, skills, leadership and commitment. The latest trends and advances in healthcare industry demands competency based education in the healthcare management.

2. Msc Medical Administration Course is the most important preparatory course for future health administrators and policy makers. An effort has been made in this study project by carrying out in depth analysis of the present curriculum, comparing it with other leading universities, identifying core competencies required in healthcare management and subsequently arriving at recommendations for certain changes in the course curriculum. The aim of suggesting these changes is to enhance the quality of learning outcomes in line with contemporary practices in healthcare management with the ultimate aim of improvement in healthcare delivery system.

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Interview Guide for Medical Administrators of A class Hospitals, AFPGMI Faculty members, Policy makers at Medical Directorate

Q No-1	Is current MSc Medical Administration curriculum in your opinion compatible to that of reputed national and international universities offering masters in health administration?
	a. Yes
	b. No
Q No-2	According to the Healthcare Leadership Alliance Competency Model, a healthcare administrator/ manager should have the following five basic competencies.
	a. Communication and relationship management
	b. Professionalism
	c. Leadership
	d. Knowledge of the healthcare system
	e. Business Skills and Knowledge
Q No-3	List of MSc subjects and their topics currently taught are attached for reference. Please grade from the given options usefulness of these subjects for HCAs.
	a. Highly beneficial
	b. Beneficial
	c. Least beneficial
	d. Exclusion is required from the current curriculum
Q No-4	In your opinion the current MSc curriculum taught is appropriate or it

	requires revision?
	a. Appropriate
	b. Requires revision
Q No-5	In each of the subjects what topics/contents/workshops and practicals should be added to enhance knowledge and basic skills in healthcare adm and staff of the trainees?
	a. Hospital planning and designing
	b. Hospital Management
	c. Health education and social mobilization
	d. Marketing and communication skills
Q No-6	The present teaching methodologies consists of lectures, classroom discussions, seminars and study tours. Are these teaching methods adequate in your opinion? If otherwise what new methodologies can be adopted in your view?
	a. Adequate
	b. If requires further improvement?
Q No-7	Please grade the current evaluation criteria as.
	a. Excellent
	b. Very Good
	c. Good
	d. Satisfactory
	e. Poor

Q No-8	Duration of current course is two years,1 year contact learning and 1year nonresidential practical. In your opinion full time 2 years presence is required or only 1 year contact learning is enough as practiced currently?
	a. Full two years contact learning is recommended
	b. Existing program should be continued
Q No-9	What should be the selection system for MSc medical administration program?
	a. Existing System of selection by MS branch
	b. Through the entrance test like command and staff course
	c. Should be offered to all GDMOs
Q No-10	In your opinion MSc should be
	a. A career progression course for command like NDU
	b. A professional healthcare management course covering subject like MPH/MBA healthcare management which may also have post retirement rehabilitation benefits

Interviews Guide for Students 3Previous Msc Course And Retired Officers

Q No-1	Is current MSc Medical Administration curriculum in your opinion compatible to that of reputed national and international universities offering masters in health administration?
	a. Yes
	b. No
Q No-2	According to the Healthcare Leadership Alliance Competency Model, a healthcare administrator/ manager should have the following five basic competencies.
	a. Communication & relationship management
	b. Professionalism
	c. Leadership
	d. Knowledge of the healthcare system
	e. Business Skills & Knowledge
Q No-3	List of MSc subjects and their topics currently taught are attached for reference. Please grade from the given options usefulness of these subjects for HCAs.
	a. Highly beneficial
	b. Beneficial
	c. Least beneficial
	d. Exclusion is required from the current curriculum
Q No-4	In your opinion the current MSc curriculum taught is appropriate or it requires revision?

	a. Appropriate
	b. Requires revision
Q No-5	In each of the subjects what topics/contents/workshops and practicals should be added to enhance knowledge and basic skills in healthcare adm and staff of the trainees?
	a. Hospital planning and designing
	b. Hospital Management
	c. Health education and social mobilization
	d. Marketing and communication skills
Q No-6	The present teaching methodologies consists of lectures, classroom discussions, seminars and study tours. Are these teaching methods adequate in your opinion? If otherwise what new methodologies can be adopted in your view?
	a. Adequate
	b. If requires further improvement?
Q No-7	Please grade the current evaluation criteria.
	a. Excellent
	b. Very Good
	c. Good
	d. Satisfactory
	e. Poor

Q No-8	Duration of current course is two years,1 year contact learning and 1year nonresidential practical. In your opinion full time 2 years presence is required or only 1 year contact learning is enough as practiced currently?
	a. Full two years contact learning is recommended
	b. Existing program should be continued
Q No-9	What should be the selection system for MSc medical administration program?
	a. Existing System of selection by MS branch
	b. Through the entrance test like command and staff course
	c. Should be offered to all GDMOs
Q No-10	In your opinion MSc should be?
	a. A career progression course for command like NDU
	b. A professional healthcare management course covering subject like MPH/MBA healthcare management which may also have post retirement rehabilitation benefits