

# A Comparative Analysis of Undergraduate and Postgraduate Training in Health Care Management

Myung-Dal Kong\*

Department of Healthcare Management, Youngsan University, Yangsan, Korea

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## ABSTRACT

This study is to prepare curriculum in South Korea to train outstanding individual in the fields of Health Care Management for the global age, hospitals' administration managers, professors and students were targeted to carry out the survey and the collected questionnaires were processed with SPSS Ver. 21.0 statistic package, based on this the suitability of the current Health Care Management curriculum and postgraduate curriculum was inspected and improvement plan was deducted, and also through comparative analysis of the Health Care Management curriculum for undergraduate and postgraduate in the United Kingdom and United States, optimum improvement suggestions were made. Based on the research result, the priority to improve and consolidate from undergraduate curriculum was the strengthening of the working-level education, the most needed ability in the future is global negotiation and dispute/conflict adjustment which needs supplementation. Also, after analyzing the undergraduate curriculum of the United States and United Kingdom, it is needed that the development of the capacity to lead organizations for health-care and subjects for the establishment of health policy should be reflected.

Keywords: Curriculum, Health Care Management, Undergraduate, Postgraduate, Outstanding Individual

\* Corresponding Author, E-mail: [mdkong@ysu.ac.kr](mailto:mdkong@ysu.ac.kr)

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## 1. INTRODUCTION

Field of medicine selected as future South Korea's power industry is now facing important tasks such as having a full-scale open market and interior and exterior environment change ahead with the pressure of new service and market creation, overcoming of intensified competition environment and implementation of new technologies. To confront these domestic and international environmental change and the lead the future development of human resource is the most important task above all things, to do so university organizations' education curriculum and education system for the training of hospital administration hands-on worker and manager is of paramount importance.

However, by taking a deeper look at current curriculum and education systems in the departments related to health care management in domestic universities falling behind the time is unavoidable. Rather than having educational systems and curriculums that are fit for the true demands of developing talented people in this era's medical site; one should have a particular license, a state examination that has focused on the curriculum organization, the shortage of connection in theory of a major and hands-on experience, and the rate of interest on the educational lectures, etc. Therefore, an account of these problems it has become urgent for the nation's government's competitiveness to supplement in how universities are producing the nation's labor force.

This research aims to solve these problems after

considering current South Korea's medical environment and medical institutions' situations, by comparing and analyzing South Korea, United States, United Kingdom's universities and graduate schools' (master degree course) Health Care Management curriculum, hands-on-oriented and globalized, developed curriculum and education system model is drawn, with this the training of hands-on talented individuals is aimed which can satisfy the needs of hospitals' medical treatment site.

Which, by investigating and analyzing commonly opened subjects with South Korea's 4-year-course college and graduate schools with Health Care Management departments, Health Administration department current standard curriculum was deducted, thus with the survey conducted at the scenes of medication treatment site hands-on-oriented curriculum is prepared. Also based on this curriculum, through comparing and analyzing of universities and graduate schools of the United States and United Kingdom's curriculum we suggest the most suitable curriculum in South Korea to train hands-on talented individuals.

## 2. ADVANCED RESEARCH

The department of Health Administration, a curriculum related to health care was first established in South Korea at Yonsei University Undergraduate School in 1979. Currently there are about 35 departments and major courses established in 4-year-course colleges ever since 1980's. The continuance of this trend is due to the need of the era that medication organizations' administration or management-related tasks should be professionalized; curriculum should be in intimate relation to medical units' hands-on work (Lee *et al.*, 2009). The statement, of abilities required for hospitals' hands-on worker are things such as theoretical knowledges of new systems utilized in medication site, managing skills and suggesting cost-effective but original ideas; in order to enhance these constant reexamination and revision of the curriculum is needed (Kang, 2000), can be justified.

Prior advanced research main focused on the curriculums in the department of Public Health Care, while including both undergraduate and graduate school researched focused on Health Care Administration's curriculum has been yet still marginal (Hwang *et al.*, 2013).

Jung (1990) stated that because our nation's 4 year-course of Health Care Management departments' object of education is not differentiated but the subjects are way to overlapped from community colleges, universities and graduate schools that preparation teaching-learning activity to fit for domain of knowledge one level higher. For this subject assignment should be done after predicting structural changes in the employment field, and there should be quality and quantity considerations for subjects with higher field usage rate and in need (Kim *et al.*, 1996).

Chang *et al.* (2004) stated that qualities for health-

care management majors to carry is in order of importance: professional management skills, interpersonal and emotional intelligence, knowledge of industries, analytical and conceptual reasoning ability, but in the future the order of importance is: analytical and conceptual reasoning ability, interpersonal and emotional intelligence, industry knowledge, and professional management skills. It is in need to make appropriate curriculum models and evaluation of its suitability is necessary to train management specialist with promising skills. Furthermore, Change *et al.* (2005) stated that it is henceforth tasks of schools to systematically train hospital-management related major students to fulfill society's requirements which accordingly changed with the medical environment, and emphasized on abilities such as management knowledge in medical field, understandings and basic knowledge of health science, ego control and forming ability which is required whilst hospital-management related major students works as intermediary manager in hospitals.

Lee *et al.* (2009) after analyzing hospital-business administration's curriculum pointed out that there are limits, raising talented individuals with capacities, basis of developing into future professional management specialist, since in the case of few colleges, not only the subject establishment rate for the field of executive and tasks related to computer data, which medical groups conduct, is very low but also qualification acquisition for particular medical technical posts or others is of great importance. Solution for this problem is customized education divided into the fields of strategy and marketing, medical conflicts and legal disputes, hospital administration and insurance, establishment of a strategy and planning, accounting and finance, information system management, personnel and labor and etc. or the implementation of detailed major system and expansion of strategic planning and management, marketing, medical dispute management, quality management, public relations and advertising.

Yasar and Boutsioli (2011) investigated on the similarities and differences in Turkey (Ankara University) and a university in Greece (TEI of Athens) and graduate school (TEI of Piraeus)'s wealth management programs' course's name, contents, compositions, numbers, time require, curriculums and others.

Tabibi *et al.* (2001) targeted 7 universities' Medical Records (Health Information Management) M.S. degree curriculum in the United States, Australia, United Kingdom, Iran and studied its' course title, course purpose, course duration, credits number, variety of course credits, teaching methods, curriculum and such and provided appropriate model.

Different from researches of Yasar and Boutsioli (2011) and Tabibi *et al.* (2001), this research emphasized on deduction of appropriate curriculum for training of practical talents and conducted a survey towards hospital administration workers and stakeholders; provided subject in need of improvement, strengthening

and new subjects for current curriculum based on the result of the survey; after comparison and analyzation of United States and United Kingdom's undergraduate and graduate schools' curriculum the frequency of the courses offered for proposed subject matter was proposed.

### 3. RESEARCH METHOD

#### 3.1 Object of the Study and Contents

The purpose of this research was to come up with the best possible curriculum to train global executive in South Korea for the department of healthcare management for undergraduate and graduate school's (Master's course) through a survey and literature review. To do this hospital administration staffs, whom can be called as stakeholder in healthcare management curriculum, professors and students were targeted for the survey. Self-administered survey was conducted using a structured questionnaire, questionnaires used for data collection referenced from existing questionnaire, modified and supplemented to meet the objective of this study. By using survey questions, proven, reliable through prior research, minimized error resulting from measurement tool.

Hospital administration workers, professors and students were provided with current average healthcare management departments's curriculum chart, and were all commonly asked subject in need of improvement in the training of global executive, subject that requires reinforcement (intensifying), and subject that should to be newly established. Also Hospital administration workers were additionally questioned about the field of emphasis on the subject of the department of healthcare management, and level of satisfaction on new staff from healthcare management major's abilities and qualities; professors were asked about the order of priority on improvement field on the curriculum; students were told to answer their overall rate of satisfaction and the rate of meeting the expectations for major subjects, and the order of priority on improvement field on the curriculum.

#### 3.2 Data Collection and Method of Analysis

In the case of hospital administration staffs, the survey was conducted from September 10th 2014 to March 28th 2015 among 360 administrative workers working at hospitals located in Pusan, Gyeongnam, Ulsan, due to low return rate and insufficient detail of the answers the survey was conducted over 4 times of personal visit. As a result, the return rate recorded 88.9% with 320 people answering.

As for survey of professors, 50 emails were sent to full-time teachers working in 15 different 4-year-course colleges in Pusan, Gyeongnam, Daejeon and Cheongcheong, Daegu and Gyeongbuk, Gyeonggi's healthcare

management department, and 35 answered which recorded return rate of 70.0%.

Survey for department students, 200 questionnaires were sent via email to seniors enrolled in healthcare management-related departments in 5 universities in Pusan and Gyeongnam at June 2015, and with 105 replied return rate resulted in 52.5%.

The questions on the questionnaire, excluding sociodemographic characteristics, were all predicted with 5 point Likert scale (① Very Unlikely, ② Unlikely, ③ Average, ④ Likely, ⑤ Very Likely). It was used to decide the average, standard deviation for subject's improvement, order of priority for reinforcement and necessities of future capability, it was analyzed by having each itemized order of priority with '⑤ Very Likely' given 5 points, higher the level order of priority for necessities the higher the point. Self-administered survey was conducted using a structured questionnaire.

Also, literature investigation about United Kingdom and United States' undergraduate and graduate school's curriculum was done with data on nation's university and graduate school's department webpage as reference. It was set that the importance of the subject was set by the higher frequency of the college, which established subject the greater the importance.

Some terms used in this research is defined as the following.

- Healthcare management department: Formation used in South Korea and United States' 4-year-course, the United Kingdom's 3-year-course universities' healthcare management department, Health Care Administration department, Hospital Management department, Health Management department and names similar and such.
- Hospital administration worker: Administration workers at hospitals over the class of hospital (special hospital, mental hospital, Chinese medicine hospital and other hospitals, general hospital, upper class general hospital and such) as elementary level manager, intermediate level manager, and senior manager managing hands-on works.
- Global hands-on talented individual: One with appropriate knowledge for global era who can work in healthcare site after graduating university or graduate school.

### 4. RESEARCH RESULTS

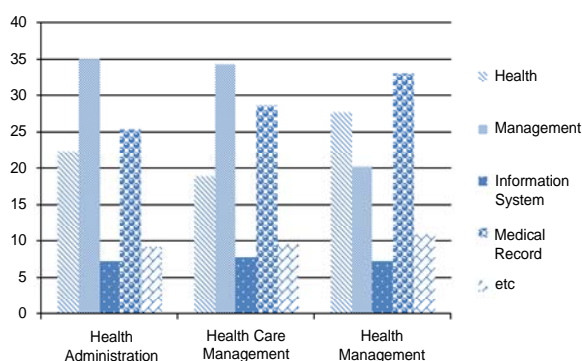
#### 4.1 South Korea's Health Care Management for Undergraduate Curriculum

South Korea's 4-year-course, regular universities operate under the total of 8 semesters, credit required for graduation is 140.

There is currently, at the year of 2015, about 35 universities with full-time department curriculum for

Healthcare management, Health Administration or Health Management within South Korea's 4-year-course university. Within these universities by considering tradition and geographical arrangement Yonsei University, Korea University, Sahmyook University, Ewha Woman's University, Kosin University, Catholic University of Pusan, Inje University, Youngsan University, Eulji University, Daejeon University, Namseoul University and 11 universities were elected. Colleges' undergraduate courses were referenced by recent department website, Yonsei University's curriculum, of the first 11 universities to open Health Administration department in South Korea and operating it exemplarily until now, set as the basis and was compared with other university's curriculum, then within the subjects' differences South Korea's standard healthcare management department's curriculum chart (Table 3's thick line area) was made. Special subject opened in only one university was excluded. Out of curriculums established in these universities, universal name was adopted for the same subjects with the differently named subject. Subjects were labeled in the order of basic health care and health policy, statistics, hospital management, medical information, field of field training. When major subjects established at 11 universities is divided into 4 big domain like public health, management, data processing and medical record and sum up the number of subjects Table 3 is same as Figure 1.

The X axis in the Figure 1 represents 3 departments related to Public Health and Y axis represent the ratio of allocation of major subjects for each department. As it can be seen from this picture, in 11 selected South Korean University's Health Care Management department (5 universities) and Health Administration department (4 universities) ratio of allocation for subjects of managing field was of great importance out of 4 domains by 34.4% and 35.2%, in the case of the department of Health Management (2 universities) field of Medical Record was of great importance by 33.2%. However, all universities with these three departments in this information and technology centric society data processing related subjects hold little importance by 7.4%-8.0%.



**Figure 1.** Ratio of allocation (%) for major subjects in South Korea's 11 universities.

## 4.2 South Korea's Health Care Management for Postgraduate Curriculum

South Korea's regular graduate school master's course's operates under 2 years of term for completion, a total of 4 semesters.

Year 2015, currently in South Korea's postgraduate school, there are about 30 universities with departments established for healthcare management, Health Administration or Health Care Management and department related to Public Health for the master's course. Within these graduate schools by considering tradition and geographical arrangement Yonsei University, Korea University, Seoul National University, Kyunghee University, Ewha Woman's University, Ajou University, Namseoul University, Kyungpook National University, The Catholic University of Korea, Inje University and 10 graduate schools were selected. Also standard graduate school (master)'s healthcare management's curriculum process chart (Table 4's thick line area) was deducted with the same way as the aforementioned undergraduate schools' curriculum process chart.

## 4.3 Survey Results on South Korea's Health Care Management Curriculum

### 4.3.1 General Features of the Survey Target

The most common sociodemographic characteristics of responding hospital administration staffs had forefront executive normal employees with 1-5 working years. Number of working years of 1-5 year responded, 59.9% and normal employees replied 73.2% out of all responders. University graduate (bachelor's degree) was the most common with 36.4% for level of education. For the type of hospital general hospital was the most common with 35.8%, with university hospital following with 23.3%. For the number of sick beds, with the average of 577 sickbeds 500 sickbeds and over resulted 30.8%, and 200-299 sickbeds following with 29.7%.

The general characteristics of the responded professors were the most common with career of education of 6-10 years by 42.4%, 5 years and under by 24.2, 11-15 years by 15.2%, 16 years and over was 18.2%, the majority's, 62.5%, major field of study was Hospital Management, Health Management 12.5%, preventive medicine 6.3% and so on. Hospital desk job management was the most common subject currently in charge of, with hospital management, financial accounting, management of the medical record following (plural response).

**Table 1.** Field that should be considered when organizing South Korea's undergraduate subjects

Classification	Min value	Max value	Mean (SD)
Health policy	1	4	2.82(1.044)
Information system	1	4	2.37(0.949)
Health management	1	4	2.23(1.127)
Medical records	1	4	2.57(1.242)

**4.3.2 Result Analysis of the Survey**

As shown in Table 1, the result of research conducted with hospital administration workers, field of Hospital Management was the highest when forming

Healthcare Management department subjects in a global era, with the field of Information System, Medical Record, Health Policy following. It was investigated with rankings so lower the average higher the ranking.

**Table 2.** Summary of the survey of South Korea’s undergraduate and graduate school (master’s degree) curriculum

Classification	Responder	University Subject	Graduate School Subject
Subject in need of improvement	Hospital administration manager	Medical Terminology (*), Hospital Affairs Management, Medical Tourism, Practice in Health Insurance, Medical Records Practice	Hospital Marketing (*), Health Planning, Hospital Management, Healthcare Organization, Health Human Resource Management
	Professor	Practice in Health Insurance (*), Health Education Program Development and Evaluation, Medical Records Practice, Hospital Affairs Management, Health Statistics	Hospital Marketing (*), Hospital Financial Management, Health Database, Health Statistics, Research Method
	Student	Practice in Health Insurance (*), Global Health, Medical Records Practice, Hospital Affairs Management, Medical Tourism	
Subject in need of reinforcement	Hospital administration manager	Medical Terminology (*), Medical Tourism, Global Health, Hospital Marketing, Hospital Affairs Management, Practice in Health Insurance	Hospital Marketing (*), Quality Assurance in Healthcare, Hospital Management, Advanced Health Policy, Health Statistics
	Professor	Strategic Management of Hospitals (*), Hospital Marketing, Foreign Language, Practice in Health Insurance, Quality Assurance in Healthcare, Hospital Affairs Management	Advanced Health Policy (*), Research Method, Hospital Marketing, Hospital Management, Health Statistics
	Student	Medical Terminology (*), Practice in Health Insurance, Medical Records Practice, Practices in Disease Classification, Global Health, Hospital Affairs Management	
Subject that should be opened	Hospital administration manager	Hospital Working English (*), Health Insurance claim and Analysis, Service Manner, Patient Satisfaction, Health Data Analysis, Global Competency	Global Management in Healthcare (*), Global Health, Quality Assurance in Healthcare, Health for the Aged, Hospital Management Planning
	Professor	Hospital Working English (*), e-business, Health Data Analysis, Health Insurance claim and Analysis, Hospital Management and Analysis	Global Management in Healthcare (*), Healthcare Management Innovation, Hospital Management Planning, Global Health, Advanced Health Policy
	Student	Hospital Working English (*), Order Communication System practice, Health Data Analysis, Global Competency, Second Foreign Language	
Ability needed in the future for healthcare management majors	Hospital administration manager	Global Negotiation and Conflict/Discord Adjustment (*), Initiative and Drive, Interpersonal Relation Formative and Maintenance Ability, Sincerity and Adaptability	
	Professor	Global ability (*), Initiative and Drive, Interpersonal Relation Formative and Maintenance Ability, Vocational Ethics and Responsibility	
	Student	Basic Knowledge on the General Business Management (*), Communication Ability, Interpersonal Relation Team Work, Responsibility	

### **Survey Result on South Korea's University Curriculum**

If it was to summarize the results of the survey from this research it is the same with Table 2, subjects marked (\*) each represents a top priority to improve, enhance, or subjects to be established. Also, plural responses were allowed for the survey.

Hospital administration workers replied main priority to be improved in healthcare management department hands-on centric education's reinforcement (minimum value: 1, maximum value: 8, average: 2.64, standard deviation: 1.786). Reinforcement of hands-on centric education will not only the priorities of hospital administration workers, but also for professors and students.

Hospital administration workers also answered field practice as another priority to reinforce, while professors stated it is strategic planning/management.

As seen in Table 2, hospital administration workers replied for subject that should be improved with priority was medical terminology (case percent: 19.5) and health insurance claim work (case percent: 13.6) and such, professors replied health insurance claim work (case percent: 27.8) and development and evaluation of health program (case percent: 22.2), students replied health insurance claim work (case percent: 38.2) and medical records practice (case percent: 16.4). The reason behind this was because in the case of medical terminology, it is directly needed when working hands-on in hospitals and it should be composed with specific details of terms frequently used in hands-on work.

For subjects that needs to be strengthened with priority, hospital administration workers said medical terminology (case percent: 19.4) and medical tourism (case percent: 14.4), while on the other hand professors said hospital strategic management theory (case percent: 33.3) and hospital marketing (case percent: 23.8), students identified as medical terminology (case percent 34.6) and practice in health insurance (case percent: 32.1). As for subject for medical terminology for hospital workers' basic knowledge, it can be the means of communication between participants and it is frequently used among daily workloads so it was analyzed to be consolidated. For medical tourism, in preparation for the vitalization of medical tourism due to acceleration of globalization, it is in high needs to possess professional knowledge to play pivotal role in the field.

In addition, hospital administration workers (case percent: 34.0), professors (case percent: 39.3), students (case percent: 37.2) all commonly replied the hospital's everyday English for subjects to be established with priority, best applicable reason for this is to provide fluent medical services for future increase in the number of foreign patients in a global era.

On the behalf of investigating on hospital administration workers for the most needed ability for healthcare management major to accomplish tasks in a global era, it was global negotiation and dispute/conflict arrangement (minimum value: 1.0, maximum value: 41.0, average: 4.07, standard deviation: 2.583), professors also

claimed global capacities (minimum value: 3, maximum value: 5, average: 4.58, standard deviation: 0.564), and for students it was major knowledge.

### **Survey Result on South Korea's Graduate School Curriculum**

In the case of graduate school's master's course, just like Table 2 hospital administration workers replied for subject that should be improved with priority was hospital marketing (case percent: 36.45) and health planning theory (case percent: 21.2%), and the same for subjects that needs to be strengthened with priority was hospital marketing (case percent: 20.7%) and management of service quality (18.4).

Professors stated that subject that should be improved with priority was hospital marketing (case percent: 40.0%) and hospital financial management (25.0%), subjects that needs to be strengthened with priority was a health policy theory (case percent 41.2%) and method of study theory (41.2%).

Also, hospital administration staffs claimed global management in healthcare (case percent: 19.4%) and global health (case percent: 18.5%) for subjects to be established, the professors said healthcare management diagnosis theory (case percent: 53.8%) and global management in healthcare (case percent: 38.5%) (plural responses).

## **4.4 Comparison of South Korea/United States/United Kingdom's Undergraduate and Graduate School's Curriculum**

### **4.4.1 Undergraduate Curriculum of South Korea, United States and United Kingdom**

As shown in Table 3, there are 5 established subjects, Pathology, Health Statistics, Quality Assurance in Healthcare, Health Information System, and Field Training in all selected universities in South Korea's undergraduate studies, and for subjects established in 10 universities there are Hospital Management related Hospital Accounting and South Korea's medical record administrator state examination subject Medical Terminology, Practices in Disease Classification, Medical Record Management, Tumor (Cancer) Registry is being opened. On the other hand, Health Decision Making established in only 2 universities, Healthcare Innovation Management in only 1 university.

Universities for United States curriculum comparison are Columbia University, Johns Hopkins University, Georgetown University, The University of North Carolina, Pennsylvania State University, University of Pittsburgh, Saint Louis University, University of Michigan - Flint, University of Alabama, University of Minnesota-Crookston. These 10 universities are the schools elected as 'Top20 online Bachelor's Degree Programs in Healthcare Management in 2015' entitled with top 7 regular universities which conferment of a bachelor's degree in Healthcare Management, Health Services Management, Health Management, Health Administration and 3 uni-

versities with the addition of the outstanding graduate school's healthcare management department. Within these universities, subjects opened by 9 universities include Introduction to Health Economics, Health Services Policy, Financial Management in Health Care, 3 subjects including Introduction to Epidemiology, The Ethics of

Health Care, Health Care Management Statistics are established at 8 universities. On the other hand, 3 subjects such as The Health Care Delivery System, Health Care Program Evaluation, Innovations in Health Care are each established at 1 university meaning it has very little importance.

**Table 3.** Comparison of South Korea/United States/United Kingdom's undergraduate and Graduate school's curriculum

Subject (Undergraduate)	Number of graduate school with subjects established					
	South Korea		USA		UK	
	The number of survey: 11	Opened rate (%)	The number of survey: 10	Opened rate (%)	The number of survey: 5	Opened rate (%)
Introduction to Health Science	9	81.8	2	20.0	2	40.0
Global Health	4	36.4	5	50.0	2	40.0
Pathology	11	100.0				
Human Anatomy and Physiology	9	81.8				
Introduction to Epidemiology	5	45.5	8	80.0	1	20.0
Medical Terminology	10	90.9	2	20.0		
Health Sociology	3	27.3	6	60.0	1	20.0
Health Economics	7	63.6	9	90.0	3	60.0
Health Promotion	4	36.4	2	20.0	1	20.0
Health Education	7	63.6				
Health Education Method	7	63.6				
Health Education Practice	8	72.7				
Health Education Program Development and Evaluation	9	81.8				
Health Program Management	7	63.6	1	10.0		
Health Communication	9	81.8	2	20.0	1	20.0
Medical Laws	9	81.8	6	60.0		
Health Policy Analysis	5	45.5	9	90.0	4	80.0
Practices in Disease Classification	10	90.9				
Medical Records Management	10	90.9				
Medical Records Transcriptions	9	81.8				
Medical Records Practice	9	81.8				
Tumor Registry	10	90.9				
Health Statistics	11	100.0	8	80.0	2	40.0
Research Method	9	81.8			1	20.0
Hospital Management	9	81.8	2	20.0		
Health Administration	7	63.6	2	20.0	3	60.0
Healthcare Human Resources Management	9	81.8	6	60.0	2	40.0
Health Organization and Management	7	63.6	5	50.0	2	40.0
Hospital Marketing	7	63.6	6	60.0	1	20.0
Hospital Financial Management	8	72.7	9	90.0	3	60.0
Hospital Accounting	10	90.9	6	60.0	2	40.0
Quality Assurance in Healthcare	11	100.0	4	40.0	1	20.0
Hospital Affairs Management	8	72.7				
Health Insurance	9	81.8	2	20.0		
Practice in Health Insurance	9	81.8				
Strategic Management of Hospitals	4	36.4	4	40.0	3	60.0
Analysis for Hospital Management	5	45.5	3	30.0		

Healthcare Innovation Management	1	9.1	1	10.0	2	40.0
Health Decision Making	2	18.2			2	40.0
Health Industry	4	36.4				
Medical Tourism	3	27.3				
Health Information Management	11	100.0	7	70.0	3	60.0
Health Care Computer System	8	72.7				
Health Service Database	7	63.6				
Field Training/Health care Internship	11	100.0	6	60.0	2	40.0
Environmental Health			5	50.0		
Promoting Mental Health and Wellbeing					2	40.0
Health Care Systems			4	40.0		
Microeconomics			4	40.0		
The Ethics of Health Care			8	80.0		
Comparative Health Systems			3	30.0	2	40.0
Long-term Care Management			4	40.0		
Leadership for Health Care			4	40.0	5	100.0
Operations Management in Health Care Organizations			3	30.0	2	40.0
Contemporary Challenges in Health Care			3	30.0	3	60.0
Service Redesign and Change Management in Health Care					4	80.0
Research Project					4	80.0

5 United Kingdom universities, University of East London, University of Southampton, King's College London, University of Wales Trinity, City of London College, were selected through the searching of university introducing website. There are very few 3-year regular colleges in the United Kingdom with Healthcare Management Department (Health Administration Department) which is not vitalized like United States or South Korea.

As shown in Table 3, 5 universities all established Leadership for Healthcare subject, and 4 universities established 2 subjects such as Health Policy, Service Redesign and Change Management in Healthcare. There were no universities which established Health Education class or Statistics Management class and there were only 1 university with classes of Epidemiology, Health Promotion, Research Method meaning undergraduate schools' curriculums are formed hospital management-centric rather than related subjects.

#### 4.4.2 South Korea/United States/United Kingdom's Graduate School's (Master's Degree) Curriculum

Just like Table 4, all 10 South Korea's graduate schools established Health Statistics subjects, and 9 graduate schools operates with 4 established subjects such as Health Economics, Research Method, Health Insurance, Health Information Management.

On the other hand, 3 subjects like Long-term Care System and Administration, Healthcare Management Assessment, Quantitative Decision Making Method are each established in 1 graduate school, meaning subjects related to senior public welfare, management evaluation and diagnosis, decision making is not yet generalized.

Selected graduate schools of the United States, University of Michigan-Ann Arbor, University of Alabama-Birmingham, University of Minnesota-Twin Cities, Virginia Commonwealth University, Rush University, University of North Carolina-Chapel Hill, Johns Hopkins University, St. Louis University, Baylor University, Ohio State University, Trinity University, University of Iowa, University of Washington, are part of Best Graduate Schools Top 10 of 2015 Health Care Management from US News and World Report's announcement. Within these graduate schools, all 13 graduate schools established 3 subjects such as Health Economics, Health Care Organization Management, Health Care Financial Management, 12 graduate schools established 2 subjects like Legal Aspects of Health Services Management, also 11 graduate schools opened Leadership in Health Care Organizations, Health Care Strategic Planning and Marketing. On the contrary, Comparative Health Systems, Emergency Management were only opened each in 1 graduate school, public health related subjects like Global Health, Population Health, Environmental Health and management innovation related subjects like Innovation in Health Care, subjects related to handling patients, Patient Safety, are not yet taken seriously.

In the case of almost all full-time United Kingdom's regular graduate school (Master's degree), the years required for graduation is 1 year, 3 semester system have characteristic of intensive classes for each subject. There are 15 graduate schools which established Healthcare management or Health Administration course, top 10 university graduate schools, Imperial College London, The University of Warwick, University of Surrey,



**Table 4.** Comparison of South Korea, United States/ United Kingdom universities' graduate school (Master's degree) curriculum

Subject (Postgraduate)	Number of graduate school with subjects established					
	South Korea		USA		UK	
	The number of survey: 10	Opened rate (%)	The number of survey: 13	Opened rate (%)	The number of survey: 10	Opened rate (%)
Introduction to Health Science and service	7	70.0	4	30.8	3	30.0
Global Health	5	50.0	2	15.4	2	20.0
Epidemiology	8	80.0	5	38.5	1	10.0
Health Sociology	7	70.0				
Health Economics	9	90.0	13	100.0	7	70.0
Health Promotion	6	60.0				
Health Planning	6	60.0				
Introduction to Health Policy	8	80.0	12	92.3	6	60.0
Comparative Healthcare System	7	70.0	1	7.7	1	10.0
Community Health	7	70.0				
Economic Evaluation in Healthcare	3	30.0	2	15.4	2	20.0
Long-term Care Systems and Administration	1	10.0				
Health Risk Management	3	30.0	1	7.7		
Health Statistics	10	100.0	6	46.2	1	10.0
Research Method	9	90.0	6	46.2	4	40.0
Hospital Management	6	60.0	6	46.2	5	50.0
Healthcare Human Resources Management	4	40.0	10	76.9	5	50.0
Health Organization and Management	8	80.0	13	100.0	5	50.0
Hospital Marketing	5	50.0	11	84.6	3	30.0
Hospital Financial Management	6	60.0	13	100.0	4	40.0
Quality Assurance in Healthcare	5	50.0	5	38.5	4	40.0
Healthcare Service Operation Management	3	30.0	6	46.2	5	50.0
Healthcare Management Assessment	1	10.0				
Health Insurance	9	90.0	4	30.8		
Healthcare Innovation and Creative Mgt	3	30.0	2	15.4	4	40.0
Quantitative Decision Making Method	1	10.0	3	23.1	3	30.0
Research of Cases in Hospitals Management	2	20.0	6	46.2	2	20.0
Health Communication	5	50.0				
Healthcare Industry	4	40.0				
Health Information Management	9	90.0	10	76.9	2	20.0
E-Healthcare	5	50.0				
Population Health			2	15.4		
Principles of Environmental Health Services			2	15.4		
Introduction to Health Care Systems			7	53.8		
Health Care Management Ethics			10	76.9	1	10.0
Legal Aspects of Health Services Management			12	92.3		
Leadership in Health Care Organizations			11	84.6	3	30.0
Healthcare Accounting			8	61.5	4	40.0
Strategic Management in Health Care			7	53.8	3	30.0
Patient Safety			2	15.4	2	20.0
Professional Development			4	30.8	2	20.0
Entrepreneurship					2	20.0
Health Care Systems, Structure and Functions					3	30.0
Change Management-Models, Theory and Practice					4	40.0
Health Informatics			5	38.5	2	20.0
Database Systems in Health Care			2	15.4		
Project Management			3	23.1	4	40.0
Health Administration Capstone/Internship			9	69.2		

University of Birmingham, University of Leeds, University of Manchester, City University of London, Swansea University, Coventry University, Brunel University London, were selected from the standard of ‘The Times and Sunday Times Good University Guide league table 2015’ which presents colleges of quality every year in the United Kingdom.

In Table 4, the subject that was established by most graduate schools was Health Economics with 7 graduate school establishing it, Health Policy in 6 graduate schools, Human Resource Management, Introduction to Organizational Development in Health Care, Operational Management and Clinical Systems Improvement in 5 graduate schools. On the other hand, subjects of Public Health and Health Promotion is not being established in any graduate school, and subjects of Epidemiology and Statistics, Comparing Health Care Systems, Medical Ethics and Governance, Principles of Hospital Management, Professionals in Health Care is each established in 1 graduate school.

#### 4.4.3 Comparison analysis of South Korea, United Kingdom and United States’ Curriculum

Through literature investigation, Table 5 is representing important subjects in South Korea, United States, and United Kingdom’s undergraduate and graduate school’s Healthcare management department. Subjects marked with (\*) represent subjects that were established most commonly upon selected universities undergraduate and graduate schools.

First, in the case of undergraduate curriculum, South Korea’s universities puts emphasis on basic medical subject Pathology, Health Statistics needed for processing, analyzing and inferencing data, Quality Assurance in Health Statistics to raise the quality of healthcare services. Whereas universities in the United States focus on Health Economics, which deals with efficiently distributing healthcare resources, Health Services Policy for the establishment, execution and evaluation of health policy, Financial Management for raising, operating and management of the funds related to organization management of healthcare, United Kingdom’s universities lay stress on the subjects of leadership, health policy and

management of changes from healthcare organization.

Second, in the case of graduate school curriculum, South Korea putted emphasis on the health statistics subject just like undergraduate curriculum, and established numerous subject that United States’ curriculum focused on like Health Economics and Health Information Management. This means that even graduate school highly regards about tools and methodology to research and analyze healthcare data and ability to process data and managing it. United States graduate schools, same with undergraduate schools, focused on Health Economics, Financial Management and subjects needed to operated and managing healthcare medical treatment organization, Health Care Organization Management, United Kingdom’s graduate school laid emphasis on subjects on Health Economics, Health Services Policy, personnel management and organization management.

## 5. CONSIDERATION AND CONCLUSION

This research, under the circumstances that students in South Korea majoring in Health Care Management need to be raised to have ability to appropriately cope with the global era and become individuals in need in medical site, was done through a survey, targeting forefront hands-on workers and staffs working in hospital administration including professors and students to deduct suitable curriculums for hands-on work, and data investigation of related universities’ online websites.

After analyzing South Korea’s current curriculum of the Health Care Management department, there was a low establishment rate of subjects on management field or data processing which has a close relationship with actual hands-on work at medical site in some universities, and there was high establishment rate for subjects related to acquisition of particular capacity or subjects in other categories, which matches the research result of Lee (2009) that there is limitations on training individuals with a capacity that is the basis of medical site’s requirement and turning out into the future’s professional executive.

**Table 5.** Comparison of South Korea, United Kingdom and United States undergraduate and graduate schools’ (Master’s degree) important subjects

Division	South Korea	USA	UK
Undergraduate	Pathology (*), Health Statistics (*), Quality Assurance in Health Care (*), Health Information System (*), Field Training (*)	Introduction to Health Economics (*), Health Services Policy (*), Financial Management in Health Care (*), Introduction to Epidemiology, The Ethics of Health Care, Health Care Management Statistics, Managerial and Organizational Behavior	Leadership for Healthcare (*), Health Policy, Service Redesign and Change Management in Healthcare, Health Economics, Principles of Healthcare Management, Health Service Finance, Strategic Management in Healthcare
Graduate School	Health Statistics (*), Health Economics, Research Method, Health Insurance, Health Information Management	Health Economics (*), Health Care Organization Management (*), Health Care Financial Management (*), Legal Aspects of Health Services Management, Leadership in Health Care Organizations, Health Care Strategic Planning and Marketing	Health Economics (*), Health Policy, Human Resource Management, Introduction to Organizational Development in Healthcare, Operational Management and Clinical Systems Improvement, Health Innovation

Following is the summary of analysis result of this research.

First, after investigating workers of hospital administration, it was shown that the field that needs to be improved and reinforced with priority in the current undergraduate curriculum was executive-centric education, and there is a limitation on field adaptability since some subjects in current curriculum weigh too much on theory and the teaching methods and rote-oriented lacking connection with hands-on work. New means should be devised to replace subjects that is weighted too much on theories which consequently lacks connectivity with hands-on work or subjects that is disconnected with hands-on work that there is barely any connection with methods of education that is laced with hands-on elements and contents which connection between theory and hands-on work has been thoroughly gone over with. It is necessary to implement various teaching methods such as case studies, problem-solving approach and discussion style teaching methods, because there can be fixation of rote-oriented teaching methods when theories are heavily weighted. Also in the case of subject with high connection with hands-on work, strengthening of education with emphasis on hands-on work centric can be considered by inviting teaching staff well-versed in on-site hands-on work and with plenty experience.

Second, in order to resolve problem of South Korea's current curriculum's territorial imbalance, the grasping and predicting of the demand of the future's medical, industrial site, in addition to improving and supplementation of curriculum reflecting the needs of field executive, administrator, and manager in the division of hospital work administration (calculation/ receipt management of medical expenses), medical treatment support (inspection task and such) and business management (finance/accounting management) which is the employment field for South Korea's Health Care Management department's graduates. For one of the solution, formation of an industrial-educational cooperation committee of curriculum deliberation so counsel from managers well-acquainted with hospital hands-on work. In this regard the study's results will be a useful reference material.

Third, after questioning hospital administration managers and professors about the most needed ability in the future for Health Care Management majors' (undergraduate school), was shown that capacity of global negotiation and dispute/conflict coordination, by newly establishing subjects related to global capacities and educating it will train ability to react with environmental change accordingly with the global era.

Fourth, it is shown that the most established subjects in main universities of the United Kingdom and United States' Health Care Management department were healthcare leadership, health economics, public health policy, healthcare financial management and such, meaning it is focusing on training abilities to lead healthcare organization and the acquisition of basic knowledge to

establish public health policy. The difference of the priority of South Korea's education-centric universities which aims to get employed in medical institutions after graduating, this is not only because of getting employed in medical institutions, laboratory, and government agency, but also because of the role to raise talented individuals to lead the studies in the field of healthcare as the most developed country in the field of international health care. In the case of South Korea's research-centric universities there is a need to refer to it during the curriculum reform.

Fifth, in the case of graduate school's master's course's curriculum, hospital administration managers answered Hospital Marketing as a subject that needs to be improved and strengthened with priority, this is because marketing has direct influence on hospital's sales and earnings and there is a need for hospital administration managers to have more profound and professional knowledges. In the case of graduate schools' (Master's degree) curriculum in United Kingdom and United States, the most opened classes in main graduate schools were, same as undergraduate school, Health Economics which is the basic subject for the establishment of health policy, financial management, Organization Management which is needed for formation and operations of an organization. There is need in South Korea to compare and revise these subjects when reforming curriculum and reflecting it.

Cultivating executive-style talented individual is the demand of the time and also one of the objectives of university education that current South Korea's government aim for. For this this research conducted a survey focusing on hospital administration managers and provided with a solution for the formation of suitable curriculum for practical business oriented and industry-university education. This research seek to be a useful baseline data in the field of Health Care Management's curriculum and research related to professional manpower in South Korea at this point where very little advanced research on Healthcare Management department (Health Administration) curriculum for cultivation of executives in global era. However, there are limitations that the repliers were focused in particular location and forefront executives, this will require a complementary study, which remains as a task for future research. Furthermore, there is a possible limitation that the comparative analysis of subjects was focused on curriculums of undergraduate and graduate schools only in particular and some developed countries for health care.

It is expected through curriculum suggested in this research to be the opportunity for majors related to Healthcare Management students to be grown out to be hands-on working individual needed in medical sites, also having increased competitiveness of medical organizations which hires talented individuals in addition to becoming the foundation for the medical industry to develop, which is one of the growing power of the nation.

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