The Faculty of Medicine and Defence Health – A Process Focussed, High Performance Design Organisation

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ABSTRACT

This paper examines the establishment of the Faculty of Medicine and Defence Health of University Pertahanan Nasional Malaysia (UPNM) from a management perspective, focussing on systems, processes, and design of a high-performance organisation. An analysis of Mullins Organisation Subsystem and elements of high performance design organisation as they relate to the establishment of the Faculty is discussed.

Keywords: Faculty of Medicine and Defence Health, Universiti Pertahanan Malaysia (UPNM), Mullins Organisation Subsystem

INTRODUCTION

In facing the challenges of the globalised world, war, threats, conflicts and disasters are imminent events. For this reason, there is a need for an institution that can train doctors who can be deployed anywhere, anytime, and are capable of offering services under austere environment.

The Malaysian Armed Forces Health Services has been involved in a myriad of operations on land, sea and air, and through its participation in numerous humanitarian missions and disaster relief operations. There is a need to recollect these experiences and turn them into an academic programme so that this body of knowledge and experiences can be developed and disseminated to a broader audience.

The faculty is a unique institution where its students are exposed to a combination of academic knowledge and regimental training. Such an institution does not exist anywhere in the country. The ready availability of the military medical assets which include 5 Hospitals, over 15 Military Medical Centres, an Aviation Medicine Institute, two Medical Battalions and a Parachute Medical Company, helped in the realisation of the new faculty. The establishment of the faculty has assisted in consolidating the above facilities to perform at their optimum level as means of teaching, learning, services and research.

The objective of this paper is to examine the principles of a high performance organisation in the design of the Faculty of Medicine and Defence Health (FMDH).

THE FACULTY OF MEDICINE AND DEFENCE HEALTH (FMDH)

The FMDH was established on 19th March 2009. The first batch of 52 Premedical Students enrolled on the 22 May 2010. This was followed by a second intake of 64 students in May 2011. The first batch of students graduated in 2016.

The faculty has state-of-the-art facilities which include an Administrative Office, Lecturers' Rooms, 2 Multipurpose Laboratories, an Anatomy Dissection Room, two Lecture Halls, a Medical Museum, 4 Seminar Rooms and a Digital Laboratory.

The faculty is headed by a Dean who is assisted by two deputies. Several experienced lecturers and professors from established institutions were recruited to conduct this programme.

Various hospitals from the Malaysian Armed Forces and the Ministry of Health were gazetted for clinical training. The Malaysian Medical Council conducted the "New Course Approval Audit" on 13 July 2011 and gave the green light to the faculty to conduct the medical programme.

The vision of the Faculty is to be a world class centre of Medicine and Defence Health renowned for its excellence in education, research and services. It aims to produce highly disciplined, competent and compassionate medical officers who are able to function effectively in challenging and austere environments.

ESTABLISHING THE BUSINESS NEEDS

Programme Mission

The faculty is to produce medical officers who possess the following characters [1]:

- Able to be deployed anywhere, anytime and are able to serve in war and critical situations.
- Able to understand the needs of the military profession and to take part actively in health maintenance and the wellbeing of the military community, veterans and civilians.
- Able to handle patients in critical situations such as during wars, disasters and mass casualty events.
- Able to manage illness due to work hazards faced by military personnel such as divers, pilots, special task forces, paratroopers and others.
- Have high self-value, an open mind and be globally engaged.
- Be highly competent in the field of Military Medicine such as combat casualty care, disaster medicine, battlefield medicine, aerospace medicine and underwater medicine.

Learning Outcome

The Overall Learning Outcome [1] is for the graduates to have the following skills and ability:

- Adapt in any given time and place and ate able to provide assistance in critical and war scenarios.

- Communicate and make decisions in challenging situations.
- Integrate aspects of health care and military knowledge, research and medical education that will assist in the national health programme.
- Apply a systematic approach to the provision of health services based on scientific knowledge and skills that are relevant and current.
- Possess caring attitude, are responsible, have professional values and ethics standard in patient care and family.
- Lead and manage the medical team in combat and critical situations.
- Possess social skills and be responsible for dealing with health problems that exist in the military community, public and veterans.
- Play an active role in military medical research and the development of the medical profession.
- Be a professional member who is able to handle and immerse themselves in lifelong learning as well as the ability to use modern information technology in medical research.

Program Structure

The medical program takes 5 years, comprising 10 semesters or 221 weeks of teaching-learning activities. The first 2 years of the program covers preclinical subjects while the final 3 years are mainly clinical. The Faculty adopted a Hybrid Curriculum, which is a teaching-learning approach called "Subject-based System Synchronized" preclinical curriculum. In addition to the standard medical curriculum, the faculty also offers additional subjects on Military Medicine which include Army Medicine, Aviation Medicine, Underwater Medicine, Disaster Medicine and Operational Medicine. Military cadets also undergo Regimental Training over the weekends.

SYSTEMS AND PROCESSES

As defined by Davenport [2], a system is "…… simply a structured, measured set of activities, designed to produce a specific output for a particular customer or market". A system consists of several processes, each with several attributes. The process itself was defined by Johansson et al. 3 as "a set of linked activities that take an input and transform it to create an output. Ideally, the transformation that occurs in the process should add value to the input and create an output that is more useful and effective to the recipient either upstream or downstream." Attributes of these processes would include:

- Clearly defined input and output values.
- A specific order of activities that structure the process.
- The process outcome has a customer or recipient.
- The process is dependent on the organisational structure.
- Processes can span a number of functions that may be shared or may be separate.

The FMDH as an organisation which comprises of many processes and sub processes and has all five attributes. The faculty has numerous activities which not only include teaching and learning but also military training and extracurricular activities. It is designed with a specific purpose, vision, mission and objectives.

The Organizational Structure

The FMDH is headed by a Dean who reports directly to the Deputy Vice Chancellor (Academic) for academic matters and to the Deputy Vice Chancellor (Student Affairs) for matters concerning student's affairs. The University provides the budget through the Bursar's office. Military regimental training is provided by the Military Training Academy headed by a Commandant with the rank of Brigadier General.

The original faculty's organisation chart follows a conventional system, designed around the basic function of teaching and learning. Each subject component is headed by a Head of Department who reports to the Deputy Dean of Academic Affairs. There is a clear hierarchy and each department is staffed by competent lecturers. However, there is so much focus on the teaching–learning function rather than the customers themselves i.e. (students).

Students are not involved in the decision making processes. Being military cadets, avenues for them to air grievances are limited. Direct communication between departments is not easy as each head is deeply engrossed in his specialised field of knowledge.

They teach subjects in 'silos' instead of integrating them into a body of knowledge useful for the treatment of the sick and injured. There is little coordination of the overall processes. Each teaching team member is a specialist and hence there exists functional barriers between these departments. Despite the above constraints, the organisational designs enabled the faculty to gradually grow and overcome several constraints, especially during its formative years.

Being Process Focused

Most successful organizations focus on improving processes and customer services. Strategies are linked to mechanisms that enhance performance and quality such as six–sigma, the Balance Score Card, Lean Thinking and Business Process Reengineering [4]. Present day medical schools need to redesign their processes to better support student learning activities. Students are different from factory finished products and as such they must be treated differently.

According to Rohan [5], a company must address seven dominant forces that impact organisational structure, namely the business plan, accounting model, organization structure, culture, technological process improvement system and subsystem, collaboration & alliances and regulatory influences.

To be successful, the faculty needs to address the above forces in order to facilitate changes. Top management must be prepared to provide the necessary support and resources. Process focused teams must be aware of failures and obstacles. It stated that major change initiatives can fail because of three fundamental reasons: -

- They are not focused

- Senior managers are not intimately involved in managing the improvement initiatives
- They lack discipline to realize the vision

MULLINS ORGANIZATIONAL SUBSYSTEM

Mullins [6] proposed five basic systems in business, namely-task, technology, structure, people and management. Depending on the type of organization, the emphasis on the various subsystems may vary.

Task

At the FMDH, task or strategy development is still evolving. Even though it has clear goals and objectives, students demands are changing. Patients also expect better care from doctors. The General Medical Council in 'Tomorrow's Doctor" [7] listed the following duties of a doctor:

a. Make the care of your patient your first concern.
b. Protect and promote the health of patients and public.
c. Provide a good standard of practice and care.
d. Treat patients as individuals and respect their dignity.
e. Work in partnership with patients.
f. Be honest and open, and act with integrity.

The faculty must ensure that all the above traits are inculcated to the students. Lecturers, students, patients, families and society at large need to be involved in strategic decision making. Delivery of good health care is not for the faculty to assess but is the purview of patients, their families and society in general.

Technology

Technology plays an important role in the training of medical students. The right facilities, infrastructure and resources must be made available. These include lecture theatres, clinical skill laboratories, computers, libraries, microscopes, cadavers and equipment for patient care. The student must have access to these facilities and must familiarize themselves with the various medical gadgets and equipment before going to the wards. In the wards they are required to examine patients and perform various diagnostic procedures.

The provision of the right technology can be very expensive, especially in the medical programme. Faculty lecturers require specialised equipment to do research and publish papers. This will incur a higher cost to a new faculty. The NDUM Bursar has to play a more proactive role in managing the faculty's expenses and the Ministry of Higher Education should allocate a substantial and sufficient amount of money to develop the faculty's infrastructure. The faculty should have a Facility Management Team to efficiently manage its resources and facilities.

Structure

The conventional structure of the FMDH has clear lines of responsibility and is quite rigid. Work is still divided in the form of specialized departments with little integration across the borders.

To reduce the problems inherent in a traditional based organizational structure, the faculty introduces a special department called Medical Education and Quality Assurance (MEQAR). MEQAR acts as an integrating body that facilitates the planning, monitoring and evaluation of the implementation of the curriculum across the various departments.

The Deanery works closely with MEQAR to ensure all systems and academic activities adhere to the guidelines through several committees namely the Admission Committee, Curriculum Committee, Mentor-Mentee Committee, Quality Assurance Committee and Research and Innovation Committee.

People

People are an organization's most valuable asset. The faculty is lucky to have experienced qualified specialists from several established institutions. However, these people were also not easy to manage.

They brought with them high hopes and expectations and also great pride and prejudices. Some bring their old work cultures and since most of them are civilians, they find it difficult to adjust to a military environment.

Although most of the teaching staff are highly qualified and experienced, they need to be updated with the latest educational tools, innovations and technology. Supporting staff also play an important role in managing the faculty. They run the day–to–day administration. These include the assistant registrar, clerical staff, laboratory technologists, administrative officers, research officers and science officers. Often these groups of staff are at a great disadvantage, in terms of continuing professional development, promotion and other benefits. They are also often not aware of the faculty's vision, missions and objectives.

Being a military medical faculty, there is another sector of staff from the Armed Forces. They are the military instructors who train cadets to become military officers. Often their approach on training differs very much from that of a doctor. This discrepancy can sometimes put the students in an "ambivalent" situation. The faculty appointed a few military doctors who are also lecturers and they can act as military coordinators. This helped to synchronise the academic curriculum and the compulsory regimental training.

Management

In the traditional management of a medical faculty, the head of the department has a final say on how the subject is to be delivered. There was no one coordinating the depth and delivery of the curriculum. There were strict rules and procedures and students have little say on how to improve the program. In today's environment, students can be "king". Management subsystems need to be agile and responsive to the student's demands. The lecturer's role is not just to disseminate knowledge, but also to facilitate and mentor. The faculty needs to ensure that it's program is of a high quality and given due accreditation by the respective professional bodies.

All the necessary facilities and support must be given to students, lecturers and general staff. Management must ensure only good and quality students, lecturers and staff are recruited into the faculty. Contingency funds must be made available to cater for unexpected expenses. Collaboration with the Bursar's office has to be enhanced.

HIGH-PERFORMANCE DESIGN

The faculty needs to adopt a high-performance design and a high performance culture [8] which has the following elements:

- Lean flat, flexible structures
- High commitment
- Minimizing management control
- Delivery of results that outstrip traditionally run organizations
- Commitment to a common vision
- Business focused
- Integration of people and equipment
- Leadership committed to facilitating the best in others
- Team work and multi-skilling across functions and boundaries
- Delegation of authority and decision–making to the person closest to the task
- Principle - based rather than role - based
- Energise people committed to learning and doing their best.

The faculty aspired to adopt the above principles but it takes a lot of time and effort as well as the support from top management. Designing a flat, lean and flexible structure in a government agency is not an easy task. It is also not easy to recruit staff with a high degree of commitment, who are committed to a common vision, as they comprise people from different backgrounds, expertise and experiences. In a field where subspecialisation is the order of the day, getting team work and multiskilling across these functions can be difficult. Integration of specialisation, teamwork and getting people to do their best are challenges the faculty has to face.

The faculty being one of the youngest in the country needs to revisit its strategic plan and identify its current challenges and opportunities. Over the past years, several targets have been achieved and considerable progress made. It is now appropriate to focus all efforts in designing an institution which focuses on the delivery of value to the customer.

The faculty should aspire to achieve General Medical Council recognition to enhance its international standing. External examiners from world renowned universities should be invited to be external examiners for the Professional Examinations. The faculty had planned to establish a Disaster and Military Medicine Simulation Centre. This centre will enable students to practice emergency medicine skills in a simulated hostile and austere environment such as warfare, earthquakes, floods, tsunami and conflicts. A presentation was made to Performance Management and Delivery Unit (PEMANDU) which approved the concept in general but progress has been slow.

CONCLUSION

Top management needs to support the process-focused high-performance design approach with the right infrastructure, facilities, expertise and a process–centered organizational structure. Management must realize that they are measuring processes and not individuals. Management must accept that the problem lies more in the processes rather than the employees, and the right actions must be taken to correct the processes. Dominant forces that hinder progress must be addressed, and concerted efforts must be taken to rebrand the faculty to be a world renowned institution. We need to pursue the impossible, be ruthless in our prioritisation and have a strong perseverance in our actions.

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