



## ESTABLISHING A LEADERSHIP CURRICULUM FOR TAIF MEDICAL COLLEGE

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### ABSTRACT

**Background:** Medical schools have a slight experience about introducing and teaching leadership for medical students. Moreover, it can easily and effectively introduced into the curriculum and programs of medical colleges. Lack of leadership knowledge and practice among undergraduate medical students at Taif medical college encouraging introducing and integrating such program in to its curriculum. **Objectives:** Graduated medical students will be able to define and identifies leadership competencies and its applications. Moreover, they will acquire positive leadership traits and demonstrate appropriate Implementation of leadership competencies during dealing with stakeholders and higher authorities in hospital rotations and community programs. **Methods:** A six-step approach to curriculum development, which developed by Kern and colleagues in 1998 will be used as a conceptual framework. **Recommendations:** Establishing a leadership program for medical students is essential and should integrated with the curriculum of medical colleges. Moreover, physicians should contribute and participate in making decisions about development and progression of national and international health care systems.

**KEYWORDS:** "Leadership" "Education" "Medical" "Undergraduate".

### INTRODUCTION

Since 1996, the Royal College of Physicians and Surgeons of Canada formulated seven domains of CANMEDS physician competency; one of these domains is to be a manager.<sup>[1]</sup>

They define leaders as physicians who "engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers".<sup>[2]</sup>

According to Harry S. Truman, thirty-third President of the United States, a leader is "a man who can persuade people to do what they don't want to do, or do what they're too lazy to do, and like it."<sup>[3]</sup> Moreover, according to Adeoye Mayowa; a leadership manager in Nigeria 2009, "Leadership is the ability to evaluate and or forecast a long term plan or policy and influence the followers towards the achievement of the said strategy".<sup>[3]</sup>

In general, medical schools have a slight experience about introducing and teaching leadership for medical students. Moreover, it can easily and effectively introduced into the curriculum and programs of medical colleges.<sup>[4]</sup>

In 2009, study done in USA for exploring the views of faculty, students and administrators about essential competencies in an undergraduate leadership curriculum. It concluded that "Students perceived themselves as somewhat or fully competent in communication (90%), conflict resolution (70%) and time management (65%), but reported minimal or no knowledge or competence in coding and billing (100%), writing proposals (90%), managed care (85%) and investment principles (85%)".<sup>[5]</sup>

Students and faculty assumed that practical training was an appropriate method for training and learning leadership skills.<sup>[5]</sup>

Moreover, Lack of leadership knowledge and practice among undergraduate medical students at Taif medical college encouraging introducing and integrating such program in to its curriculum.

### Organizational Context of Medical College at Taif University

In Saudi Arabia, the graduated high school students admit in to medical colleges after passing the preparatory year (Phase 1) with high scores. Medical college at Taif University established recently in 2005. It consists of two and half year preclinical (Phase 2) and two and half year clinical (Phase3) with integrated curriculum.

## OBJECTIVES

Graduated medical students will be able to define and identifies leadership competencies and its applications. Moreover, they will acquire positive leadership traits and demonstrate appropriate Implementation of leadership competencies during dealing with stakeholders and higher authorities in hospital rotations and community programs.

## METHODS

The important conceptual framework for curriculum development is a "six-step approach to curriculum development" which developed by "Kern and colleagues (1998)".<sup>[6]</sup>

There are a six-step approach to curriculum development as follows: "problem identification and general needs assessment, needs assessment of targeted learners, goals and specific measurable objectives, educational strategies, implementation, evaluation and feedback".<sup>[6]</sup>

These six steps approach will apply to develop a leadership curriculum for undergraduate medical students at Taif University.

### Step 1: Problem Identification and General Needs Assessment

The first step for program development is set of "problem identification and general needs assessment". Lack of leadership knowledge and practice among undergraduate medical students will affect students' professionalism level and the relations between physicians and stakeholder either at hospital level or at

higher authority level. Moreover, College reputation and society trust with health care professionals will affected.

Many international studies supporting introducing a leadership curriculum for undergraduate medical students and discusses barriers for its implantation.

A study in 28 medical students at one UK medical school, from all three clinical years concluded that, "Students' insights into the opportunities, to develop leadership and management learning within existing curricular experiences are most significant".<sup>[7]</sup>

Moreover, a systematic review of 26 studies were conducted in the USA concluded that "Medical students perceive a need for leadership and management education, but identified lack of curriculum time and disinterest in some activities as potential barriers to implementation".<sup>[8]</sup>

Another study conducted in 240 medical students at one UK medical school. It "supports teaching of medical management and leadership as an integrated subject into all aspects of the medical curriculum".<sup>[9]</sup>

It is important to address deficiency between current and ideal approach (Table 1) by obtaining the necessary information through; meeting with experts, clinical registry data, conducting surveys, national or international article reviews of related topics and reports by professional organizations. Moreover, training and education of leadership skills and arts for undergraduate medical students based on required competencies is essential and critical.

**Table 1, Current and ideal approach of health care professional and medical educator regarding leadership and its reflection on patient and society**

	PATIENT	HEALTH CARE PROFESSIONAL	MEDICAL EDUCATOR	SOCIETY AND HIGHER AUTHORITY
Current Approach	Lacking of appropriate dealing with patients problems when take the responsibilities at clinical care sitting such as dealing with patients complains	Lacking of appropriate participation in policy development at clinical care sitting	Teaching of leadership is not integrated in the curriculum of undergraduate medical students	Lacking of appropriate participation in meeting and social gathering  -Lacking of appropriate skills in leading a change at clinical care sitting
Ideal Approach	Education and training about dealing with patient problems	Education and training about participation in policy development at clinical care sitting	Integration of leadership in in the curriculum of undergraduate medical students	Education and training about professional conducting meetings and leading a change at clinical care sitting

Table 2, Educational Strategies

	COGNITIVE	ATTITUDE	PSYCHOMOTOR
<b>Specific Measurable Objectives</b>	80% of students define & identify basic component of Leadership concepts	80% will acquire positive leadership traits	80% will demonstrate appropriate Implementation of leadership competencies during dealing with stakeholders and higher authorities in hospital rotations and community programs
<b>Educational Method to Achieve</b>	Lectures Reading (books, journals) and TBL (Team base learning)	Role play (debriefing), small and large groups discussion	Standardized Patient and supervision In hospital (faculty and hospital staff)
<b>Educational Method to Prevent Decay</b>	Online reading (blackboard), Peer teaching, book review and electronic portfolio	Role model and writing learning contract	Audio /video review of learner Roleplay, electronic portfolio, attendance workshops and conferences
<b>Recourses Required</b>	Books, journal Online link, time, space and faculty <b>(Low cost )</b>	Mentor, Students rating scale and papers <b>(Low cost)</b>	Actors, students, audiovisual aids, checklist, space, training and time <b>(High cost)</b>

**Step2: Needs Assessment of Targeted Learners**

The next step for program development is set of "needs assessment of targeted learners".

Target learners will be a phase 3 medical students (2nd semester of 4th year to 2nd semester of 6th year). They are sharing a similar basic and cultural background, maturity and experience. Moreover, they are hospital oriented with no previous leadership experience and, having different learning styles and academic performance.

Medical education department and international collaboration enabling implementation of a leadership program for undergraduate medical students. Moreover, resources such as presence of training hospital, enough manpower, rooms and Black Board can enhance implementation and development of such programs. Vice versa, many barriers can delayed implantation of such

program such as resistance to change and lacking of training and number of the faculty.

Collaboration of stakeholders can regulate and control implantation of this program. Stakeholders includes; family medicine department, year coordinator, phase 3 coordinator, phase 3 scientific committee, medical education department, curriculum department, vice dean, dean. Moreover, experts of others (bench marking) is important for development of this program.

Collection of information about targeted learners and their leadership skills is important before conducting the program, to know learners background and how we can build on that. Many different ways of data collection should be used such as; qualitative and quantitative Questioner, direct observation for students to assess their skills (validated checklist). Moreover, a pilot study, which includes a 5% of Phase 3 medical students who have a different academic performance, can be conducting. Furthermore analyzing a pilot study and take its conclusions and recommendation in to account for conducting a leadership program.

Based on assessment and targeted learners environment (hospital, community), we will define the content of targeted learner where we should measure cognitive, affective and Psychomotor domains.

### Step3: Goals and Specific Measurable Objectives

The next step for program development is set of "goals and specific measurable objectives".

#### A. Goal

Introduce Leadership principles and practice into medical college curriculum.

#### B. Specific Measurable Objectives

**Cognitive:** By the end of Leadership modules, 80% of phase 3 medical students will be able to, define and identify basic component of Leadership concepts.

**Attitude:** By the end of Leadership modules, 80% of phase 3 medical students will acquire positive leadership traits.

**Psychomotor:** By the end of Leadership modules, 80% of phase 3 medical students will demonstrate appropriate Implementation of leadership competencies during dealing with stakeholders and higher authorities in hospital rotations and community programs.

### Step 4: Educational Strategies

The next step for program development is set of "Educational strategies".

Many educational strategies (Table 2) are promote and support self-directed learning where students are responsible about their learning such as, Team Based Learning (Individual Readiness Test and Team Readiness Assurance Test), reflection on experience, peer teaching and online learning.

Reading materials and evaluation students' performance are important component of Team Based Learning. Moreover, many educational strategies are promote professionalism and improve communication skills such as, standardized patient and hospital supervision (direct observation of clinical encounter). Standardized patient need checklist and rating scale for evaluate communication skills and professionalism. Moreover, rating scale for continuous assessment of students' performance at hospital rotations like Clinical Evaluation Exercise (MiniCEX) are important.

### Step 5: Implementation

The next step for program development is set of "Implementation".

#### A. Required Resources For Curriculum Envision

**Personal:** curriculum director, facilitators, instructors, administrator, standardized patient.

**Time:** Planning and implementation for 2 months, that include train the faculty, prepare the material such as study guide and Pilot study.

**Facilities:** 2 class room, video and audio equipment and 10 computers with internet access almost 200 students per year.

**Costs:** 20,000 SR (standardized patient 5000 SR and 15000 for faculty).

**Feasibility:** Yes and available.

#### B. Degree of Support

**Supports:** Internal supports; Stakeholders and External supports; hospital administrators to coordinate with head of the department.

**Degree of Support:** at Administrative Level.

**Resistance Source:** Faculty and hospital staff may have resistance to get training in Leadership Program.

**Necessary Support Nature & Level:** Funds, materials, faculty and accreditation requirements from medical education department.

#### C. Sort of Administration is Important to Implement & Maintain:

**Administration Structure (Operational):** curriculum committee, scientific committee, family medicine department and schedule (lecture, TBL and practical).

**Communication:** at administrative level.

**Operation:** Course administer of family medicine department Communicate with learner and coordinate the logistic of the program such as registration of learner and sending the study guide through the blackboard.

#### D. Anticipated Barriers and plan

**People:** Stakeholders.

**Training:** train the coordinated staff for leadership program from the hospitals (resistance to be loaded with extra work).

#### E. Introducing the Curriculum Plan:

**Critical Segment of the Curriculum:** According to CANMEDS 2015 physician competency framework: (2)

#### 1. Contribute to the Improvement of Health Care Delivery in Teams, Organizations, and Systems:

- 1.1 Apply the science of quality improvement to contribute to improving systems of patient care
- 1.2 Contribute to a culture that promotes patient safety
- 1.3 Analyze patient safety incidents to enhance systems of care
- 1.4 Use health informatics to improve the quality of patient care and optimize patient safety

## 2. Engage in the Stewardship of Health Care Resources:

2.1 Allocate health care resources for optimal patient care

2.2 Apply evidence and management processes to achieve cost-appropriate care

## 3. Demonstrate Leadership in Professional Practice

3.1 Demonstrate leadership skills to enhance health care

3.2 Facilitate change in health care to enhance services and outcomes

## 4. Manage Career Planning, Finances, and Health Human Resources In a Practice

4.1 Set priorities and manage time to integrate practice and personal life

4.2 Manage a career and a practice

4.3 Implement processes to ensure personal practice improvement". (2)

**Pilot Study:** A Pilot will be done in 5% of phase 3 medical student who have a different academic performance, through several workshops before starting the program. Modification of the program according to the result of pilot study will take place. Implantation of the program will applied to all phase 3 medical students.

**Structure of Implementation:** Start from the second half of 4th year to 6th year as follows:

4th year: 1 credit hours, 5th year: 2 credit hours and 6th year: 3 credit hours.

**F. feasible and Successful:** Pre and post test will help in determine successfulness.

### Step 6: Evaluation and Feedback

The next step for program development is set of " Evaluation and Feedback ".

Evaluation question will be for the curriculum components, learners and faculty. Check list for the curriculum content and Likert rating scale for the students and faculty regarding satisfaction and performance. Moreover, analyze collected data and writing the report by bio station will submitted to the curriculum unit. Formative and summative feedback from the blackboard will collected from students.

## SUMMARY AND RECOMMENDATIONS

Establishing a leadership program for medical students is essential and should integrated with the curriculum of medical collages. Moreover, physicians should contribute and participate in making decisions about development and progression of national and international health care systems.

More researches are need for exploring the real situation and reach to solid recommendation about introducing a leadership program in medical collages. Furthermore, Saudi Meds should add a leadership as main domain and tailored for Saudi medical schools.

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