# SHE School of Health Professions Education

# SHE PhD Project Proposal

## Registration form

### 1. Overview of application information
Please include details of the following:

### 1a. Details of applicant

-Name, title(s): Mohamed Al-Eraky –
-Male/female: Male
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### 1b. Title of research proposal

*Faculty development for learning and teaching medical professionalism in Arabian context*

### 1c. Abstract

This proposal investigates how professionalism can be addressed in faculty development in Arabian context. Five studies are planned to investigate six research questions: (1) What are the basic elements of professionalism in Arabian context? (2) How to develop an instrument to measure attitudes on professionalism? (3) How do students and teachers perceive professionalism, in light of their gender, stage and seniority? (4) How do attitudes of teachers differ from those of their students? (5) How to develop a consensus on the cognitive base on professionalism in Arabian context? (6) How to design an intervention on professionalism for faculty development?

### 1d. Master of Science degree

Master of Medical Education (*Distinction*), University of Dundee, UK, 2010 Diploma of Medical Education, University of Dundee, UK, 2009 Certificate of Medical Education, University of Dundee, UK, 2007 Master of Clinical Pathology, Zagazig University, EGYPT, 2003

### 1e. Complete name dissertation supervisor(s)
If already known, please state the complete name of the dissertation supervisor(s) for the proposed research.

Daily supervisor: Dr. Jeroen Donkers
Local Supervisor: Prof. Gohar Wajid
Promoter: Prof. Jeroen van Merrienboer

## Research proposal

### 2. Description of the proposed research

## 2a. Research topic
Theoretical framework, research questions, hypotheses

### Problem statement
Medical professionalism received a global interest in recent years mainly because of the high profile failures in the practice of medicine (Talbott, 2006). Professionalism is defined as the ideal behaviours towards which physicians aspire while serving their patients and society (Cruess, 2002). It exemplifies the expected behaviours and attributes of practitioners (Wearn *et al.*, 2010). However, a precise definition of the values that comprise medical professionalism has proved "elusive" (Swick, 2000). There is no consensus on what contributes to professionalism even among leading medical organizations and accreditation bodies (Escobar-Poni, 2006). Elements of professionalism and attitudes of different groups to professionalism are not explored in Arabian context. Faculty members are not prepared for teaching and assessing professionalism (Stienert, 2005). Surprisingly, few publications have addressed professionalism in the context of faculty development, particularly in the Arabian context. There is a need to educate faculty members to teach professionalism.

### Review of Literature & Theoretical Framework

#### Review plan
The review plan scans what is already known about the *concept* of professionalism, how people *perceive* it and finally how professionalism is addressed in *faculty development*.

### Part 1: What is professionalism?

The term professional is used with different meanings; sometimes as the opposite of 'amateur'. Medical professionalism exemplifies the expected behaviours and attributes of practitioners (Wear, 2010). The General Medical Council (GMC) and the Medical Schools Council have produced guidance on professional behaviour for medical schools and students. The guidance focuses particularly on fitness to practice. However, a professional is more than being fit to practice medicine.

In North America, the concept of *professionalism* is commonly used to present the theoretical construct, framed in abstract, idealistic terms and character traits, e.g. honesty, integrity and accountability (Van Mook et al., 2009). The term professional behaviour is more prevalent in Europe to reflect observable behaviours which can be taught and assessed. The complexity of the relationship between external behaviours and internal value/attitudes is poorly researched (O'Sullivan *et al.*, 2012). "Do we want physicians who are professionals, or will we settle for physicians who can act in a professional manner?" is a frequently asked question (Hafferty, 2003). In my studies, the two terms will be used interchangeably.

In its broadest sense, medical professionalism encompasses all aspects of the higher attributes of being a physician but it might be understood differently by members of the medical profession itself. Even leading medical organizations have different interpretations and attitudes of the elements contributing to medical professionalism (Escobar-Poni, 2006). Medical professionalism is a blend of moral commitment (ABIM, 1995) and core attributes (Steinert *et al.*, 2005) which are demonstrated in explicit behaviours (Swing, 2007).

Medicine must be taught as a *profession* in the service of *healing* (Cruess & Cruess, 1997). Medical professionalism is about both complementary roles; the role of the *healer* is more concerned with doctor-patient relationship and the role of the *professional* which is regulating the medicine-society, as a whole, relationship. Medical profession does not define professionalism, *society does* by delegating powers and responsibilities to the medical profession (Starr, 1982). Cruess (2006) defined the social contract as "a contractual relationship with a series of obligations and expectations based on mutual trust between the society and medicine". A better understanding of professionalism can be facilitated through analyzing the basic elements of medical professionalism.

Six domains of professionalism were identified by the American Board of Internal Medicine (ABIM) in 1995, which include: *altruism, accountability, duty, excellence, integrity & honour* and *respect*. Those elements provide a good template for validation. The ABIM framework was selected because it has been used as a consistent framework for a number of studies in different countries to define attributes of professionalism over the past decade, not only in the context in which it was originally developed in the USA (Lypson & Hauser 2002; Robins et al. 2002; Roberts et al. 2004; Ratanawongsa et al. 2006; Blackall et al. 2007; Quaintance et al. 2008; Symons et al. 2009), but also in other non-western cultures such as Taiwan (Tsai et al. 2007), Iran (Aramesh et al. 2009) and Japan (Suzuki 2009). Unfortunately, no similar

validation study has been conducted to identify domains of professionalism in Arabian context. Therefore, it is worth trying to test the same ABIM framework to answer my **FIRST** research question: **What are the basic elements of professionalism in the present Arabian context?**

### *Part 2: How people perceive professionalism?*

*Attitude* is a mind-set which is developed due to an individual"s experience and temperament, while *perception* is the process by which a person interprets and organizes sensation to produce a meaningful experience of the world (Lindsay & Norman, 1977). Attitudes, therefore, moderate perceptions which may be manifested in explicit behaviours. Attitudes on professionalism are developed in a dynamic process of solicitation, which was described by Hilton and Slotnick (2005). Different studies used a variety of quantitative and qualitative approaches to report attitudes on professionalism in different stakeholders.

Several studies reported the attitude of professionalism among different groups over the past ten years. Variable sample sizes were recruited ranging from documenting voices of only two students (Krych & VandeVoort, 2006) up to hundreds and sometimes thousands of respondents. The studies used a wide range of data collection methods. Questionnaires were reported as the most popular tool to self-assess respondents" attitudes on professionalism (n= 13, 50%), followed by focus groups (n= 4) and interviews (n= 2). Some questionnaires used as few as four items (Wiggins, 2009), while others extended to as many as 124 items (Roberts *et al*., 2004). Listing attributes of professionalism by residents (Brownell, 2001) or by students (Sehiralti, 2010) was a fairly easy approach but required extensive qualitative analysis of responses. Kenyon and Brown (2005) used a so-called *Mission Statement Day* to introduce professionalism to medical students, where their attitude on professionalism is materialized in mission statements. Analysis of these statements reflects how students think of professionalism and how they communicate their core values and professional goals. Boudreau (2008) used a semi-structured interview for patients" views on professionalism. Huggett (2008) analyzed student journals and Stark and colleagues (2006) identified the themes of professionalism through guided reflection.

Green (2009) offers a valuable recommendation to focus on tangible *behaviours* rather than abstract attributes to facilitate discussion and modelling of professionalism both in medical education and in clinical care. In this proposal, behaviours are used in vignettes to measure attitudes of participants on professionalism. When the elements (domains) of professionalism are identified in Arabian context, we can use them as a framework to develop an instrument to explore attitudes of students and faculty members on professionalism. Therefore, an instrument that is developed in explicit behaviours in the form of micro-scenarios or vignettes, e.g. when a doctor relies on the best available evidence for decision making, is expected to be more valid in measuring attitudes on professionalism, than those instruments using abstract definitions (e.g. duty or excellence). Each vignette is planned to address only one element of professionalism. These behaviours should be realistic and culturally-specific to address daily practice of a physician"s life. This leads us to my **SECOND** research question: **How to develop a culturally-specific inventory to measure attitudes on professionalism in Arabian context?**

### *Students' views on professionalism*

Medical students have a diverse range of attitudes on professionalism which further change over time (Hilton, 2005). Chard (2006) reported that medical students and junior doctors see medicine as a profession which is learnt through apprenticeship and defined by responsibility towards patients, and which requires qualities such as altruism and humility. Students" expectations for the attributes of the ideal supervisor indirectly reflect their views (Huggett et al., 2008). Professionalism, for students, is not only related to behaviours but also to appearance (Finn, 2010). Dressing up" as a doctor was strongly perceived by students as a characteristic of being professional. This is of a particular importance in the context of the Middle East, where media portrays doctors in full suit, white coats and glasses. This is strongly related to the socialization process, where students are mimicking the appearance and behaviours of their medical teachers.

A number of studies reported no gender-based variation in attitude on professionalism in undergraduate medical students (Papadakis, 2004; Finn, 2009; and Shah, 2009) or postgraduates (Hofmeister, 2009). Others proved some differences related to *altruism* (Johansson, 2007) and *sympathy* (Rentmeester, 2007). It is interesting to study gender-based variation in a country like Saudi Arabia, where there is complete separation between male and female students throughout undergraduate medical education. All of the above findings related to students" views in different contexts on professionalism lead to my **THIRD** research question: **How medical students perceive professionalism in Arabian context, particularly with respect to gender, nationality and educational stage?**

Bryden (2010) was eager to explore clinical faculty members" knowledge and attitudes regarding their teaching and evaluation of professionalism. Faculty members admitted that teaching and evaluating professionalism posed "a challenge for them" (Bryden, 2010). This is because it is easier to preach rather than to practice professionalism. Similarly, Nath (2006) reported that attitudes of professionalism vary most with educational rank and age, among students and faculty members". According to Nath (2006) undergraduates, females, the youngest age group (≤26), nursing students, and faculty other than dental or medical were more likely to label behaviour depicted in the survey statements as *unprofessional*. In another study, students rated faculty"s professionalism teaching *higher* than the faculty rated themselves (Quaintance, 2008).These findings disclose a disparity of views on professionalism between students and their teachers, but they were all conducted in a Western context. A **FOURTH** research question emerges: **How do attitudes of teachers on professionalism differ from those of their students in Arabian context?**

The attributes of professionalism as viewed by students may (or may not) map onto those perceived by teachers. Establishing a common ground on professionalism is of paramount importance to be infused in a medical school. Cruess (2006) acknowledged that cognitive base as a core principle for teaching professionalism. Therefore, each institution should agree on the substance of the cognitive base which must remain constant throughout the continuum of medical education and faculty development program.

The good news is that Hafferty (2006) and Stienert et al.(2007) proved that faculty development is a powerful tool to achieve that consensus and ensure that teachers understand the role they are teaching and modelling. My **FIFTH** research question, therefore, is **How to use faculty development to develop a cognitive base on professionalism among faculty members in Arabian context?**

## Part 3: Faculty development on professionalism

Faculty development can be defined as "*any planned activity to improve an individual's knowledge and skills in areas considered essential to the performance of a faculty member in a department or a residency programme"* (Sheets & Schwenk, 1990). This comprehensive definition encompasses the various roles of teachers, administrators and team leaders, scholars and of course clinicians. Faculty development programs, therefore, should prepare staff for the above roles. Developing a cadre of professional and competent teachers, educators, researchers and leaders for their new roles and responsibilities in medical education requires faculty development (McLean, 2008).

Two schools can be acknowledged in teaching and learning medical professionalism (Cruess *et al.*, 2009). The first school of thoughts believed that professionalism should be approached primarily as a moral endeavour, emphasising altruism and services, the importance of role modelling, and self-awareness. The second one advocates teaching professionalism in explicit manner either by defining a cognitive base or outlining a list of traits for professional behaviours. The two schools are complimentary to each other, as they engage both the *heart* and the *mind* of the learners, respectively.

The *situated learning theory* is an overarching framework for teaching professionalism because it brings *together* the cognitive base and the *experiential learning* that is needed to facilitate the acquisition of professionalism (Cruess *et al.*, 2009). It is based on the notion that knowledge is contextually situated and fundamentally influenced by the activity, context and culture in which it is used (Brown, 1989). The situated learning theory further bridges the gap between the "*know what*" and the "*know how*" by embedding learning in authentic activities.

Despite the value of professionalism in contemporary medical education, as demonstrated above, those who are supposed to teach professionalism (*teachers*) actually receive minimal attention as evidenced by the limited number of researches studying professionalism in the context of faculty development (Steinert, 2005). Teaching professionalism, therefore, must also be addressed in faculty development. Teachers should be educated on how to teach professionalism with relevance to their ethics, core values, culture and context. This leads us to my **SIXTH** research question: **How does faculty development affect teachers' attitudes and transfer of learning to teach professionalism to their students in Arabian context?**

**Research questions**

To summarize, this research will tackle the following six research questions:

1- What are the basic **elements** of professionalism in Arabian context?
2- How to develop a culturally-specific **instrument** to measure attitudes on professionalism in Arabian context?
3- What are the attitudes of medical **students** on professionalism in Arabian context with respect to gender, nationality and educational stage?
4- How do attitudes of **teachers** on professionalism differ from those of their students in Arabian context?
5- How to use faculty development to develop a **cognitive base** on professionalism among faculty members in Arabian context?
6- How does faculty development affect teachers" attitudes and transfer of learning to **teach professionalism** to their students in Arabian context?


**2b. Approach**  Method and setup


**Research context** All studies are planned to be conducted in Arabic context. According to Hilton and Slotnick (2005), professionalism is an acquired *state* rather than a *trait*, illustrating their belief that environmental influences contribute more than do biological ones to its development over time. Therefore, a clear definition of the context is invaluable.

Today, Arabs live in an area of more than 14 millions square kilometres which encompass almost 10% of dry land with a population of over 350 million inhabiting 22 countries. I perceive Arabian context as the blend of culture, traditions, beliefs and behaviours that are being practiced by nations of Arabian countries in the Middle East where Arabic is the official language and Islam is the religion of majority of population. Those behaviours and traditions are not necessarily derived from Islamic doctrines but some common values have been accepted as the norm among populations of these countries. According to Barakat (1993), although there are differences in ethnic groups, tribes, local cultures and regional entities, the „Arab world" is a single, overarching society rather than a collection of several independent states. Unfortunately, there is no theoretical framework of medical professionalism in Arabian context. Since professionalism is closely related to the „social contract", I hypothesize that Arabs perceive professionalism different from other nations.

**Study Setting**

This is a multi-centered research project which will be conducted at the University of Zagazig (Egypt) and the University of Dammam (Saudi Arabia). Both universities were established in 1973 and 1975 respectively and they were selected as *convenient sample* to represent medical education in two leading Arab countries. Some similarities can be identified between the two universities. They both belong to the government sectors and run under the authority of the Ministry of Higher Education in Egypt and Saudi Arabia. Since tuition fees are highly subsidized, only national students, who perform best in their high schools, are being admitted. Medical education in Egypt and Saudi Arabia is carried out in English which is a second language, next to Arabic, for almost all students. Medical schools in both universities follow a six-year discipline-based curriculum followed by one year of internship. Instruction in the pre-clinical courses is held in the main college campus, whereas the clinical courses are conducted at the university hospitals which are located in separate campuses. Integration between basic science departments and clinical departments is trivial, if any.

The Saudi medical colleges, in general, vary from the Egyptian ones in three aspects: (1) Male and female students are taught separately in two different campuses, (2) Selection is based on their Grade Point Average (GPA) combined with an interview, (3) Almost half of the faculty members are expatriates hired on contractual basis.

Medical professionalism has been recently acknowledged as a competency of the Saudi Meds, which is a proposed competency model like the CanMEDs (Zaini, 2011), but it is still addressed informally, not explicitly, and it is being transmitted only via role models (Adkoli, 2011). Despite this seems like a significant shortcoming in our medical education system, it presents an excellent opportunity to start with *one step backwards*; i.e. to introduce professionalism in the context of faculty development. Teachers are not expected to teach or assess that particular content area (professionalism) without prior sensitization about the elements and attributes of professional behaviours as identified in the literature. Faculty members, therefore, can be used as *change agents* for a curriculum reform to incorporate professionalism.

**Planned studies in a storyboard**

Five studies are planned to address the above six research questions. S

tudy 1 attempts to answer research question 1 (RQ1) to identify the basic *elements* of professionalism in Arabian context. Study 2 develops an *inventory* to measure for professionalism (RQ2). Study 3 measures attitudes of *students* (RQ3) and *teachers* (RQ4) to professionalism. Study 4 uses faculty development to reach a consensus on the *cognitive base* of professionalism (RQ5), i.e. definitions, descriptions, behaviours and expectations. Finally study 5 develops, implements and evaluates a faculty development intervention on professionalism (RQ6).

# Study 1

Study $1_{1,2}$ addressed the first research question to validate the **elements** of professionalism framework of the American Board of Internal Medicine (ABIM) to the Arabian context, using a consensus survey of a reference panel. Forty-five medical practitioners and educationist were invited to contribute to a reference panel. They had to be (a) native Arabic speakers; (b) professionals working in healthcare or health professions education in an Arab country, and (c) engaged in undergraduate medical education and/or residency training in their organisations. They represented a wide range of specialities and seniority levels in a variety of healthcare organizations and medical schools and both genders had to be fairly represented. The invitation described their role in the research and they were provided with definitions of the six elements of the ABIM domains: altruism, accountability, excellence, duty, integrity and honour, and respect.

Each panellist was asked to respond via email to an attached 6-item questionnaire; one question for every domain of ABIM framework. The question was: how do you view the importance of this particular domain of professionalism in Arabian context? An open-ended question encouraging panelists to suggest additional components was included at the end of the questionnaire. In addition, demographic data such as gender, country of birth and specialty were expected to be included in completing the questionnaire.

Responses were analysed in a 5-point Likert scale with each rating point allocated with a particular score: 5=extremely important, 4=very important, 3=important, 2=slightly important, 1=not important. Descriptive statistics was planned to analyse responses of the panellists to identify the measures of central tendency (mean, mode and median) for each domain along with the standard deviation (SD) to decide the variability of the results.

# Study 2

### *Study objective*

Study 2 addressed the second research question. To the best of our knowledge, this is the first attempt to *develop* and *pilot* an **instrument** to measure attitudes on professionalism in Arabian context. Study 2 was conducted in two phases; 2a and 2b.

### *Phase 2a: Item development phase:*
A reference panel was formed of Arab health professionals to develop and sort items on each domain of

professionalism. Communications with members was single-blinded throughout the study. Participants contributed in developing and sorting of items of the preliminary version of the inventory. Thirty-five behavioural vignettes/items, both professional and unprofessional, were developed to represent a pre-validated conceptual framework of professionalism for the Arabian context. The experts were asked to decide which items should be kept or abandoned from the preliminary inventory (with 35 items) using a Yes/No response. They were invited to suggest new items, if necessary.

### Phase 2b: Piloting phase

The 52-item inventory was piloted as a self-administered questionnaire on 250 senior medical students and interns from the selected two medical schools in Egypt and Saudi Arabia, as indicated above, to come up with the final inventory. Junior students in early years were excluded, because they do not have direct contact with patients and, therefore, have minimal exposure to issues of clinical professionalism. Respondents were expected to indicate the acceptability of these behaviors in a five-point Likert type scale. The responses were statistically analyzed to determine the reliability of the inventory and the differences of attitudes between different demographic groups. Factor analysis was used to *reduce* the number of items and to *cluster* them into factors (domains), while the internal consistency was decided using Cronbach alpha.

## Study 3

### Study objective

Study 3 is planned to address research questions 3 and 4, i.e. to measure attitudes of medical students/interns and faculty members on professionalism, using the same inventory which was developed in study 2. Attitudes of *both* students and teachers will be *compared* in light of particular personal and job-related attributes.

### Participants and sampling

Two samples will be considered for study 3:
- Sample 3a includes 150-200 medical **students**/**interns**. Only senior medical students will be invited from both genders, while junior students will be excluded due to the above justification.

- Sample 3b, includes 30-60 **faculty members**/**teachers**, representing two categories, based on where they received undergraduate medical education (origin). *Local* teachers are natives who were graduated from local medical schools and hold nationality of the resident country, e.g. Saudi teachers in Saudi Arabia, and *regional* teachers are the Arab expatriate teachers in Saudi Arabia (e.g. Egyptians, Jordanians, Sudanese ...etc). The sample should represent a wide range of specialities and seniority levels from both genders.

### Design and method

This will be a cross-sectional survey using a questionnaire of close-ended items based on the agreed domains of professionalism in Arabian context. I will use the responses of students and teachers on written behaviours (vignettes) to measure their attitudes in different domains of professionalism.

### Instrument and data collection

The final version of the inventory, after factor analysis in study 2, will be used here on a wider scale. Students and teachers will be requested to respond on each behavioural item whether this behaviour is acceptable or not on a five-point Likert scale. In addition, some demographic data will be collected to address background information from the respondents. Students will be asked to mention their gender and grade. Faculty members will be requested to indicate their gender, specialty, academic rank and country of undergraduate medical education. The inventory will be administered to both groups.

### Data analysis

*Descriptive* statistics will be reported for each domain and item of each group separately using the Mean, Mode, Median and Standard Deviation. *Inferential* statistics will be calculated to report any significant difference of responses on items and domains of professionalism. Attitudes to professionalism will be measured in light of three selected independent variables in students (gender, medical school and

educational grade) and three dependent variables in teachers (gender, origin and seniority level). Data analysis will use contingency tables. For 2 x 2 contingency tables, test of independence or of homogeneity will be carried out by using Fisher"s exact test. For tables of higher dimensions, Chi square tests will be used.

# Study 4

### Study objective

Study 4 will address question 5, to build a consensus on the cognitive base of professionalism. *Participants and sampling* A group of 15-20 faculty members, academic leaders and administrators from different disciplines will be invited to contribute to focus groups on professionalism. Participants can be either local inhabitants, e.g. Saudis in a Saudi university or *regional* (expatriates), e.g. Egyptian, Syrian or Sudanese working in Saudi Arabia or UAE.

### Design and method

Teachers need a preliminary orientation on professionalism before discussing their inputs on the cognitive base. Three f*ocus groups* (7-10 members each) are used to align their views and develop a consensus on professionalism in Arabian context. Members of the focus groups will reflect on particular incidences from their context to retrieve the nature of medical professionalism. This is to initiate a discussion and reach a consensus on elements, definitions, descriptions, cultural issues and expectations with respect to medical professionalism. Ideally Delphi techniques are used to reach consensus on the cognitive base. Focus groups, however, are preferred in this situation, because teachers are not experts and focus groups are used, not only to collect information, but also to share ideas and views in an open discussion which may not be feasible in Delphi rounds.

### Data analysis

Inputs from focus groups will be collected using written notes, which will be sorted in themes (thematic analysis) to describe the nature of professionalism, as they perceive it. There is no transcription or verbatim recording. The results (cognitive base) of study 4 will be the basis to develop the intervention in study 5.

# Study 5

### Study objective

Study 5 will address question 6, to develop and evaluate a faculty development (FD) intervention on professionalism. With reference to the *situated learning theory*, Study 1 defines the context then Study 4 develops the cognitive base, while Study 5 attempts to provide a working plan to teach professionalism in practice to their students.

### Participants and sampling

A group of 15-20 teachers, preceptors, supervisors will be selected for a workshop on how to teach professionalism to their students. There are two approaches to select participants for Study 5, as they can be either recruited from different departments or selected from one department. The former approach helps in dissemination of the concept on a wider scale and creating the *critical mass* for a future curriculum change, while the later one helps more *focus* on one department as a *pilot* study and enable better control and follow up of the impact of the intervention. Selecting either approach will be decided in light of the outcome of Study 4, based on the leadership support, motivation of teachers and other feasibility factors.

### Design and method

Candidates will attend an intervention to learn the *cognitive base* on professionalism, blended with opportunities for *guided reflections*. The workshop will be conducted once and participants will learn some tools and tips about how they can teach professionalism *within* their courses, not as a separate module.

### Procedure

Findings of Study 3 (attitudes) and Study 4 (cognitive base) will be used as needs assessment to plan and execute an intervention on professionalism as part of the faculty development program. The intervention will be evaluated on its impact on *reaction*, *learning* and *transfer of knowledge.* Immediately after the intervention, teachers" responses will be collected to measure their reaction and learning progress. In the following 3-6 months, I will measure the transfer of knowledge and outcomes of the intervention by asking participants to reflect on their use of the concepts and skills.

### *Instrument and data analysis*

Three instruments will be developed for Study 5:

(1) *The faculty development intervention:*

A participatory design process will be used to develop the intervention. It will include blend of didactic presentations, panel discussions, small group discussion on selected vignettes and self-reported situations. Teachers will receive training in a number of skills, e.g. how to match teaching methods with attributes of professional or a healer and how to correlate professionalism with the social contract.

(2) *Reaction questionnaire*:

This is a semi-structured questionnaire to assess participants" attitudes of the workshop format, delivery, speakers" knowledge, usefulness and anticipated benefits. Descriptive analysis on each item will be calculated: Mean, Mode, Median and Standard Deviation. Participants will be invited to identify points of strength and areas for improvement, along with narrative comments on their intent to change (the *'so what'* part). Teachers will be also invited to describe how they are planning to explicitly address professionalism in their academic and clinical teaching sessions.

(3) *Short interviews*:
After 3-6 months, short interviews will be conducted with teachers who participated in the intervention to measure transfer of learning into their teaching practice. The objective of the short interviews is to identify success stories and challenges of implementation of the plans which were suggested by teachers in the reaction questionnaire. Interviews are expected to provide insights into teaching of professionalism in reality.

### 2c. Literature references
*Max. 35 references*

Accreditation Council for Graduate Medical Education (ACGME).
    The Outcome Project. Retrieved from http://www.acgme.org/outcome/ last accessed on 4th of Jan.
2011 American Board of Internal Medicine (ABIM). (1995). Project Professionalism.
    As retrieved from [http://www.abimfoundation.org/Resource
    Center/Bibliography/~/media/Files/Resource%20Center/Project%20professionalism.ashx]. Page 5 & 6.
    Last accessed on 13 March 2012
Barakat, H. (1993). The Arab World: Society, Culture, and State. Berkeley:
    Univeristy of California Press, c1993    1993. http://ark.cdlib.org/ark:/13030/ft7d5nb4ss/
Boudreau, J.D., Jagosh, J., Slee, R., Macdonald, M.E., Steinert, Y. (2008).
    Patients' perspectives on physicians' roles: implications for curricular reform. *Academic Medicine.* Aug;
    83(8):744-53.
Bryden, P., Ginsburg, S., Kurabi, B., Ahmed, N. (2010).
    Professing professionalism: are we our own worst enemy? Faculty members' experiences of teaching and
    evaluating professionalism in medical education at one school. *Academic Medicine.* Jun;85(6):1025-34
Chard, D., Elsharkawy, A., Newbery, N. (2006). Medical professionalism: the trainees' views.
    *Clinical Medicine*. 2006 Jan-Feb;6(1):68-71.
Cruess, S.R., Johnston, S., Cruess, R.L. (2002).
    Professionalism for medicine: opportunities and obligations. Medical Journal of Australia. Aug
    19;177(4):208-11. Review.
Cruess, S.R. 2006.
    Professionalism and medicine's social contract with society. Clinical Orthopaedics and Related Research.

2006 Aug;449:170-6. Review.

Cruess, R., Cruess, S., Steinert, Y. (2009).
Teaching Medical Professionalism. (1st ed.). New York, Cambridge University Press. ISBN 978-0-521-70742-8. pp. 31-33.

Escobar-Poni, B., Poni, E.S. (2006).
The role of gross anatomy in promoting professionalism: a neglected opportunity! *Clinical Anatomy* Jul;19(5):461-7. Review.

Finn, G., Garner, J., Sawdon, M. (2010).
'You're judged all the time!' Students' views on professionalism: a  multicentre study. *Medical Education* Aug;44(8):814-25.

Green, M., Zick, A., Makoul, G. (2009).
Defining professionalism from the perspective of patients, physicians, and nurses. *Academic Medicine.* May;84(5):566-73.

Hafferty, F.W. (2003).
Reconfiguring the sociology of medical education: emerging topics and pressing issues, in: C.E. Bird, P. Conrad & A.M. Fremont (Eds), Handbook of Medical Sociology, (5th ed.).
Upper Saddle River, NJ, Prentice Hall). pp. 238–257

Hafferty, F.W. (2006).
Definitions of professionalism: a search for meaning and identity. *Clinical Orthopedics and Related Research.* Aug;449:193-204. Review.

Hilton, S.R., Slotnick, H.B. (2005).
Proto-professionalism: how professionalisation occurs across the continuum of medical education. *Medical Education*. Jan;39(1):58-65

Huggett, K.N., Warrier, R., Maio, A. (2008).
Early learner perceptions of the attributes of effective preceptors. *Advances in Health Sciences Education: Theory and Practice*. 2008 Dec;13(5):649-58.

Kenyon, C.F., Brown, J.B. (2005).
Mission Statement Day: introducing professionalism to medical students. *Medical Education* 2005 Nov;39(11):1165

Krych, E.H., VandeVoort, J.L. (2006).
Medical students speak: a two-voice comment on learning professionalism in medicine. *Clinical Anatomy.* Jul;19(5):415-8.

Lindsay, P., & Norman, D. A. (1977).
Human information processing: An introduction to psychology. Harcourt Brace Jovanovich, Inc.
McLean, M., Cilliers, F., Van Wyk, J.M. (2008). Faculty development: yesterday, today and tomorrow. *Medical Teacher*. 2008;30(6):555-84. Review.

Nath, C., Schmidt, R., Gunel, E. (2006).
Perceptions of professionalism vary most with educational rank and age. Journal of Dental Education. Aug;70(8):825-34.

O'Sullivan, H., Van Mook, W., Fewtrell, R., Wass, V. (2012).
Integrating professionalism into the curriculum: AMEE Guide No. 61. *Medical Teacher.* 34(2):e64-77.

Quaintance, J.L., Arnold, L., Thompson, G.S. (2008).
Development of an instrument to measure the climate of professionalism in a clinical teaching environment. *Academic Medicine*. Oct;83(10 Suppl):S5-8.

Rousseau, J. J. (1762).
Summary and Critique of Jean-Jacques Rousseau's The Social Contract. As retrieved from [http://philosophy.intellectualprops.com/metaphysics/summary-and-critique-of-jean-jacques-rousseaus-the-social-contract/] on 14 March, 2012.

Roberts, L.W., Green Hammond, K.A., Geppert, C.M., Warner, TD. (2004).
The positive role of professionalism and ethics training in medical education: a comparison of medical student and resident perspectives. *Academic Psychiatry*. Fall;28(3):170-82.

Stark, P., Roberts, C., Newble, D., Bax, N. (2006).
Discovering professionalism through guided reflection. *Medical Teacher.* Feb;28(1):e25-31.

Steinert, Y., Cruess, S., Cruess, R., Snell, L. (2005).
Faculty development for teaching and evaluating professionalism: from programme design to curriculum change. *Medical Education.* Feb;39(2):127-36.

Steinert, Y., Cruess, R.L., Cruess, S.R., Boudreau, J.D., Fuks, A. (2007).

Faculty development as an instrument of change: a case study on teaching professionalism. *Academic Medicine*. 2007 Nov;82(11):1057-64.

Swick, H.M. (2000).

"Toward a normative definition of medical professionalism", *Academic Medicine.* Jun;75(6):612-6.

Swing, S.R., The ACGME outcome project: retrospective and prospective. Med Teach. 2007 Sep;29(7):648-54.

Talbott JA. (2006)

"Professionalism: why now, what is it, how do we do something?" *Journal of Cancer Education*. 2006 Fall;21(3):118-22. Review

Van Mook, W., de Grave, W., Wass, V., Harm Zwaveling, J., Schuwirth, L.W., van der Vleuten, C.P.M. (2009a). *Professionalism*: Evolution of the concept. Eur J Int Med 20:e81–e84.

Van Mook, W., van Luijk, S.J., O'Sullivan, H.M., Wass, V., Harm Zwaveling, J., Schuwirth, L.W., van der Vleuten, C.P.M. (2009b).

The concepts of professionalism and professional behaviour: Conflicts in both definition and learning outcomes. *European Journal of Internal Medicine* 20:e85–e89

Van Mook, W., Gorter, S.L., De Grave, W.S., van Luijk, S.J., O'Sullivan, H., Wass, V., Zwaveling, J.H., Schuwirth, L.S., van der Vleuten, C.P.M. (2009c).

Professionalism beyond medical school: An educational continuum? *European Journal of Internal Medicine* 20:e148–e152.

Wearn, A., Wilson, H., Hawken, S.J., Child, S., Mitchell, CJ. (2010).

" In search of professionalism: implications for medical education." *The New Zealand Medicine Journal.* May 14;123(1314):123-32.

Wiggins, M.N., Coker, K., Hicks, E.K. (2009).

Patient perceptions of professionalism: implications for residency education. *Medical Education.* Jan;43(1):28-33.

## 2d. Time planning and estimated budget

This research project encompasses a series of five empirical studies, which are expected to be concluded by year 2015. One manuscript, as a minimum is expected from each study, with a total number of four papers at least. Please find the study plan, as follows:

Year 2012

*Study 1* publication in Medical Teacher (April issue), *Study 2* manuscript editing for publication
*Study 3* data collection and data analysis

Year 2013
*Study 3* discussion and reporting for publication
*Study 4* data collection and data analysis

Year 2014
*Study 4* discussion and reporting for publication
*Study 5* data collection and data analysis

Year 2015
*Study 5* discussion and reporting for publication Writing the
*Discussion Chapter* for the PhD thesis
Getting ready to defend my thesis

The studies will recruit students and teachers on voluntary basis. I do not foresee major expenses with

regard to data collection or data analysis. Papers will be submitted to journals which do not require publication fees. The total budget will be mainly pertinent to the annual enrolment fees at the PhD program of Maastricht, printing the thesis and travel expenses with a total estimate of: € 15,000.

### 2e. Scientific setting

- Al-Eraky, M. M., & Chandratilake, C. (2012). How medical professionalism is conceptualized in Arabian context. A Validation Study. Manuscript in Press in *Medical Teacher*.

- Al-Eraky, M. M. (2012). Robert Gagne"s nine events of instructions, revisited. Manuscript in Press as a Last Page in *Academic Medicine*.

- Al-Eraky, M. M., & Chandratilake, C. (2012). The Learners Attitude to Medical Professionalism Scale (LAMPS): An Attitude Measure of Egyptian and Saudi Medical Students. Manuscript in review.

- Al-Eraky, M. M., McLean, M. (2012). The Compass Model for planning faculty development programs. Manuscript in review.

- Al-Eraky, M. M., (2012). Curriculum Navigator; Aspiring towards a comprehensive package for curriculum planning. Manuscript in review.

### 2f. Setting within research group

This proposal follows up the research work of my colleague Walter van Mook at Maastricht, who published his PhD thesis on teaching and assessment of professional attitudes. The studies of van Mook (2011) were in the clinical practice and more relevant to patient care. This proposal, however, is connected to the SHE research theme "learning environment" specially situated learning theory and the development and evaluation of faculty development programs.

### 2g. Expected scientific output and dissemination of results

Four to five manuscripts are expected to be produced out of the above research project. Addressing the above five research questions will results in the following potential *journal articles*:
(1) How medical professionalism is conceptualized in Arabian context.
(2) The Learners Attitude to Medical Professionalism Scale (LAMPS): An Attitude Measure of Egyptian and Saudi Medical Students.
(3) How attitudes of students and faculty vary with gender, educational stage and seniority level.
(4) Using faculty development to develop a consensus on the cognitive base of professionalism.
(5) Developing and evaluating an intervention on professionalism for faculty development.

### 2h. Societal and scientific relevance (if applicable)

How can results be applied in other research areas?
How can results be applied in society, business, etc.?

This research is expected to help curriculum designers, educational policy-makers, faculty developers and individual medical doctors. Empirical studies in this proposal provide a culturally-specific inventory to measure attitudes on professionalism in Arabian context, identify opportunities to teach professionalism and develop an intervention on faculty development for professionalism.

Studies of this proposal are expected to add to our understanding on the culture impact on the conceptualization of medical profession in the minds of students and faculty members. This will help to view the confounding factors that foster our insight of the ideal image of a professional physician in the Arabian context. It will also test the applicability of using the situated learning theory in teaching professionalism in faculty development programs. Finally, lessons learned from transfer of learning will communicate the success stories and challenges of teaching professionalism from first-hand experiences of teachers in different disciplines.

## Signature

**Name:** Mohamed M. Al-Eraky

**Place:** University of Dammam (Saudi Arabia) and Zagazig University (Egypt).

**Date:** 4 June 2012

# School of Health Professions Education

## SHE PhD Project Proposal