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Acıbadem University, School of Medicine, 'Clinical Medicine and Professional Skills' Program: Qualitative Evaluation of Medical Professionalism Outcomes

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ABSTRACT

Purpose: Changing healthcare needs of the modern society in epidemiological transition created the necessity to embed the professionalism context into medical education.Undergraduate medical education programs now adopt new approaches including different educational strategies, teaching and learning techniques as well as redefined competence areas for medical professionalism; for example, communicational skills, attitudinal and ethical issues, teamwork, evidence based practice, early exposure to clinical and ethical reasoning, preparation for practice can be mentioned. These new trends in medical education are believed to benefit good medical practice and a person centered approach of future medical professionals, thus increasing quality of care. At Acıbadem University School of Medicine the medical education curriculum is structured according to the new perspectives of medical education principles and a new pre-clinical professionality program which is called Clinical Medicine and Professional Skills (CMPS). The CMPS program is providing the students a broad understanding of professionalism, ethics, communication and clinical skills, and some basic procedural skills before attending the clerkship years. At the end of the 2011-2012 academic year, the first three years of the CMPS program were completed and the students passed to the second phase (clerkship period). This study aims to describe the perception of students and teachers at ACUMS about professionalism outcomes of the program.

Patients and Methods: This is a qualitative study using phenomenological research strategy with a face-to-face interview data collection method.

Conclusion: The results of this study showed that early exposure to professionalism domains in under graduate medical education creates a high level of professional self-awareness going along with corresponding expectations from the forth following medical education infrastructure in students. They have high levels of expectations from the medical curriculum in the clinical phase, the training sites and infrastructure. They also expect their clinical teachers to be "good professional role models and good teachers".

Key words: medical education, undergraduate training, medical professionalism

ACIBADEM ÜNİVERSİTESİ TIP FAKÜLTESİ, 'KLİNİK VE MESLEKİ BECERİ EĞİTİMİ' PROGRAMININ PROFESYONELLİĞE YÖNELİK ÇIKTILAR AÇISINDAN DEĞERLENDİRİLMESİ

ÖZET

Amaç: Epidemiyolojik açıdan bakıldığında yaşlılık oranı gideren artan toplumlarda sağlık sisteminde oluşan değişiklik ihtiyacı beraberinde mesleki profesyonellik kavramının da tıp eğitimine eklenmesi gerekliliğini getirmiştir. Günümüzde okutulan lisans düzeyindeki tıp eğitimi programları; farklı eğitim stratejileri, öğretme ve öğrenme tekniklerini benimsemenin yanı sıra; iletişim becerileri, tutum ve etik değerler, ekip çalışması, kanıta dayalı tıp eğitimi, klinik ve etik yargılama, beceri eğitim gibi yeterlik alanlarını tekrar tanımlamaktadır. Acıbadem Üniversitesi Tıp Fakültesi'nde okutulmakta olan ders programı, tıp eğitimi ilkelerine getirilmiş olan yeni perspektifler ışığında yapılandırılmış ve "Klinik ve Mesleki Beceriler" adıyla yeni bir klinik öncesi profesyonellik programı eğitime eklenmiştir. Bu program öğrencilere, klinik stajlarına başlamadan önce profesyonelliğin, etik değerlerin, iletişim ve klinik becerilerin kazandırılması konusunda geniş bir bakış açısı ve anlayış sağlamaktadır. 2011-2012 akademik yılının sonunda Klinik ve Mesleki Beceriler Programı, ilk üç yılını tamamlamış ve öğrenciler eğitimlerinin ikinci dönemi olan klinik stajlarına başlamışlardır. Kalitatif yöntemle ve yüz yüze bire bir görüşmeler ile yapılmış olan bu çalışma, Acıbadem Üniversitesi Tıp Fakültesi öğrenci ve öğretim üyelerinin bu programın profesyonellik sonuçları hakkındaki algılarını tanımlamayı amaçlamaktadır.

Sonuç: Çalışmanın sonuçları göstermiştir ki, lisans düzeyi tıp eğitimi esnasında erken dönemde verilen profesyonellik eğitimi, öğrenciler üzerinde yüksek düzeyde farkındalık yaratmaktadır. Öğrencilerin tıp eğitimi programlarının klinik kısmında hem eğitim aldıkları hastanelerin altyapıları hem de klinik ders anlatan hocalarının "iyi bir rol model ve hoca olmaları" konusundaki beklentileri de oldukça yüksektir.

Anahtar sözcükler: tıp eğitimi, preklinik eğitim, profesyonellik eğitimi

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Introduction

Changing healthcare needs of the modern society in epidemiological transition created the necessity to embed the professionalism context into medical education. Medical schools are trying to shape their curricula to emphasize the importance of medical professionalism.

Undergraduate medical education programs now adopt new approaches including different educational strategies, teaching and learning techniques as well as redefined competence areas for medical professionalism; for example, communicational skills, attitudinal and ethical issues, teamwork, evidence based practice, clinical and ethical reasoning, preparation for practice can be mentioned. These new trends in medical education are believed to benefit good medical practice and a person centered approach of future medical professionals, thus increasing quality of care (1).

Professional competence in medicine is defined by Epstein and Hundert as a habitual use of communicational skills, clinical knowledge, values, emotions, reflection and clinical reasoning during health care practice (2). Also Lesser adds that medical education could be considered as a multidimensional competence, which must have critical thinking, skill building and well planned practice, as well as building an adaptive capacity for medical doctors (3). Mook et. al concluded that all the stakeholders of health care system shape the development of professionalism and it is taught and learned from both formal and hidden curricula, whereas, the awareness of the students and the academic staff need to be fostered(4).

Hilton and Southgate suggests 6 domains of professionalism in medical education as; respect for patients, ethical practice, reflection/self-awareness, responsibility-commitment to excellence/lifelong learning, teamwork and social responsibility. They postulate a transition from an immature stage of proto-professionalism at the beginning of the career to a mature stage of individual acquisition of professionalism during medical practice (5). Mook et. al summarized the responsibilities and elements of the professionalism using the references of several international societies (Table 1, Table 2) (8).

It is known that early exposure to domains of medical professionalism lead to better outcomes in terms of clinical consultation skills (6, 7). Early exposure to professionalism domains like communicational skills, ethical reasoning and behavioral skills could help students to gain an orientation early in their career and learn about professional roles and responsibilities, healthcare systems, and health needs of a population (7, 9).

Performance anxiety in the transition between preclinical and clinical training leads to negative effects on students' learning and influence students' performance, decision-making and caring capacities (7, 9).

Table 1. Set of *professional responsibilities* as defined in the Physician's charter on Professionalism by the American Board of Internal Medicine, the European Federation of Internal Medicine, and the American College of Physicians and American Society of Internal Medicine (4).

	Commitment	***Actions including, amongst others***
1	Professional competence	Life-long learning to maintain medical knowledge and skills
2	Honesty with patients	Complete and honest information, including reporting of medical error
3	Patients' confidentiality	Disclosure of patient's information
4	Maintaining appropriate relationships with patients	Avoid sexual advances, financial gain
5	Improving quality of care	Reducing medical error and increase patient safety, optimize outcome
6	Just distribution of finite resources	Wise and cost-effective management of limited clinical resources
7	Scientific knowledge	Promote research, create new knowledge
8	Maintain trust by managing conflicts of interest	Recognize, disclose and deal with conflicts of interest
9	Professional responsibilities	Collaborate respectfully, participate in process of self-regulation, and standard setting

At Acıbadem University School of Medicine (AUSM), the medical education curriculum is structured according to the new perspectives of medical education principles. The curriculum design could be considered as a mixture of integrated/innovated form as it is including both, a system based integrated curriculum, and a new pre-clinical professionalism program which is called ***C****linical* ***M****edicine and* ***P****rofessional* ***S****kills* (CMPS). This program has been designed as an initial introduction to medical professionalism, providing a knowledge and skills-mix toolbox for students. It aims to facilitate basic professional skills and competencies necessary for good medical practice, as well as, to enhance personal and social development, fostering intellectual skills and humanistic values in an integrated style (10). The CMPS program is providing the students with a broad understanding of professionalism, ethics, communication and clinical skills, and some basic procedural skills before attending the clerkship years.

Table 2. ***Elements of professionalism*** as identified by the American Board of Internal Medicine (4).

	Element	*Description*	*Remarks/examples*
1	Excellence	Commitment to competence in technical knowledge and skills, ethical and legal understanding and communication skills	Life-long learning improvement of quality of care, promotion of scientific knowledge and technology
2	Humanism	Includes respect, compassion and empathy, honor and integrity	E.g. admitting errors, crediting the work of others appropriately
3	Accountability	Procedures and processes by which one party justifies and takes responsibility for its activities	One is responsible to (patients, families, society) One is accountable for (quality of care, upholding principles, reporting conflicts of interest) Includes self-regulation, standard setting, duty and responsibility
4	Altruism	To advocate the interests of one's patients over one's own interest	Could be place in domain of excellence (demanding the best for patients), accountability (avoiding self-interest), or humanism (selfless behavior)
5	Duty	Free acceptance of a commitment to service	Being available and responsive when "on call", accepting inconvenience to meet the needs of one's patients, seeking active roles in professional organizations
6	Honor and Integrity	The consistent regard for the highest standards of behavior and the refusal to violate one's personal and professional codes	Being fair, being truthful, keeping one's word, meeting commitments, and being straightforward. They also require recognition of the possibility of conflict of interest and avoidance of relationships that allow personal gain to supersede the best interest of the patient.
7	Respect for others	Essence of humanism	The essence of humanism and humanism is both central to professionalism, and fundamental to enhancing collegiality among physicians.

At the end of the 2011-2012 academic year, the first three years of the CMPS program were completed and the students passed to the second phase (clerkship period) which takes two years in clinical training (year 4 and 5). This study aims to describe the perceptions of students and teachers at ACUMS about the professionalism outcomes of the program.

Methods and materials

This study is designed as a qualitative study using phenomenological research strategy with a face-to-face interview data generation technique (11).

Settings

In the first phase, qualitative data were generated regarding the students' and the clinical teachers' perceptions of the professional competencies that are taught in preclinical years performed in clerkship period in AUMS. This first data set was collected both from the clinical teachers and from the students, between 15 August and 2 September 2012 before the clerkship period in 2012-2013 academic year.

In the second phase of the qualitative study, the evaluations of the students and clinical teachers were explored deeply after the first clerkship period of 10 weeks and in the light of the information gathered in the first phase. For this purpose the interviews with the students and clinical teachers immediately began at the end of the first 10-week clerkship cycle (9th November 2012), and finished at the end of November.

Participants

Eight (3 female, 5 male) clinical teachers from Internal medicine, Pediatrics, Surgery, Gynecology & Obstetrics departments of AUMS and fourteen (10 female,4 male) students from 3rd year who would be attending the 4th year (clerkship) in the 2012-2013 academic year were included to the study. The average age of clinical teachers and students were 46.9 and 23.0 respectively. The numbers of the clinical teachers and the students were low. Therefore, all the clerkships were included in the study. One period (10 weeks) of clerkship period was explored.

The process of data generation was terminated after achieving data saturation.

Instruments

Semi-structured in-depth interviews were organized before and after the clerkship period with both the students and the clinical teachers. The interview guides were formed according to the professional outcomes of the CMPS program. The following basic topics were included in the interviews;

1. Communication skills
   a. Self-awareness
   b. Empathy
   c. Patient centered communication
2. Ethical awareness
   a. Respect to others (patient, peer, colleague, etc….)
3. Sense of responsibility

In the first phase, students and clinical teachers were asked about their perceptions and expectations on professionalism and in the second phase the questions focused on whether their expectations were met and whether their perceptions had changed.

The participants were informed about the study and the interviews were tape recorded upon their consent. The interviews lasted 30 to 40 minutes. The researcher conducted all the interviews.

Analysis

Data analysis was carried out according to the rules of the qualitative method. The raw data (transcriptions and interview notes) were prepared and organized by a research assistant and reviewed by the interviewer for any mistakes or missing data. Coding was done by hand, themes were emerged (Table 3A and 3B), and meanings of the themes were interpreted. Before coding, three students' and two clinical teachers' interviews were coded both by researcher herself and by an independent social sciences professor in order to guarantee adequate coding and to improve the research reliability. Minor disagreements were settled through discussion and then the researcher herself did coding and interpretations as well.

In the analysis, the interview transcriptions of the students and clinical teachers were compared with regard to each of the topics mentioned above. Special attention was paid to similarities and differences between the interviews before and after clerkship and between the two groups. Data saturation was reached when no more new perceptions and expectations were mentioned. For the purpose of readability, the literal quotations from the transcriptions were sometimes slightly adapted (e.g. repetitions, mms and silences). As the results are presented anonymously, identities of the participants are indicated as follows: **S1-BC:** student number 1, interviewed before clerkship; **CT1-BC:** clinical teacher number 1, interviewed before clerkship; **S1-AC:** student number 1, interviewed after clerkship; **CT1-AC:** clinical teacher number 1, interviewed after clerkship. Quotation numbers are changed according to the interviewed participant.

Ethical approval

Acıbadem University Faculty of Medicine Medical Research Evaluation Board approved the study. Informed consent was taken from all participants, and ethical procedures were followed.

Results and discussion

The aim of this study was to qualitatively evaluate professionalism outcomes of the CMPS program from the perspectives of students and clinical teachers. Communication skills (Self-awareness, Empathy, Patient centered communication), Ethical awareness (Respect to others), Sense of responsibility , Role modeling , Real life experiences, Infrastructure, Early onset of teaching medical professionalism and Integration of basic and clinical sciences were the themes that emerged from the data (Table 3A and 3B).

Table 3A. Themes emerging from qualitative analysis of students' interviews

Before Clerkship Period	*After Clerkship Period*
Communication skills	Communication skills
• Self-awareness	• Self-awareness
• Empathy	• Empathy
• Patient centered communication	• Patient centered communication
Ethical awareness	Ethical awareness
• Respect to others	• Respect to others
Sense of responsibility	Sense of responsibility
Additional Themes	
Role modeling	Role modeling
Early onset of teaching medical professionalism	Integration of basic and clinical sciences
	Real life experiences
	Infrastructure

Table 3B. Themes emerging from qualitative analysis of clinical teachers' interviews

Before Clerkship Period	*After Clerkship Period*
Communication skills	Communication skills
• Self-awareness	• Self-awareness
• Empathy	• Empathy
• Patient centered communication	• Patient centered communication
Ethical awareness	Ethical awareness
• Respect to others	• Respect to others
Sense of responsibility	Sense of responsibility
Additional Themes	
Role modeling	Role modeling
	Integration of basic and clinical sciences
	Infrastructure

Demographic characteristics of the participants

eight (3 female, 5 male) clinical teachers from Internal medicine, Pediatrics, Surgery, Gynecology & Obstetrics departments of AUMS and fourteen (10 female,4 male) students from 3rd year who would be attending the 4th year (clerkship) in 2012-2013 academic year participated in the study. The average age of clinical teachers was 46.9 and students was 23.0

Table 4.

	Gender Female/Male	Mean Age
Clinical teachers	3F/5M	46,9±4,5
Students	10F/4M	23.0±0,7

Table 5.

Summary of Clinical Teachers' Professional Experiences*	
Mean year of graduation from medical school	21,3±5,1
Mean year of Professional degree	15,7±6,0

*All have international experiences on their specialty and six of them have a specific professional subtopic.

All students were aware of the professional outcomes of the CMPS program, particularly about communication skills, ethical conduct, emphatic behavior and patient centered approach. These outcomes are elements in both, the summarized definitions of "professional responsibilities" and "elements of professionalism" by Mook (Table1 and 2) (4).

Communication skills

The first emerging theme was "communication skills" and *self-awareness, empathy* and *patient centered communication* were considered as the sub-themes. Communication skills are considered as an *excellence element* of professionalism by the American Board of Internal Medicine (Table 2). In a qualitative study among faculty members, residents, medical students and patients by Wagner et al. have shown in 2007, that students emphasize communication skills as a productive domain, which makes patients comfortable, and as a crucial element for the reciprocity of the patient–doctor relationship (12). They also consider it important for establishing respectful relations with their colleagues. In another study, it is mentioned that doctors with good communication skills identify patients' problems more accurately and their patients adjust better psychologically and are more satisfied with their care (13). In our study, parallel to these considerations, all the students and clinical teachers believe that communication skills are important for "being a doctor" and that the practice of communication skills with simulated patients will help the students when they are faced with real patients. The students feel that, thanks to their training in communication skills, they are ready for clinical practice.

Self-awareness / reflection

Hilton & Southgate suggest reflection/self-awareness as one of the six domains of professionalism. They claim that during proto-professionalism (which is the training process for undergraduate students) identity is developed (5). During this process, reflection on the experiences of learning and acquiring skills enables the student to attain excellence. Our results about the students' views are parallel to the literature. The interviews showed that, the students were aware of the necessity of a certain level of clinical competence for actual clinical clerkship, and they felt that, they would be doomed to fail unless they had acquired that competence Therefore, they believed that they need to refresh their preclinical theoretical knowledge and skills before beginning the clerkship period.

… Even now, I face many questions. Even when I go somewhere, I have to improve myself in that matter. That I forget everything but I feel like I should not forget… In that matter, I am worried. My lack of knowledge; this overwhelms me…(S3-BC)

… I am afraid of that too, sir, did you hear that heart sound , what if I don't? Even when you are telling, something there is a doubt whether I am telling it correctly or what is happening and all, I am all afraid of these. I read what we have covered so far, I go over them (…) I am planning to check the relevant sections before the clerkship periods … (S1-BC)

After the clerkship period, all students mention that they are more self-confident about their professional behaviors. They add that, they need to study theory more intensively because knowledge is essential for "being a good doctor"

…When we first came, there were many uncertainties. Am I going to be able to do this or not, these kind of worries. I was even thinking to myself, you know, 4th grade might not be suitable for me. I mean, I did not trust in myself at all. But now, I feel like I really got my hands dirty. (S4-AC) …

Day by day, our profession defined who we are. So step by step, even though not all of us improve in the same pace, I can speak for myself, I am in the right track. If I know so, yes I do feel confident. (S2-AC)

From the clinical teachers' perspective, only one of the clinical teachers mentioned that preclinical years are a preparation time for the students in order to be aware of what it is "to be professional" and what it means, "to be a doctor". Others did not have high performance expectations from the students. They believed that it was their responsibility to teach the students whatever they need to know about communication with patients, clinical behavior, etc. The only particular expectation from the students was to have a sufficient level of preclinical theoretical knowledge (physiology, anatomy, and pathophysiology).

…First they need to be qualified in basic science knowledge, for example they need to know physiological mechanisms… other than that we don't have any expectations, nothing more…(CT4-BC)

The study revealed that, even though the clinical teachers had expectations in terms of students' professional self-awareness, especially as it relates to real life clinical practice situations, in general they were not aware of the structure or curricular content of the CMPS program. In particular, the topics of self-awareness and reflection were unknown to them. Mook in 2009, mentioned in his research that: "*increasing awareness and mindfulness to foster professionalism in both, students and teachers is essential, and critical examination of curricular content, as well as, faculty development programs are important to achieve this goal.*" (5). *We* can conclude that there is a necessity at ACUMS to evaluate clinical teachers' awareness about the CMPS program, in particular about the professionalism content.

Empathy

In identifying the dimensions of professionalism, the American Board of Internal Medicine considers "Empathy" as a subdomain of humanism together with respect, compassion, honor and integrity (Table 2). Hilton also considers empathy as a requirement of the undergraduate proto-professionalism domain (14). During the interviews before clerkship, the students mentioned that, they were aware of empathy because of the theoretical background and simulated experiences that were offered in the CMPS program. They believed that they do well to behave in an emphatic way to the patients in the clerkship period. In addition, they reflected their proper awareness of behaving in an empathic manner.

"Sure we were not one of those who lack empathy, don't know how to talk to people when we first came here; but I think this is how we internalized this." (S12-BC).

One student claimed that to know about the importance of empathy was fine, but to behave in an emphatic way and to regulate the dosage of empathy would be difficult and they could only be learned in the process of practice. This was also mentioned by the clinical teachers and shows that, professionalism is a lifelong learning experience (15).

Patient centered approach

the Institute of Medicine identifies patient centeredness as a core component of quality health care and defines it as; "*Health care that establishes a partnership among practitioners, patients, and their families (when appropriate) to ensure that decisions respect patients' wants, needs, and preferences and that patients have the education and support they need to make decisions and participate in their own care*" (16). Regarding to "patient centeredness, both parties used approximately the same definitions by using the term "being a good doctor" as defined in the literature: to be patient; to be self-denying; to be knowledgeable; to be self-confident; to behave ethically; to behave emphatically; to be a good listener; to gain the trust of the patients and their relatives; to emphasize honesty in interacting with patients and other parties; and to have an understanding of responsibility (5,14,15).

While defining medical professionalism Hilton and Southgate suggest three characteristics; expert knowledge, self-regulation and fiduciary responsibility to place the needs of patient ahead of the doctor's self-interest (5). The results of the study confirmed that a patient centered approach is an important aspect of professional behavior. The Students' awareness about the necessity of patient centeredness for good clinical practice was reported to stem from the knowledge and experience of the CMPS program and as well as the clinical experience in the clerkship period (S4-BC). However, one of the clinical teachers mentioned a need for a structural format for teaching patient centeredness.

… Before communicating one's own agenda, one needs to be listening to the patient, understanding what he means -even if he cannot make himself clear, needs to have some influence on the patient. (S4-BC)

As Christianson et al. showed a traditional lecture based curriculum is transformed into patient centered one by maintaining a culture change that supports professionalism. They claim that the processes they describe have demonstrated a number of benefits for professionalism

training (17). Regarding Christianson's study, patient centered approach as a part of the CMPS program appears to be a good example of professionalism training at the preclinical level. Motivating clinical teachers to use different educational methods will provide an opportunity for the students to understand and experience this domain from a broader perspective in clinical practice.

Ethical awareness

It is shown that formal instruction in medical ethics helps proto-professionals to develop their own ethical beliefs and behaviors. What is more, high levels of ethical functioning are required because of the complex and conflicting viewpoints of different groups in the society (14). The majority of the students declared that they knew the importance of ethical issues in medical practice and they had not observed any obvious ethical conflicts between the clinical teachers and the patients in the clerkship period. They also mentioned that, this awareness was developed by means of both the preclinical and clinical training programs.

… Ethics is parallel to what we have learned, privacy of the patient, confidentiality, changing their clothes, whatever. Laying out the options, everything we have learned we experience each step by step; the difficult patient or the giving the bad news, all.

(S7-AC)

Hilton describes ethical practice as a personal attribute of clinicians and a relationship based agreement between patients and professionals (14). Two of the students had observed an ethical dilemma where the doctor needed to explain to the patient that he/she has a cureless disease and they were able to interpret this dilemma as a result of the clinical teachers' patient centered approach with respect to the patient's and his/her family situation.

Respect for others

Within the ethical awareness theme, there was a sub theme "respect to others". *Respect to others* is a co-operative attribute of professionals, and demands an understanding of patients' needs, as well as the appreciation of the ways in which doctors' actions are understood by patients and other parties (14). From our results, it is understood that all the students were mature enough to understand the importance of respect to others in different circumstances. In addition, the clinical teachers mentioned that, all the students behaved respectfully to them as well as to the patients and to other colleagues in the health care team.

… They had very good relations with everyone, first they are surprisingly very respectful, I liked that. And their communication skills were very good. (CT6-AC)

Sense of responsibility

Clinical teachers had a high level of responsibility expectations from students, and all students were aware of not only this expectation of their clinical teachers but also of their own responsibilities in the clerkship period. The interviews revealed that, after the clerkship period students' self-awareness about responsibility was improved and they reflected that "being a doctor" needed a high level of responsibility, including to be patient, to be more empathic, more sensible and more hard working. Both clinical teachers and students have expectations also regarding accountability for actions like commitment to excellence; lifelong learning; and critical thinking (14).

…I feel like this is the way it is now. I mean more than being a student, this is my job. I have to be more careful about it. Because you can skip a day or two when you are a student, now I feel like I should not even waste a minute. Because we have to take everything in. (S14-BC)

… Sure it changed me, I learned my capabilities, how I work in practice; this changed me. Now, for example, seeing that I can use my theoretical knowledge in internal diseases, answering the instructor's questions about the patient at the moment, really made me gain some self-confidence and confidence to my knowledge. That is the same in real life, I can recall the things that the instructor asked me. Being a doctor seemed very hard to me at first, but it is not. That knowledge is actually with you and you can recall it with the patient and tell. Everything is simple and in an accessible way, as I learnt.(S5-AC)

Day by day, that 'being a doctor' settles around ideas. Hereafter your profession also defines who you are.(S2-AC)

Additional themes

Besides the main expected themes, five additional themes emerged from the data, namely real life experiences; role modeling; integration of the program; and infrastructure. Although, these new themes are not directly relevant to professionalism as a concept, they are particularly the main domains of education of professionalism both, for undergraduate studies and lifelong learning (15).

Real life experiences

According to Hilton and Southgate, professional medical education at undergraduate level consists of instilling

professional values, humanism and ethical practice, development of reflective judgment and effects of hidden curriculum (5). The authors also assert that professionalism can be learned by the individual. The present study revealed that the students considered themselves to be ready for the clerkship period with respect to their theoretical knowledge as well as to their professional skills and values. However, after the clerkship period, they understood that real life experiences are more instructional and easier to remember than are theory and simulation (S7-AC). In addition, clinical teachers believe that students need real life experiences in the outpatient clinics and in wards, and they mentioned in the "*before interviews"* that they would follow a curricular program to shape this experience. After a ten-week clerkship period, they evaluated the quality and effectiveness of clinical tasks and real life experiences of the students as follows:

"They really didn't even have any communication problem; they've completed internships quite satisfied, felt in a one-to-one relationship" (CT1-AC).

"*Instructor x told me to measure the blood pressure, and I said okay. At that moment I could not hesitate in front of the patient. And I didn't experience such a thing. But I believe we will see such things more often, and sure we will learn as we experience. …. As we see, we will learn and we should not hesitate." (S7-AC)*

Role modeling

Mook et al. summarizes role modeling both, from students' and teachers' perspectives. He claims that role modeling has a key significance for the acquisition of professional expertise and roles for the students and early exposure to good role models in a particular clinical field is affecting the choice of residency training in the same field (4). Within the interviews, students have declared constantly that having observed clinical teachers in real life gave them an expanded insight of professional behavior regarding communication skills, ethical and empathic behavior and a strong theoretical background.

From the teachers' perspective Mook showed in his study that most of the role models (clinical teachers) were aware of their status as a role model, and consciously thought about role modeling opportunities when interacting with medical trainees. This finding is also consistent with our results. The majority of our clinical teachers stated that, it was their job to teach the students the appropriate behaviors of a doctor, and that this could only be done in clinical practice.

However, as it is mentioned in many researches clinical teachers are often insufficiently trained to assess professional behavior and are unaware of their important function as a role model. Hence, there is a need for faculty development programs to train more knowledgeable faculty members, who will then role model more effectively (4). From this perspective, it is not a surprise for us to hear that clinical teachers really were not interested in what the students were taught during the preclinical years under the category of professionalism and there was no structured professionalism content in the clerkship curriculum.

… Each clinical teacher has his own particular very good ways; I mean I try to follow their footsteps. (S10-AC)

…As I meet with different instructors, they affect me, something changing with them… I mean even when I see people that I dislike; this does not affect me or again I try to find some positive ways and I say to myself not become like that. The positive things that I learned from those people, I see that it is also good in this way and bad in that way. This is what I learned, I mean. (S5-AC)

….. When they will come, we will raise them after all, how we move, how we talk, how we take a medical history; they will see. Then our attitude, what we are paying attention to, how we treat the patient, this is the way to learn, he will do it this way and that way. (CT4-BC)

Integration of the program

Cruess&Cruess explained the format of a professionalism curriculum by using the features of cognitive base (15). They claim that such a program should consider not only the level of the students but also the appropriate level or sophisticated level of the professionalism content. The professionalism content of the CMPS program is vertically integrated in the preclinical years which is a feature we did not foresee to be recognized and appreciated by the students.

"*Here it (CMPS) increased with a constant acceleration in three years but I think this is good because as our self-competences, working skills improved; the difficulty level increased. You know, it is a positive stress factor for us, I think rather than a negative one it is a positive stress and in the end it was entertaining, I mean, each committee was harder than the previous one but we have adopted. (S2-BC)"*

Infrastructure

For creating a successful educational curriculum, "resources" must be taken into consideration. Every type of

educational method needs different infrastructures and if the resources are not sufficient, there could be an implementation constraint (18). In our study geographic distances between hospitals and clinical training sites, logistic problems, limited number of patients and variety of clinical cases were the most common concerns about the infrastructure of our medical school. These concerns were expressed by both the students and the clinical teachers.

"They should not be distant to the patient at all. This seems to be one of the most problematic areas that we will encounter. (CT2-BC);

The missing element was of course the patient variety.(…)The capacity of this kind of hospitals is nothing like state hospitals; the number of patients is limited for each hospital. (CT1-AC)".

Despite the infrastructural problems, both, students and clinical teachers were happy about working one-to-one with each other. However, some of the students complained about the unstandardized implementation of clinical practice. When this issue was addressed in the interviews with clinical teachers, they were of the understanding that they were doing the best for the students. However, when asked for a structural implementation of the program, they could only show theoretical and practical hours on a schedule. It also turned out that in some departments, due to geographical distance, clinical teachers did not have the opportunity to discuss their department's educational program with each other before implementation. Research has shown that if a professional education is consistently and explicitly taught, clear standards and guidelines must be present and a fair and transparent assessment must be planned. What is more, teaching qualification must be controlled and a proper system of rewards for teaching must be considered (8, 19).

On the other hand, in our situation clinical teachers were not aware of the CMPS program and its nature. This could be because of the reasons that Lempp pointed out that; *"medical education has largely escaped from the quality control rigours imposed on clinical practice. In part this may be because clinical practice and research have long dominated the attention of doctors, and teaching has been considered a lesser activity, without clear incentives or career structures."* (19). Concluding from this, there is a need for a faculty development program to improve the capacity of clinical teachers as medical instructors especially with respect to curriculum content development addressing professionality issues.

Early onset of teaching medical professionalism

one of the themes that emerged from interviews was early implementation of professionalism education. All of the students were thinking that early onset of medical professional domains regarding the communication with patients, patient centered approach, ethical and empathy issues, had made them more confident in the clerkship period. After their clinical experience, the students emphasized the importance of their prior knowledge on professional domains. "*I assume that I could be emphatic to a patient in any situation, it is a natural thing, but maybe I could do it in a wrong way, the patient could feel uncomfortable"* (S5-BC).

Even though the students accepted that real life situations in clinical practice are very different and at times uneasy, they thought that without their practice in the preclinical years they would have felt uncomfortable or less confident. It has been shown by many studies that early implementation of professionalism affects not only the theoretical background of the students, but also their behavioral pattern as a medical doctor. In addition, medical practice shows that teaching medical professionalism is necessary from the first years of medical education on, and by early introduction of basic clinical skills, communication skills, ethical reasoning, attitudes and evidence based practice into the preclinical curricula the students' performance and interpersonal skills on the real patient encounters could be improved (7, 20, 21).

Conclusion

Interviews with students and clinical teachers gave a clear insight on the how key concepts of medical professionalism crystalized in the minds of the students and how they were reflected in the interpretations of the clinical teachers.

Students were aware of the value of the early onset of medical professional outcomes. Although, there were some infrastructural problems, students used their prior theoretical and practical knowledge while observing clinical teachers and practicing by themselves in *real life* clinical settings.

Students used their competence gained in the preclinical period during the clerkships in a proper way, which was appreciated by both, clinical teachers and students. Transferring not only the theory, but also the simulated practice seems to help students to behave confidentially in the clinical setting. They reported to benefit from the

competencies gained in the first three years during the CMPS program in two major aspects; competencies were used during their own clinical performance, as well as, to reflect about own attitudes as compared to observed practices of clinical teachers.

The CMPS program of AUSM has an innovative part as it includes all the key concepts of the literature together; clinical communication skills, basic clinical skills, ethical reasoning and conduct, research in health including evidence based medicine, health and society including health policy *(6, 7,17, 20, 21,)*. It is observed that integration of these themes is appreciated by students as they get an insight about what they will face later in their professional life.

In conclusion the results of this study showed that early exposure to professionalism domains in undergraduate medical education creates a high level of professional self-awareness going along with corresponding expectations from the forth following medical education. The students have high expectations regarding the medical curriculum in the clinical phase, the training sites and infrastructure. At the same time, they expect their clinical teachers to be "*good professional role models and good teachers*".

This experience convinced us that, clinicians and we medical educators have much to learn from our students.

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