

Table

Year-I respondents' opinion through open ended questions

What do you mean by professionalism?		How professionalism should be taught?		How do you learn professionalism?		How professionalism should be assessed?	
Opinion	n	Opinion	n	Opinion	n	Opinion	n
Positive approach to profession	24	Formal education	20	Experience	21	Others	30
		Experience	12	Formal education	15	Formal education	6
		Others	9	Role model	5	Not responded	11
Others	17	Role model	5	Not responded	5	Unsure	3
Not responded	9	Not responded	4	Others	4		

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Research Article

Professionalism of future medical professionals in Universiti Sultan Zainal Abidin, Malaysia

Professionalism of future medical professionals in Universiti Sultan Zainal Abidin, Malaysia

Abdus Salam¹, Rabeya Yousuf², Md. Zakirul Islam³, Farida Yesmin⁴, Asadul Mazid Helali⁴, Ahmed G. Alattraqchi⁵, U. S. Mahadeva Rao⁵ and Mainul Haque⁶

¹Department of Medical Education, Universiti Kebangsaan Malaysia (UKM) Medical Centre, Kuala Lumpur, Malaysia; ²Blood Bank Unit, Department of Pathology, UKM Medical Centre, Kuala Lumpur, Malaysia; ³Department of Pharmacology and Therapeutics, Eastern Medical College, Comilla, Bangladesh; ⁴Department of Pharmacology and Therapeutics, Gonoshashthaya Samajvithik Medical College, Dhaka, Bangladesh; ⁵Department of Biochemistry, Universiti Sultan Zainal Abidin (UniSZA), Terengganu, Malaysia; ⁶Department of Pharmacology, Universiti Sultan Zainal Abidin, Terengganu, Malaysia.

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Abstract

Professionalism with high moral character should be developed from the schooling time of the students. The objective of this study was to explore the professionalism of medical students. It was a cross-sectional study conducted on 108 year-I and II medical students of session 2012-2013 selected conveniently at UniSZA, Malaysia. Data was collected using a mixed type of validated instrument and analyzed using SPSS. Year-I and II were 86 and 98% respectively. Only 27% respondents were male and 73% were female. Mean professionalism scores for year-I and II were 175.2 and 172.9, while for male and female were 172.3 and 174.6 respectively. No significant differences observed between gender ($p=0.536$) and study-year ($p=0.484$). However, 34% year-I and 19% year-II students defined professionalism diversely while 18 and 9% were un-responded. Professionalism is a broad-concept; a burning issue worldwide. Teachers should emphasis on core elements of professionalism which are unique for all professions.

Introduction

Every single profession has its particular social responsibilities and these contracts with society need to be repeatedly amended and renegotiated (Bhugra and Gupta, 2010). Moreover, in the past many years, a number of stern intimidations to professionalism have emerged. Profession such as medicine, education and the law has been confronted by politicians and other stakeholders (Bhugra and Gupta, 2010). Medical professionalism has been a crucial and major feature in medicine from the time of Hippocrates (Orr et al., 1997). Professionalism is the foundation of medicine's indelible with humanity (Medical Professionalism Project, 2002a). Medical professionalism has been particularly challenging to outline and remains poorly understood

(Riley and Kumar, 2012). The notion of medical professionalism' possibly developed in late medieval and early renaissance epochs, when doctors organized a specialized society (Sox, 2007). It is considered as an intrinsic part of the practice of medicine (Chard et al., 2006). It was measured as the drill of values and codes of conduct set by the practitioners in earliest time. Even in recent times it is difficult to reach one platform for defining professionalism for health care (Cruess and Cruess, 2009).

Traditionally the growth of professionalism trusted on inherent learning from respected role models, a method that depended seriously on the presence of a similar culture sharing ideologies (Cruess and Cruess, 2006). Throughout the olden days of medicine, individual



physicians and professional groups have made struggles to categorize a physician's proficient principles, social promises, and individual objectives in oaths, testimonies, agreements, strategies, and work proclamations (The prayer of maimonides, 1918; Crawshaw and Link, 1996). These statements range from the least proficiencies required of all physicians to the highest expectations and morals of the model physician (The prayer of maimonides, 1918; Hafferty, 2006). Now, the medical professionalism is challenged by advances in technology, varying market forces, managed care, other business arrangements in health care, bioterrorism, globalization and a rising sense of the attrition of public trust in the medical profession (Swick, 1998; Ludmerer, 1999). Hence, physicians are experiencing frustration as changes in healthcare delivery systems in many countries. Recently, opinions from many nations have begun calling for a renovated sense of professionalism. Medical professional groups both in Europe and North America has called for an updated sense of professionalism among doctors and for an importance on this set of aspects in undergraduate and postgraduate medical education (Jotkowitz and Glick, 2005). A number of leading publications on medical professionalism have voiced apprehensions about the professional eminence of medical practitioners in some health care systems (Wynia et al., 1999; Medical Professionalism Project, 2002b; Royal College of Physicians, 2005). Daily challenges to professionalism are commonly encountered by novices and practicing doctors, many specialists are disappointed with their preparation in this area and were incapable to deliver a satisfactory answer to these challenges (Barry et al., 2000). There is mounting unanimity among medical professors to encourage professionalism in medical students especially to develop the core humanistic characteristics (Litzelman and Cottingham, 2007). The recent trend in schooling and appraising professionalism for medical students and residents has put substantial demands on medical schools. Professional progress is tough if the school suffers from harmony on clear understanding of the fundamental elements of professionalism (Brown et al., 2009). The fundamental elements of professionalism are unique and equally applicable to any profession for the benefit of common people (Salam et al., 2012a). Professionalism must be trained obviously and assessed commendably (Elnemr, 2010).

One study detects nine conducts that organise medical professionalism and that physicians must reveal if they are to run into their responsibilities to their patients, their communities, and their profession (Swick, 2000). Researchers reported some patients might not receive comprehensive and precise facts from their physicians, and uncertainties about whether patient-centered care is largely possible without more extensive physician commendation of the core communication principles of

openness and honesty with patients (Lezzoni et al., 2012). Henceforth the Charter on Medical Professionalism, recommended by more than 100 professional groups internationally and the US Accreditation Council for Graduate Medical Education, necessitates frankness and trustworthiness in physicians' communication with patients (Lezzoni et al., 2012). The progressive interference of market force into the dominion of medicine is frightening to switch the principles of professionalism with the conflicting ethics of the marketplace. Academic medicine must undertake more obligation and accountability for strengthening the determination of future doctors to withstand their vow to the ethics of professionalism (Cohen, 2006). Researchers hope and believe medical educators will ensure that students safeguard patient confidentiality (Jotkowitz et al., 2004). The intrinsic susceptibility and habit of patients, certain relationships between physicians and patients must be avoided. In particular, physicians should always respectful and in no occasion abuse patients for any sexual benefit, own monetary gain, or other private fortitude (Project of the ABIM Foundation, 2002). Responsibility and accountability must be booming established in order to accomplish the high anticipations placed by society on physicians. Co-operative fields concern how doctors intermingle with other parties within the community convention (Hilton, 2004). The specific values aided by medicine and the qualities cultured in doctors move from our collective know-how of illness, love, compassion, and caring for those in need. The core values of professionalism, consequently, originate from the universality of ailment and begin with caring or compassion. Caring over time generates the value of responsibility. The shared responsibility for care produces faith and admiration by both physician and patient (Arnold and Stern, 2006).

The basis of modern medicine is every decision should be taken by discussion between patients and doctors. One of the three essential doctrines of the "Charter of medical professionalism" in the new millennium is the belief of patient sovereignty: "Physicians must empower their patients to make informed decisions about their treatment" (Medical professionalism in the new millennium: A physician charter, 2002). It is essential to acquire at liberty and well-versed consent from patient and is recommended by European and International manuscripts (World Medical Association, 1964). Self-directed learning (SDL) expertise is believed to be connected with all-time erudition. SDL has developed a principal leitmotif in adult education, as demonstrated by meta-analyses, critical reviews of research, and an annual international symposium devoted solely to research on SDL, along with millions of "hits" on this topic on Internet sites (Brookfield, 1993). The capability to direct and control one's own learning practice is the key for achievement in the

medical profession (Mast and Davis, 1994). SDL skills, which are associated with lifelong learning (Candy, 1991), are predominantly imperative in the medical field, where knowledge is unremittingly changing and evolving, and dealing with innovation is an important facet of patient encounters.

This study was conducted to ascertain the conceptual understanding of professionalism with emphasis on its core issues among the students of UniSZA aimed at professional development of future medical professionals.

Materials and Methods

This was a cross-sectional study conducted on medical students of UniSZA. The study population was all (117) preclinical UniSZA medical students from year-I and II of academic session 2012/2013. The sample size consisted of 108 students. Convenient sampling technique was used to select the sample. The period of study was December, 2012. Data was collected using a validated instrument (Salam et al., 2012a; 2012b) which contained nine core elements of professionalism attributes such as honesty, accountability, confidentiality, respectfulness, responsibility, compassion, communication, maturity, and self-directed learning. There were a range of statements under each professionalism core elements which was measured by 5-points Likert scale giving a

maximum score of 220. Mean of all nine attributes' scores represented the professionalism of respondents as a whole. The instrument also contained four open-ended questions exploring about respondents' opinion on what professionalism meant to them, how professionalism should be taught, how they learnt professionalism and how professionalism should be assessed. The data was then compiled and analyzed using SPSS version 20.

Results

Out of 108 respondents, 50 (46%) were from year-I and 58 (54%) were from year-II. Among the year-I students 16 (32%) were male and 34 (68%) were female and among the year-II students 13 (22%) male and 45 (78%) were female. Only 27% of total respondents were male and the rest 73% were female. Mean professionalism score of male respondents was 172.3 and female was 174.6 (Table I). Mean professionalism scores for year-I was 175.2 and year-II 172.9 (Table II). There has no significant difference between gender ($p= 0.536$) and study year ($p= 0.484$) in total scores of core elements of professionalism.

Investigation on what professionalism is meant to the respondents, how it should be taught, how they learnt and how professionalism should be assessed for year-I (Table III) and year-II (Table IV). These tables revealed that 48% of year-I and 72% of year-II students expressed professionalism as positive attitude and behavior towards job. Eighteen percent of year-I students and 9% of year-II did not answer the questions. Twenty-four percent and 33% of year-I and II students respectively opined that professionalism should be taught through experience. Forty-two percent and 34% of year-I and II pupils respectively felt professionalism is learnt by experience. Only 12% of year-I students' impression is professionalism should be assessed formally but in contrast nearly half (49%) of year-II students opinion is it should be assessed formally.

Discussion

Medicine is a profession that practices the center of agreement between physicians and civilization (Hislton and Slotnick, 2005; Irvine, 2003; McDonagh, 2008). The proficient character of physicians comprises a promise to preserve community obligation by providing rational practices of medicine on the basis of science (Frader et al., 1989; ABIM, 2002; Patenaude, 2003; Bryan et al., 2005). The aim of modern medicine should be the "Good life" (Anderson, 1945). Hence, medicine has two wide-ranging objectives: To defer dying due to disease and to alleviate the misery (pain, disability, anguish) of disease (Tallis, 2006). Many researchers think to include 'comfort always' in the aim of physicians (Lloyd and

Table I

Comparison of mean value of fundamental elements of professionalism between males and females

Element of professionalism	Mean value (\pm SD)		t statistic (df)	p value ^a
	Male (n = 29)	Female (n = 79)		
Honesty	22.6 (2.2)	22.7 (3.3)	-0.3 (106)	0.785
Accountability	18.2 (2.3)	19.0 (2.7)	-1.5 (106)	0.138
Confidentiality	15.5 (2.6)	15.3 (2.4)	0.3 (106)	0.733
Respectful	24.6 (2.9)	24.7 (2.8)	-0.3 (106)	0.766
Responsibility	23.1 (3.2)	23.9 (2.7)	-1.4 (106)	0.179
Compassion	16.8 (1.9)	16.9 (2.3)	-0.2 (106)	0.854
Communication	19.0 (2.6)	19.5 (2.7)	-0.9 (106)	0.392
Maturity	24.2 (3.0)	24.0 (2.9)	0.3 (106)	0.742
Self-directed learning	8.6 (1.1)	8.6 (1.3)	-0.1 (106)	0.907
Total scores	172.3 (13.4)	174.6 (18.0)	-0.6 (106)	0.536

^aIndependent T-test

Table II				
Comparison of mean value of fundamental elements of professionalism between year-I and -II students				
Element of professionalism	Mean value (SD)		t statistic (df)	p value ^a
	Year-I (50)	Year-II (58)		
Honesty	22.7 (3.5)	22.7 (2.7)	0.1 (106)	0.913
Accountability	18.8 (3.0)	18.8 (2.2)	0.0 (106)	0.962
Confidentiality	15.2 (2.4)	15.4 (2.5)	-0.5 (106)	0.597
Respectful	25.1 (3.1)	24.3 (2.5)	1.5 (106)	0.135
Responsibility	23.8 (3.0)	23.6 (2.7)	0.4 (106)	0.669
Compassion	16.8 (2.6)	16.8 (1.9)	-0.0 (106)	0.986
Communication	19.6 (2.9)	19.1 (2.5)	1.0 (106)	0.342
Maturity	24.4 (3.2)	23.8 (2.6)	1.1 (106)	0.279
Self-directed learning	8.7 (1.3)	8.4 (1.1)	1.3 (106)	0.181
Total scores	175.2 (19.6)	172.9 (14.1)	0.7 (106)	0.484

^aIndependent t-test

Bor, 1996; Salam et al., 2008). Hence, physicians need a high standard of performance that safeguards use of core issues of professionalism in addition to the mastery of knowledge and clinical skills (Litzelman and Cottingham, 2007).

This study was about a group of UniSZA medical students of year-I and II where number of female students is more than male students. This finding is similar with the study done at UKM Medical Center (Salam et al., 2012b). In terms of scores of core elements of professionalism such as honesty, accountability, confidentiality, respectful, responsibility, compassion, communication, maturity and self-directed learning between male and female students with

different socioeconomic and educational upbringing were found with no significant differences. In contrary with UKM study (Salam et al., 2012b), present works found female (174.6) scored a little higher than male (172.3). Similarly there were no significant differences between year-I and II but slightly higher score in year-I (175.2) than year-II (172.9). Study done in West Virginia University School of Medicine the core values of professionalism may vary widely with gender, study-year and socio-cultural background (Nath et al., 2006). This study does not agree with the work of West Virginia. Professionalism score in core issues among the undergraduates of different study-years also were found closely analogous with no significant difference. Environment plays as a vibrant protagonist in persuading the growth of professionalism (Cruess et al., 2008). The nearing scores in core issues of professionalism between different gender and study-years of the respondents in the present may denotes a congenial, shared educational setting is working in this University. Intradepartmental and interdepartmental teamwork, livelihood and mutual respect are very much needed for promoting educational development rather than competitive insolence (Salam et al., 2011c). Multiple studies reported that students' assertiveness headed for professionalism have a tendency to decline for the period of the years of training (Brown et al., 2009; Duke et al., 2005). The current study revealed that out of the total score of 220, year-I and II respondents score was 175.2 and 172.9 respectively. Although there was no significant differences but it corresponds with the publication of others (Brown et al., 2009; Duke et al., 2005).

About 48 and 72% of year-I and II students defined professionalism as positive attitudes towards their occupation and 9-18% students did not respond. This data has similarity with other studies (Salam et al., 2012b; Swick, 2000). Scholars identified that professionalism is easy to recognize but notoriously difficult to define and poorly understood (Riley and Kumar, 2012; Swick, 2000). This is the place where faculty member must get in to make a clear understanding and prepare students to practice on fundamental concerns

Table III							
Year-I respondents' opinion through open ended questions							
What do you mean by professionalism?		How professionalism should be taught?		How do you learn professionalism?		How professionalism should be assessed?	
Opinion	n	Opinion	n	Opinion	n	Opinion	n
Positive approach to profession	24	Formal education	20	Experience	21	Others	30
		Experience	12	Formal education	15	Formal education	6
		Others	9	Role model	5	Not responded	11
Others	17	Role model	5	Not responded	5	Unsure	3
Not responded	9	Not responded	4	Others	4		

Table IV

Year-II respondents' opinion through open ended questions

What do you mean by professionalism?		How professionalism should be taught?		How do you learn professionalism?		How professionalism should be assessed?	
Opinion	n	Opinion	n	Opinion	n	Opinion	n
Positive approach to profession	42	Formal education	21	Experience	20	Formal education	26
		Experience	19	Formal education	13	Others	24
		Others	7	Role model	16	Not responded	8
Others	11	Not responded	7	Not responded	7		
Not responded	5	Role model	4	Others	2		

of humanistic characteristics of professionalism. Clear unity among the faculty member is much important for the development of professionalism (Brown et al., 2009).

Archaeologically, society has tried to reassure its inhabitants of safe and effective medical care through the licensure of the profession. Beyond licensure, it has trusted on the ethical values of the profession and its social agreement with society to run an acceptable resource of physicians through medical education and training (Richmond and Eisenberg, 2000). Medical professionalism follows the foundation of the convention between doctors and society and it is thus imperative that professionalism must be integrated into the undergraduate curriculum (Hislton and Slotnick, 2005; Irvine, 2003). Thus, educators play crucial role in the development of undergraduate expertise during their course work (Salam et al., 2011a; Nabishah et al., 2009). The lectures personal charisma act as role model and has concrete influence on students for the development of professionalism (Wright et al., 1998; Paice et al., 2002; Yazigi, 2006; Kenny, 2003). This mode has long been used as unceremonious part of medical training. Twenty-four percent to 33% of the respondents feel that professionalism should be taught through experience (Table III and IV). Again 34-42% of students think it should be learned through experience. Various studies although concluded that professionalism is best learned from faculty role models (Brown et al., 2009; Cruess et al., 2008; Wright et al., 1998; Paice et al., 2002; Yazigi et al., 2006; Kenny, 2003; Salam et al., 2010; Goldie et al., 2007; Cote and Leclere, 2000; Reynolds, 1994; Salam et al., 2012a) the present work is contrary as only 10-28% of students stated for role models (Table III and IV). The study respondents were very fresh students hence authors believe that they do not have enough experience about role models. Moreover MBBS course is very new also in very new UniSZA. Thus they fail to interpret how role model helps for the development of holistic doctors. Societies identify role models with high potentials. Again people have strong desire to be like role models. Hence, role model is a great way to

inculcate professional values, attitudes, and behaviours in students and young doctors (Swick et al., 1999; Wear, 1998). Moreover, medical educationist believes students pick-up the skills of observation, communication and professionalism by copying role models (Salam et al., 2011b).

In the past many years, several studies have argued that if physicians are to meet their responsibilities to their patients, to the profession, and to society, formal teaching of professionalism should be embedded in the medical school curriculum (Hislton and Slotnick, 2005; Irvine, 2003; Swick et al., 1999; Cruess and Cruess, 1997). Majority of study respondents of year-I (40%) and year-II (36%) think formal education is way to be taught professionalism and ranking it as first. This finding corresponds to many studies (Hislton and Slotnick, 2005; Irvine, 2003; Swick et al., 1999; Cruess and Cruess, 1997). Again, 22-30% of the students think they learnt professionalism by formal education and it is second in their grading (Table III and IV). UniSZA students feel 12-49% professionalism should be assessed formally. In contrary to many studies mentioned earlier 7-10% respondents give emphasis on role models (Wear, 1998; Salam et al., 2011b).

The schooling and refinement of professionalism has long been part of medical education and have had fresh distinctive importance because professionalism has been recognized as a fundamental qualification in both developed and developing countries. The present study found there has almost equal level of understanding on principal humanistic concerns of professionalism with insignificant differences between gender and years of study. This study gives more emphasis to conduct formal education on professionalism. There is urgent need to create more role model to enhance adequate professionalism among the medical students. Well-designed prospective study is suggested in this regard. Hence it will ensure more holistic and rational medical doctors for the community who will work on the basis of science and humanity.

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Conflict of Interest

Authors declare no conflict of interest

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References

- ABIM-American Board of Internal Medicine Foundation, ACP-ASIM Foundation-American College of Physician-American Society of Internal Medicine, European Federation of Internal Medicine. 'Medical professionalism in the new millennium: A physician charter'. *Ann Intern Med.* 2002; 136: 243-46.
- Anderson MR. The aim of medicine. *BMJ.* 1945; 2: 824.
- Arnold L, Stern DT. What is medical professionalism? In: Measuring medical professionalism. Stern DT eds. New York 10016, USA. Oxford University Press, 2006, pp 15-38.
- Barry D, Cyran E, Anderson RJ. Common issues in medical professionalism: Room to grow. *Am J Med.* 2000; 108: 136-42.
- Brookfield S. Self-directed learning, political clarity, and the critical practice of adult education. *Adult Educ Q.* 1993; 43: 227-42.
- Bhugra D, Gupta S. Medical professionalism in psychiatry. *Adv Psychiat Treat.* 2010; 16: 10-13.
- Brown D, Ferrill MJ, Lloyd L. The taxonomy of professionalism: Reframing the academic pursuit of professional development. *Am J Pharm Educ.* 2009; 73: 68.
- Bryan RE, Krych AJ, Carmichael SW, Viggiano TR, Pawlina W. Assessing professionalism in early medical education: Experience with peer evaluation and self-evaluation in the gross anatomy course. *Ann Acad Med Singapore.* 2005; 34: 486-91.
- Candy PC. Self-direction for lifelong learning: A comprehensive guide to theory and practice. San Francisco, Jossey-Bass, 1991.
- Chard D, Elsharkawy A, Newbery N. Medical professionalism: The trainees' views. *Clin Med.* 2006; 6: 68-71.
- Cohen JJ. Professionalism in medical education, an American perspective: From evidence to accountability. *Med Educ.* 2006; 40: 607-17.
- Cote L, Leclere H. How clinical teachers perceive the doctor-patient relationship and themselves as role models. *Acad Med.* 2000; 75: 1117-24.
- Crawshaw R, Link C. Evolution of form and circumstance in medical oaths. *West J Med.* 1996; 164: 452-56.
- Cruess RL, Cruess SR. Teaching professionalism: General principles. *Med Teach.* 2006; 28: 205-08.
- Cruess RL, Cruess SR, Steinert Y. Teaching medical professionalism. Print Publication Press, 2008.
- Cruess RL, Cruess SR. Teaching medicine as a profession in the service of healing. *Acad Med.* 1997; 72: 941-52.
- Cruess SR, Cruess RL. The cognitive base of professionalism In: Cruess RL, Cruess SR, Steinert Y (eds), Teaching medical professionalism. New York: Cambridge University Press, 2009.
- Duke LJ, Kennedy WK, McDuffie CH, Miller MS, Sheffield MC, Chisholm MA. Student attitudes, values and beliefs regarding professionalism. *Am J Pharm Educ.* 2005; 69: 1-11.
- Elnemr MAM. Professionalism in medical Education. *Yemeni J Med Sci.* 2010; 4: 25-28.
- Frader J, Arnold R, Coulehan J, Pinkus RL, Meisel A, Schaffner K. Evolution of clinical ethics teaching at the University of Pittsburgh. *Acad Med.* 1989; 64: 747-50.
- Goldie J, Dowie A, Cotton P, Morrison J. Teaching professionalism in the early years of medical curriculum: A qualitative study. *Med Educ.* 2007; 41: 610-17.
- Hafferty F. Viewpoint: The elephant in medical professionalism's kitchen. *Acad Med.* 2006; 81: 906-14.
- Hensel WA, Dickey NW. Teaching professionalism: Passing in touch. *Acad Med.* 1998; 73: 865-70.
- Hilton S. Medical professionalism: How can we encourage it in our students? *Clin Teach.* 2004; 1: 69-73.
- Hilton SR, Slotnick HB. Proto-professionalism: How professionalism occurs across the continuum of medical education. *Med Educ.* 2005; 39: 58-65.
- Irvine D. The doctor's tale. Oxford, Radcliffe Medical Press, 2003.
- Jotkowitz AB, Glick S, Porath A. A physician charter on medical professionalism: A challenge for medical education. *Eur J Intern Med.* 2004; 15: 5-9.
- Jotkowitz AB, Glick S. The physician charter on medical professionalism: A Jewish ethical perspective. *J Med Ethics.* 2005; 31: 404-05.
- Kenny NP, Mann KV, MacLeod H. Role modeling in physicians' professional formation: Reconsidering an essential but untapped educational strategy. *Acad Med.* 2003; 78: 1203-10.
- Lezzoni LI, Rao SR, DesRoches CM, Vogeli C, Campbell EG. Survey shows that at least some physicians are not always open or honest with patients. *Health Aff.* 2012; 31: 383-91.
- Litzelman DK, Cottingham AH. The new formal competency-based curriculum and informal curriculum at Indiana University School of Medicine: Overview and five year analysis. *Acad Med.* 2007; 82: 410-21.
- Lloyd M, Bor R. Communication skills for medicine. New York, Churchill Livingstone, 1996.
- Ludmerer KM. Instilling professionalism in medical education. *JAMA.* 1999; 282: 881-82.

- Mast TJ, Davis D. Concepts of competence. In: The physician as learner. Mast TJ, Davis D (eds). Chicago, American Medical Association, 1994, pp 139-56.
- McDonagh D. Medical professionalism. Northeast florida medicine supplement, 2008, pp 6-7.
- Medical professionalism in the new millennium: A physician charter. *JAMA*. 2002; 136: 243-46.
- Medical professionalism project. Medical professionalism in the new millennium: A physician' charter. *Clin Med*. 2002a; 2: 116-18.
- Medical professionalism project. Medical professionalism in the new millennium: A physicians' charter. *Med J Aust* 2002b; 177: 263-65.
- Nabishah M, Fariyah HS, Das S, Salam A, Siti Mariam B, Mohd Arif K, Harlina HS, Wan Zurinah WN. Problem based learning facilitation: New challenges to higher education educators. *Intern Med J*. 2009; 16: 243-46.
- Nath C, Schmidt R, Gunel E. Perceptions of professionalism vary most with educational rank and age. *J Dent Educ*. 2006; 70: 825-34.
- Orr RD, Pang N, Pellegrino ED, Siegler M. Use of the Hippocratic oath: A review of twentieth century practice and a content analysis of oaths administered in medical schools in the U.S.A and Canada in 1993. *J Clin Ethics*. 1997; 8: 377-88.
- Paice E, Heard S, Moss F. How important are role models in making good doctors? *BMJ*. 2002; 325: 707-10.
- Patenaude J, Niyonsenga T, Fafard D. Changes in students' moral development during medical school: A cohort study. *CMAJ*. 2003; 168: 840-44.
- Project of the ABIM Foundation, ACP-ASIM Foundation, and European federation of internal medicine. Medical Professionalism in the New Millennium: A Physician Charter. *Ann Internal Med*. 2002; 136: 243-46.
- Relman AS. Education to defend professionalism values in the new corporate age. *Acad Med*. 1998; 73: 1229-33.
- Reynolds PP. Reaffirming professionalism through the education community. *Ann Intern Med*. 1994; 120: 609-14.
- Richmond JB, Eisenberg L. Medical professionalism in society. *N Engl J Med*. 2000; 342: 1288-90.
- Riley S, Kumar N. Teaching medical professionalism. *Clin Med*. 2012; 12: 9-11.
- Royal College of Physicians. Doctors in society: Medical professionalism in a changing world. Report of a working party of the Royal College of Physicians of London. London, RCP, 2005.
- Salam A, Mohammad N, Besar MNA. Audit upon graduation: UKM House Officers' competencies. *Procedia Social Behavioral Sci*. 2011a; 18: 460-63.
- Salam A, Perdaus AFM, Isa SHM, Zainuddin Z, Latif AA, Pheng NS, Yusuf Z, Soelaiman IM, Mohamad N, Moktar N. UKM medical graduates 'perception of their communication skills during housemanship. *Med Health*. 2008; 3: 54-58.
- Salam A, Ghafar AA, Latif HA, Siraj HH, Mahdy ZA, Zakaria SZS, Mohamad N, Ali RA. Synchronous transnational collaborative learning: An interesting model of education to learn medicine in global perspectives. *South East Asia J Public Health*. 2011c; 1: 59-63.
- Salam A, Rabeya Y, Harlina HS, Mohammad N. Professionalism in medical education: A review. *Eubios J Asian Int Bioethics*. 2010; 20: 250-51.
- Salam A, Siraj HH, Mohamad N, Das S, Rabeya Y. Bedside teaching in undergraduate medical education: Issues, strategies and new models for better preparation of new generation doctors. *Iran J Med Sci*. 2011b; 36: 1-6.
- Salam A, Song CO, Mazlan NF, Hassin H, Lee LS, Abdullah MH. A pilot study on professionalism of future medical professionals in Universiti Kebangsaan Malaysia (UKM) Medical Centre. *Procedia Soc Behav Sci*. 2012b; 60: 534-40.
- Salam A, Song CO, Mazlan NF, Hassin H, Lee LS, Abdullah MA. Professionalism of future medical professionals in Universiti Kebangsaan Malaysia (UKM) Medical Centre. *Intern Med J*. 2012a; 19: 224-28.
- Sox HC. The ethical foundations of professionalism: A sociological history. *Chest* 2007; 131: 1532-40.
- Swick HM, Szenas P, Danoff D, Whitcomb ME. Teaching professionalism in undergraduate medical education. *JAMA*. 1999; 282: 830-32.
- Swick HM. Academic medicine must deal with the clash of business and professional values. *Acad Med*. 1998; 73: 751-55.
- Swick HM. Toward a normative definition of medical professionalism. *Acad Med*. 2000; 75: 612-16.
- Tallis R. The ultimate aims of medicine and the future of old age. *Asian J Gerontol Geriatr*. 2006; 1: 157-62.
- The prayer of maimonides. *Cal State J Med*. 1918; 16: 51.
- Wear D. On white coats and professional development: The formal and the hidden curricula. *Ann Intern Med*. 1998; 129: 734-37.
- World Medical Association. Declaration of Helsinki. 1964.
- Wright SM, Kern DE, Kolodner K, Howard DM, Brancati FL. Attributes of excellent attending-physician role models. *N Engl J Med*. 1998; 339: 1986-93.
- Wynia MK, Latham SR, Kao AC, Berg JW, Emanuel LL. Medical professionalism in society. *N Engl J Med*. 1999; 341: 1612-16.
- Yazigi A, Nasr M, Sleilaty G, Nemr E. Clinical teachers as role models: Perceptions of interns and residents in a Lebanese medical school. *Med Educ*. 2006; 40: 654-61.

Author Info

Mainul Haque (Principal contact)

e-mail: runurono@gmail.com