

PROFESSIONALISM AMONG MEDICAL STUDENTS AT TWO PUBLIC SECTOR UNIVERSITIES — A COMPARATIVE STUDY

Shahzadi Nisar Bhutto¹, Mariam Asif², Masood Jawaid³

^{1,2} Student, Jinnah Sindh Medical University, Karachi - Pakistan.

³ Department of General Surgery, Dow University of Health Sciences, Karachi - Pakistan.

Address for correspondence:
Dr. Masood Jawaid

Assistant Professor, Department of General Surgery, Dow University of Health Sciences, Karachi - Pakistan.
E-mail: masood@masood-jawaid.com

Date Received:

June 04, 2014

Date Revised:

October 28, 2014

Date Accepted:

December 11, 2014

ABSTRACT

Objective: To determine the level of professionalism among undergraduate medical students at two public sector medical colleges of Karachi, Pakistan.

Methodology: This cross sectional study was conducted from August to November 2013 in two medical Universities of Karachi [Dow University of Health Sciences (DUHS) and Jinnah Sindh Medical University (JSMU)]. The validated Professionalism Instrument used in survey forms measured 6 tenets of professionalism (i.e. altruism, accountability, excellence, duty, honor and integrity, respect for others) and exhibited satisfactory reliability measures. The survey forms were pretested and a pilot data collection was performed to check the response and make sure the ease of participants. The study sample comprised of first through final year students of each medical school. The students were asked to fill a structured survey form after verbal information and consent. Only those students were included who were enrolled in the respective medical school and present on the day of survey. The data was analyzed using SPSS version 16 and Independent sample T-test was applied to compare mean scores of each tenet between the groups.

Results: Among 494 respondents (302 from DUHS, 192 from JSMU) the mean score of all six tenets of professionalism turned out to 11.43. There was a slight variation found in each tenet score in first and final year students, most marked being in 'honor and integrity' (Pre-clinical=11.91, Clinical=11.38). Altruism (11.44), honor and integrity (11.91) were higher in pre-clinical group whereas students from third to final year were more devoted (11.21), accountable (11.48), and excellent (11.73).

Conclusion: The current level of professionalism among medical students is sub-optimal. To achieve an optimum state, professionalism should be included formally in undergraduate medical curriculum.

Key Words: Professionalism, medical students, undergraduate medical education.

This article may be cited as: Bhutto SN, Asif M, Jawaid M. Professionalism among medical students at two public sector universities — A comparative study. J Postgrad Med Inst 2014; 29(1): 3-8.

INTRODUCTION

Professionalism is an imperative quality to be present in health profession students together with the clinical and biomedical skills to produce talented and flexible graduates. The development of professional standards, attitudes and conducts begin with the students' entry in medical college¹. Professional attitude also depends on students' thoughtfulness, sense of responsibility and reasoning skills². Recently, various leading organizations have worked out to redefine medical professionalism. The first edition of Appropriate Medical Training and a code of ethics while practice was published by the General Medical Council in the mid 1990's and registered as "Duties of a doctor"³. Major duties include appropriate patient care, good communication, teamwork, main-

taining the trust of patients in work and keep updated with the latest professional knowledge and skills⁴. In latest era, the medical education community had highlighted on assessment and teaching of medical professionalism⁵. The major objective of medical schools is to produce doctors capable of providing adequate health care and they must practice this with professionalism^{1,2}. Twenty years back this topic was less or no more in the discussion however medical professionalism is nowadays one of the most noticeable topics in the literature of medical education with its meaning, fulfillment, debt and all overloaded with complications³. The requirement of modern health care professionalism is an association among a wide range of professionals such as physicians, nurses, pharmacists, physical therapists, nutritionists and psychologists to make sure the providence of mul-

tidisciplinary health services⁵. With increased significance of learning professional behavior in health care, it is of interest to assess the professionalism. The main objective of our study was to identify the perception and level of professionalism among undergraduate students of Jinnah Sindh Medical University and Dow University of Health Sciences. The results of this study will help us to take steps to integrate professionalism formally in the curriculum of undergraduate education.

METHODOLOGY

This cross sectional study was conducted from August to November 2013 in two medical Universities of Karachi [Dow University of Health Sciences (DUHS) and Jinnah Sindh Medical University (JSMU)]. The study sample comprised of first to final year students. The students were asked to fill a structured survey form after verbal information and consent. The questionnaire was based on a validated tool generated by Marie A. Chisholm et al⁶. It is an 18 item instrument measuring the six tenets of professionalism (altruism, accountability, excellence, duty, integrity and respect). Each tenet was evaluated by 3 questions, and each question was designed in a 'Likert scale' pattern carrying a minimum score of 1 (1= strongly disagree) and maximum score of 5 (5= strongly agree). In this way, each domain carried the minimum score of 3 and maximum 15 (Annexure 1). The reliability of the instrument was assessed by Cronbach's alpha internal consistency which was 0.828. Participants were asked to rank the statements from least true to most true. To obtain a generalized result of each domain, a mean score was calculated along with the standard deviation. Only those students were included who were enrolled in the respective medical school and present on the day of survey. The questionnaire comprised of simple questions, each assessing a quality of professionalism such as attending classes/wards regularly and informing in case of absence/delay was related to one's acceptance of responsibility as some of the tenets of professionalism. The survey forms were pre-tested and a pilot data collection was performed to check the response and ensure the ease of participants. Students from first through final year from both the universities were asked to fill the structured survey forms. There were no significant alterations made in the questionnaire after piloting and the responses were included in the final data.

The data was analyzed using SPSS version 16 and Independent sample T-test was applied to compare mean scores of each tenet between the groups. Statistical significance was taken at $p < 0.05$.

RESULTS

Total 494 students participated, out of which 414 (83.8%) were females and 80 (16.2%) males. Of the total,

302 (61.1%) respondents belonged to DUHS while 192 (38.9%) were from JSMU. The data was collected from all five batches of these institutes.

The frequencies of response to each question varied greatly on individual basis. However, most of the answers tapered towards the last two options (agree, strongly agree). Approximately, two thirds of the respondents either agreed or strongly agreed to most of the statements while others disagreed/strongly disagreed or were neutral (figure 1).

The comparisons of mean scores between the two institutes as well as clinical and pre-clinical groups were made through independent sample T-test. According to the results; altruism, honor and integrity were found more in pre-clinical group while the clinical group was more profound in excellence, duty and giving respect to others. We evaluated that there was not much significant difference of accountability in both the groups. All students were equally responsible and accountable for their work (Table 2). However, there was a noticeable difference in honor and integrity. It was higher in pre-clinical group (11.91) as compared to clinical group (11.42). The same domain was found higher in 1st year students (11.91) in comparison with final year students (11.38).

On comparison between medical students of the two institutes in terms of professionalism, some interesting results were obtained. JSMU students were more altruistic, accountable and respectful. The rest of the tenets i.e. excellence, duty, honor and integrity also scored high in students of JSMU. Among all the domains, the most significant difference was found in 'duty'. Table III demonstrates the mean scores of all six domains of professionalism among the students of both medical schools.

DISCUSSION

This study aimed to cover all the six tenets of professionalism as described by American Board of Internal Medicine (ABIM). We found that selflessness, honor and integrity were higher in pre-clinical group than the students of clinical years (3-5). However the students of third to final year were found to be more dutiful, excellent and accountable as compared to their pre-clinical fellows. The trends of all six tenets between the students of first year and final year were also compared to see the professional variation among them (Table 4). Two of the tenets i.e. Accountability and Excellence were higher in final year students. Whereas, the mean scores of Altruism, Duty and Integrity were raised in first year students. The only one tenet that showed a little variation between the 1st and 5th year students was 'respect for others'. According to Zain-ul-Abideen Sobani et al, the definition of professionalism usually emphasize on professional excellence, integrity and altruism. These fea-

Annexure 1: Frequencies of Students' response to statements regarding Tenets of Professionalism

Sr. No.	Question/Statement	Strongly Dis-agree	Dis-agree	Neutral	Agree	Strongly Agree
1.	I don't expect anything when I help someone.	31	61	136	177	89
2.	I attend my classes/clinical posting daily.	23	77	98	225	71
3.	If I don't follow through my responsibilities I readily accept the consequences.	14	42	104	269	65
4.	I want to exceed the expectations of my teachers and parents.	20	16	110	211	137
5.	It is important to produce quality work.	5	10	31	231	217
6.	I complete my assignments independently and without any supervision.	11	72	136	179	96
7.	I follow through with my responsibilities.	6	26	106	277	79
8.	I am committed to help and heal my patients.	7	7	32	249	199
9.	I would take a job where I felt I was needed even it paid less than other positions.	35	71	159	168	61
10.	It is wrong to cheat to achieve higher awards (i.e. grades, money etc.)	16	19	29	133	297
11.	I would report a medication error even if no one else was aware of the mistake.	6	21	75	235	157
12.	I am able to accept constructive criticism.	11	32	111	255	85
13.	I treat all patients with the same respect regardless of perceived social standing or ability to pay.	4	10	28	200	252
14.	I address others using appropriate names and titles.	13	30	95	257	99
15.	I am diplomatic when expressing ideas and expressions.	66	94	175	125	34
16.	I accept decisions of those in authority.	12	21	115	284	62
17.	I am respectful to individuals who have different background than me.	8	18	59	273	136
18.	If I realize that I'll be late, I contact the appropriate individual the earliest possible time to inform them.	12	17	119	237	109

Table 1: Mean scores of Tenets of Professionalism

Tenets of Professionalism (n=494)	Mean	SD
Total	11.43	1.88
Altruism	11.15	2.00
Accountability	11.46	1.79
Excellence	11.66	1.97
Duty	11.20	1.88
Honor and Integrity	11.56	1.82
Respect for others	11.57	1.82

Table 2: Mean scores of Tenets of Professionalism between Pre-clinical and Clinical students

Tenet	Group	Mean	SD
Altruism	Pre-clinical	11.44	0.18
	Clinical	11.03	0.10
Accountability	Pre-clinical	11.41	0.15
	Clinical	11.48	0.09
Excellence	Pre-clinical	11.50	0.17
	Clinical	11.73	0.10
Duty	Pre-clinical	11.17	0.15
	Clinical	11.21	0.10
Honor and Integrity	Pre-clinical	11.91	0.16
	Clinical	11.42	0.09
Respect for others	Preclinical	11.48	0.16
	Clinical	11.61	0.09

Table 3: Comparison of Mean Scores of Tenets of Professionalism among DUHS & JSMU students

Tenet	Institute	Mean	SD
Altruism	DUHS	11.08	0.11
	JSMU	11.27	0.14
Accountability	DUHS	11.36	0.10
	JSMU	11.61	0.12
Excellence	DUHS	11.47	0.11
	JSMU	11.97	0.13
Duty	DUHS	10.98	0.10
	JSMU	11.55	0.13
Honor and Integrity	DUHS	11.54	0.10
	JSMU	11.60	0.13
Respect for others	DUHS	11.44	0.11
	JSMU	11.78	0.11

Table 4: Comparison of mean scores between First and Final year students

Tenet	Year of Study	Mean	SD
Altruism	1	11.49	2.32
	5	11.11	1.81
Accountability	1	11.19	1.66
	5	11.26	1.78
Excellence	1	11.62	1.90
	5	11.91	2.03
Duty	1	11.13	1.91
	5	11.00	1.89
Honor and Integrity	1	11.91	1.87
	5	11.38	1.63
Respect for others	1	11.44	1.95
	5	11.43	1.95

tures are generally understood by the help of refrains i.e. professional excellence is linked with the learning practices; integrity is based on humankind and uprightness with every human being while the third trait altruism explains unselfishness⁶.

Clinical exposure enhances the medical skills along with learning strategies and our study showed high accountability, duty and excellence in clinical group which should be present in each health professional. However a study in private medical university showed a decline in professionalism in the beginning of clinical clerkships of 3rd year as compared to the students receiving basic sciences training⁶. A good number of researches have been done to assess the ethical and moral behavior during internship/clerkship in health care centers. With the same objective, a research was performed. Feudtner C et al found that 62% of Medical students noted significant decrease in ethical and moral attitudes during their course of clerkship⁷. By observing the academic and professional practices, studies have shown various academic fraudulences by students from proxies of attendance to cheating in examinations and persuading teachers by illegal methods to obtain high scores. To eradicate such misconducts from academic and professional settings, Accreditation Council for Graduate Medical Education has encouraged the inclusion of professionalism in education of trainees^{1,7}.

The medical education and the professional medicine faces many challenges in terms of accountability, commitment to improvement of knowledge and skills, ethics, dutifulness, responsibility, decision making and ethically sound patient-doctor relationships in both, graduates and undergraduates⁸. A study was conducted in three medical colleges both in Private and Government setups of Karachi, Pakistan. They found out that majority of the students accepted about their cheating for atleast once in their exams. First year medical students were involved more in asking answers from teachers during their OSCE. Marking Proxies (85.7%) and asking for the same to their friends (85.03) was found to be a frequent misconduct behavior. Even in Clinical rotations, 44.02% of students accepted that they cheated and wrote fake histories for submission. This all shows the irresponsibility of the students towards their work and education⁹. However, our study showed not a big difference of accountability and duty between pre-clinical and clinical groups but there was a slight variance. We noticed that Clinical group was more accountable than Juniors with the Mean difference of 0.07.

Two different studies of Pakistan observed that final year students were more empathetic than first year^{10,14}. However, we observed that first years were more self-sacrificing and giving respect to others than final years.

Nazish et al observed in her study that the majority (95%) of participants considered 'awareness of ethics' as an important factor affecting their jobs and should be taught from the undergraduate level¹¹. A study revealed a more positive attitude of faculty in including professionalism as a part of the admission process in medical schools than students. While students highly appreciated the idea of scenario based professionalism discussion during medical education¹². Keeping this in mind, more structured and integrated teaching of Ethics should be included in the curriculum¹³. Moreover, the integration of the subject of behavioral sciences at the undergraduate level can improve the understanding of related issues in clinical settings¹⁴. The Pakistan Medical and Dental Council also recommend ethical education to medical undergraduates during the tenure of medical school¹⁵.

The drawback of this study is limited data coverage, i.e. not all the students from each batch were included; limiting the generalization of the results. Moreover, there is a marked difference in the ratio of male and female participants (males 16.2% and females 83.8%) owing to the greater number of enrolled female students in most of the batches of both universities. In addition, the study also failed to determine the levels of professionalism on an individual basis. However, some attractive trends were found which highlighted the need of further research. For example, one can go further to look for the factors that affect the level of professionalism among undergraduate medical students, including age, gender, academic achievements, place of work, financial status etc.

The instrument used in this study provided measurement of six tenets of professionalism with a satisfactory validity and reliability. The aspects of medical students' conduct and ethical behavior are largely covered and the values reflect the perception and level of professionalism in the future doctors. Future studies using this instrument for further evaluation on other medical populations are required. Randomization of the data would yield more accurate results useful for integration of the medical curriculum.

CONCLUSION

The current level of professionalism among medical students is sub-optimal. To achieve an optimum state, professionalism should be included formally in medical curriculum. Most of the domains remain unchanged, or showed a narrow variation range from first through final year.

ACKNOWLEDGEMENT

We would like to thank Maria Yaseen Tunio and Misbah Bano Abdulqadir for their efforts in data collection and questionnaire designing.

REFERENCES

1. Hur Y. Are there gaps between medical students and professors in the perception of student's professionalism level? Secondary publication. *Yonsei Med J* 2009;50:751-6.
2. Baingana RK, Nakasujja N, Galukande M, Omona K, Mafigiri DK, Sewankambo NK. Learning health professionalism at Makerere University: an exploratory study amongst undergraduate students. *BMC Med Educ* 2010;10:76.
3. Wagner P, Hendrich J, Moseley G, Hudson V. Defining medical professionalism: a qualitative study. *Med Educ* 2007;41:288-94.
4. Hilton S. Education and the changing face of medical professionalism. *Br J Gen Pract* 2008;58:353-61.
5. Hodges D, McLanchlan JC, Finn GM. Exploring reflective 'critical incident' document of professionalism lapses in a medical undergraduate setting. *BMC Med Educ* 2009;9:1-5.
6. Sobani Z, Mohyuddin MM, Farooq F, Qaiser KN, Gani F, Bham NS, et al. Professionalism in medical students at a private medical college in Karachi, Pakistan. *J Pak Med Assoc* 2013;63:935-9.
7. ABIM Foundation, ACP-ASIM Foundation, European Federation of Internal Medicine. Medical professionalism in the new millennium: a physician charter. *Ann Intern Med* 2002;136:243-6.
8. Chisholm MA, Cobb H, Duke L, McDuffie C, Kennedy WK. Development of an instrument to measure professionalism. *Am J Pharma Educ* 2006;70:1-6.
9. Hafeez K, Khan ML, Jawaid M, Haroon S. Academic misconduct among students in medical colleges of Karachi, Pakistan. *Pak J Med Sci* 2013; 29:699-702.
10. Imran N, Aftab MA, Haider II, Farhat A. Educating tomorrow's doctors: A cross sectional survey of emotional intelligence and empathy in medical students of Lahore. *Pak J Med Sci* 2013;29:710-4.
11. Imran N, Haider II, Jawaid M, Mazhar N. Health Ethics Education: Knowledge, attitudes and practice of healthcare ethics among interns and residents in Pakistan. *J Post Med Inst* 2014; 28:383-9.
12. Waheed G, Mengal MA, Shah SS A, Sheikh AW. Faculty and students' perception about aptitude of professionalism in admission process of medical college. *J Ayub Med Coll Abbottabad* 2011;23:166-9.
13. Shaikh A, Humayun N. Medical Ethics in Undergraduate Medical Education in Pakistan: Towards a Curricular Change [Online]. 2012 [Cited 2014 Aug 21]; Available from URL: cdn.intechopen.com/pdfs/31748.pdf
14. Bangash AS, Ali NF, Shehzad AH, Haqqi S. Maintenance of empathy levels among first and final year medical students: a cross sectional study. *F1000Res* 2003;2:157-64.
15. Shamim MS, Shamim MS. Medical Ethics: A slow but sustained revolution in Pakistan's healthcare. *J Pak Med Assoc* 2010; 60:706-7.

CONTRIBUTORS

SNB participated in planning of study, data analysis and manuscript writing. MA helped in data management. MJ supervised the study. All authors contributed significantly to the final manuscript.