

ORIGINAL ARTICLE

Evaluation of Medical Professionalism among the Students and Faculty Members of Public and Private Medical Colleges of Karachi, Pakistan a Comparative Study

FAREENA KHALIL AHMED¹, FAREEHA FAROOQ², SAHER MUSHTAQUE³, AHSAN MALIK⁴, HEBAH MUSHTAQUE⁵, RABIA AZHAR⁶

¹Associate Professor, Department of Physiology, Sir Syed College of Medical Sciences for Girl, Karachi

²Associate Professor, Department of Biochemistry, Islamic International Medical College/ Riphah International University, Islamabad, Pakistan

³Senior Lecturer, Department of Community Dentistry, Sir Syed College of Medical Sciences for Girls, Karachi

⁴Assistant Professor, Department of Medical Education, Foundation University College of Dentistry, Islamabad

⁵Clinical Manager, end TB Clinical Trial, Interactive Research and Development

⁶Assistant Professor, Department of Physiology, Islamic International Medical College/ Riphah International University, Islamabad, Pakistan
Corresponding author: Saher Mushtaque, Email: dr.saher83@gmail.com, Cell: 00923353611927

ABSTRACT

Background: Medical professionalism is an essential skill in medical education.

Objective: The aim of this study was to evaluate medical professionalism among first year, final year and faculty of public and private medical and dental colleges.

Material and Methods: A cross-sectional study was conducted among 184 medical students of private and public Medical and Dental Colleges, of Karachi from November 2021 till January 2022 after ethical approval. First, final year students and faculty were enrolled using non-probability convenience sampling. We used a validated self-assessment tool "LAMPS" after getting permission. This questionnaire consisted of Accountability (seven items), Autonomy (six items), Integrity, Altruism, and Respect had five items each. The data was analyzed using t-test by SPSS version-23. ($P \leq 0.05$) was considered significant.

Results: The students of Public college's undergraduate (first and final year; $p=0.00$) scored higher on Excellence (sub-scale of professionalism) while private sector students scored higher on altruism (first year $p=0.01$, final year; $p=0.00$) and respect (first year; $p=0.01$, final year $p=0.02$) respectively. Public sector faculty scored more on duty, honor, and respect ($p=0.02$, $p=0.00$ and $p=0.00$ respectively) while private medical college's faculty scored more on Excellence ($p= 0.00$).

Conclusion: The professionalism curriculum, teaching and assessment must be tailored to specific public and private sector to meet the needs of the community. The curriculum delivery and assessment of faculty development initiatives is essential to address the gaps of professionalism.

Keywords: Assessment, Dental students, Faculty, Medical students, Medical Professionalism

INTRODUCTION

The terminology "Professionalism" depends on patient welfare, patient autonomy and social justice by American College of Physicians and the European. In the field of medicine to define professionalism is not simple. There are various factors that are associated with professionalism such as ethical standards, core values, analyzing of behavior (1, 2). The last decade has witnessed there was an increased attention given to the idea of professionalism training in medical education. This was given due importance as the community seems dissatisfied by the health care services, which they receive from doctors. The trust which community demands from their doctors to attain certain professional attributes of knowledge, skills and attitudes to achieve satisfying patient physician relationship (3). The concept of professionalism has evolved from Hippocrates still today the understanding of set values, behaviors and relationships that defines the doctor patient trust with respect, responsibility and accountability (4). The professional attributes of excellence, compassion, altruism and integrity are certain types of skills that can be learned through standards of personal behavior and codes of practice (5). The moral contract between patient and physician ensures the dignity of medical professionals. There are various factors that are associated with

professionalism in shaping both students and faculty such as core values and ethical standards (6, 7). Professionalism in medical students is a multifactorial process encompassing individual values, beliefs and obligations to clinical and non-clinical experiences and their environmental factors. Professional Identity Formation (PIF) is a recent term in medical education that involves experiential learning of professional beliefs, values and behaviors into a pre-existent identity. The literature of different countries has reported their own experience of professionalism not only among the doctors but also other health care professionals (3). Seif et al. in Iran has shown that all the medical students should be taught professionalism (8). In India, Dhikaleet al. reported that medical students want to learn professionalism through small-group discussions involving narratives, case scenario, and role modeling by faculty (9). In Pakistan, research on professionalism has been documented in literature (10, 11). There are numbers of private and public colleges in the country where different graduates and faculty members are working in different work environments. A genuine research is required to generate local data to improve the attributes of professionalism among our students and faculty members of public and private sector. Therefore in this study, professionalism is

compared among the medical students of public and private medical and dental colleges along with their faculty.

METHODOLOGY

A cross-sectional study was conducted among different Medical and Dental Colleges, of Karachi from Nov 2021 till January 2022 after getting approval from the Ethical Board review. First and final year students were selected from medical colleges using non-probability convenience sampling. The main reason behind the selection of these two medical years were that first year students were new to this profession and were taken as a representative sample of pre-clinical years and final year students had more exposure to professionalism and were taken as a representative sample of clinical years. A minimum of 184 sample size was calculated using Open-Epi Software. Considering default prevalence of 50% at confidence level of 95% and bound of error of 5%. Hence the likert scale was used to record the responses on questionnaire. It was given to those students and faculty members who were

willing to participate in the study and incomplete forms were excluded from the study. A self-assessment tool validated in 2013 by M Al-Eraki named The Learner's Attitude of Medical Professionalism Scale (LAMPS) was used with permission (12). This questionnaire consisted of the following domains of professionalism such as Accountability of work which had seven items, Autonomy had six items, Integrity, Altruism, and Respect had five items.

Data analysis: The data was analyzed by using software SPSS version-23. Each domain was calculated and compared by using t-test. The comparison was made between the students and Faculty. Less than 0.05 P-value was considered as significant.

RESULTS

Total 184 participants were the part of the study out of which 114 were students and 70 were faculty members belonging to private and public sector. 68 were first year students and 46 were final year students.

Table 1: Socio-demographic data of First, Final year and Faculty members of the Medical and Dental Colleges

Variables	First Year (n=68)		Final Year (n= 46)		Faculty (n=70)	
	Public(n=34)	Private (n=34)	Public (n=23)	Private (n=23)	Public (n=35)	Private (n=35)
Age	18.0	19.0	24.20	25.0	48.9	54.6
Males	18(52.9%)	12(35.2%)	15(65.2%)	19(82.6%)	24(68.5%)	14(40%)
Females	16(47.0%)	22(64.7%)	8(34.7%)	4(17.3%)	11(31.4%)	21(60%)

Table 2: Comparison of Professionalism between Public and Private sectors of First year students of Medical and Dental colleges by using LAMPS Questionnaire

Domains of Professionalism	First Year (Mean±SD)		P-value
	Public	Private	
Duty/Accountability	2.66±1.23	2.88±1.44	0.621
Excellence/Autonomy	2.41±1.18	2.18±1.24	0.000*
Honor/Integrity	3.00±1.30	3.80±1.16	0.212
Altruism	2.10±1.16	2.82±1.30	0.001*
Respect	2.66±1.45	2.90±1.28	0.010*

Table 3: Comparison of Professionalism between Public and Private sectors of Final year of students of Medical and Dental colleges by using LAMPS Questionnaire

Categories	Final Year (Mean±SD)		P-value
	Public	Private	
Duty/Accountability	2.68±1.32	2.46±1.22	0.672
Excellence/Autonomy	2.61±1.18	2.11±1.09	0.000*
Honor/Integrity	2.91±1.28	2.32±1.36	0.259
Altruism	2.06±1.34	2.13±1.12	0.001*
Respect	2.78±1.42	2.98±1.65	0.020*

The response rate of first year was 81%, final year was 74% and faculty members were 72%. The domains of professionalism that were assessed were Duty/Accountability, Excellence/Autonomy, Honor/Integrity, Altruism and Respect. We found that students of public medical colleges scored more on the professional attribute of Excellence as compared to private schools with a significant p value (p= 0.00). The private first year medical and dental students scored more on altruism and respect

as compared to public school students with a significant value of p=0.00.

Table 4: Comparison of Professionalism between Faculty of Public and Private Medical and Dental colleges by using LAMPS Questionnaire

Categories	Faculty members (Mean±SD)		P-value
	Public	Private	
Duty/Accountability	2.68±1.24	2.12±1.42	0.026*
Excellence/Autonomy	2.14±1.10	2.32±1.21	0.008*
Honor/Integrity	3.20±1.20	2.14±1.03	0.001*
Altruism	2.80±1.28	2.15±1.11	0.423
Respect	2.98±1.52	2.31±1.32	0.000*

DISCUSSION

This study suggests that the idea of professionalism is different among students and faculty members of public and private medical and dental institutes. Hence, excellence was considered as one of the significant attribute of professionalism among first and final year students of public medical and dental college as compared to private medical and dental undergraduates. Rasul S et al. have reported a significant difference among the attitudes of the First and Final Year students in the domains of Excellence/Autonomy and Altruism (13). The reason for this finding could be that freshmen in our public medical colleges are one of the high achiever's. Only those students from the country were selected who had high merit in their secondary, higher secondary and entry test MDCAT result. Excellence therefore comes as their habit. The admission criteria of private medical and dental colleges were less than public merit. Even than most of

students seek admission in public sector on the basis of self-finance seat. This probably was the main reason for not score well on excellence. The students of first and final year of private medical and dental institute's scored more on altruism and respect than public colleges. Al Gahtaniet al. reported higher scores of Excellence among the medical students as compared to faculty and residents(14). Respect of patient's values, language, and socioeconomic status along with nationality was assessed in the given items of questionnaire. Two items assessed the respect for colleagues and other health care professionals in the team. The idea of respect was completely different in public and private sectors due to difference in working environment and culture. The public sector has inadequate funds and manpower to cater the masses as compared to private sector where patients enjoy better treatment, care and facilities due to better affordability. The medical students of private medical and dental colleges follow the attributes of professionalism in a better way as they see their seniors in their day-to-day practice. Our results are contrary to the findings of Suzan et al. who found higher scores of altruism and excellence among the second year as compared to final year students. The reason could be the stress of clinical rotations of final year students which was not seen among the students of preclinical years(15). In order to understand these differences, various dynamics of medical education need to be reviewed which are continuously evolving over the time. Pakistan is a developing country with diverse cultural norms and social taboos which has left a deep impact on professionalism (16). Within this culture every institute has its own workplace ethics (17). The framework of medicine academic comprises of faculty, clinicians, students, residents and all other health care professionals contributing to this workplace culture. This study was aimed to assess how the attributes of professionalism were self-reported differently in public and private sectors as they both represent different work cultures. Even if the curriculum is same, there are many other factors such as hidden institutional vision and mission which in turn affects the learning and growth environment leading to poor patient-doctor relationship (18). Various unethical practices due to unprofessional behaviors and decisions create mistrust among the masses. Hence, strengthening the institution of professionalism through a focused curriculum, will surely improve ethical practices and conduct of doctors throughout the country. Wahid et al. conducted a qualitative study in Indonesia and suggests that religion, culture, family values, societal beliefs shape professionalism in medical teachers of both basic and clinical sciences in a non-western culture (19). The public sector faculty has scored more in duty, honor, and respect. It shows that academic integrity was being practiced among public medical and dental colleges. Our findings further suggests that excellence was a significant domain among the faculty members of private sector due to more finances they are able to invest on facilities, infrastructure, manpower and faculty development initiatives. They also invest more on collaborative conferences which guarantees more faculty engagement leading to excellence. They also hire excellent leaders who can offer strategic vision in leadership along with feedback mechanism and robust annual appraisals for faculty so that the performances of

faculty members can be gauged and appropriate incentives can help in increasing their productivity and motivation (20). The faculty plays a pivot role as they are not only involved in teaching core values of professionalism but also help in developing professionalism among the students. Hence, their duly promotions, incentive payments and a facilitative environment are factors which may play a major role in their professionalism. For this purpose counseling session should be conducted in all colleges to inculcate professionalism. Wellness programs for faculty and students can be implemented to improve lifestyle of busy professionals, honesty, integrity and mental health of all stakeholders. The delivery of professionalism curriculum and assessment of professionalism needs special attention as assessment drives learning (21). The main limitation of this study was reporting of data from single city. These factors in public and private sectors need further explorations using a larger sample size and including other colleges of the country. Further longitudinal and qualitative studies can be planned to understand and implement professionalism by academia fraternity and regulatory authorities.

CONCLUSION

The results of the study revealed that excellence was a significant attribute of professionalism among first and final year students of public sector whereas altruism and respect were significant attributes among the students of private medical and dental undergraduates in respective years. For private faculty members excellence was considered a significant domain while for public sector faculty honor and integrity and respect were found to be significant. Since all domains of professionalism are important, these gaps need to be addressed through training of faculty members, clinicians and students of both undergraduate and postgraduate level by implementing professionalism curriculum and its assessment.

REFERENCES

1. Thistlethwaite J, Spencer J. Professionalism in medicine. CRC Press; 2018 Oct 8
2. Alexis DA, Kearney MD, Williams JC, Xu C, Higginbotham EJ, Aysola J. Assessment of Perceptions of Professionalism Among Faculty, Trainees, Staff, and Students in a Large University-Based Health System. *JAMA network open*. 2020 Nov 2;3(11):e2021452
3. Olive KE, Abercrombie CL. Developing a Physician's Professional Identity Through Medical Education. *Am J Med Sci*. 2017 Feb;353(2):101-108. doi: 10.1016/j.amjms.2016.10.012. Epub 2016 Nov 2. PMID: 28183408.
4. Forouzadeh M, Kiani M, Bazmi S. Professionalism and its role in the formation of medical professional identity. *Med J Islam Republic Iran*. 2018 Dec 26;32:130. doi: 10.14196/mjiri.32.130. PMID: 30815425; PMCID: PMC6387805.
5. Conran RM, Powell SZ, Domen RE, McCloskey CB, Brissette MD, Cohen DA, Dixon LR, George MR, Gratzinger DA, Post MD, Roberts CA, Rojiani AM, Timmons CF Jr, Johnson K, Hoffman RD. Development of Professionalism in Graduate Medical Education: A Case-Based Educational Approach From the College of American Pathologists' Graduate Medical Education Committee. *Acad Pathol*. 2018 Jun 26;5:2374289518773493. doi:

- 10.1177/2374289518773493. PMID: 30014035; PMCID: PMC6039899.
6. Mahajan R, Arulidhas BW, Sharma M, Badyal DK, Singh T. Professionalism and ethics: A proposed curriculum for undergraduates. *Int J Appl Basic Med Res.* 2016 Jul-Sep;6(3):157-63. doi: 10.4103/2229-516X.186963. PMID: 27563578; PMCID: PMC4979294.
 7. Ageiz MH, Elshrief HA, Bakeer HM. Developing a Professionalism Manual for Nurse Managers to Improve Their Perception Regarding Professionalism and Professional Identity. *SAGE Open Nurs.* 2021 Jun 21;7:23779608211026174. doi: 10.1177/23779608211026174. PMID: 34222656; PMCID: PMC8221667.
 8. Seif-Farshad M, Bazmi S, Amiri F, Fattahi F, Kiani M. Knowledge of medical professionalism in medical students and physicians at ShahidBeheshti University of Medical Sciences and affiliated hospitals-Iran. *Medicine (Baltimore).* 2016 Nov;95(45):e5380. doi: 10.1097/MD.0000000000005380. PMID: 27828869; PMCID: PMC5106075.
 9. Dhikale PT, Shrivastava SR, Srinivasan S. Perspectives about Professionalism among Undergraduate Students in a Medical College in India: A Qualitative Study. *Indian J Community Med.* 2020 Apr-Jun;45(2):230-234. doi: 10.4103/ijcm.IJCM_238_19. Epub 2020 Jun 2. PMID: 32905183; PMCID: PMC7467191.
 10. Jalil A, Mahmood QK, Fischer F. Young medical doctors' perspectives on professionalism: a qualitative study conducted in public hospitals in Pakistan. *BMC Health Serv Res.* 2020 Sep 10;20(1):847. doi: 10.1186/s12913-020-05681-w. PMID: 32912271; PMCID: PMC7488058.
 11. Sattar K, Akram A, Ahmad T, Bashir U. Professionalism development of undergraduate medical students: Effect of time and transition. *Medicine (Baltimore).* 2021 Mar 5;100(9):e23580. doi: 10.1097/MD.00000000000023580. PMID: 33655905; PMCID: PMC7939229.
 12. Al-Eraky, Mohamed M et al. "Medical professionalism: development and validation of the Arabian LAMPS." *Medical teacher* vol. 35 Suppl 1 (2013): S56-62. doi:10.3109/0142159X.2013.765553
 13. Rasul S, Zahid Bashir M, Saleem S, Tahir S, Rasheed A, Ali Sabir M. Assessment of Medical Professionalism among Students and Faculty Members of Shalamar Medical and Dental College, Lahore. *J Adv Med Educ Prof.* 2021 Oct;9(4):204-210. doi: 10.30476/JAMP.2021.88433.1342. PMID: 34692858; PMCID: PMC8521216.
 14. Al Gahtani HMS, Jahrami HA, Silverman HJ. Perceptions of medical students towards the practice of professionalism at the Arabian Gulf University. *BMC Med Educ.* 2021 Jan 8;21(1):38. doi: 10.1186/s12909-020-02464-z. PMID: 33419419; PMCID: PMC7792125.
 15. AlKhater SA. Perception of Saudi Undergraduate Students Towards Professionalism in Medicine. *Sultan Qaboos Univ Med J.* 2021 Aug;21(3):378-385. doi: 10.18295/squmj.4.2021.019. Epub 2021 Aug 29. PMID: 34522402; PMCID: PMC8407911.
 16. Siddiqui F, Malik AA. Medical Professionalism and culturally sensitive issues: Thinking ahead for the future medical graduates. *J Pak Med Assoc.* 2022 Jan;72(1):141-145. doi: 10.47391/JPMA.150. PMID: 35099453.
 17. Bolton J. Professionalism, Organizationalism and Sur-moralism: Three ethical systems for physicians. *Med Health Care Philos.* 2022 Mar;25(1):153-159. doi: 10.1007/s11019-021-10061-0. Epub 2021 Nov 20. PMID: 34800233.
 18. Ludwig B, Turk B, Seitz T, Klaus I, Löffler-Stastka H. The search for attitude-a hidden curriculum assessment from a central European perspective. *Wien KlinWochenschr.* 2018 Feb;130(3-4):134-140. doi: 10.1007/s00508-018-1312-5. Epub 2018 Jan 22. PMID: 29356896; PMCID: PMC5816099.
 19. Wahid MH, Findyartini A, Soemantri D, Mustika R, Felaza E, Steinert Y, Samarasekera DD, Greviana N, Hidayah RN, Khoiriyah U, Soeselo DA. Professional identity formation of medical teachers in a non-Western setting. *Med Teach.* 2021 Aug;43(8):868-873. doi: 10.1080/0142159X.2021.1922657. Epub 2021 May 14. PMID: 33989110.
 20. Bashir A, McTaggart IJ. Importance of faculty role modelling for teaching professionalism to medical students: Individual versus institutional responsibility. *J Taibah Univ Med Sci.* 2021 Jul 26;17(1):112-119. doi: 10.1016/j.jtumed.2021.06.009. PMID: 35140573; PMCID: PMC8802861.
 21. Page M, Crampton P, Viney R, Rich A, Griffin A. Teaching medical professionalism: a qualitative exploration of persuasive communication as an educational strategy. *BMC Med Educ.* 2020 Mar 17;20(1):74. doi: 10.1186/s12909-020-1993-0. PMID: 32178669; PMCID: PMC7077012.