

Assessing Professionalism among First year Medical Students through Professionalism Assessment Tool (PAT)

Nabiha Farasat^{1*}, Muhammad Saeed¹, Ruksana Majid²

¹Bolan Medical College, Quetta, Pakistan

²Quetta Institute of Medical Sciences, Quetta, Pakistan

*Corresponding Author

Nabiha Farasat
nabihasaeed@hotmail.com

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Abstract

Objective: To assess the professional level among 1st year MBBS students of Bolan Medical College, Quetta.

Methodology: A descriptive cross-sectional study was carried at Bolan Medical College Quetta from September to November, 2022. All 200 medical students of 1st year MBBS were invited to participate in the study. A validated Professional Assessment Tool (PAT) was distributed by 3 senior demonstrators during lectures. The PAT contained 33 items within five domains: (1) Reliability and Responsibility, (2) Life-long Learning and Adaptability, (3) Relationships with Others (4) Upholding Principles of Integrity and Respect, and (5) Citizenship and Professional Engagement. Results were prepared by using SPSS version 29. Frequencies and percentages were calculated. A p-value<0.05 was considered as significant.

Results: Twenty four out of 200 students were consistently absent at the time of data collection (99% response rate). Fifty one percent were females (n=102/200). Seventy out of 200 students (35%) were 20 years of age. Thirty four percent (68/200) demonstrated only the basic level of critical thinking and only 10 students (5%) demonstrated the higher cognitive level. Overall, statistically significant results were observed at items number 3 and 1 (p<.01) of domain 3 and 4 respectively (empathizing to the situations of others and actively and productively participating in the profession respectively)

Conclusion: Students of 1st year MBBS demonstrate positive attitude towards professionalism.

Keywords: Medical Students, Assessment, 1st Year, Professionalism level

Introduction

In medicine, professionalism forms a bridge between doctor and the patient. World Federation for Medical Education (WFME) declared “Professionalism” as an emerging element that is a mixture of implicit moral commitment and explicit behaviors.¹ It squeezes qualities of perfection, humanism, liability, and generosity that depend on clinical aptitude, communication abilities, ethical and legal knowledge.^{2,3} Professionalism stretches a continuum between person's attributes, capacities and behaviors to the macro-societal level, which encompasses political objectives, moral principles and economic imperatives.⁴ Keeping in perspective the apparent change in healthcare system, conflict of interest regarding commercialism and its effect on doctor's practice, worries arise from an ever-increasing medico-legal disputes. These disputes are the main factor that makes physicians and clinicians anxious in their clinical practices.⁵

Professional doctors demonstrate competency in performance, ethics, professional codes and identity, commitment to excellence etc.^{3,4,6,7,8} Literature search demonstrate a lot of importance to professionalism in western world countries, and countries like Saudi Arabia also essentially assess level of medical students' professionalism.^{1,6,9,10, 11} On the other hand, in Pakistan, though work has been carried out in this context, yet none of these researchers assess level of professionalism among undergraduate medical students.^{7,8,12,13} Therefore, the aim of current study is to assess the level of professionalism from the very start of their career. First year MBBS students were assessed through Professionalism Assessment Tool (PAT). It provided us information about missing data of professionalism among 1st year medical students of Bolan Medical College, Quetta and assisted in making strategies to take steps to enhance professionalism among undergraduate medical students.

Methodology

It was a descriptive, quantitative cross-sectional study carried out in 1st year MBBS students of Bolan Medical College, Quetta, Baluchistan, Pakistan. After taking permission of the faculty member of the concerned subject, and by using simple convenient sampling strategy data was collected between the months of September November, 2022. All (n=200) MBBS students of 1st year were included in the study. Ethical approval was taken from Bolan University of Medical & Health Sciences (IRB No. 0028/BUMHS/IRB/23; Dated 29.10.23.)

To check the validity of questionnaire among Pakistani population, a pilot study was carried out on 28 MBBS students of 1st year, the Reliability coefficient (Cronbach's alpha) was 0.847. A pre-formulated and validated students self-rating instrument Professionalism Assessment Tool (PAT) developed by Kelly in 2011 was utilized.¹⁰ Confidentiality was confirmed through obtaining informed consent from participants, utilizing appropriate data collection methods, securely storing data, ethically using data, and disposing of data safely. All medical students from 1st year were included whereas students from 2nd, 3rd and 4th and final year were excluded from this research

project. Demographic data including age, gender, professional year, medical experience, other degrees (O level, A level, BSc, MSc etc.) of medical students was collected. The PAT contained 33 items within five domains; (1) Reliability and Responsibility, (2) Life-long Learning and Adaptability, (3) Relationships with Others (4) Upholding Principles of Integrity and Respect, and (5) Citizenship and Professional Engagement. Each domain assesses a specific number of related variables using the Miller's Performance Level Label (knows, knows how, shows, shows how, and teaches how). This Likert scale was weighted from 1 to 5 (1=knows, 2=know how, 3=shows, 4= shows how, 5=teaches how) each performance level label of the rating system was aligned with a modification of Miller's Framework for Clinical Assessment. SPSS version 29 was utilized to analyze the data. A p-value 0.05 considered significant.

Results

There were 200 students in 1st year medicine, out of which 51% were females (n=102/200). Demographic details are represented in Table 1.

Table 1: presenting demographic view

Sr. No.	Gender wise distribution of present students	Total students present	%
1	Girls	102	51
2	Boys	98	49
Gender wise distribution of absent students			
1	Girls	16	8
2	Boys	8	4
Age wise distribution of students			
1	20 years	70	35
2	>20 years	54	27
3	19 years	26	13
Level of thinking			
1	Critical thinkers	68	34
2	Higher cognitive level	10	5

Table 2: Age and gender wise correlation between items

Sr. No.	Gender wise comparison with Domain i.e., Reliability, Responsibility and Accountability	
	Items	p-value
Correlation between age and Domain 3 i.e., Relationships with Others		
1	Establish rapport	<.001
2	Empathizing to the situations of others	>.001
Age and Domain 4 i.e., Validate Principles of Integrity and Respect		
3	Use of professional language and being mindful of the environment	<.001
4	Dress up in a professional manner	<.001
Crosstab results of age and Domain 5. Citizenship and Professional Engagement		
5	Actively and productively participating in the profession	.001

6	Serve society by using society using expertise to solve problems	.002
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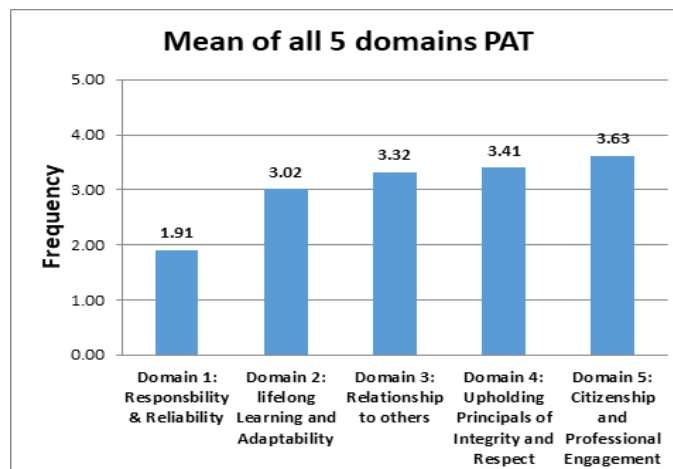


Figure 1: Mean of all 5 domains PAT

Discussion

In the current study, comparing gender and age with items demonstrated statistically significant results ($p < .001$), obtained from Domain 3; item no. 3.1, Domain 4; item no. 4.5 and 4.7 respectively (establish rapport, use professional language and being mindful of the environment and dress up in a professional manner respectively). There were significant results ($p < .05$) observed at Items No. 3.4 and 5.1 from Domain 3 and 5 "empathizing to the situations of others," Actively and productively participating in the profession respectively"

Doctors are supposed to demonstrate harmonious relationship with patients.¹⁴ A professional doctor satisfies patients not only by providing effective treatment but also through his/her attitude. Patient's first visit in hospital/clinic is very critical, and relation between doctor-patient depends upon attitude and behavior of doctor/clinician. Doctor's good attitude with patient helps in providing high quality health care experiences, moreover, doctor's satisfactory behavior reduces the anxiety of patient.¹⁵ Study participants of current study were cognizance of effective rapport.³ We observed very highly significant results at items discussed below including good rapport, using professional language and wearing professional dress. Competent professional doctor by developing good rapport ($p < .001$) provides effective treatment and satisfies patients with his/her attitude. Students of Bolan Medical College, Quetta were cognizant about the impact of effective rapport. High statistically significant results of current study of this item demonstrated that medical students are familiar about the importance of friendly relationship with patients. Study conducted by Dang BN recognizes patient's anxiety reduces if doctors build trust in 1st visit.¹⁵ Doctor's behavior, communication skills and providing reassurance not only mitigate anxiety but also ameliorate quality of life by improving their overall health care experience.¹⁵ There may be severe unpleasant issues (i.e., physical harm, obstetric trauma, medication errors, communication barriers, minimal health education, and limited medical comprehension) recognized if patient and doctor presents language-discordant care.

On the other hand, if language-clash care has been associated between doctor and patient it will ameliorate patient satisfaction, approach to health care facilities. Additionally, language-clash career in forces the curative bond between the doctor and patient. In US 66% medical colleges provides different language courses for smooth flow of patient-doctor communication.¹⁶ The results of current study participants of 1st year MBBS express cognizance about communication power ($p < .001$) Undergraduate students of Bolan Medical College, Quetta college interact and experiences with cultural diversity during training.

Doctor wearing professional dress are supposed to demonstrate positive attitude, should be proficient in language to satisfy patients and relatives. Clothing gives one's personal identity and wearing white coat symbolize status and group identity. Patients psychologically trust doctors due to their white coat. Current study explained professional behavior of 1st Year MBBS towards patients. Students of Bolan Medical College Quetta were aware of this norm ($p < .001$) and appreciate professional dress code that gives them respect,¹⁷ makes them distinguishable from non-professionals (patients, relatives, staff). Study conducted by Jabbal and Porter confirms patient preference white coat, induce highest trust and confidence on doctor.¹⁸ Being professional they incorporate norms and values of medical community. In a study conducted by Byram in (2017), it was observed patients trust junior students,¹⁹ because of the white coat they wear. The reason is white coat they wear that's why patients ask them to treat them.¹⁶

Researchers describe empathy as an adaptive orienting system that facilitates social interactions. Internally motivated doctors demonstrate empathy and care for patient's healthcare.²⁰ The recognize patient's emotions. Furthermore, they consciously understand patients thinking and feelings resulting in improvement in clinical results.²¹ Students of current study were internally motivated and demonstrated high degree of empathy with patients ($p < .001$). It may be due the fact that they didn't have overloaded work pressure, and were fresh students from 1st year.²²

Students of 1st year are keen to join extra-curricular activities as they respond positively with the item actively participate in the profession and empathizing others situations ($p < .001$) The researchers realized that this domain was rated by those students who met through co-curricular involvement and were members of student organizations significantly increased their total score compared to those who were not members of student organizations.²³

It was the first study to check professionalism in 1st year MBBS students in Pakistani population through Professional Assessment Tool (PAT). Assessing professionalism of students having no training or teaching of professionalism previously might restrain the validity of the study. If this study would be conducted on senior students of MBBS who already have got some type of training during MBBS teaching and learning might make this study more valid & contextually appropriate. Longitudinal studies needed to be carried out to assess changes in professional level with increasing cognitive level. There may be bias in data

collection and/or answering the questions.

Conclusion

First year medical students are demonstrating professional behavior. As they are juniors and don't have direct contact with patients so are unaware about the importance of many of items of the questionnaire. However, they gave positive response to those items that were linked with their 1st year professional life. They were aware of wearing professional dress and using professional language that heightened impact on patient satisfaction. They were motivated and felt empathy to work with their full energy for the betterment of the sick community.

Authors' Contribution: NF conceived idea, manuscript writing. MS performed methodology and data analysis. RM did critical review of literature.

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Supplementary Material: <https://docs.google.com/document/d/1SpigTaZpmW9V47bbVw4P4EatfZ7sRHDl/edit>

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