

Original Article

Perception of Students towards the Climate of Professionalism in the Dental Colleges of the Twin Cities in Pakistan

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ABSTRACT

Background: Professionalism in dental education is crucial for ensuring high-quality patient care and maintaining ethical standards in the healthcare sector. Understanding the perception of professionalism among dental students, residents, and faculty is essential for shaping effective educational strategies in dental colleges.

Objective: This study aimed to assess the perceptions of professionalism among dental students, residents, and faculty in the Twin Cities of Islamabad and Rawalpindi, Pakistan, and to evaluate the impact of educational strategies on these perceptions.

Methods: A cross-sectional cohort, questionnaire-based study was conducted involving third and fourth-year dental students from ten dental colleges in the Twin Cities. The questionnaire, adapted from Quaintance et al., comprised two parts: the first assessing professional and unprofessional behaviors in clinical settings, and the second evaluating faculty's teaching of professionalism. The responses were scored and analyzed using SPSS version 25, with the mean scores compared using independent T-tests.

Results: The study involved 611 dental students. Results indicated varied perceptions of professionalism among students, residents, and faculty. Key findings include dental students rating respect and compassion highest (58.1% 'Mostly'), and a noticeable trend of students viewing their peers as less professional compared to residents and faculty. The overall professionalism scores averaged around 70% for both third and fourth-year students. Faculty were positively rated for their professionalism, with over 50% of participants acknowledging their role modeling effectively.

Conclusion: The study highlights a generally positive perception of professionalism within dental colleges in the Twin Cities, with an emphasis on the influential role of faculty in shaping professional attitudes. The findings suggest the need for continued focus on faculty-led initiatives and curriculum enhancement to foster a culture of professionalism.

Keywords: Professionalism, Dental Education, Dental Students, Faculty, Twin Cities, Pakistan.

INTRODUCTION

Professionalism is a critical aspect of healthcare education, especially in dentistry, where maintaining ethical standards, communication skills, and patient-centered care is essential. The climate of professionalism within dental colleges greatly influences the development of future dental professionals, shaping their attitudes, behaviors, and dedication to the profession (1, 2, 3). Clinical excellence in medicine is deeply linked to personal values like altruism, empathy, respect for human life, and integrity (4). The construction of an inappropriate professional identity among doctors poses a significant risk to ethical medical practice and overall healthcare quality.

Various aspects of professionalism in dental education have been explored in several dental journals. A study by Smith et al. (2019) delved into dental students' perceptions of professionalism, identifying key factors such as role modeling, mentorship, and ethical education in shaping professional attitudes (5). Alcota et al. (2023) examined the impact of the professional climate on dental students' motivation and engagement, finding a positive correlation between a professional atmosphere and increased student satisfaction, motivation, and commitment to the profession (6). Al Ghatani et al. (2021) reported a professionalism score of only 60%, suggesting lower concern for professionalism in regions like the Middle East compared to the United States, Pakistan, and Chile,

possibly due to inadequate implementation of professionalism in dental curricula, as indicated by consistent results across all study years (1).

The role of dental practitioners in addressing oral health disparities and promoting general well-being has gained increasing attention (7). As dentistry evolves to include not just clinical competence but also cultural competency, patient-centered care, and ethical awareness, understanding student perceptions of professionalism becomes even more critical. In the Twin Cities of Pakistan, with their diverse population and complex societal dynamics, dental colleges play a vital role in training competent dental practitioners who uphold professionalism. By exploring and understanding students' perceptions towards the climate of professionalism in these institutions, dental colleges can adapt their strategies to foster a culture of professionalism, thereby enhancing patient care outcomes and meeting the changing needs of the profession and the communities it serves (8, 9). This study aims to address the gap in research on the perception of students towards the climate of professionalism in dental colleges of the Twin Cities in Pakistan, assessing how dental students view professionalism in these institutions to ensure the promotion of a professional attitude among patients and peers.

MATERIAL AND METHODS

This study employed a cross-sectional cohort, questionnaire-based design to evaluate the perceptions of dental students towards the climate of professionalism in the Twin Cities of Islamabad and Rawalpindi. Participants were exclusively third and fourth-year students, chosen based on their exposure to clinical working conditions in the ten dental colleges of the region. Excluded from the study were students who declined participation and those from junior years.

The ten dental teaching institutions in the Twin Cities, known for maintaining educational standards and providing adequate patient interaction opportunities for student learning, were included in this study. These institutions were Foundation University of College of Dentistry, Margalla Institute of Health Sciences, Army Medical and Dental College, HBS Medical and Dental College, Shifa College of Dentistry, Islamic International Dental College, Watim Medical and Dental College, School of Dentistry at PIMS, Islamabad Medical and Dental College, and Rawal Institute of Health Sciences. In the preclinical years, students are mandated to attend professional ethics classes led by senior faculty members, where the main principles and values of professionalism are discussed.

The primary tool for data collection was a questionnaire, adapted and previously piloted by Quaintance et al. (10), designed to assess medical students' perceptions of the climate of professionalism in clinical settings. This questionnaire comprises two sections. The first part requires students to rate the frequency of 11 different professional and unprofessional behaviors observed in the clinical environment among medical students, residents, and faculty. The responses, 'rarely', 'sometimes', and 'mostly', were scored as "1", "2", and "3", respectively. The second part asks students to rate how frequently their professors/supervisors modeled 10 different professional behaviors over the past year, using the same response choices. The questionnaire contains 66 items, designed to be concise yet comprehensive. The first half of the questionnaire allowed for a maximum score of 99, and the second half had a maximum score of 30.

Data collection was conducted both in person and through online forms, ensuring participant anonymity. Demographic information collected included age, year of study, and college name. Verbal consent was obtained prior to participation. This study received approval from the Ethics Review Committee, Research and Academic Subcommittee (ER-RASC) under reference number DK/171/22. All data were entered into the Statistical Package for Social Services (SPSS) software, version 25. The analysis involved tabulating the mean age of students, percentages of third and fourth-year students, gender distribution, and percentages of responses for all 66 questionnaire items. Descriptive analysis was performed on these data sets. Additionally, total response scores for each participant were compiled and analyzed. The scores of the two student groups, based on their year of study, were compared using an independent T-test. Statistical significance was established at a p-value of less than 0.05.

RESULTS

The study results, enriched with numerical values and cross-referenced to the respective tables, are detailed as follows:

The participants' evaluations of professional behavior exhibited by dental students, residents, and faculty are comprehensively presented in Table 1. Among dental students, the highest incidence of 'Mostly' showing respect and compassion was observed (58.1%), followed by advocating for well-being (53.4%). However, a considerable percentage of students were noted to 'Rarely' show disrespect to others (57.8%). In contrast, residents most frequently 'Sometimes' exceeded expectations in patient care, classroom, conferences, and rounds (58.1%), with a notable 62.4% 'Sometimes' ignoring unprofessional behavior of others. Faculty members were observed to 'Mostly' advocate for well-being (47.3%) and show respect and compassion (45.8%), yet a significant 49.3% were reported to 'Rarely' reveal the whole truth or write false statements.

The mean scores of participants’ ratings of professional behaviors, as depicted in Table 2, highlight interesting trends. Dental students in their third year had a higher mean score (24.25±3.12) compared to fourth-year students (23.40±3.17), with the difference being statistically significant (p = 0.001). Similar trends were observed among residents and faculty, with third-year residents scoring 23.77±3.06 and fourth-year residents 23.10±2.85 (p = 0.006), and faculty scoring 24.01±3.55 in the third year and 23.48±3.29 in the fourth year (p = 0.058), indicating a slight decrease in perceived professionalism with advancement in training.

Participants' ratings of faculty regarding professionalism, detailed in Table 3, reveal that a high percentage of faculty (73.3%) 'Mostly' acted professionally with patients, students, colleagues, and staff. Additionally, 63% of the participants observed that faculty 'Mostly' taught about professionalism. However, only 36.7% noted that faculty 'Mostly' enforced expectations of professional behavior, suggesting a gap in the application of stated professional standards.

Table 1 Participants’ Ratings of Professional Behavior Exhibited by Dental Students, Residents, and Faculty

Professionalism Behavior	Dental Students (%)			Residents (%)			Faculty (%)		
	Mostly	Sometimes	Rarely	Mostly	Sometimes	Rarely	Mostly	Sometimes	Rarely
Show disrespect to others	9.8	32.4	57.8	8.7	47.3	44	17.2	37.6	45.2
Advocate for well-being	53.4	38.8	7.9	41.9	47.8	10.3	47.3	39.9	12.8
Make themselves look good at the expense of others	19	42.1	39	16.7	48.6	34.7	20.6	38	41.4
Exceed expectations in patient care, class, conferences, rounds	26.2	56.5	17.3	21.9	58.1	20	29	51.6	19.5
Finish their work and help others	39.9	44.2	15.9	27	55.6	17.3	35.8	40.3	23.9
Complain about professional obligations	33.2	42.2	24.5	21.9	52.9	25.2	17.7	51.1	31.1
Not reveal the whole truth, write false statements	19.5	36	44.5	15.5	47.6	36.8	16.2	34.5	49.3
Show respect and compassion	58.1	32.9	9	41.4	47.1	11.5	45.8	43.4	10.8
Hide medical mistakes	30.3	48.3	21.4	17.8	59.1	23.1	24.2	44.4	31.4
Ignore unprofessional behavior of others	27.2	46.5	26.4	13.3	62.4	24.4	18.5	43	38.5
Do just enough in patient care, class, conferences, rounds	30.6	53.8	15.5	19.1	58.4	22.4	23.9	48	28.2

Table 2 Mean Scores of Participants’ Ratings of Professional Behaviors of Medical Students, Residents, and Faculty

Group	3rd Year Mean±SD	4th Year Mean±SD	P value
Dental Students	24.25±3.12	23.40±3.17	0.001
Residents	23.77±3.06	23.10±2.85	0.006
Faculty	24.01±3.55	23.48±3.29	0.058

Table 3 Participants' Ratings of Faculty Regarding Professionalism

Professionalism Teaching Behaviors	Mostly (%)	Sometimes (%)	Rarely (%)
Acts professionally with patients, students, colleagues, and staff	73.3	23.4	3.3
Teaches about professionalism	63	31.9	5.1
Discusses professionalism and shortcomings productively and sensitively	46.6	38.3	15.1
Creates a warm and respectful environment with students	45	41.4	13.6
Is a good role model of professionalism	47	43.2	9.8
Sets clear expectations for professional behavior	53	41.1	5.9
Enforces those expectations	36.7	50.9	12.4
Describes how to relate to patients in difficult situations	51.4	37.5	11.1
Demonstrates how to relate to patients in difficult situations	40.3	49.1	10.6
Solicits student feedback after demonstrating patient interaction	41.9	39.3	18.8

Overall, these results offer a nuanced understanding of the perception of professionalism among different groups within dental colleges. They underscore the variability in professional behaviors as perceived by students, the influence of the year of study on these perceptions, and the critical role faculty play in modeling and enforcing professional standards.

DISCUSSION

The study's exploration into the realms of professionalism within dental education in the Twin Cities of Rawalpindi and Islamabad, Pakistan, brought to light significant insights, particularly in understanding how patients are treated both on a personal and clinical level, which directly impacts their confidence in their dentists and their decisions regarding continued care (11). Aligning with the General Dental Council's (GDC) nine principles that define professionalism in dentistry (12), the study incorporated both organizational and personal aspects, including effective complaints procedures, patient record maintenance, patient-first approach, effective communication, and honesty.

The findings, derived from a comprehensive questionnaire distributed among 611 dental students, revealed nuanced perspectives of professionalism. This study provided a platform for future dental professionals to reflect on their own and their seniors' professional conduct. The findings revealed that dental students tended to view their peers as less professional compared to postgraduate residents and senior faculty members. This perception correlates with the findings of Quaintance et al. (10) where preclinical students rated the professionalism of faculty higher than their own. Contrasting this, a study in Tehran reported students placing greater trust in the professionalism of their peers than in their senior residents and faculty (14).

The behavioral assessments showed that unprofessional behaviors were not predominantly observed, with many categories scoring between 20% to 30% for the 'mostly' option. This is encouraging as it suggests a low prevalence of unethical practices, aligning with findings from a Malaysian study on medical unprofessionalism (15). The overall professionalism scores, averaging around 70% for both third and fourth-year students, were commendable, comparing favorably with results from the Arabian Gulf University and a family medicine program in Qatar, which stood around 60% and 70% respectively (1, 16). Studies from the Western hemisphere reported even higher professionalism scores (10, 17), suggesting possible regional variations in the perception and implementation of professionalism.

The study also highlighted the pivotal role of senior faculty in shaping students' professional attitudes. Over 50% of participants positively rated their faculty's professionalism, with the average scores hovering around 80%, indicating a strong influence of faculty on students' professional development. This is consistent with findings from the University of Ottawa and the research by Adkoli et al. (19, 20), emphasizing the importance of role models and curriculum in fostering professionalism.

However, the study is not without its limitations. The absence of a comprehensive understanding of the participants' grasp of professionalism modules during their early years and the effectiveness of those lectures/workshops is a significant gap. Additionally, the study's focus on dental institutions in Rawalpindi and Islamabad might not represent the national trend across Pakistan. The self-assessment approach employed could have been complemented by evaluations from senior faculty members for a more holistic view. Recommendations for future research include employing the ABIM constructs of professionalism for a more nuanced analysis and encouraging self-assessment among faculty members. Moreover, there's an opportunity to delve deeper into the curriculum, exploring how it can be enhanced to better instill professionalism among dental students.

In conclusion, the study underscores the complexity and multifaceted nature of professionalism in dental education. It highlights the importance of both personal attitudes and institutional policies in shaping professional behaviors, alongside the critical influence of

faculty as role models. With these insights, dental colleges can better tailor their educational strategies and foster a culture of professionalism that not only meets the evolving needs of the profession but also serves the communities more effectively.

CONCLUSION

In conclusion, this study underscores the multifaceted nature of professionalism within dental education in the Twin Cities of Pakistan, revealing a general trend of positive professional attitudes and behaviors among dental students, residents, and faculty. The findings highlight the significant role of senior faculty as role models and the importance of incorporating professionalism in the dental curriculum. While the results are encouraging, they also suggest areas for improvement, particularly in enhancing faculty-led initiatives and curriculum development to further instill professional values. This study, while focused on a specific region, offers valuable insights that can inform broader educational strategies in dental colleges, aiming to cultivate a culture of professionalism that aligns with the evolving demands of the healthcare sector and serves the community more effectively.

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