

# Dental professionalism: perceptions of undergraduate students

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## Abstract

**Introduction** Dental Professionalism is a culture sensitive theme. Using sanctions based on severity of lapses in professionalism is useful to enhance academic professionalism among undergraduate dental students. This study aims to explore the perceptions of undergraduate dental students regarding the levels of sanctions to be applied for first-time offense with no mitigating circumstances.

**Material and Methods:** This cross-sectional study was carried out from January to June 2017, and the participants were undergraduate students (N= 171) of a public dental college located in the Khyber Pakhtunkhwa province of Pakistan. The study instrument used was a pre-validated Dundee Polyprofessionalism Inventory I: Academic Integrity that comprised of thirty-four survey items. Data were collected by using online as well as printed hard copies. Descriptive and inferential statistics were calculated using IBM SPSS version 23.

**Results:** Out of 209 students to whom the questionnaires were distributed, 171 (81.81%) returned back the forms with their complete responses. Overall preclinical students (year 1 and 2) were two times more as compared to clinical students (year 3 and 4) who returned back the questionnaire and female students were almost double (65%) in giving their response as compared to male students. 'Completing work for another class fellow' was given the least sanction by both female and male students. In contrast, the strongest sanctions were recommended by female students for two survey statements, i.e. 'engaging in substance misuse such as drugs etc' and 'Sexually harassing a university employee or fellow student'.

**Conclusions:** There are more variances than congruence regarding perceptions of professionalism among the participants. The majority of students were also found to recommend the sanction of "ignore" for a behaviour, a response, which otherwise was absent from many other participants' response. There is a need to introduce professionalism course as part of the curriculum to develop the integrity of this essential element of the personality.

**Keywords:** Professionalism; lapses; academic integrity; undergraduate; dental students; sanctions

## Introduction

A profession is characterized by behaviour, attributes and skills shown by personnel and these attributes are collectively termed as professionalism. Conceptually, it is a sum of

cognitive, psychomotor and affective domains which are associated with work.<sup>1-3</sup> Reliability, adherence to ethical principles, effective interactions with patients and their family members, efficacious interaction within the health care system, and a commitment to improving the skills are the key aspects of professionalism.<sup>4</sup> Moreover, a set of ethical values, attributes, and behaviours are also considered essential elements of professionalism.<sup>5</sup> General Dental Council identifies professionalism as a core component of revalidation. Moreover, professionalism is a vital and high powered construct that requires practitioners to picture

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themselves providing excellent ethical and altruistic patient-care and satisfying those outside the profession.<sup>6</sup>

However, healthcare, professionalism is regulated directly or indirectly by the personality traits related to the culture and customs of the health care provider and patients.<sup>7,8</sup> This term is a wide conceptualization that is deliberate and steadily influenced by the community, society and culture.<sup>9, 10</sup> This is a subject that may differ from knowledge and skills as explained in Miller’s pyramid.<sup>11</sup>

The aim of this study was to explore the perception about professionalism in undergraduate students of a public dental college. The study was approved by the ethical committee of the college.

**Material and Methods**

This was a cross-sectional study conducted at a public dental college located in the Khyber Pakhtunkhwa province in Pakistan from January to June 2017.

Dundee Polyprofessionalism Inventory 1: Academic Integrity, a validated questionnaire, was used which comprised of 34 items. It was made available online as well

as in paper format to get maximum responses which were recorded in two forms (Table I). A; using three Likert scale ‘ Yes, No and Unsure’ and B; if the answer was ‘Yes’ then further a ten Likert scale was provided to select from the hierarchy of sanctions to elaborate the matter of professionalism.

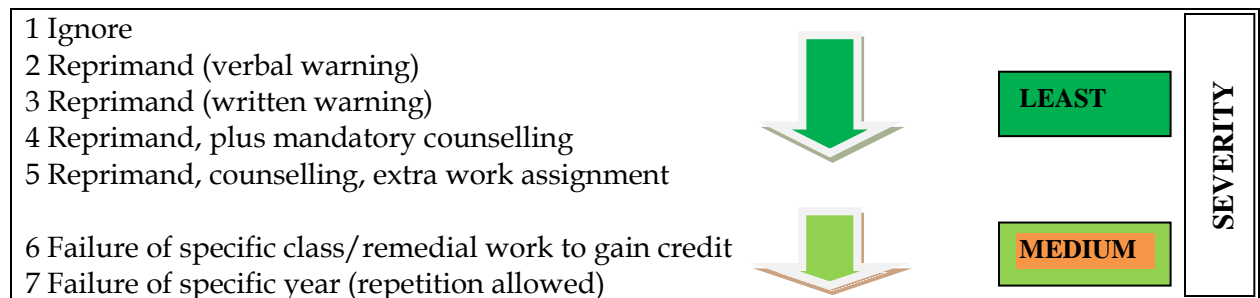
The study participants were of 1<sup>st</sup> year to 4<sup>th</sup>-year undergraduate dental students (n= 171) from a public sector dental college located in the Khyber Pakhtunkhwa province. Both male (n= 61) and female (n= 110) responded all the questions, even though professionalism course is not included in the dental curriculum. They were asked to recommend the sanctions (Figure 1), for 34 lapses in professionalism with no mitigating circumstances.

Data were collected and stored in a secured computer with a password to log in. Codes were applied to survey forms. Incomplete forms with no answers on the requested statements or double-marked (n =38) were removed. The mean and median was used to compare the data between male and female as well as preclinical and clinical students.

**Table I:- Format of student responses to inventory statements**

S.NO	Inventory Statement	Response category									
		YES	NO	UNSURE	Sanctions *						
A*	Is this wrong?	YES	NO	UNSURE							
B*	Do you think your fellow students do this?	YES	NO	UNSURE							
C*	Have you ever done this in your present course?	YES	NO	UNSURE							
D*	Would you ever do this in your present course?	YES	NO	UNSURE							
E**	What level of sanction (1-10) should apply for a first-time offense with no mitigating circumstances?	1	2	3	4	5	6	7	8	9	10

\*if answer is yes \*\* severity of the sanction (1-5 least, 6-7 medium, 8-10 severe)



8 Expulsion from college (readmission after one year possible)  
 9 Expulsion from college (no chance for readmission)  
 10 Report to regulatory body



**EXTREME**

**Figure 1: Hierarchy of recommended sanctions**

## Results

Out of 209, students (N=171) returned back the forms with their responses. Overall preclinical students (year 1 and 2) were two times as compared to clinical students (year3 and 4) who returned back the questionnaire and female students were almost double (65%) in recording and submitting their responses as compared to male students (Table II). The highest ratio of survey participation was from 2<sup>nd</sup>-year students (33.3%) among all four-year students [Table II].

**Table II: Demographic information of participants (N =171)**

Year		1 <sup>st</sup> Year (n=55)		2 <sup>nd</sup> Year (n=57)		3 <sup>rd</sup> Year (n=25)		4 <sup>th</sup> year (n=34)	
Male (%)	Female (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)	M (%)	F (%)
61 (35.67)	110 (64.32)	15 (27.27)	40 (72.72)	21 (36.84)	36 (63.15)	7 (28)	18 (72)	18 (52.94)	16 (47.05)

'Completing work for other class fellow', 'Giving help to other fellows' and 'Cut and paste text without acknowledging the source' were the elements of professionalism which were given the least sanction by both male and female students. In contrast, engaging in substance such as drugs etc. and attempting to get academic advantages by bribe was given stern sanctions and the element of 'sexually harassment' had strongest sanction recommendation by female students (Table III).

**Table III: Comparison of gender-based responses median on 34 lapses in poly-professionalism**

NO	Surveyed Statement	M* (N=62)	F** (N=109)
1	Getting or giving help for course work, against a teacher's rule (e.g. lending work to another student to look at)	2	2
2	Removing an assigned reference from a library in order to prevent other students from gaining access to the information.	3	3
3	Signing attendance sheets for absent friends, or asking classmates to sign attendance sheets for you in labs or lectures	3	3
4	Drinking alcohol over lunch and interviewing a patient in the afternoon	8	8
5	Exchanging information about an exam before it has been taken (e.g. OSCE)	3.5	2
6	Forging a health care worker's signature on a piece of work, patient chart, grade sheet or attendance form	3	3
7	Claiming collaborative work as one's individual effort	3	3
8	Altering or manipulating research data (e.g. adjusting data to obtain a significant result)	3	3
9	Failure to follow proper infection control procedures	3	3
10	Threatening or verbally abusing a university employee or fellow student	4	6
11	Attempting to use personal relationships, bribes or threats to gain academic advantages	7	6
12	Engaging in substance misuse (e.g. drugs)	7.5	6
13	Completing work for another student	2	1
14	Intentionally falsifying test results or treatment records in order to disguise mistakes	3	4
15	Physically assaulting a university employee or student	7	8
16	Purchasing work from a fellow student or internet, etc. supplier	3	2
17	Lack of punctuality for classes	3	2

18	Providing illegal drugs to fellow students	8	8
19	Not doing the part assigned in group work	3	2
20	Examining patients without knowledge or consent of supervising clinician	4	4
21	Sabotaging another student's work	3	3
22	Inventing extraneous circumstances to delay sitting an exam	3	3
23	Sexually harassing a university employee or fellow student	8	9
24	Resubmitting work previously submitted for a separate assignment or earlier degree	3	2
25	Plagiarizing work from a fellow student or publications/internet	3	2
26	Cheating in an exam by e.g. copying from a neighbor, or using mobile phone or getting someone else to sit	3	3
27	Cutting and pasting or paraphrasing material without acknowledging the source	3	2
28	Damaging public property, e.g. scribbling on desks or chairs	4	3
29	Falsifying references or grades on a curriculum vitae or altering grades in the official record	3	5
30	Involvement in pedophilic activities - possession/viewing of child pornography images or molesting children	4	4
31	Photographing dissection or prosection or cadaver materials	3	2
32	Joking or speaking disrespectfully about bodies/body parts	3	3
33	Inappropriate representation of Medicine in social media by posting photos/videos/texts about class or clinical activities	3	3
34	Posting inappropriate material about fellow students, teachers or patients on social media	3	5

The Median was calculated of the responses of male and female students. Sanctions of different elements of professionalism were divided into three categories (least 1-5, medium 6-7, and severe 8-10).

**Table IV: Comparison of responses as median among Preclinical and Clinical students (N=171)**

NO	Surveyed Statement	Preclinical (N=114)	Clinical (N=57)
1	Getting or giving help for course work, against a teacher's rule (e.g. lending work to another student to look at)	2	2
2	Removing an assigned reference from a library in order to prevent other students from gaining access to the information.	3	3
3	Signing attendance sheets for absent friends, or asking classmates to sign attendance sheets for you in labs or lectures	2	2
4	Drinking alcohol over lunch and interviewing a patient in the afternoon	8	8
5	Exchanging information about an exam before it has been taken (e.g. OSCE)	3	3
6	Forging a health care worker's signature on a piece of work, patient chart, grade sheet or attendance form	3	3
7	Claiming collaborative work as one's individual effort	2.5	3
8	Altering or manipulating research data (e.g. adjusting data to obtain a significant result)	3	3
9	Failure to follow proper infection control procedures	2	4
10	Threatening or verbally abusing a university employee or fellow student	5.5	5
11	Attempting to use personal relationships, bribes or threats to gain academic advantages	7	7
12	Engaging in substance misuse (e.g. drugs)	8	5
13	Completing work for another student	2	2
14	Intentionally falsifying test results or treatment records in order to disguise mistakes	4	4
15	Physically assaulting a university employee or student	8	7
16	Purchasing work from a fellow student or internet, etc. supplier	3	2
17	Lack of punctuality for classes	3	2
18	Providing illegal drugs to fellow students	8	8
19	Not doing the part assigned in group work	3	2
20	Examining patients without knowledge or consent of supervising clinician	4	4
21	Sabotaging another student's work	3	3
22	Inventing extraneous circumstances to delay sitting an exam	3	3
23	Sexually harassing a university employee or fellow student	8	9
24	Resubmitting work previously submitted for a separate assignment or earlier degree	3	2
25	Plagiarizing work from a fellow student or publications/internet	3	2
26	Cheating in an exam by e.g. copying from a neighbor, or using a mobile phone or getting	3	3

	someone else to sit		
27	Cutting and pasting or paraphrasing material without acknowledging the source	3	2
28	Damaging public property, e.g. scribbling on desks or chairs	4	3
29	Falsifying references or grades on a curriculum vitae or altering grades in the official record	3	5
30	Involvement in pedophilic activities - possession/viewing of child pornography images or molesting children	4	4
31	Photographing dissection or prosection or cadaver materials	3	2
32	Joking or speaking disrespectfully about bodies/body parts	3	3
33	Inappropriate representation of Medicine in social media by posting photos/videos/texts about class or clinical activities	3	3
34	Posting inappropriate material about fellow students, teachers or patients on social media	3	5

Referring the differences obtained from pre-clinical and clinical students, the majority of the variables were put together as having the recommendations i.e. 'least sanction'. For example, sanctions for 'making jokes or disrespect the body parts in front of other fellows' and 'inappropriate representation of medicine on social media' were recommended for the 'least sanctions' by all students (Table IV). Strong sanctions (i.e. above 7 points out of total 10) were for the statements, i.e. 'Sexually harassing a university employee or fellow student', 'providing illegal drugs to fellow students and 'drinking alcohol and then treating the patients' (Table IV).

## Discussion

Dental professionalism, an integral aspect of medical education, is practiced worldwide, according to the natural built-in cultural and social contexts around the globe. It is important for students to learn and adopt professional traits such being empathy and caring for patients, and performing all their professional responsibilities honestly.<sup>12-14</sup> In this study, the majority of students had shown to adopt such understanding by recommending a commonly accepted and appropriate sanctions.

A quite number of changes have taken place in dental programme, aiming the best possible preparation of dental professionals who are competent and able to respond with knowledge, skill, and attitude. It is beyond question that dental professionals must have responsibility other than scientific and clinical

competencies. We have effectively described the dental landscapes in regard to addressing the topic of professionalism without incorporating this essential theme into the curriculum.

Professionalism is a set of values and behaviours which determine the extent of moral values between the profession and society. In other words, it is a moral contract between doctor and patients.<sup>14</sup> Treating patients equally and sincerely with good manner in the dental clinic is an integral part of dental professionalism and echoed globally in the dental program. All students agreed with this aspect and doctor-patient relationships were found in other studies.<sup>13,14,15,16</sup> This relationship is assessed in the form of Objective Structured Clinical Examination; therefore, even without teaching professionalism, the majority of students from preclinical and clinical phases had similar perceptions.

Sexual harassment is prohibited in teaching institutions as well as in working environments all over the world.<sup>17</sup> In this manner, almost all students, especially female students suggested a stern action to be taken for those who are found to be involved in such an unprofessional behaviour. These findings demonstrated similar results that were observed by other researchers.<sup>18,19,20</sup> A quite considerable percentages of students have reported this element in the university environment.<sup>21</sup> Having been provided knowledge of sexual harassment during professional education can better prepare dental professionals to respond to this act

during their practice. Globally, sexual harassment is now considered a societal offense. This acquisition has affected all walks of life. Pakistani society has Islamic values and this attitude is unacceptable. Therefore, all participants, both male and female recommended a high/strict sanction for this offense and the sexual harassment attitude should be discouraged as also indicated by previous studies<sup>22</sup>.

In today's information technology era, plagiarism is a grown devil in academia. It is an unethical and immoral misconduct; therefore, it is a dreadful problem. Academic plagiarism may give benefit at the cost of the original author in getting a position, promotion, grant / scholarship and public recognition based on someone else's scholarly and innovative work. In our study, a large number of students had a twofold positive indication for plagiarism. The U.S. Department of Health and Human Services reported an approximate 25 percent case of plagiarism.<sup>23, 24</sup> Further qualitative study is needed to explore. There might be possibility that students got different understanding and hence recommended least sanctions for the survey statement 'Cutting and pasting or paraphrasing material without acknowledging the source'.

Several studies highlighted the significant relationship between students' academic performance and class attendance in traditional lecture-based teaching method.<sup>25-28</sup> Attending class regularly has a positive impact on the student's achievements in academic assessments. In our study, this factor was equally marked by students. This was supported by Bevitt et al.,<sup>29</sup> where the results of the study indicated a higher improvement in grades was associated with attendance. In this study, students responded fairly appropriately on many elements of the lapses of professionalism without being taught 'professionalism' as a course. It means they had pre-existing generic concept of ethical conducts which gave them the idea to

choose or differentiate to what level this offense could be sanctioned.<sup>30</sup>

## Conclusions

The study provided unsolicited responses on various elements of the professionalism. Without having been taught the professionalism as a course, and the students' recommendations indicated that professional attitude development in dental schools during their cognitive and psychomotor training, if augmented through 'professionalism course' shall determine the way the dental care professionals should ideally adopt and perform in clinical practice in the future. This is an important element of an affective domain which students should acquire in their undergraduate professional degree program.

Dental professionalism is a set of values and behaviour which are incorporated as a conviction between dental health care giver and patients in the form of trust. To some extent, these values and attributes could be varied between professionals. However, there is a need to set the standards for professionalism which should be aimed to achieve during the four-year dental program to provide the best dental care to the patients.

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