

ORIGINAL RESEARCH

Perceptions of Dental Faculty and Postgraduate Residents towards Learning Professionalism through DOPS Assessments of Implants– A Descriptive Study

Kumari Kavita^a**ABSTRACT**

Background: One of the essential characteristics that define a career is professionalism, which encompasses commitments, actions, standards, and objectives.

Aim: The study was aimed to assess the perception of dental faculty and residents towards DOPS as a method to assess professionalism and also the perception of participants towards inclusion of professionalism assessments in the dental curriculum.

Materials and methods: This descriptive cross sectional study was conducted after obtaining ethical committee approval amongst forty three Prosthodontic postgraduate residents and twenty faculty members from ten different dental colleges in India in the year 2023. Views regarding professionalism were obtained after using the Modified Australian Medical Council (AMC) DOPS assessment six times within an year. The resident was evaluated by two different faculty members in order to minimize subjective bias. The scores ranged from 1 to 5, with 1 representing the least amount of professionalism displayed and 5 representing the best. Data was analyzed using SPSS version 23. Descriptive statistics was done using mean score.

Results: Residents DOPS Assessment score of professionalism criteria and feedback from participants, post graduates and faculty at the end of last assessment was considered for conclusion. They showed increase in DOPS score and positive attitude towards dental professionalism. The participants believed that DOPS assessment is an effective way to improve professionalism.

Conclusion: Academic dishonesty may continue with unethical behaviors in professional practice of a healthcare professional. Hence, it becomes vital to address academic dishonesty lapses among oral health sciences students; to ensure the future safety of patients and improvement in patient care.

Key words: DOPS, Dental education, Implant assessment.

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INTRODUCTION

Dental field has many literatures parallel with the medical field and uses many common definitions from the sources.¹ Epstein and Hundert defined professionalism or “Professional competence as the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served.”² There are guidelines from certain professional bodies such as Standards for dental professionals as norms of professionalism.³ However, there is lack of established learning outcome for dental professionalism.⁴ We need to educate, evaluate and reinforce professionalism as it improves patient care, which is the ultimate goal of a dental treatment. Prosthodontic postgraduate residents

need to both acquire and apply cognitive and psychomotor skills. However, the third component which is affective domain also contributes to the professionalism and remains unassessed. Assessments drive learning and work place based assessments WPBA is “Assessment of what doctors actually do in practice.”⁵ Through the utilization of this feedback, the resident concentrates on the learning process and accomplishes the desired results.⁶

RATIONALE

GMC elaborates WPBA as “assessments for learning” (formative), rather than as “assessments of learning” (summative).⁷ The DOPS (Direct Observation of Procedural Skills), a work place based assessment gives the examiner an opportunity to directly assess the resident while he is actually working on the patient and provides professionalism assessment to bring in change through systematic,

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contextual feedback and role modelling among the postgraduate residents.⁸ Direct Observation of Procedural Skills (DOPS) has high levels of validity, reliability, feasibility, acceptability and educational impact as an assessment tool in health professions education.^{9, 10}

NEED

There is lack of evidence for professionalism to be considered as a vital measure of competency in dental education. The concern for rising professionalism breach should be addressed.¹¹ Very few studies have been undertaken on professionalism among dental prosthodontic postgraduate residents in India till date. Hence, the study was designed and conducted.

CONTEXT

Indian dental curriculum focuses mainly on the cognitive and psychomotor domain. It has been observed that lapses in academic integrity, unethical professional behaviors, commercialization of the profession, demand of patient autonomy and demographic/ cultural differences influences professionalism. Dental students gradually acquire professionalism from observation, reflection and reinforcement. "It can be taught, learned and addressed."¹² Assessment of Professionalism needs to be a must part of the resident training.

AIMS and OBJECTIVES

This study aims for the perception of dental faculty and residents towards DOPS as a method to assess professionalism and inclusion of professionalism assessments in the dental curriculum.

METHODOLOGY

The current study is a descriptive-cross sectional study that was conducted in ten different dental colleges of India. Forty-three Prosthodontic postgraduate residents and twenty faculty members were included in the study using convenient sampling technique. We have used Modified Australian Medical Council (AMC) DOPS assessment form which is freely available on the web to conduct DOPS while the resident was placing Implant. It has Professionalism as one of its criteria for assessment.

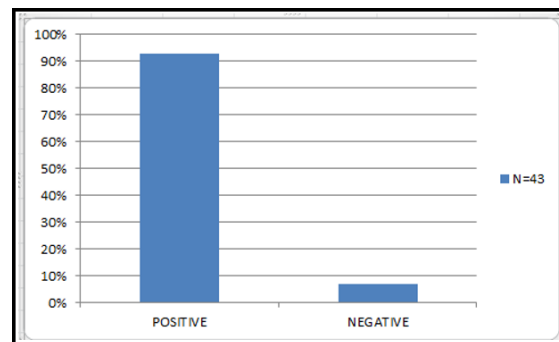
RESEARCH TOOL

Direct observation of procedural skills assessment (DOPS) was introduced by the Royal College of Physicians, Norcini & McKinley in 2007. It is an excellent formative assessment method in India where we have adequate number of patient flow in the departments and also do not require additional infrastructure for conducting DOPS. The resident was observed directly and assessed by a faculty from beginning till the end of completion of clinical procedure of Implant placement with the help of DOPS checklist (modified AMC). Immediate contextual feedback was then given by the faculty in an appropriate environment. Each resident was

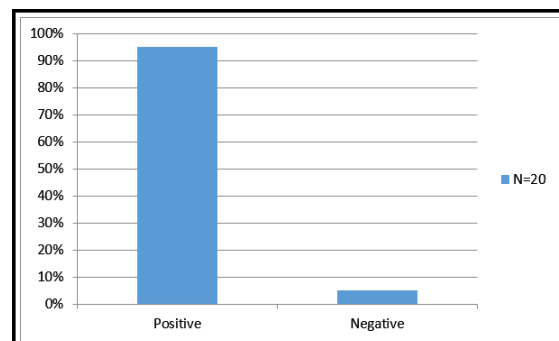
assessed alternately by two distinct faculties of the same department in order to reduce subjective bias. The assessment scale is on a scale of 1 to 5, with 1 representing the lowest level of professionalism displayed and 5 representing the greatest. Self-perception about DOP assessment was also assessed by post graduates to understand their attitude towards professionalism.

Assessment	No. of residents	Minimum score	Maximum score	Mean score of Professionalism
DOPS1	43	2	3	3.06
DOPS2	43	2	4	3.18
DOPS3	43	3	4	4.06
DOPS4	43	3	5	4.11
DOPS5	43	3	5	4.23
DOPS6	43	3	5	4.83

Table1: DOPS criteria- Professionalism score of postgraduate residents.



Graph 1: Self-perception of Post-graduate residents about DOPS.



Graph 2: Self-perception of faculty members about DOPS

RESULTS

Of the 63 residents, 20 were faculty members and 43 were Prosthodontic postgraduate residents. Data was analyzed using SPSS version 23. Descriptive statistics was done using mean score.(Table 1, Graph 1, Graph 2) The participants had positive attitude and provided valid confirmation towards professionalism as shown by the gradual and consistent increase in their professionalism criteria DOPS score and thematic analysis of the feedback form at the end of the sixth DOPS assessment. Nearly all the participants of the study unanimously

agreed that DOPS assessments as formative assessments helped them to improve professionalism with the help of systematic and contextual feedback from faculty at the end of each assessment.

DISCUSSION

A "learning while doing" approach is highly valued in the field of medical education as a result of modern and contemporary trends. Students' performances are valued more highly than only their aptitude. It is also acknowledged that soft skills are essential to clinical competence. The term "Work Based Performance Assessment" (WBPA) refers to this contemporary method of clinical evaluation. Studies have indicated that certain WPBA tools, like the mini-CEX and DOPS, are occasionally used, even in India. Despite the fact that the preliminary reports have demonstrated strong acceptability and feasibility by both faculty and students, they have primarily been deployed as stand-alone techniques, leaving much to be desired. ^[13]The acceptability and feasibility of DOPS as a formative assessment tool for a significant clinical procedure in prosthodontics—implant placement—was the main focus of this study. From the viewpoint of postgraduates and faculties, our results demonstrated the encouraging and significant acceptability and feasibility for DOPS. The highest mean score (4.83) was observed during the sixth DOP assessment and least for DOPS1. The maximum score 5 was attained during DOPS4, DOPS5 and DOPS6. (Table 1) We have also conducted a survey on the self-perception of prosthodontic post graduates and faculty about the DOP assessment. The self-perception about this assessment was asked to fill it in a paper with masking the residents name to reduce the bias. This survey was included to assess how positively residents carry their professionalism. Out of 43 post graduates, 93% showed positive attitude and only 7 % had negative response. (Graph 1) Further investigations were carried out to know why 7% had negative response and it was found that residents were little scared and nervous as this was the first time they followed this assessment. Similarly, faculty members were also asked to do the same to assess how their residents have improved on following protocols of the procedures from before. Out of 20 faculty members, 19 (95%) have reported a positive attitude but 5% had a negative attitude. (Graph 2) The reason behind the negative response was due to the confusion and the more procedural time faced by their residents during this assessment. Still, they have stated that it can be avoided on practicing this assessment on each procedure in a daily basis which ultimately improves their professionalism. A study by Brown et al. (2002) reported that dental educators should teach and assess

professionalism as an essential component. The issues in assessment of attitudes in undergraduate level were explored with a need to consider its worth. The attitude definition, need of assessment, change when taught and importance of assessment has also been discussed. ¹⁴ Expected behaviors for evaluation with initial orientation and the written documentation, teaching and role modeling should be incorporated at all levels, and training should be offered. There is need for assessment of expected behaviors. ¹⁵ Another study by Ozar and Sokol in 2018 derived commercial and a normative model of professionalism and obligations to the community and concluded that professionalism can be learned eventually through expectations, assessments, rules to prevent undesired behaviors, and implementing norms. ¹⁶ The results of our study corroborated the findings of a few other studies conducted in the fields of medicine, which also indicated that DOPS assisted in the improvisation of students' performance at various levels. ¹⁷ Conversely, just a small percentage of students (2.5%) expressed that they were anxious about adjusting to this new method and about constantly being observed by the instructors. This may be avoided if students were fully made aware of modern assessment techniques generally and this particular one in particular. In a few clinical contexts, videotaping has also been used as a solution to address this issue. ¹⁸ However, it will raise the cost of examinations and the necessity for infrastructure. Identifying these students through routine feedback or informal teacher-student interactions, then making them more often subjected to these tests to desensitize them, is another workable method. DOPS assessment associate feedback gives assess time to reflect and improve. ^{19, 20, 21} A 360-degree evaluation of staffs, seniors, colleagues and patients is also helpful in evaluating professionalism. ²² Remediation or early notice of unacceptable behaviour should be discussed with a clear plan. Component of clinical skills such as communication skills, professionalism, and ethics are nontechnical aspect of using clinical skills during treatment. Therefore, it is important to have a formal training and assessment for developing soft skills and technical clinical skills. ^{23, 24} Academic dishonesty may continue with unethical behaviors in professional practice of a healthcare professional. Hence, it becomes vital to address academic dishonesty lapses among health sciences students to ensure the future safety of patients and improved patient care. ^{25, 26}

LIMITATIONS

The centers were chosen based on convenience sampling and included both Government and private dental colleges which included only two investigators at each center.

Also, this study focused on only one parameter, professionalism from the DOPS assessment. The feedback after thematic analysis alone was used to determine the attitude of participants on achieving professionalism.

CONCLUSION

The participants have shown to agree that DOPS assessments helped them with improvement in professionalism. We found positive attitude towards dental professionalism with demand for program on professionalism. Role modeling and feedback, followed by formal teaching is an effective way to learn/teach professionalism.

FUTURE RECOMMENDATIONS

DOPS, one of the several work place based assessments available intends to inform learning and progress by utilizing effective feedback after observation and thereby we need to undertake many more such assessments and actions to enhance the practice of professionalism among oral health care professionals. However, further evidence-based interventional and experimental studies will establish its significant educational impact in Oral health education.

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