

## Perception of Under Graduate Students and Faculty towards DOPS as a Method for Skill Assessment in the Subject of Periodontology

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### Abstract

*Background:* Direct Observation of Procedural Skills (DOPS) is a contemporary tool for Work Based Performance Assessment (WBPA). Although there have been few reports about its good acceptability and feasibility in general medical education, there are very few data available regarding the same in the field of Dentistry. Hence, this study was planned with an aim of assessing the perception of students as well as faculty towards DOPS as a method for skill assessment in the subject of Periodontology in terms of acceptability and feasibility. *Methodology:* A structured questionnaire was used to record the feedback of the 40 students of Final year BDS during their postings in Periodontology Department and after exposing them to the DOPS method of assessment. Similar feedback was taken by the faculty members who were pre-trained in the method and conducted the assessment. Their feed backs were then descriptively analyzed for evaluating the feasibility and acceptability of the DOPS. *Results:* The assessment of the feedback showed that 97% students and all faculty members have chosen DOPS over conventional method which indicated its significant acceptability amongst the study group. There was a positive consensus regarding the feasibility as well and certain concerns regarding the same were met by suggestions made by the participants. *Conclusion:* As per the perception of students and faculty members, DOPS appears to be a acceptable and feasible tool for skill assessment during formative assessment in the subject of Periodontology.

**Keywords:** DOPS; Assessment; Dental; Education Technology.

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### Introduction

Recent trends in medical education are moving from mere passing summative examination towards acquiring clinical competence and professional behavior on daily basis. Direct observation of procedural skills (DOPS) is one such tool which is mainly implied for assessment in medical settings [1-3]. Although there are few references which have proved DOPS and other Work Based Performance Assessment (WPBA) tools as good assessment tools for skills assessment in dentistry also [4,5].

In Dentistry, Undergraduate training is said to be

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skill based but most disciplines do not have any formative assessment program for the same in India.

In subject of Periodontology, scaling and root planing (SRP) procedure is performed by Undergraduate students on patients regularly during their clinical postings and is usually assessed only at the completion of procedure, because of which procedural skills and behavior/interaction of student with patient is not assessed. It is now probably a high time that assessment methods are tried and adopted according to the current educational needs. The present study was undertaken with the aim to introduce DOPS as a method of skills assessment for SRP procedure in subject of Periodontology and assess the perception of students as well as faculty members towards it in terms of feasibility and acceptability.

### Material and Methods

The present study was conducted in Sinhgad Dental College and Hospital, Pune from July 2015 to

December 2015 as a part of advanced medical education certificate program. After approval of institutional review board and institutional ethics committee, the study was carried out on final year BDS students during their clinical posting in department of Periodontology. Three batches i.e. 40 students participated in study. Project was explained to students and informed written consent was obtained. Sensitization of faculty regarding the project was also done. Checklist for DOPS assessment of SRP procedure was generated and process of internal validation was completed. Students were subjected to both kinds of assessment conventional and DOPS by different examiners. A structured questionnaire was used to record the perception and feedback of both students and faculty regarding this novel method for its feasibility and acceptability.

## Results

A structured questionnaire consisting of 5 questions was used to assess the perception of students towards DOPS at the end of posting of each batch and exposure to DOPS. This was complemented by the feedback from the faculty as well using one to one interviewing method.

The assessment of the feedback showed that 97% students and all faculty members have chosen DOPS over conventional method which indicated its significant acceptability amongst the study group. When we look further into feedback, 97% students were able to identify their weakness, 90% were able to improve on it, 95% students found it to more meaningful as it assessed all the aspects of procedure 2.5% students were stressed and found it difficult to adapt to new method, as assessor was constantly observing them.

100% of the faculty members found DOPS to be more meaningful as it assessed objectives under all domains.

All (100%) students and faculty members agreed that experiencing DOPS during formative assessment will help students to better prepare for summative assessment i.e. their final university examination.

## Discussion

Modern and contemporary trends in the field of medical education pose much emphasis on a "learning while doing" approach. The importance is given to the performance of students rather than only on his/her competence. It has also been accepted that

the soft skills are an integral companion of clinical skills. "Work Based Performance Assessment" (WBPA) conforms to this modern approach towards clinical assessment. Some of the WPBA tools such as the mini-CEX, DOPS have been reported to be attempted sporadically by different studies even in India [5]. Although the initial reports have shown good acceptability and feasibility by students and faculty, they have been mostly used as isolated methods and leave much to be desired [6].

This study focuses on the acceptability and feasibility of DOPS as an assessment tool for formative assessment for a routine but important clinical procedure in Periodontology i.e. Scaling and Root Planing (SRP). Our results showed encouraging and significant acceptability and feasibility of DOPS as per the perspective of students as well as the faculty.

The most encouraging evidence for its acceptability was apparent from the fact that although not on records, absentees who missed their assessment, themselves requested to reschedule their DOPS assessment.

Previous few studies done in the field of Nursing and Medicine have also pointed out that DOPS helped in improvisation of students' performance at multiple levels and this was resonated in our study results as well [7,8]. On the flip side, few of the students (2.5%) reported to be stressed out in adopting to this new method and because of being under constant supervision of the faculty. This could be overcome by thorough sensitization of the students towards contemporary methods of assessment on a regular basis in general and this method in particular. Videotaping may also be considered as an option and practiced in few clinical settings to overcome this problem [9]. But it will increase infrastructure requirement and cost of examination. So identifying such students through regular feedbacks or casual teacher student interaction and desensitizing them by subjecting them more frequently to such assessments, is another practical solution.

Faculty members who participated in this study also gave an extremely positive feedback regarding DOPS. There were some speculations regarding its feasibility in terms of resources and man power. To overcome this, it was suggested that more number of examiners should be involved to compensate for extra time needed for DOPS assessment. Agreement among examiners about expectation of level performance is critical. Generating checklist based on Specific Learning Objectives has addressed this issue to some extent, further planning more open discussions and sensitization sessions for faculty, can help them to reach a consensus among themselves.

## Conclusion

A significant majority of the students and faculty who participated in this study opined that DOPS could be used as an alternative and in fact; better method for skill assessment in SRP procedure on the level of formative assessment which showed its high acceptability. It also appeared to be a relatively simpler and feasible method with a potential to assess all the domains of learning during SRP and its scope may be further widened to include many other procedural skills in the subject of Periodontology. We recommend further studies to check its feasibility and acceptability in other streams of Dentistry as well to explore its potential uses.

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2. Dept of Health Care Professional Education, MUHS, Aundh, Pune.

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