

## EVALUATION OF QUALITY OF DENTAL CARE AND PATIENT'S PERCEPTION FOR TREATMENT RECEIVED IN DENTAL INSTITUTION IN GHAZIABAD, UTTAR PRADESH

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### ABSTRACT

**Objective:** To evaluate the quality of the dental care received by patients of Kothiwal dental college in Moradabad. **Material & Methods:** The evaluation proforma was prepared to assess the quality of dental care through coded criteria. The proforma was assessed for its validity in the pilot study. Sterilized mouth mirror and explorer were used for examination of 100 patients who had been treated within one year in the college formed the study population. **Results:** In composite restorations 88.3% of patients had good aesthetics. In RCT 71.4% had no periapical radiolucency. In Complete Denture 80% showed good retention & stability. In Extraction 80% had good healing, and in orthodontia 83.3% had good aesthetics. **Conclusion:** The proforma used is an assessment tool to assess the quality of dental care. An attempt has been made to evaluate the treatment given to the patients of Kothiwal Dental College.

**KEYWORDS:** Evaluation; quality; dental care; patients

### INTRODUCTION

Measuring the quality of dental care has become a major concern for oral health care providers in recent decades. The pressures faced by dental care providers are mounting and the dental health care is itself becoming more complex with an increasing range of new treatment options and competing approaches to the delivery of care. One of the ways in which quality of dental care is

currently assessed is by collecting data and analysing them in a routine process. Collating data in this way means that comparisons can be made-whether over time, with benchmarks, or with other dental healthcare providers. Inevitably, such comparisons reveal variations. The natural inclination is then to assume that such variations imply rankings: that the measures reflect quality and that variations in the measures reflect variations in quality.<sup>[1]</sup> The dental care must be delivered in a context of cost constraints and a greater focus on increasing consumer demands. There has been an explosion in the dental institutions aiming to use collected data to compare performance between dental care providers.<sup>[2,3]</sup> This can help in highlighting any problem areas in clinical performance, inform or drive quality improvement activities and prompt reflections on clinical practice. The logic underlying an assessment of quality of dental care is that it is possible to make attributions of causality between the dental care provided and the observed quality measures - that is, that high measured performance reflects good actual performance - and, conversely, that low measured performance reflects poor actual performance. Many studies on quality measurement assess quality based on 2 perspectives: technical and functional dimensions. In technical dimensions, quality is defined according to scientific standards by health professionals and in second perspective; clients have an essential role in assessment of health care quality.<sup>[4-6]</sup> It has been argued that evaluations of quality care should take into account the distinct perspective of the patient's perception to the treatment they are rendered and

professional perspectives.<sup>[7]</sup> A common method of eliciting patients' views is through satisfaction surveys.<sup>[8]</sup> Studies have shown that patient's perception to the quality of their dental care depends according to a range of criteria, particularly their dentist's interpersonal communication, technical skills, cost of treatment, time taken for single treatment, waiting period, solving their grievances.<sup>[9]</sup> Anxiety and fear have long been considered to be a problem for dental care especially as an obstacle to attendance.<sup>[10]</sup> Systematic evidence about how the patients perceive and experience dental care is in short supply in light of the recent changes in the general dental services.<sup>[11]</sup> More specifically, our objectives are to evaluate the quality of dental care received by the patients and patient's perception to the treatment received.

#### **AIMS & OBJECTIVES**

1. To evaluate the quality of the dental care received by the patients in a dental institution in Moradabad.
2. To assess the patient's perception to the treatment received.

#### **MATERIAL AND METHODS**

The study was designed to evaluate the quality of treatment provided in a Dental Institution in Moradabad, Uttar Pradesh. The institution runs graduate and post-graduate courses, with 100 graduates and 32 post-graduate admissions per year. It is located in a semi-urban area 15-20 kilometers from the main city. A total of 100 patients aged 21-65 years were examined randomly who had received treatments for various diseases in the past one year. The quality of the treatment received was evaluated both subjectively and objectively. The patient's perception on the treatment received was evaluated on a preformed structured proforma which was tested for its validity in pilot study. The subjective quality was assessed using a semi-structured interview schedule which included patients' views and experiences with doctor and treatment which has the information regarding the waiting period, time taken during treatment, attitude of the doctors, the quality of treatment, the cost of the treatment, grievances related to treatments and problems related to the appointments. The information was recorded on a 3-point Likerts' scale (Satisfactory, don't know and Unsatisfactory). The objective quality of

treatment was assessed through clinical examination on a preformed proforma which was specially designed to assess the quality of various treatments clinically, for example, in amalgam restoration – marginal seal, contact points, finishing & polishing and occlusion were taken into consideration. All the patients were examined and interviewed at the same time while they were visiting the institute for other treatments or follow up visits. The examination was carried out in respective departments in aseptic conditions using diagnostic instruments with prior permission of HOD. The permission for the study was taken from the principal of the institute. Ethical clearance was approved by the ethical review board of the institution and the informed consent was obtained from the patient prior to assessment. The data obtained was subjected to descriptive analysis.

#### **RESULTS**

This article is an attempt to evaluate the quality of dental care (basic treatments) rendered to patients in different departments. There should be certain criteria to be bench marked, to evaluate the quality of dental care with respect to different treatments. In the article, only few criteria have been considered to evaluate the dental care quality. Out of 100 patients 39 were females and 61 males who were assessed and interviewed for the quality of dental care and patient's perception to the treatment received. 11 patients for composite restorations, 9 for Ag-amalgam, 12 for root canal treatment, 11 for complete denture, 9 for removable partial denture, 11 for fixed partial denture, 14 for orthodontic treatment, 12 for extraction and 11 for oral prophylaxis were clinically assessed. On clinical examinations, for composite restorations marginal seal (18.2%) and finishing & polishing (18.2%) were more unsatisfactory quality-wise, and for amalgam restorations marginal seal and anatomy of restoration (22.2%) were more unsatisfactory parts as compared to high points and finishing and polishing (11.1%). Periapical radiolucency (33.3%) in RCT treatments and Relapse (21.4%) in orthodontic treatments were unsatisfactory quality work. Retention, support and stability, extension of the denture and relieving areas (18.2%) for Complete Dentures, Esthetics (36.4%) for FPD and retention, support & stability (33.3%) for RPD were more

unsatisfactory parts than other aspects of the respective treatments. Gingival inflammation and dental deposits (72.7%) as compared to periodontal pockets and tooth mobility (9.1%) were unsatisfactory for post-oral prophylaxis. Pain and dry socket (16.7%) were unsatisfactory in examiners point of view in comparison with trismus (0%), post-extraction swelling (8.3%) and bony spicules (8.3%) for non-surgical extractions. Overall, among examiners' perception for all the clinical treatments, non-surgical extractions (90.0%) showed highest satisfactory quality work whereas RCT (75.0%) showed the least satisfactory quality work. There were 7 categories as waiting period during treatments, time taken for treatments, doctors' manners, quality of treatment, cost of treatment, grievances related to treatments and appointment problems in the patients' perception for the various treatments. Patients waited more for their complete denture treatment procedures as compared to non-surgical extractions. Time taken for treating dental caries with Ag-amalgam restorations was less whereas it was more for complete denture and RCT procedures with respect to patients' perceptions. For non-surgical extractions patients gave highest satisfactory response (100%) for doctors' manners, which was least for complete dentures (63.6%) and RCT (66.7%). In quality of treatment category, Composite restorations, fixed partial dentures and oral prophylaxis showed highest satisfactory results (90.9%) whereas RCT showed the least (50%). For cost of treatments, Ag-amalgam restorations, non-surgical extractions and oral prophylaxis procedures showed higher response (100%) of patients satisfaction in comparison to least response (21.4%) for orthodontic treatments. Patients had higher grievances for FPD and Orthodontic treatments. Oral prophylaxis and non-surgical extractions had no appointment issues as compared to complete dentures, RPD and RCT in patients' point of view.

## DISCUSSION

The aim of this study was to evaluate the quality of dental care and assess the patients' perception to the treatments received in dental institution. Among examiners point of view, marginal seal and finishing & polishing were unsatisfactory than other aspects of composite restorations which may be due polymerization shrinkage<sup>[12-13]</sup>

and secondly majority of the treatments both composite and Ag-amalgam restorations were done by the undergraduate students as seen on records which would have lead to technique issues.<sup>[13-16]</sup> Periapical radiolucency for RCT was unsatisfactory, as few of the treatments had poor apical seal<sup>[17]</sup> and the regeneration (remineralization) of bone occurs in few months to years of treatment.<sup>[18-19]</sup> In RPD and Complete Denture treatments, retention, support and stability were compromised due to improper extensions of dentures and poor border seal.<sup>[20-21]</sup> In FPD, esthetics were unsatisfactory, reasons being poor shade matching<sup>[22]</sup> and underpreparation (undercontouring / overcontouring) of the partial dentures.<sup>[23-24]</sup> In orthodontic treatment, relapse was unsatisfactory than other aspects of treatment, which may be due to patients not wearing retentive appliances<sup>[25]</sup> as directed after treatment. For oral prophylaxis, gingival inflammation aspect was unsatisfactory which may be due to improper oral hygiene practices<sup>[26]</sup> by the patients after treatment. For non-surgical extractions, dry socket and pain aspects were unsatisfactory which may be due to patients not following proper post-extraction instructions, poor oral hygiene and not quitting adverse oral habits.<sup>[27-28]</sup> In the doctor manners', time taken and waiting period categories, patients were least satisfied with complete denture and RCT procedures, which may be due to patients expectations for early insertion of denture within few seatings, but as undergraduate students handle more case, students are mostly not in position of satisfying the patients, which was also correlated with RCT procedures. In treatment quality category, RCT and complete denture were least satisfactory in patients perceptions as for RCT the patients correlated the quality of treatment with the pain, discomfort and appointments and for complete denture, patients expects the denture functioning to be as that of natural dentition. In the cost and grievances related to treatments categories, patients were least satisfied with orthodontic treatments and FPD as they were expensive treatment than other treatments in the institution according to the patients.

## CONCLUSION

The proforma in this study is used as an assessment tool to assess the quality of dental

care. Major dissatisfaction stems mainly from concerns about the cost and doctors' manners for the dental care in the institutions. The patients evaluate their dental care in terms of the dentist's interpersonal care i.e. doctors manner. The evidence confirms the theory that there are some criteria such as interpersonal care which are common in patients' evaluation of quality, irrespective of the type of health care being provided. Attempts should be made to improve the quality of dental care in the institution to benefit the patients.

#### **CONFLICT OF INTEREST & SOURCE OF FUNDING**

The author declares that there is no source of funding and there is no conflict of interest among all authors.

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