



DENTAL RECORDS UNDERSTANDING AMONG PRIVATE DENTAL PRACTITIONERS: A DESCRIPTIVE STUDY

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Abstract

Background: Proper recording and keeping dental records plays a critical part in any practice. Human Identification in mass disasters or in Crime scene investigations dental records is crucial in addition to provide evidence to against litigation and improve patient care.

Aim: To evaluate the knowledge regarding the maintenance and awareness of dental records among private practitioners in Faridabad, Haryana.

Method: A cross sectional survey was conducted to assess the awareness of maintenance of dental records among private dental practitioners practicing in Faridabad, Haryana. A total of 86 dentists participated in the study. The respondents were provided with a pre validated, self-administered questionnaire. One competent assessor collected all the necessary information via personal visits or google forms. Chi-square test was applied to see the statistically significant difference between the independent variables with reference to study participants' responses to the questionnaire.

Results: Most of the dentists who participated in the survey had been working for an average of 12.84 years across many specialities. Out of the 86 participants, 85(98.8%) agreed about the importance of maintaining dental records, 68.8% participants were aware that the dentists are legally bound to maintain the records whereas 19.8% participants were not aware that dental records need to be maintained for a minimum of 3 years, as per guidelines given by the Dental Council of India.

Conclusion: Dental professionals are bound to maintain dental records for legal, ethical and professional reasons.

Keywords: Dental Records, Dental Practitioners, Dentists, Forensic Odontology, Google Forms

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INTRODUCTION

Proper recording of patient information is extremely important to the practise of modern-day dentistry, ensuring dental treatment is provided to each and every patient. The Dental record (aka dental chart/ patient chart) is the legitimate source of information with respect to medical history, examination, diagnosis, investigations (radiologic/hematologic/ histopathologic), diagnosis, informed consent, treatment and patient related communications including home care instructions and also the financial costs incurred for the treatment.¹ Any observations of child abuse or domestic violence should also be recorded and duly signed and dated by the person in charge. According to the national crime record bureau 4338 cases are reported in 2020 for crime against children in the state of Haryana.²

The Dental Chart provides all relevant information about the tooth and tooth supporting tissues such as the dentition status, number of teeth present/missing, restored teeth, carious teeth, gingival and periodontal status of the dentition. Dental records is one of the most consistent method for victim identification in Mass Disasters, the success of tooth based identification is an entirely reliant on the Ante-mortem records from general practitioners. A systemic review was done on the role of forensic odontology in identification of victims of major mass disasters across the world, they found that 17 major mass disaster used dental records for victim identification, out of which 100% victims were identified in Kentucky Air crash and about 63.63% victims in Australian bush fire.² The forensic odontology-based identification is majorly dependent on availability of dental records from general dental practitioners. Delhi NCR region lies in ZONE 4 of earthquake prone seismic areas, making it altogether more important for every dental practitioner to maintain proper records in case any untoward event happens, so as to help the forensic teams in identification.⁴

In American and European countries dental records are maintained precisely as per law. Although a law has been set up for keeping dental records, it is not yet being followed strictly in India. Despite official notification by the honourable Dental Council of India, that every Dental surgeon should maintain the relevant records pertaining to his out- patients and inpatients (wherever applicable) not many dental practitioners adhere to this notice. These records as such must be preserved for a minimum period of three years from the date of commencement of the treatment in a format determined by the Council or accepted as a

standard mode of documentation.⁵ Article 51A of the Indian Constitution clearly states that doctors have a moral and legal commitment to preserve and protect medical and medical-legal documents in order to preserve the integrity of the community and the integrity of the profession. To avoid the penalty imposed by Section 271[1] of the Income Tax Act, 1961, records and official papers must be kept safe at least eight years.⁶

But confusion always persists as of how much in India, any dentist knows about the significance of maintaining dental records and its connection with medicolegal cases. In view of this backdrop, this survey was conducted to investigate and assess the awareness about dental records among the dental practitioners in Faridabad, Haryana.

MATERIAL AND METHODS

A cross sectional survey was conducted to assess the awareness of maintenance of dental records a dental practitioner practicing in Faridabad, Haryana based on similar previous studies done in India. A total of 86 dentists volunteered to participate in the study, whose details were procured by regional Indian Dental Association branch. Local dental associations were contacted of gathering information regarding the dental practitioners because of the lack directory of registered dentists. 100 dentists were contacted via convenience sampling method out of which 86 gave the consent to participate in the survey.

Clearance was taken from the ethical committee of the college before the survey was conducted. The respondents were provided with a self-administered questionnaire based on previous studies. The questionnaire comprised of questions related to demographic details, 7 questions about awareness and 10 questions about attitude to maintain dental records. All these were close ended questions.

The questionnaire was designed to assess their practice and knowledge on the following matters:

- Awareness regarding dental records.
- Knowledge about dental jurisprudence and ethical dentistry.

Google Forms were used to conduct the questionnaire online. Only the researchers will know the specific responses to this survey. Consent to participate in the research was properly acquired using Google forms at the outset.

The questions asked ranged from their knowledge about the dental records, its importance, its minimum time period of storage and implications,

advantages of maintenance and the negative effects of not maintaining it.

For Statistical Analysis SPSS (statistical package for social sciences) version 21 was used for the recorded data. Statistical difference between the responses of the study participants according to dichotomous groups such as age and years of practices was assessed using chi-square test. P value was set at less than 0.05.

RESULTS

Among the 100 dentists that were contacted for this study, only 86 gave their consent for completing it. This made our response rate to be 86%. Majority of the dentists refused because of the lack of time to fill the questionnaire. There were significantly more males than females in the final sample. It was seen that 68.6% participants had complete MDS or done specialisation courses as well as compared to the remaining 31.4% participants who had completed their BDS degree. It was also observed that most of the dentists who participated in the survey had been working for an average of 12.84 years across many specialities like Pedodontics, Orthodontics, Prosthodontics, Endodontics & General Practice and they treated an average of 10 patients a day.

Out of the 86 participants, 85 (98.8%) agreed upon the importance of maintaining dental records. Patient care and follow up was believed to be the primary reason by 77.89% participants as the main reason for documentation and recording, followed by dental evidence in event of a litigation (73.3%), Ethical Consideration (72.1%), Teaching & Research purposes (58.1%), Prevention of Malpractices (51.2%), Use in forensics payment records (2.3%), for Improving one's Work Efficiency (2.3%), Follow Up's (1.2%) and for Preventing False accusations (1.2%).

98.8% participants knew that keeping dental records is medicolegally important. But only 68.8% participants are aware that the dentists are legally bound to maintain the records whereas 19.8% participants were not aware that dental records need to be maintained as per DCI norms.

Around 87.7% participants maintain medical and dental history of the patients in their records followed by treatment plans (86.49%), personal data (84%), radiographs & clinical notes (81.5%), diagnosis of the disease (79%), photographs of the problem (71.6%), study models (44.4%) and prognosis by only 59.3%. Only 1.2% participants maintained all the enlisted factors in their dental records.

A bivariate analysis was conducted to illustrate the association between Gender and level of awareness about maintenance of dental records among dental practitioners. Female participants (mean=36.73, $P=0.240721$) were found to maintain dental records more than the males. In addition, it was also seen that participants above the age of 40 years (mean = 40.05, $P=0.28731$) were more aware than those below 40 years. Comparing the awareness of participants whose annual income was more than 10 lakhs (mean = 33.37, $P = 0.512812$) were more aware and maintained dental records as compared to the participants whose annual income was less than 10 lakhs.

Even though there has been a rise in use of Information Technology in almost every field, a large number of participants 56.8% continue to maintain manual records while only 14.8% maintained digital records followed by 28.4% participants who maintain both types of records.

Out of 4.7% participants who did not maintain dental records when asked further, 75% mentioned the lack of resources as the primary reason. Other reasons included lack of time (50%), lack of manpower (50%) and lack of space (25%). Lack of experience was not considered by anyone to be a reason for non-maintenance of records. About 75% of these participants did not face any problem or legal issues for not maintaining the records but 25% did face problems.

DISCUSSION

This survey was conducted among dental practitioners to determine their level of awareness regarding dental record preservation and upkeep. The findings indicate that most practitioners are maintaining records for patient care and follow up. In the current study, 98.8 percent ($n=85$) of the participating dentists had been keeping dental records for more than three years at the time of the study. In contrast, research conducted in other states of India by Rubel et al⁷, Shuvakumar GC⁸, Sahni et al⁹ and Mehrotra et al.¹⁰ revealed a skewed picture of record preservation, with fewer than half of the overall sample of practitioners maintaining dental records for the desired period of time.

Maintaining patient records is desirable both legally and ethically, since it protects us from any type of medicolegal action. Records, such as medical and dental histories, radiographs, models, and photographs, are critical when confronted with litigation in a court of law and must thus be meticulously maintained. It is a well-established truth that, more than the patient's recollections; the dentist's written records are accorded greater weight in a case.

Following the Dental Council of India (DCI) Rule and Regulation 2007, 10–12 hours should be allocated for instructional lecture and 20–25 hours should be allocated for conducting practical lessons in forensic dentistry.¹¹ Forensic odontology educates students on the ethical standards that should be observed during clinical practise, which includes the maintenance, handling, and various forms of dental records. It also educates students about the medicolegal rules that govern these dental records.¹²⁻¹⁴

In academic institutions, students are instructed on the proper maintenance of patients' dental records. They are instructed on how to take an accurate medical history and the need of retaining these records for future referral. They are required to adhere to the requirements for documenting all patient information. This is because students will be evaluated based on requirements and examinations; hence, they are required to maintain correct records in order to earn good grades and a high degree.¹⁵

In private clinics, practitioners tend to focus more on the income and the financial status of the clinic, therefore brief history is obtained in order to save time and admit more patients, thus increasing the income of the clinic. There has been a high significant level in negligence of the maintenance of dental records in private clinics. Private clinics encounter their records more of financial document rather than an accurate beneficial one, this saves their time in taking history in turn more patients are seen therefore increasing the income of their clinic. This study was conducted amongst dental practitioners to create awareness about maintaining dental records in the branch of forensic odontology and the attitude and perception of dentist regarding the same in the district of Faridabad. The results showed that most dentists were aware about the dental record keeping, they were aware about forensic odontology as a branch of dentistry. They were also aware of the medico legal aspect of maintaining dental records. Many dentists themselves helped in reaching judicial conclusions. Lack of resources, manpower and lack of time were the top reasons why the remaining dentist didn't maintain the dental records.

CONCLUSION

Practising dentists are bound to maintain dental records. In a way dental records and forensic odontology are connected. In developing countries with introduction of online data storage apps such as RVG, iClouds etc. have helped dentist in modifying the old ways of dental record keeping and it has encouraged the dental population to

maintain dental records. Essential to the dentist's professional responsibility is the creation, maintenance, and distribution of clear and correct patient records. A successful completion of this work will aid the dentist in the event of a medicolegal claim and aid the police and coroners in the identification of persons. Dentists are legally the owner of the dental records and patient's case history. One cannot disclose this to anyone. Except under few circumstances

1. When the patient wants it for consultation of any other dentist
2. For medico legal purposes
3. For police investigations
4. When insurance companies or income tax department ask for it.

But still the push is needed to encourage the dentist to maintain dental records and to aware them regarding forensic odontology which is an important and upcoming new branch of dentistry. Forensic odontology paves a new way of looking upon dental population.

In the last few years this branch has picked up pace in the developed countries and played an important role in solving cases, but developing countries still need to mainstream this branch and its wide application.

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TABLES

Characteristics	N	%
Overall	86	100
Age Group		
<40 years	40	46.6
>40 years	46	53.4
Gender		
Male	39	45.3
Female	47	54.7
Qualification		
BDS	27	31.4
Mds/ Higher Specialisation	59	68.6
No. of Years of Clinical Practice		
<10 years	35	40.6
>10 years	51	59.4
No. of patients attended per day		
<12	66	76.7
>12	20	23.3
ANNUAL INCOME		
<10 lakhs	51	59.4
>10 lakhs	35	40.6

Table 1: Baseline characteristics of the study participants

Characteristic Feature		Maintains Dental Records	Does Not Maintain Dental Records	Chi Square Value	P Value
Gender	Male	43 (44.27)	4 (2.73)	1.3764	0.240721
	Female	38 (36.73)	1 (2.27)		
Age	Below 40 Years	39 (40.05)	3 (1.95)	1.1492	0.28371
	Above 40 Years	43 (41.95)	1 (2.05)		
Income Levels	<10 Lakhs	48 (48.63)	3 (2.37)	0.4283	0.512812
	>10 Lakhs	34 (33.37)	1 (1.63)		

Table 2: Bivariate Analysis of studied population characteristics and the level of Awareness of maintenance of dental records amongst the dental practitioners.