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ORIGINAL ARTICLE

Dental Record Keeping by General Dental Practitioners in Lahore

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ABSTRACT
Objective: of this study is to analyze the behavior/attitude of general dental practitioners towards record keeping and quality assessment of patient records found in different dental practices of Lahore.
Study design: Cross sectional, Descriptive, Questionnaire based study (Copy of questionnaire attached).
Place and Duration of Study: Data collection for this study was conducted in different private dental practices of Lahore from Oct-2017 to Dec-2017. Methods; A random sample of 60 dental practices were selected by means of stratified sampling from different towns of Lahore. Dentists were interviewed and patient records were checked for data collection which is analyzed using SPSS version 23.
Results: Interview of 43 dentists and analysis of patient records from their practices revealed that 16 (37.2%) practices have no record at all and even none of the remaining 27 (62.8%) practices. Who claim to have patient records, has any properly completed record. Shows that dentists have got very casual behavior towards record keeping as most of them were not having any records and the remaining ones who claimed to have patient records, were maintaining them in a very poor form.
Conclusion: Female dentists, postgraduates and dentists working in group practices and affluent areas were found to have relatively more tendency towards record keeping. Recommendation; Dentist training institutes and health implementing authorities are the main areas which need to be stressed upon for improvement of record keeping.
Keywords: (MESH) Record keeping, Dental photography, Dentist, Post-graduate, Health authorities, Affluent areas.

INTRODUCTION
A dental record is a document of the history, physical examination, diagnosis, treatment, and management of a patient in detail. Dental professionals are legally bound to have adequately maintained patient records.[1] A thorough knowledge of dental records is essential for the practicing dentist, as it has a forensic application aswell [2].

Every practicing dentist has a legal, professional and ethical duty to keep some sort of record of each of his/her patient.[3] It is widely accepted in the profession that properly structured and well organized patient records are essential to ensure accurate and safe treatment [4,5].

It is a requirement of the General Dental Council (UK) that all dentists produce and manage patient records appropriately[6]. Similar requirements are in force throughout clinical practice in the United States and Europe. Clinical records are important in provision of dental care, allowing appropriate continuity of care and provision of correct sequence of treatment [7].

A comparison of computer-generated and handwritten records in general dental practice in the UK showed that the computerized records to be significantly better in detailing a number of generic criteria such as patient identifiers, medical history, dental charting, periodontal condition, soft tissue examination, treatment provided and treatment plans [8].

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Dental photography is also essential in record keeping and it is important for all members of the dental team to be appropriately trained and for each practice to have the appropriate equipment.[9]

Therefore a survey was conducted to have an insight into dental record-keeping system in general dental practices of Lahore and also to compare this system with the international standards.

The objective of this study is to find shortcomings in our system, to further improve training and practice of future dental professionals and ensure quality patient care.

METHODOLOGY
A Cross sectional, Descriptive, Questionnaire based study was conducted from Oct-2017 to Dec-2017 (Copy of questionnaire attached). A standard of dental patients' record was developed by reviewing the current literature and consultation with the experts in the field.[10,11] Then two questionnaires namely. Q1 and Q2 were made accordingly to assess quality of record-keeping in private dental practices of Lahore A pilot study was done in five practices (selecting in patient records form each) to validate the questionnaires.

A random sample of 60 practices was selected by means of stratified sampling from major towns of Lahore. In first stage 10 strata of population were defined according to administrative divisions of Lahore and then in second stage a random sample of six practices was selected from each town. The sample pool was divided into different categories according to gender, qualification, practice type and

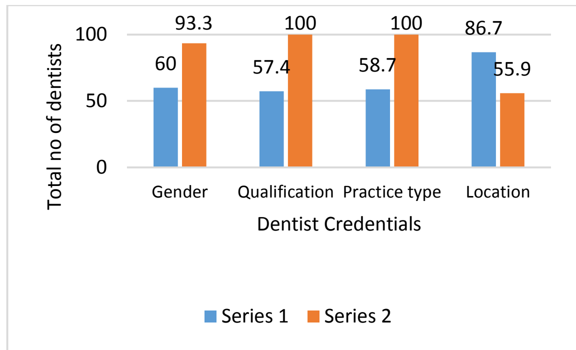
location. Affluent and non-affluent areas were defined according to rental values of commercial shops of the area. Areas with the average rent of a shop measuring 20’ × 24’ more than Rs. 100,000/- were regarded as affluent areas and vice versa. Dentists with fellowships, masters or some higher degrees were regarded as post –graduate e.g. FCPS, FDSRCS, MDS, MCPS, MSc or PHD, while remaining as graduates.

Thus making a total sample of 60 practices. Concerned dentist of each practice was contacted and the nature of study was explained to take consent for participation. 17 (28.33%) dentists refused to participate while date and time was arranged with the 43 (71.66%) dentists to visit practice and collect data. 10 consecutive records of recall patients, at least one recall visit in any month of year 2017, were selected from each practice. Q1 was to be filled by the dentist where they were asked about personal detail and questions regarding their behavior/attitude towards record keeping and whether or not they will allow us to access the dental records while Q2 was to be filled by the investigator according to the entries present in each patient’s record. Finally the survey was executed and the data collected was analyzed using SPSS version 23. Statistical comparison of record entries was done using the chi-square test.

RESULTS

Interview of 43 dentists and analysis of patient records from their practices revealed that 16 (37.2%) practices have no record at all and even none of the remaining 27 (62.8%) practices. Who claim to have patient records, has any properly completed record.

Looking at the credentials of the dentists some significant trends (having $p < 0.05$) were seen in record keeping as shown in graph 1.

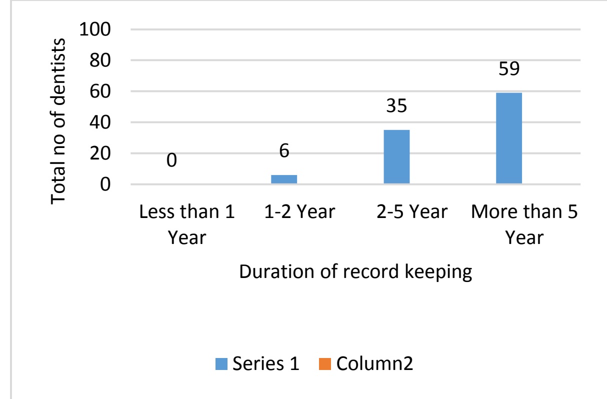


Graph 1: Trends in record-keeping

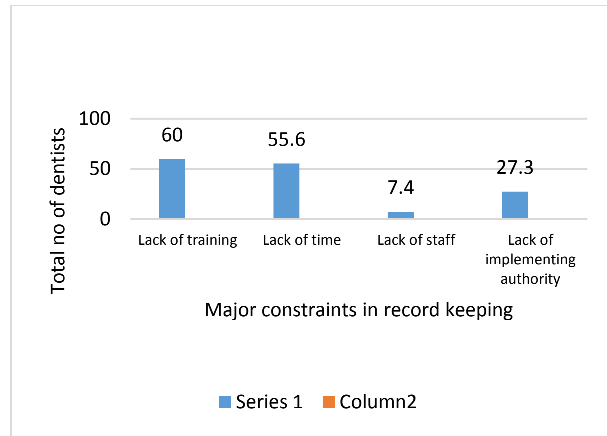
As far the overall behavior/attitude of dentists is concerned, it shows following tendencies:

Behavior of dentists towards record keeping

Questions	Responses		
Does the surgery possess patient records?	Yes n(%) 23 (53.5%)	No n(%) 16 (37.2%)	Sometimes n(%) 4 (9.3%)
Would you allow us to access the patient record?	25 (58.14%)	18 (41.86%)	N/A
Is record keeping useful?	27 (62.8%)	8 (18.86%)	8 (18.6%)
Should it be mandatory?	19 (44.2%)	24 (55.8%)	N/A

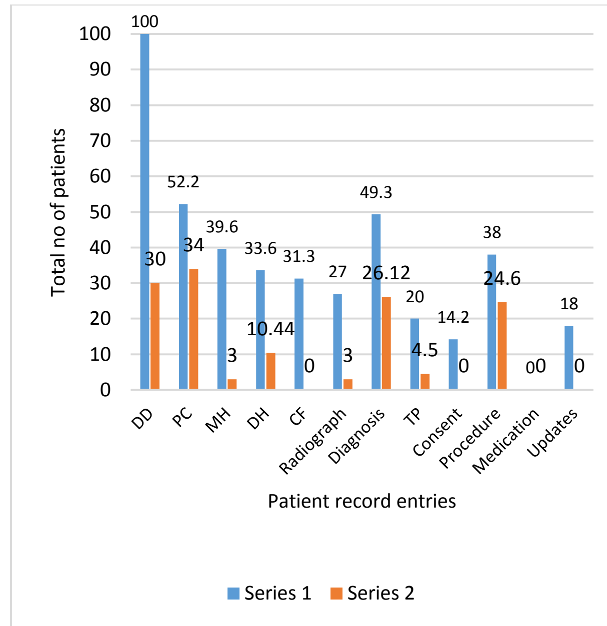


Graph 2: For how much time do you keep patient records?



Graph 3: What are the major constraints in record keeping?

Finally, 250 patient records from 25 practices, which had records and allowed access, were analyzed and found deficient in most of the entries as depicted in graph 4.



Graph 4: Dental-record quality assessment

DD= Demographic Data	DH= Dental History
PC= Presenting Complaint	CF= Clinical Finding
MH= Medical History	TR= Treatment Planning

DISCUSSION

The study showed that we are lagging far behind the international standards[10.11] in dental record keeping as only a fraction of dental practitioners are keeping patient records 16 dentists out of 43 were having no record at all and the 17 who refused to take part in the survey at very initial step were also most probably lacking patient records. Thus making a total figure of 33 (55%) out of 60 with no records and the remaining 27 (45%) having patient records but in a very poor form as most of the entries were absent incomplete or back dated.

Although female dentists, postgraduates, dentists working in group practices and in affluent areas have better tendency towards record keeping and these results match with the results of a study done in Finland and Sweden.[12,13] But the overall results, dentists have very casual behavior about record keeping because 55.8 % of them do not consider it mandatory and above 33% are in doubt about it usefulness.

Majority of the dentists who keep patient’s records, keep them for a sufficient period of time (2 -5 years or more than 5 years). So the problem definitely lies with the quantity and quality of record keeping but not will be duration of record keeping.

CONCLUSION

Our survey results indicate towards a triad of problems which needs to be stressed upon for improvement. Firstly, the dentists themselves, secondly, training institutes and thirdly, implementing health authorities. Although female dentists, postgraduates, dentists working in group practices and in affluent areas have got better tendency towards record keeping but the overall picture is very poor. So campaign on a large scale is needed to educated dentists especially male graduates running single private practices who form a majority of our dental community.

Training institutes should introduce students with the subject at under graduate level and spend time and resources of this effective tool to improve dental professionalism. Last but not least are the implementing authorities e.g. state or the dental council of the country with may perform a pivotal role in this regard as all the developed countries with good record keeping trends have strict monitoring by such kind of health authorities.

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