

Insights Of Medical-Legal Problems Among Dental Practitioners

Authors:

**Murtaza S Hussain¹, Shravani G. Deolia², Himanshu Shende³, Jenish Patel⁴,
Rutuj N. Waghmare⁵, Gargi Nimbulkar⁶**

- 1) Murtaza S Hussain, Assistant Resident (BDS), Sharad Pawar Dental College. Datta Meghe Institute of Medical Sciences, Sawangi (Meghe), Wardha, Maharashtra, India
Email ID: - murtazamessi66@gmail.com. Phone No:-+917744043928
- 2) Shravani G. Deolia., Associate Professor Department of Public Health Dentistry, Sharad Pawar Dental College. Datta Meghe Institute of Medical Sciences, Sawangi (Meghe), Wardha, Maharashtra, India Email ID: - deoliashravani@gmail.com Phone No:- +919503523656
- 3) Himanshu Shende, Assistant Resident, Sharad Pawar Dental College. Datta Meghe Institute of Medical Sciences, Sawangi (Meghe), Wardha, Maharashtra, India Email ID: - himanshushende18@gmail.com Phone No:-+918600510632
- 4) Jenish Patel, Assistant Resident , Sharad Pawar Dental College. Datta Meghe Institute of Medical Sciences, Sawangi (Meghe), Wardha, Maharashtra, India Email ID: - jenish.jp24@gmail.com Phone No:-+918668609704
- 5) Rutuj N.Waghmare, Sharad Pawar Dental College. Datta Meghe Institute of Medical Sciences, Sawangi (Meghe), Wardha, Maharashtra, India Email ID: rutujwaghmare4@gmail.com Phone No:-+919970073903
- 6) Gargi Nimbulkar., Assistant Professor Department Of Public Health Dentistry, Sharad Pawar Dental College. Datta Meghe Institute of Medical Sciences, Sawangi (Meghe), Wardha, Maharashtra, India Email ID: - garginimbulkar@gmail.com Phone No:- +919421703449

Address for correspondence

Shravani G. Deolia, Associate Professor Department of Public Health Dentistry , Sharad Pawar Dental College and Hospital, Sawangi (M), Wardha, Maharashtra, India

Phone no- +919503523656, Email id- deoliashravani@gmail.com

Original Article

Abstract

BACKGROUND- *Practicing medicine in India has revolutionized during the last five decades affecting the healthcare delivery in both positive and negative directions. The doctor-patient relationship has undergone a transition throughout the ages. The perception has been changing due to some malpractices of doctors; people started looking at doctor's community with distrust. Thus a health care professional must know about medico-legal problems to protect oneself from legal issues.*

OBJECTIVES- *To evaluate the knowledge attitude and practice of medico-legal problems among dentist practitioners residing in Vidharbha region.*

METHODS- *The cross sectional study was done in a Private Dental College and were assessed through a self-administered, pretested, validated, close ended, unstructured questionnaire. It was made available to all levels of dentistry being under graduates, post graduates, staff and interns. Data was collected, entered in excel sheet and analyzed using SPSS-21 version.*

RESULTS- *A total of 180 of 181 dentists participated in this study. A total of 92 respondents were males and 88 were females. Lack of knowledge among dental professionals was highlighted in this present study having a poor result of 53.3% regarding the medico legal issues. It was found that only 45.5% of the dental practitioners had knowledge regarding the importance of dental record keeping, which was unsatisfactory. The overall grading showed that majority participants had poor knowledge with fair attitude and practices.*

CONCLUSION- *It was found that majority of the respondents had poor knowledge about medico legal issues. Therefore, it is recommended that Continuing Dental Education and Continuing Medical Education programs should be conducted frequently to create awareness and reinforce practice to safeguard against medico legal issues in dentistry.*

KEYWORDS- *Awareness, Dentist, Law, Lawsuit, Malpractice, Negligence.*

Introduction

A superfluity of medical malpractice proclaims that medical practitioners not only have to deal with medical issues but also legal affairs. Hence, a health provider should be aware of legal allegations of their act while providing medical care to patients¹. Dentist and physician both are healthcare professional providing patient's care. Therefore, at certain standard of care, every dentist is obliged to perform certain duties to practice dentistry. Negligence is a violation of the duties of the dentist which can result in patient's injury which may cause lawsuit against them². It is self-explanatory that not only practitioner but also therapist and hygienist from medical field should be aware and have a meticulous understanding of the philosophy of consent, but also should have cognizance of these principles and to apply them in the wide variety of circumstances that can arise in the practice of dentistry³.

The uniqueness of the concept of jurisdiction make it difficult to define covering all aspects of it in one single definition. Simply, Law may be defined as "the system of rules which a particular country or community acknowledge as regulating the actions of its members and which it may inflict by the imposition of penalties"⁴. Law has an impact on every aspect and interest of an individual, dentistry in this regard being no exception. The lack of knowledge of medico-legal aspects of dental services causes hindrance in effective provision of dental treatments. The Law and Dentistry interface is focused mainly on drug and cosmetics act,

dentists act etc. The constant deterioration of ethical standards is seen due to market driven system.

The dental profession has been converted into profit making business and though forensics mandate appropriate maintenance of records it has not been practised judiciously. An evaluation of knowledge regarding the maintenance of dental records among dentists found a very low percentage of dentists maintaining dental records⁵. Medical officers are encountered with medico-legal cases and are considered to be an integral part of the medical practice⁶.

Laxity of dentist which fails or attempts to perform any procedure or treatment beyond their knowledge of dentistry and neglect to refer patients to a specialist is also a cause of negligence⁷. Literature says that any complicated case of particular speciality should be referred to the specialist when the prognosis is unsure⁸. Topics related to medico legal issues are being covered only in the legal specialty Criminal law and Criminal Justice (Criminology) and it is not being covered in any of the other dental colleges according to a cross-sectional study done in Chennai⁹.

A study was done based on the knowledge and perceptions of health workers, training on ethics which showed that 74% and 35.4% of them had knowledge and attitude towards the ethical code respectively and 49% of the respondents indicated that mandatory formal training on medico-legal issues should be provided¹⁰. There are many researchers have been performed related to ethical issues among dental practitioner but literature search shows there is deficiency in researches on particularly medico-legal aspects especially on dentist. Therefore, present study was designed with the aim to evaluate the insights of medico-legal problems among dental professionals in Vidarbha region.

Methodology

A cross – sectional, observational study design was used in this study. Ethical authorization from the institutional review board was given for this research. A 32 item self-administered structured closed ended questionnaire about knowledge, attitude and practice regarding legal issues was made and tested. It was made available to all levels of dental professionals attending the aforementioned institution and the ones residing in Vidarbha region.

A pilot study was conducted preliminary to the start of study. The questionnaire was given to 20 dental professionals in order to check reliability and validity of questionnaire. Former to the start of the core study, questions had to undergo successive revisions for interpretation of the subjects. In the main study the outcomes of the pilot study was not incorporated. The pilot study done on dental practitioner did not take part in the main study.

The final questionnaire consisted of demographic information and 32 questions on legal issues with 16, 8, 8 items assessing knowledge, attitude and practice respectively. Knowledge was assessed on objective assessment. A total of 16 questions on knowledge were asked, scoring was given on the basis of correct answer (Score=1) wrong answer (Score=0). A single participant can obtain a minimum score of 0 and maximum score of 16. Questions related to knowledge were based on the practitioners having knowledge on informed consent, about keeping the dental records of the patients and consequences of violation of law and their offences. Attitude and practice were assessed by a five point Likert scale and scores ranging from “Definitely yes” (Score=5) to “Definitely no” (Score=1) and from “Always” (Score=5) to “Never” (Score=1), respectively. The possible scores for both attitude and practice will have a minimum score of 8 and maximum score of 40. The structure of the questionnaire and their scores were taken from previous study¹¹. Attitude pertaining questions

included whether the dental practitioner should have the right attitude towards legal issues in their dental practice, harmonious coordination with other practitioners towards legal issues and whether they persistently are up to date about the knowledge on legal affairs. Questions pertaining to practice were assessed on how often the practitioners carried out an ethical practice, and if the patient's dental records are maintained by them during their practice. Participants were given 25-30 minutes to fill the questionnaire and to return it back.

Statistical Data analysis

The data collected from the questionnaire was entered on Ms Excel (2007 version developed by Microsoft) and was deployed on SPSS version 21 to carry out statistical analysis. Unpaired 't' test was used to analyse the comparison of mean scores of knowledge, attitude and practice with both the gender. Multiple comparisons of knowledge, attitude and practice were done with respect to academic positions by applying one way Anova test. Once statistical significant result was found, Post Hoc Anova test was applied to find out the significant academic group between academic positions. Pearson's correlation analysis was done to find out correlation of knowledge, attitude and practice among study subjects.

Result

A total of 180 subjects responded out of 181 of them, the response rate being 99.4%. A total of 92 respondents were males (51.1%) and the remaining 88 were females (48.88%). The three different variables viz knowledge, attitude and practice were categorized among 'good', 'fair', 'poor', depending upon the score each respondent have achieved. Statistical analysis was done and the following tables are given below.

Tables of research

Table 1: - Demographic distribution of study participants

Gender	No of study subjects
Male	92
Female	88
Mean age (in years)	27.18 ± 6.14

The table shows that males were more than females with mean age being 27.18 ± 6.14.

Table 2: -Distribution of variables into Good, fair, poor scores.

		Number of subjects	Percentage
Knowledge	Good (16-11)	1	0.6%
	Fair (10-5)	83	46.1%
	Poor (5-1)	96	53.3%
Attitude	Good (40-28)	1	0.6%
	Fair (27-14)	123	68.3%

	Poor (13-1)	56	31.1%
Practices	Good (40-28)	28	15.5%
	Fair (27-14)	122	67.8%
	Poor (13-1)	30	16.7%

Study subjects having knowledge were given scores ranging from good (11-16), fair (6-10), poor (1-5) while study subjects having attitude and practice were given a range of good (40-28), fair (27-14), poor (13-1). When the distribution was done it was found out that the study subjects had good (0.60%), fair (46.10%) and poor (53.30%) knowledge scores. While good (0.60%), fair (68.30%) and poor (31.10%) scores were found with attitude and for practice good (15.50%), fair (67.80%) and poor (16.70%) scores were found out.

Table 3: -Comparison of mean scores of all the three variables in both the gender by unpaired 't' test

Variables	Study subjects	N	Mean	Std. Deviation	Std. Error Mean	P value
Knowledge	Male	92	5.40	2.51	0.26	0.54
	Female	88	5.63	2.36	0.25	
Attitude	Male	92	17.62	6.35	0.66	0.24
	Female	88	16.55	5.97	0.64	
Practices	Male	92	21.98	7.61	0.79	0.83
	Female	88	21.75	6.57	0.70	

The mean scores of all the three variables were compared with both the gender which showed that the knowledge was good in females (5.63.) compared to males (5.40). Dissimilar comparison was found for attitude and practice when study variables were compared with both the gender, were male having a slightly higher mean of 17.62 and 21.98 for attitude and practice respectively than of females being 16.55 and 21.75 respectively. But no statistically significant value was found between the genders.

Table 4: -Multiple comparisons of variables with different academic positions by using one-way ANOVA

Study Variables	Academic position	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		F	Sig (P value)
						Lower Bound	Upper Bound		
Knowledge	Staff	41	5.56	2.40	0.37	4.80	6.32	1.32	0.26
	Intern	51	6.01	2.28	.319	5.37	6.66		
	Under graduate	30	5.03	2.76	0.50	4.00	6.06		

	Post graduate	58	5.27	2.38	0.31	4.64	5.90		
Attitude	Staff	41	16.04	6.23	0.97	14.08	18.01	5.88	0.001*
	Intern	51	16.19	6.24	0.87	14.44	17.95		
	Under graduate	30	21.23	5.13	0.93	19.31	23.14		
	Post graduate	58	16.48	5.82	0.76	14.95	18.01		
Practices	Staff	41	23.56	5.53	0.86	21.81	25.30	2.38	0.71
	Intern	51	21.64	7.03	0.98	19.66	23.62		
	Under graduate	30	23.26	6.36	1.16	20.88	25.64		
	Post graduate	58	20.13	8.16	1.07	17.99	22.28		
Post-hoc analysis of attitude									
Group				Group				p-value	
Staff				Intern				0.90	
				Post-graduate				0.72	
				Under-graduate				0.001*	
Intern				Under-graduate				0.001*	
				Post-graduate				0.80	
Under-graduate				Post-graduate				0.001*	

*p<0.05; Significant

When the comparison of study variables was done with respect to academic positions it was found that intern (6.01) had a better knowledge than staff (5.56), under graduates (5.03) and post graduates (5.27). While Under graduates (21.23) had a better attitude than post graduates (16.48), Interns (16.19), staff (16.04). While staff (23.56) had a better practice than under graduates (23.26), intern (21.64), and post graduates (20.13). A statistically significant difference for attitude scores was observed between the academic position (F=5.88, p=0.001*). The difference between academic positions was statistically insignificant for Knowledge and Practice (F=1.23, p=0.26 and F=2.38, p=0.71) respectively whereas for attitude the difference was statistically significant. Thus, post-hoc analysis was done to find out statistical significance in between the groups which revealed that, under graduates had significant difference when compared with staff, intern and post graduates (p<0.05).

Table 5: -Correlation analysis of knowledge, attitude and practice among study subjects by using Pearson correlation

Study variables		Knowledge	Attitude	Practices
Knowledge	Pearson Correlation	1	0.28	0.22
	Sig. (2-tailed) P value		0.001*	0.003*
	N		180	180
Attitude	Pearson Correlation		1	0.30
	Sig. (2-tailed) P value			0.001*
	N			180

*p<0.05; significant

Pearson Correlation analysis revealed that statistically significant positive correlation was seen between the all the three variables with each-other.

Discussion

The present study was done to assess various medico legal problems among dental professionals. The study was first of its kind, and minimum literature was available for comparison. The study focuses on the Knowledge, attitude and practice among dental professionals practicing in Vidarbha region.

In the present research the subjects were assessed on dental jurisprudence and legal liabilities. It was found that 45.5% of the dental practitioners had knowledge regarding the importance of dental record keeping, which was unsatisfactory. Similarly, R Kesavan et al¹² reported that 48% of the dental practitioners had knowledge regarding the importance of keeping dental records of the patients. Another study was done pertaining the dental records in Uttar Pradesh and Punjab was conducted by Gupta et al¹³, where they found that a very low percentage (22%) of dentists seemed to be maintaining the dental records. This shows that majority of the dentists are usually ignorant regarding the laws prevailing in their profession. Also, there is less awareness of dental jurisprudence among the dental professionals.

Maintenance of patient records is desirable both legally as well as ethically to safeguard ourselves against any kind of medico legal lawsuit. Records, including medical and dental history, radiographs, models, and photographs are of utmost importance while facing litigations when subjected to a court of law, and hence, must be scrupulously kept. It is a well approved fact that during a lawsuit, more than the patient's recollections, dentist's written records are given more weightage¹⁴.

It is clearly stated under Article 51 A (h) of the Indian Constitution that it is a moral responsibility on the part of a doctor, and his/her legal obligation, to sustain and conserve medical and medico legal documents for the best interest of communal and professional

integrity¹⁵. Records and official documents should be conserved for surveillance for a bare minimum of 8 years to evade penalty under Section 271 of the Income Tax Act, 1961¹⁵.

Lack of knowledge among dental professionals was highlighted in this present study having a poor result of 53.3% regarding the medico legal issues. According to study conducted by Brinda et al¹⁶, advocates having an undergraduate degree had knowledge of 37.7% of medico-legal issues, which is undesirable. Thus, this situation should be taken into consideration and more topics on medico legal issues should be included in the educational curriculum. In the present scenario, the dentist and advocates both cannot be blamed because of paucity of knowledge.

It was observed that the 67.8% of the participating dentist of our study took informed consent before the procedure. These results were comparable to the study conducted by Chandrashekar J et al¹⁷, on dentists in South India, where 77.1% dentist obtained informed consent. This shows that a fair percentage dentist are well aware of taking informed consent, but still more awareness needs to be spread about the same as it is the most necessary legal document before undergoing any procedure^{18,19}.

The present study also revealed that the knowledge among interns was comparatively better than those of staff, post graduates and under graduates; the reason for this situation might be because the interns have a fresh knowledge of their studies in final year and might be doing preparation for their post-graduation. The under graduates which are learning under the supervision of their staff, had a right attitude towards their work and was found same in our study. Naturally, the practice of the staff was reasonably better off than the other academic position, due to their working experience in the field.

Limitations

Certain limitation should be taken into consideration before concluding to any findings for this cross-sectional study. To start with, this study was done on dental practitioner and dental institute considering only a particular district, which might not be a representative of all dental professionals, thus limiting the generalization. As the research was conducted using questionnaire as a tool of measurement one should consider the in-built pros and cons of the same. Though it might have led to the possibility of collecting data from a large number of respondents relatively quickly and inexpensively but the authenticity of the actual knowledge, attitude and practices of the participants become questionable.

Nevertheless, the attitude of the practitioner was fair compared to the other two variables. However paucity of knowledge and practice of legal issues make us understand that there is exigency to recognize the problem prevailing among dentist regarding legal problems. Proper teaching protocol should be mandated for undergraduates and postgraduates alongside raising the awareness standards among the practicing dentist.

Conclusion

The results indicate the need for more focusing on medico-legal issues by arranging training programs and creating awareness among the dental professionals. The mushrooming of the 'goggle doctors' and patient awareness and consumer protection bills has resulted in pressing necessity of doing similar surveys and addition of medico legal problems in the curriculum of undergraduates and post graduates. Taking prior precaution with adequate awareness among dentist will facilitate in enhanced clinical practice and in turn prolonging proper healthcare of the patients.

References:

- [1] Blau I, Levin L. Medical practice: An introduction for the dental practitioner. *Quintessence int.* 2017; 48(10): 835-840.
- [2] D'Cruz L, Holmes D, Mills SE. *Legal aspects of general dental practice.* Elsevier Health Sciences; 2006; 1st edition.
- [3] Kakar H, Gambhir RS, Singh S, Kaur A, Nanda T. Informed consent: Corner stone in ethical medical and dental practice. *J Family Med prim care* 2014; 3(1):68-71.
- [4] Tyagi P, Dodwad V, Kumar P, Srivastava D, Arora K. Significance of ethics in dental education and professionalism: An insight on present scenario. *Univ Res J Dent.* 2014;4:78-80.
- [5] Bhadauria US, Dasar PL, Sandesh N, Mishra P, Godha S. Medico-legal aspect of dental practice. *Clujul Med.* 2018; 91(3):255–258.
- [6] Meshram RD, Giri VC, Khapre M. Rapid Turnover of Medical Officers & Medico-Legal Training: Current Perspectives. *Indian Journal of Forensic Medicine & Toxicology.* 2013; 7(1):161-163.
- [7] McGuire MK, Scheyer ET. A referral-based periodontal practice—Yesterday, today, and tomorrow. *Journal of periodontology.* 2003;74(10):1542-1544.
- [8] Newman MG, Takeih H, Perry R, Carranza FA. *Carranza's Clinical Periodontology.* Elsevier Inc. 10th ed. p. 1221-1226.
- [9] Available from: <http://www.tndalu.ac.in/pdf/MLSyllabus/fourthsem/CLA-MedicalJurisprudence.pdf>. Last accessed on 18th November 2018 12.30pm
- [10] Barnie BA, Forson PK, Opare-Addo MN. Knowledge and Perceptions of Health Workers' Training on Ethics, Confidentiality and Medico-Legal Issues. *J Clin Res Bioeth.* 2015; 6(1):205.
- [11] Deolia SG, Prasad K, Chhabra KG, Kalyanpur R, Kalghatgi S. An Insight Into Research Ethics among Dental Professionals in A Dental Institute, India- A Pilot Study. *J Clin Diagn Res.* 2014; 8(9):ZC11–ZC14.
- [12] Kesavan R, Mary AV, Priyanka M, Reashmi B. Knowledge of dental ethics and jurisprudence among dental practitioners in Chennai, India: A cross-sectional questionnaire study. *J Orofac Sci.* 2016; 8(2):128- 134.
- [13] Gupta A, Mishra G, Bhutani H, Hoshing C, Bhalla A. Forensic revolution need maintenance of dental records of patients by the dentists: A descriptive study. *J Int Soc Prevent Communit Dent.* 2016; 6(4):316-.320.
- [14] Jerrold L. Litigation and Legislation. Who is entitled to what? *Am J Orthod Dentofacial Orthop.* 2015; 148:1075–1077.
- [15] Astekar M, Saawarn S, Ramesh G, Saawarn N. Maintaining dental records: Are we ready for forensic needs? *J Forensic Dent Sci.* 2011; 3:52–57.
- [16] Waleed P, Baba F, Alsulami S, Tarakji B. Importance of dental records in forensic dental identification. *Acta Inform Med.* 2015;23:49–52.
- [17] Brinda B, Madan Kumar P D, Sivasamy S, Balan I N. Knowledge, attitude, and practice of advocates regarding dental jurisprudence in Chennai: A cross-sectional study. *J Educ Ethics Dent* 2016; 6:45-52.
- [18] Janakiram C, Gardens SJ. Knowledge, attitudes and practices related to healthcare ethics among medical and dental postgraduate students in south India. *Indian J Med Ethics.* 2014;11(2):99-104.
- [19] Patond, S., P. Mohite, S. Ninave, and V. Pande. “Knowledge about Medicolegal Aspect of Documentation amongst Residents and Faculty-a Cross-Sectional Study.” *Journal of Indian Academy of Forensic Medicine* 41, no. 2 (2019): 117–19. <https://doi.org/10.5958/0974-0848.2019.00032.0>.