

Perception About Dental Ethic Among Dental Practitioners

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Abstract-

Introduction: Ethics is a part of philosophy that deals with moral conduct and judgement. It is philosophy of human conduct, a way of stating and evaluating principles by which problems of behavior can be solved. Dental jurisprudence refers to set of legal regulations set forth by legislative bodies of each state. These legislation describes the legal limitations and regulations related to the practice of dentistry, dental hygiene and dental assisting.

Objective: (1) To evaluate the knowledge ,attitude and awareness among dental practitioners about dental ethics and jurisprudence and its application in dental practice. (2) To asses the awareness of dental practitioners about Consumer protection act (COPRA)

Material and methods: A cross-sectional , questionnaire based study was conducted on a total of 300 dentists. To get a the required sample size pilot study was conducted on 25 individuals. Simple random sampling method was used to get the sample. The study consistent of 34 close-ended questionnaire which were divided into two sections. Statistical analysis was done using SPSS.

Results: The results revealed that about 66% of dentists were aware that Dentist act came into force in the year 1976 and 71% knew that the dentists (Code of ethics) regulation was given by the Dental Council of India. Only 42% knew that it is not unethical for a dental surgeon to supply or sell drugs related to dentistry in his clinic. 52% responded correctly that it is necessary to obtain informed consent for clinical examination and routine radiography. 21% of respondents were not aware of professional indemnity insurance.

Conclusion: The study suggests that while dental practitioners generally have a grasp of dental ethics, their understanding of legal principles and it's application in dental practice requires enhancement. Although recommendations can influence dental professionals' conduct, significant progress may necessitate alterations in legislation and social policies.

Introduction:

Dentistry as a profession has come a long way. It has grown from the stage of undifferentiated profession to the stage of advanced professionalism. Over time, dentistry has evolved by embracing new concepts and technologies, moving away from outdated methods, and adopting more modern approaches to treatment and care. One of the characteristics of the profession is adherence to a Code of Ethics. Ethics is defined as a part of philosophy that deals with moral conduct and judgment. It is the philosophy of human conduct, a way of stating and evaluating principles by which problems of behavior can be solved[1]. Ethics serves as the study of how individuals navigate situations by discerning between right and wrong actions, prioritizing fulfilling duties, and nurturing positive interpersonal connections. It involves exploring moral principles to guide decision-making and behavior[2]. Dental ethics is a moral obligation that encompasses professional conduct and judgment imposed by the members of the dental profession[3]. Jurisprudence encompasses the philosophical examination of law and the systematic study of legal principles and relationships. Its divisions include analytical, sociological, and theoretical branches, which explore the logic of law, its societal impact, and the fundamental theoretical frameworks shaping legal systems.[4] Dental jurisprudence is a set of legal regulations set forth by each state's legislature describing the legal limitations and regulations related to the practice of dentistry, dental hygiene, and dental assisting.[1] The ethical dilemma has always been a part among the healthcare professionals [5] Awareness and knowledge of ethical standards and their application in conducting research are among the requirements to carry out research activities. Because ignoring ethical issues and analysis of potential ethical problems may not only cause harm to the subjects but also lead to implementation problems and research ineffectiveness [6]. Healthcare workers have been confronted with questions regarding medical ethics since medicine has been practised [5] . It's magnitude has changed nowadays, including issues that every practitioner needs to be thoughtful about. The knowledge of medical ethics and the taking of moral positions are essential parts of every day clinical practice. In borderline situations, such as deciding the type of intervention, autonomy and responsibility for the treatment outcomes moral values of practitioners must be

reflected. Apart from written laws, professional, ethical principles underpin a capacity for critical judgement to ensure treatment decisions are well-grounded and appropriate[7]. A Bavarian study reported that doctors who have been practicing for years believe that patients have little comprehension of the consequences of therapeutic decisions. It could be related to the limited role ascribed to patient autonomy[7]. Ethical education has been included in the training curriculum of healthcare professionals in many countries, and there has been increase in the number of ethics specialists and committees. However, public complaints have been increasing still in recent times. Few health professionals were exposed to a detailed training process; nevertheless, they are still expected to know about these aspects and apply them practically[4]. Dental ethics is a moral obligation that solicits professional behaviour imposed by the members of the dental profession. The dental regulations (Code of Ethics) were laid down by the Dental Council of India (DCI) in 1976 and later revised in 2014. Every registered dentist must understand their responsibilities and abide by them the same[3]. A set of legal regulations by each state's legislature describing the legal limitations and regulations related to dentistry, dental hygiene, and dental assisting has been a part of dental jurisprudence. The Dentists Act of 1948 primarily focuses on regulating the dental profession in India. Alongside this act, the Consumer Protection Act (COPRA), Indian Contracts Act, and Indian Penal Code also have relevance in governing various aspects of dental practice, including consumer rights, contractual obligations, and legal ramifications for professional conduct. Dentists must know in detail about these acts to have a legally and medically competent practice[2]. The present study aims to assess the knowledge regarding ethics and medical law for the dental practice among private practitioners in Pune, India. The study investigates two primary aspects; firstly, it aims to assess dentists' knowledge of dental ethics and their ability to make ethical decisions autonomously. Secondly, it focuses on different ethical issues, contributing to deeper understanding of the evolving ethical landscape within healthcare.

Methodology:

The present study was descriptive, cross-sectional, questionnaire based conducted to assess the knowledge of dental ethics and jurisprudence among dental practitioners in Pune city.

Simple random sampling was used to obtain the sample size. The study involved approaching dentists. The participants were informed about the study's importance and objectives, and any questions they had were addressed. Those interested in participating were then provided with questionnaire to complete. The filled questionnaire were collected on the same day. The obtained data was entered in micro excel sheet and subsequent statistical analysis was conducted. Results were illustrated using tables and graphs for better understanding.

Pilot study was conducted among 25 individual's who were asked to answer the questions and provide feedback on questions they found unclear. The necessary modifications were made accordingly in the final questionnaire. Cronbach's alpha value was found to be 0.825 for determining questionnaire validity. To establish the final sample size, the assumed population prevalence (P) was set at 75%(0.75). A Confidence level (1- α) of 95%(0.95) was chosen, corresponding to a Z value of 1.96 with an absolute precision (d) set at 0.05. The sample size calculation was done using the formula,

$$n = Z^2 P(1-P) \div d^2$$

Based on this parameters, the minimum sample size (n) was calculated to be 289. To account for potential non response or data related issues, the final sample size was rounded up to 300 subjects.

A self-administered questionnaire was designed using information from previous studies on ethics and laws. The questionnaire comprised of 34 close-ended questions. The first section was designed to obtain general information of the participants encompassing personal data and the socio-demographic profile. The next section had questions related to their knowledge regarding dental ethics and jurisprudence. The initial set of questions were designed to assess the knowledge of the respondents, next set to assess their attitude and their practice regarding ethics and law. The questionnaire was designed to take approximately 5 minutes to complete.

Results:

Total of 300 responses were collected for the analysis. Table. 1 depicted demographic details of participants. Out of 300 participants, 211(70.6%) were females and 88(29.4%) males. 125(41.8%) participants completed post graduation and 174(58.2%) were undergraduates. Of participants, 214(71.3) had been practicing for less than 5 years, 74(24.7%) between 5 to 10 years and 11(3.7%) for more than 10 years.

Table.1: Demographic details of participants

Questions	n	%
1. Gender		
a. Male	88	29.4%
b. Female	211	70.6%
2. Qualification		
a. MDS	125	41.8%
b. BDS	174	58.2%

3.Years of clinical practice (in years)		
a. <5 years	208	71.3%
b. 5-10 years	74	24.7%
c. >10 years	11	3.7%

Table. 2: Knowledge about dentist act and dentists (code of ethics) regulations.

Questions	n	%
1.Are you aware of dentist act		
a. Yes	266	88.7%
b. No	34	11.3%
2.The dentist code of ethics was given by	15	5%
a. Indian code of Medical research	214	214%
b.Dentist Council of India	42	42%
c. Indian Dental Association	29	29%
d. Don't know		
3.What are principles of ethics		
a. Non-maleficence	14	4.7%
b. Beneficence	17	5.7%
c. Confidentiality	8	2.7%
d. All of the above	261	87%
4.The dentist (Code of ethics) regulation first came into force in		
a. 1948	10	3.3%
b. 1976	199	66.3%
c. 1956	43	14.3%
d. Don't know	48	16%

Table. 2 describes knowledge of dental practitioners regarding Dentist Act and dentist (Code of ethics) regulation. About 88.7% of dentists were aware of dentist act. 71.3% of dentist knew that dentist code of ethics was given by Dentist Council of India and 87% answered All of above as principles of ethics. 66.3% answered 1976 as year in which code of ethics came into regulation.

Table. 3 : Knowledge about unethical practices.

Questions	n	%
1.1.Can dentist use abbreviations of membership in associations or organizations as a suffix to their names.		
a. True	59	19%
b. False	84	31.3%
c Don't know	156	49.7%
2.Is it mandatory to offer free consultations to fellow dentists and their immediate family.		
a. True	57	19%
b. False	94	31.3%
c. Don't know	149	49.7%
3.Is it unethical for dental surgeon to refuse treatment because the patient is HIV positive or suffering from any contagious disease.		
a. True	140	46.7%
b. False	34	11.3%
c. Don't know	126	42%
4.According to revised code, is it unethical to advertise a Dental Clinic.		
a. True	126	42%
b. False	39	13%
c. Don't know	135	45%

5. According to revised code, is it unethical to use a dentist's name in commercial products like toothpaste, toothbrush, etc a. True b. False c. Don't know	130 29 141	43.3% 9.7% 47%
6. According to revised code, is it unethical to affix a signboard in chemist shop or in other places where the dentist does not reside. a. True b. False c. Don't know	129 28 142	43% 9.4% 47.5%
7. Is it ethical for dental surgeon to supply or sell drugs in his clinic a. True b. False c. Don't know	126 35 138	42.1% 11.7% 46.2%

Table 3 describes the responses of dental practitioners regarding unethical practices. About 28% of respondents correctly said that it was unethical to use abbreviations of membership in association or organizations as suffix to their names. 31.3% knew that it was not mandatory to offer free consultations to fellow dentists and their immediate family. About 46.7% of respondents correctly answered that it was unethical to refuse treatment because the patient is HIV positive or suffering from any contagious disease. Only 13% knew that it was not unethical to advertise a dental clinic provided that the decorum was maintained. 43.3% of them knew that it was unethical to use a dentist's name in commercial products like toothpaste, toothbrush, etc and 43% knew that it was unethical to affix a signboard in chemist shop or other places where dentist does not reside. 42.1% knew that it was not unethical to supply or sell drugs related to dentistry in his clinic.

Table 4: Knowledge about Consumer Protection Act.

Questions	n	%
1. Are you aware of Consumer Protection Act? a. Yes b. No	242 56	81.2% 18.8%
2. According to Consumer Protection Act under district forum, a person can claim up to a. 2 Lakh b. 5 Lakh c. Don't know	55 103 142	18.3% 34.3% 47%

Table 4 describes the responses of dentist regarding their knowledge about Consumer Protection act. About 81% were aware about the Consumer Protection act and 18.8% were unaware of it. When asked about the compensation limit under district forum, about 47% responded that they do not know the answer, only 34.3% knew that it was up to 5 lakh.

Table 5: Knowledge about dental jurisprudence.

Questions	n	%
1. Is it necessary to obtain informed consent even for clinical examination and routine radiographs? a. Yes b. No c. Don't know	157 23 119	52.5% 7.7% 39.8%
2. Consent is invalid when a. Given under 12 years of age b. Given under 15 years of age c. Don't know	232 27 40	77.6% 9% 13.4%
3. Are you aware of professional indemnity insurance? a. Yes b. No c. If yes, it is done i. For giving compensation to the patient if doctor is found guilty	104 64 121	35.6% 21.3% 40.3%

ii. For protection of the clinic from accidents	9	3%
iii. For protecting costly equipment's	1	0.6%
4.4. Every dental surgeon should maintain his patients records for a minimum of		
a. 3 years	116	38.9%
b. 5 years	93	31.2%
c. 2 years	16	5.4%
d. Don't know	73	24.5%

Table. 5 describes the knowledge of dentists regarding dental jurisprudence. 52.5% of dentists responded correctly that it was necessary to obtain informed consent even for clinical examination and routine radiographs. 77.6% of responded knew that consent was invalid when given under 12 years of age .21.3% were not aware of professional indemnity insurance and out of 79 % who were aware 40.3% said it was done for giving compensation to the patient if doctor is found guilty, 3% responded that it was done for protecting dental clinic from accidents. Only 38.9% respondents correctly said that every dental surgeon should maintain his patient records for a minimum of 3 years.

Table. 6 knowledge about dentists attitude

Questions	n	%
1. Do you think dentist has a responsibility to inform patients if he/she has a communicable disease		
a. Yes	243	81%
b. No	57	19%
2. Do you discuss encountered ethical problems with clinical supervisor?		
a. Yes	173	57.7%
b. No	125	41.7%
3. Do you provide clinical information in such a way that lets patient choose as freely as possible?		
a. Yes	189	63.2%
b. No	110	36.6%
4 Do you avoid interruptions (phone call Or unplanned interruptions from other professionals) while seeing patient?		
a. Yes	188	62.7%
b. No	111	37%
5. Do you inform patients about the possible consequences when choosing a therapy?		
a. Yes	197	65%
b. No	103	34.3%
6. When doubts arise do you support patients request for a second opinion		
a. Yes	183	61%
b. No	117	39%
7. Do you collect the reasons that lead patients to reject recommended preventive measures (stopping smoking)		
a. Yes	178	59.3%
b. No	121	40.3%
8. Do you treat patient with respect and human rights?		
a. Yes	269	89.7%
b. No	31	10.3%

Table. 6 describes attitude of dentist towards patient. 81% dentist responded that dentist has the responsibility to inform patients if he/she has a communicable disease. About 57.7% of them used to discuss encountered ethical problems with clinical supervisor. 63.2% of dentist provided clinical information in such a way that lets patient choose as freely as possible. 62.7% of them avoided interruptions while seeing patients and 65.7% informed patients about the possible

consequences when choosing a therapy. When doubts raised 61% of dentist supported patients request for a second opinion and 59.3% collected the reasons that lead patients to reject recommended preventive measures.

Table. 7 knowledge about ethics in dental practice.

Questions	n	%
1.Do you treat your patients with respect and human rights? a. Yes b. No	269 31	89.6% 10.3%
2.Do you practice with honesty, compassion, kindness, integrity and fairness. a. Yes b. No	272 28	90.7% 9.3%
3.Do you practice informed consent before every procedure? a. Yes b. No	277 22	92.6% 7.4%
4.Do you take care of patients privacy and confidentiality? a. Yes b. No	276 23	92.3% 7.7%
5.Do you have thorough and clear work documentation for all your patients? a. Yes b. No	261 35	87.6% 11.7%

Table. 7 describes ethics in dental practice among dental practitioners. 89.7% of dentist responded that they treated their patients with respect and human rights. About 90% said that they practiced with honesty, compassion, kindness, integrity and fairness and 92% of them practiced informed consent before every procedure. 93% of responded said that they take care of patients privacy and confidentiality. 87% of them had thorough and clear work documentation.

Table. 8 knowledge about dental ethics.

Questions	n	%
1.Do you support the reporting of any unlawful or unethical behavior? a. Yes b. No	277 23	92.3% 7.7%
2.Do you have ethical policy? a. Yes b. No	273 25	91.3% 8.4%

Table. 8 describes knowledge regarding dental ethics among dental practitioners. About 92.3% supported the reporting of any unlawful or unethical behavior and 91 % of them had ethical policy.

Discussion:

The study aimed to assess the awareness level of dental professionals regarding ethical guidelines and jurisprudence (legal aspects) within dentistry. Many studies have been conducted to assess the knowledge regarding dental ethics among dental professionals. The study showed that most of the participants had good knowledge about the year in which dentist code of ethics was given and also that the dentist (Code of ethics) regulation was given by Dental Council of India this was in accordance with the study conducted in Chennai city by kesavan et al which reported that 65% dentist knew about the year In which dentist code came into force and 76% had the knowledge that code of ethics was given by dental council of India. (2). About 52% of the dentist in present study did not know that it was unethical to use abbreviations of memberships in associations or organizations as suffix to their names similar to report by kesavan et al. and also with study conducted by muralidharan et al(5). Another study conducted in Bangalore, revealed that younger dentists were more open to advertisement than senior dentists(9). However, a Dentist or a group of dentists may advertise provided that they maintain decorum, keeping in mind the high moral obligations and the value that society places on the important nature of their work and the moral character and integrity expected to them(3).

46% said it was unethical to refuse a treatment because the patient was HIV positive by a dental surgeon and 42% of them said they were unaware of it, which clearly shows lack of knowledge regarding unethical practices. It was compared to study conducted by kesavan et al. which gave positive results revealing that 74% of dentist were aware that refusing treatment for a HIV positive patient is unethical (2).

About half of the participants (46%) did not know that it was not unethical for a dental practitioner to sell drugs and dental appliances in his clinic within dentistry which was similar to the study by Kesavan et al. (2)

About 80% of participants responded that they were aware of Consumer Protection Act however, when subsequent question was asked regarding compensation limits under district forum only 47% responded correctly suggesting lack of knowledge regarding Consumer Protection Act among dental professionals. This study was similar to Kesavan et al. and in complete contrast to the study conducted in Ghaziabad where 90% respondents correctly answered questions regarding COPRA (2,10).

52% of dentist knew that it was necessary to obtain informed consent for clinical examination and routine radiographs as per the present study however this was higher than study by Kesavan et al. and less than that of study conducted by Janakiram and Gardens (2, 11) in South India. The consent process in dentistry is an opportunity for dentists to build a trusting relationship with their patients. By openly discussing treatment details, potential outcomes, and addressing individual patient concerns in a way that's easy for them to understand, dentists can establish rapport and ensure a more personalized and satisfactory dental experience.

Of 75% who said were aware of professional indemnity insurance 40% correctly answered that it was done for giving compensation to the patient if doctor is found guilty which was less than study conducted by Kesavan et al. which showed 74% of dentist said it was done for giving compensation to the patient if doctor is found guilty.

The effectiveness of questionnaire-based surveys relies on factors such as design, question content, analysis, and response rates. They offer the advantage of efficiently collecting extensive data from numerous respondents at a lower cost. However, an inherent challenge is recall bias, particularly prevalent among older participants, impacting their memory and responses. Additionally, this study's limitation stems from its exclusive focus on practitioners linked to dental colleges, potentially restricting broader applicability.

Conclusion:

According to this study, dental practitioners' understanding of dental ethics and jurisprudence was found to be moderate. It's essential to address this issue in a practical and significant manner. There assessment doesn't offer a specific evaluation of their attitudes and practices in this regard. Enhancing information access for dentists, implementing Continuous Dental education programs (CDE), conducting nationwide surveys, adjusting curricula to emphasize ethics and legal aspects, and encouraging clinicians to stay updated with evolving regulations are essential measures needed to advance the dental field's knowledge and compliance, ultimately improving the quality of patient care.

REFERENCES:

1. Soben P Essentials of Preventive and Community Dentistry.. 2006 4 ed. India Arya (Medi) Publishing House.
2. Kesavan, R.; Mary, A. Vinita; Priyanka, M.; Reshmi, B.. Knowledge of dental ethics and jurisprudence among dental practitioners in Chennai, India: A cross-sectional questionnaire study. *Journal of Orofacial Sciences* 8(2):p 128-134, Jul–Dec 2016. | DOI: 10.4103/0975-8844.195915
3. The Gazette of India Extraordinary, Part III, Section 4 Revised Dentists (Code of Ethics) Regulation 2014. 2014 Dental Council of India Notification
4. Anup N, Kumawat H, Biswas G, Pareek S, Tambi S. Knowledge, attitude and practices regarding ethics and law amongst medical and dental professionals in Rajasthan – A questionnaire study *IOSR J Dent Med Sci.* 2014;13:102–9
5. Muralidharan, Shrikanth & Pendyala, Gowri & Gandage, Dhananjay & Sachan, Saraswati. (2022). Knowledge of Dental Ethics and Jurisprudence Among Dental Practitioners in Pune: A Questionnaire Survey. *Cureus.* 14. 10.7759/cureus.31503.
6. Tehrani, S.V., Bazmi, S., Bazmi, S., Kiani, M., & Moghadam, S.A. (2021). Awareness of Dental Practitioners of The Ethical Standards in Dental Researches. *Pakistan Journal of Medical and Health Sciences.*
7. Wandrowski J, Schuster T, Strube W, Steger F: Medical ethical knowledge and moral attitudes among physicians in Bavaria. *Dtsch Arztebl Int* 2012; 109(8): 141–7. DOI: 10.3238/arztebl.2012.0141
8. Matrik K, Bligh J: Undergraduate ethics teaching: revisiting the consensus statement. *Med Educ.* 2006, 40:329–32. 10.1111/j.1365-2929.2006.02407.x
9. Dable, Rajani & Prasanth, Ma & Singh, Shailendra & Nazirkar, Girish. (2011). Is advertising ethical for dentists? An insight into the Indian scenario. *Drug, healthcare and patient safety.* 3. 93-8. 10.2147/DHPS.S25708.
10. Prasad S, Menon I, Dhingra C, Anand R. Awareness of consumer protection act among dental health professionals in dental schools of Ghaziabad, India *Oral Health Dent Manag.* 2013;12:262–8
11. 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;11:99–104