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**KNOWLEDGE OF DENTAL ETHICS AND JURISPRUDENCE AMONG DENTAL PRACTITIONERS IN CHENNAI, INDIA - A CROSS SECTIONAL QUESTIONNAIRE STUDY**

**ABSTRACT**

Ethics is a science of ideal human character and behaviour in situations where distinction should be made between what is right and wrong. 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. The objective of the study was to assess the dental practitioners’ awareness about dentists (code of ethics) regulation, Jurisprudence, Consumer Protection Act and its implications in dentistry. A cross sectional questionnaire survey was conducted among 346 dental practitioners who were selected by cluster sampling method. A specially designed questionnaire consisting of 24 close ended questions divided into two sections was used. The resulting data was coded and statistical analysis was done using SPSS (Statistical Package for Social Sciences) software version 17.0 The results showed that about 65 % of the dentists were aware that the Dentist Act was given in the year 1948 and 76% know that the Dentists (Code of Ethics) Regulation was given by the Dental Council of India. Only 33% knew that it is not unethical for a dental surgeon to supply or sell drugs related to dentistry in his clinic. Only 31% responded correctly that it is not necessary to obtain informed consent for clinical examination and routine radiography. Nearly half of the respondents (43%) were not aware of Professional indemnity insurance.The study concludes that majority of the dental practitioners are aware of dental ethics but their knowledge on jurisprudence and COPRA (Consumer Protection Act) needs to be enriched.

**Keywords:** Ethics, Jurisprudence, Consent, COPRA

**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. During this period, dentistry has witnessed changes; accepted new concepts adhered to ever changing technology while shedding old dogmas and methodologies.(1)One of the characteristics of the profession is adherence to a code of ethics. The word ethics is derived from the Greek word ethos meaning custom or character. While the Latin word for custom is *mos.* So ethics is often referred to as moral philosophy. Ethics is defined as a part of philosophy that deals with moral conduct and judgement. Itis the philosophy of human conduct, a way of stating and evaluating principles by which problems of behaviour can be solved.(1)

Ethics is a science of ideal human character and behaviour in situations where distinction should be made between what is right and wrong, duty must be followed, and good interpersonal relations maintained.(2)

Dental ethics is a moral obligation that encompasses professional conduct and judgement imposed by the members of the dental profession. The dentists (code of ethics) Regulations was laid down by the Dental Council of India in 1976 and later it was revised in the year 2014. It is the duty of every registered dentist to read these regulations, understand his responsibilities and abide by the same.(3)

*Jurisprudence* is the philosophy of law or the science that treats the principle of law and legal relations. Jurisprudence may be divided into three branches namely analytical, sociological, and theoretical. The analytical branch defines terms, and prescribes the methods that best enable one to view the legal order as an internally consistent, logical system. The sociological branch examines the actual effects of the law within society and the influence of social phenomena on the substantive and procedural aspects of law. The theoretical branch evaluates and criticizes law in terms of the ideals or goals postulated for it.(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) There are several acts which have a direct and indirect bearing dental profession. The Dentists Act of 1948 is directly concerned with statutory regulation of the dental profession. There are other enactments which in certain specific situations have an effect on the practicing dentist. These include the Consumer protection act, Indian contracts act, Indian penal code etc. A dentist should have acquaintance with the main provisions of these acts. He should know the responsibilities and precautions to be taken to avoid untoward happenings, including legal problems. He should also be familiar with his legal liabilities and the meaning of some terms used. (1) Therefore the present study is a humble effort to know the knowledge of dental ethics and jurisprudence among dental practitioners in Chennai, so that training modules can be designed for safer and more effective delivery of dental care.

**AIM AND OBJECTIVES**

**Aim**

To study the knowledge of dental ethics and jurisprudence among dental practitioners in Chennaicity.

**Objectives**

1. To assess the dental practitioners awareness about dentists (code of ethics) regulation, 1976 and its revision in 2014.
2. To know their knowledge about dental jurisprudence and legal liabilities.
3. To assess the awareness of dentists regarding Consumer Protection Act and its implications in dentistry.

**MATERIALS AND METHODS**

A cross sectional questionnaire survey was conducted to assess the knowledge of dental ethics and jurisprudence among dental practitioners in Chennaicity.The source of data was primary. Ethical clearance was obtained from the Institutional Review Board. A pilot study was conducted to validate the questionnaire and to get the required sample size. The questionnaire was pilot tested on a small group of 30 dentists, who were requested to complete it and to indicate any questions that they found unclear. The necessary modifications were made in the final questionnaire. The sample size was calculated for 95% confidence level and acceptable margin of error of 5%. This resulted in a final sample size of 346.

***Inclusion criteria***

1) They should have a private practice.

2) Their clinic should be located in Chennai city.

3) They should be attached to a dental college either as a faculty or as post graduate student.

***Exclusion criteria***

1. Dental practitioners who were absent or not available on the day of the visit.

2. The clinic located outside Chennai city.

3. Dentists who were not willing to participate.

The study was conducted from June 2015 to September 2015. A specially designed questionnaire consisting of 24 close ended questions divided into two sections was used. The first section of the questionnaire consisted of the questions related to respondent’s age, sex, qualification and number of years of clinical practice. Their name was not recorded in order to ensure anonymity. The second section consisted of questions related to their knowledge on dental ethics and jurisprudence. The qualification of post graduate students who are practicing was considered as BDS.

**Sampling Methodology**

The dentists were approached through the dental colleges in which they are working or pursuing their post-graduation and each dental college forms a cluster. The required permission for data collection was obtained from the heads of the institutions through proper channel. Every dental college forms a cluster and after obtaining the list of staff and post graduates in each department, the participants were randomly selected. Once they satisfy the inclusion criteria, the purpose of the study was explained to them and expressed oral consent was obtained. The questionnaire was distributed to them by the investigator and all the questions were explained to avoid any ambiguity. They were assured of the confidentiality of their responses and were requested to give appropriate answers. The filled Questionnaire was collected on the same day.

**Statistical analysis**

Statistical analysis was done using SPSS (Statistical Package for Social Sciences) Statistics for Windows, Version 17.0, SPSS Inc. Chicago. Percentages were calculated for the responses gave by the dentists and Pearson’s Chi square test was used to assess the level of significance which was set at p<0.005

**RESULTS**

***Demographic details***

The age of the participants ranged from 23 years to 69 years with the mean age of 33 and other demographic details are given in ***table 1***. Out of 346 participants 176(51%) were males and 170(49%) were females. 256(74%) participants completed post-graduation and 90(26%) were undergraduates. Of the participants, 174 (50%) had been practicing for less than 5 years, 110 (32%) from 6-10 years and 62 (18%) for more than 10 years.

***Dentists’ responses regarding knowledge on Dentist Act and Dentists (Code of Ethics) Regulation***

***Table 2*** describes knowledge of dental practitioners regarding Dentist Act and Dentists (Code of Ethics) Regulation. About 65 % of the dentists were aware that the Dentist Act was given in the year 1948 and 76% know that the Dentists (Code of Ethics) Regulation was given by the Dental Council of India. When a question is asked regarding the year in which the Dentists (Code of Ethics) Regulation came into force, only 19% knew that it was 1976 and about 32% were aware that the code was revised in 2014. About 39% correctly said that there are 6 principles of ethics and 67% were able to identify that punctuality is not one of them.

***Dentists’ responses regarding unethical practices***

***Table 3*** describes the responses of dental practitioners regarding unethical practices. About 58% of the respondents correctly said that it is unethical to use abbreviations of memberships in associations or organizations as a suffix to their names. 47% knew that it is not mandatory to offer free consultations and treatment to fellow dentist and their immediate family. About two thirds of the respondents (74%) correctly answered that it is unethical for a dental surgeon to refuse a treatment because the patient is HIV positive or suffering from any other contagious diseases. Only 42% were aware that according to the revised code, it is not unethical to advertise a dental clinic provided that the decorum is maintained. 59% of the respondents knew that it is unethical to use a dentist’s name in commercial products like tooth pastes, tooth brush etc. and 55% were aware that affixing a signboard in chemist shop or in other places where the dentist does not reside or work is unethical. Only 33% knew that it is not unethical for a dental surgeon to supply or sell drugs related to dentistry in his clinic and about 61% correctly said that it is not ethical for a dental surgeon to receive gifts from pharmaceutical companies.

***Knowledge of dentists regarding Consumer Protection Act (COPRA)***

***Table 4*** describes the responses of dentists regarding their knowledge about Consumer Protection Act (COPRA). 65% of the dental practitioners were aware of the Consumer Protection Act and only 35% knew that it was enacted in the year 1986. Only 28% responded correctly that there are 3 stages of grievance redressal mechanisms under COPRA and 45% responded that they don’t know the answer. Similarly, when asked regarding the compensation limit under the district forum, about 41% responded that they don’t know the answer and only 25% responded correctly that it is 5 lakhs. About 35% knew that treatment provided at hospitals, health centres or dispensaries free of charge are excluded from the purview of the Consumer Protection Act.

***Knowledge of dentists regarding Dental Jurisprudence***

***Table 5*** describes the responses of dentists regarding their knowledge about dental jurisprudence. When questions are asked related to informed consent, only 31% responded correctly that it is not necessary to obtain informed consent for clinical examination and routine radiography and about 54% responded correctly that consent is invalid when given under 12 years of age. Nearly half of the respondents (43%) were not aware of Professional indemnity insurance. Out of 197 participants who responded that they are aware of Professional indemnity insurance, about 74% responded correctly that it is done for giving compensation to the patient if doctor is found guilty.

**DISCUSSION**

This study was a humble effort to investigate dental practitioners’ acquiescence with dental ethics and jurisprudence. The study was first of this kind and very little literature was available comparison. Most of the participants have good knowledge regarding the year in which the Dentists Act was given and that the Dentists (Code of Ethics) regulation was given by the DCI.

Only 19% knew that the Dentists (Code of Ethics) Regulation came into force in 1976. About 32% were aware that the code was revised in 2014 and the differences were found to be statistically highly significant. This was surprising considering the fact, it was done only recently. It is the duty of every registered dentists to read, understand and abide by the same, in fact we have to provide a declaration form set for this purpose in front of the registrar of state dental council.(3)

Nearly half of the respondents did not know that it is unethical to use abbreviations of memberships in associations or organizations as a suffix to their names. This clearly shows their lack of knowledge regarding dental ethics which is an important chapter in Public Health Dentistry undergraduate syllabus.(1)

The respondents gave diversified opinions when asked about consultations and treatments to fellow dentists. According to the revised regulations, it is not mandatory to offer free consultations and treatment to fellow dentist and their immediate family.(3)

Same holds true when asked about the advertisements of dental clinics. According to the revised code, it is not unethical to advertise the dental clinics provided the decorum and moral obligations are maintained.(3)

About 74% correctly answered that it is unethical for a dental surgeon to refuse a treatment because the patient is HIV positive which is similar to a study conducted by Sumanth Prasad et al.(5)

Most of the participants (53%) didn’t know that it is not unethical for a dental practitioner to sell drugs and dental appliances in his clinic, as long as there is no exploitation of the patients, but he should not run an open shop. (3)

When asked about Consumer Protection Act (COPRA), about 65% answered that they were aware of it. But when subsequent questions were asked related to it, the responses were not satisfactory. Only 28% responded correctly that there are 3 stages of grievance redressal mechanisms under COPRA and 45% responded that they don’t know the answer. Only 35% knew that treatment provided at hospitals, free of charge are excluded from the purview of the Consumer Protection Act which was statistically highly significant. These findings are in sharp contrast to the study conducted in Ghaziabad, (5) where more than 90% of the respondents gave positive answers to the questions regarding COPRA. A study conducted by Singh K et al revealed that awareness of COPRA was higher among medical professionals compared to dental professionals.(6) This difference could be due to the fact that medical professionals deal more with medical negligence cases. There are different clinical dental services which are involved in claims. According to a study by Milgrom P et al, the largest proportion of claims involved oral surgery and fixed prosthodontics.(7)

In the present study, only 31% responded correctly that it is not necessary to obtain informed consent for clinical examination and routine radiography which is in contrast to the study conducted by Chandrashekar Janakiram et al(8), in which about 77% responded correctly. In general, the consent process provides an opportunity for the dentist to create a good patient-clinician relationship by communicating with the patient regarding the details of the treatment, tailoring the information to the specific needs and understanding of the patient. It also allows for the patient to express his/her opinion and concerns. This can build patients’ trust and confidence in the dentist as they feel that they are in control of the decisions in their treatment.(9) Nearly half of the respondents (43%) were not aware of Professional indemnity insurance. Out of 197 participants who responded that they are aware of Professional indemnity insurance, about 74% responded correctly that it is done for giving compensation to the patient if doctor is found guilty.

The validity and reliability of questionnaire based surveys can be influenced by design, question content, analysis and response rates. A significant limitation of this study is that only practitioners who are associated with dental colleges were included in this representative sample through cluster random sampling. The advantage of using a questionnaire as a data collecting method is the possibility of collecting a lot of data from a large number of respondents relatively quickly and inexpensively. One disadvantage is ‘recall bias’, where the respondent’s older experiences influence his/her memory.

**CONCLUSION**

The present study indicates that the knowledge of dental practitioners regarding dental ethics and jurisprudence was mediocre. We have to address this issue in a practical and meaningful manner. Although recommendations can be made to the dental profession to alter their behavior, real improvement is unlikely without changes in legislation and social policy.

***Recommendations***

1. There is an urgent need for continuing dental education on dental ethics and jurisprudence for the dental practitioners.
2. Curriculum changes can be made in both UG and PG syllabus giving importance to legal liabilities in dental practice.
3. A nationwide survey on Knowledge and awareness of Dentists (code of ethics) regulations is recommended.

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**Conflict of Interests**

None Declared

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**Table 1: Demographic details of the participants**

|  |  |
| --- | --- |
| **GENDER** | **No. (%)** |
| Male  Female | 176 (51%)  170 (49%) |
| **QUALIFICATION** | **No. (%)** |
| B.D.S  M.D.S | 90 (26%)  256 (74%) |
| **YEARS OF CLINICAL PRACTICE** | **No. (%)** |
| < 5 years  5 – 10 years  > 10 years | 174 (50%)  110 (32%)  62 (18%) |
| Total | 346 |

**Table 2: Knowledge regarding Dentist Act and Dentists (Code of Ethics) Regulation**

|  |  |  |
| --- | --- | --- |
| **Questions** | **Dentists’ response (%)** | **p Value** |
| 1. The Dentist act was given in the year   1. 1948 2. 1956 3. 1954 4. Don’t know | 222 (65%)  46 (13%)  29 (8%)  49 (14%) | 0.001\* |
| 2.The Dentists (Code of Ethics) Regulation was given by   1. Indian Council of Medical Research 2. Dental Council of India 3. Indian Dental Association 4. Don’t know | 27 (8%)  263 (76%)  27 (8%)  29 (8%) | 0.001\* |
| 3. The Dentists (Code of Ethics) Regulation first came into force in   1. 1948 2. 1956 3. 1976 4. Don’t know | 105 (30%)  101 (29%)  62 (19%)  78 (22%) | 0.001\* |
| 4. The Dentists (Code of Ethics) Regulation was revised in the year   1. 2000 2. 2015 3. 2014 4. Don’t know | 84 (24%)  37 (11%)  110 (32%)  115 (33%) | 0.001\* |
| 5. There are \_\_\_\_\_ principles of ethics   1. 3 2. 5 3. 6 4. Don’t know | 25 (7%)  83 (24%)  135 (39%)  103 (30%) | 0.51 |
| 6. One of the following is not a principle of ethics   1. Veracity or Truthfulness 2. Confidentiality 3. Punctuality 4. Don’t know | 15 (4%)  38 (11%)  231 (67%)  62 (18%) | 0.12 |

Pearson’s One Sample Chi Square Test. \*Highly significant

**Table 3: Knowledge regarding unethical practices**

|  |  |  |
| --- | --- | --- |
| **Questions** | **Dentists’ response (%)** | **p Value** |
| 1. Dentists can use abbreviations of memberships in associations or organizations as a suffix to their names   1. True 2. False 3. Don’t know | 117 (34%)  200 (58%)  29 (8%) | 0.30 |
| 2. It is not mandatory to offer free consultations to fellow dentist and their immediate family   1. True 2. False 3. Don’t know | 163 (47%)  142 (41%)  41 (12%) | 0.001\* |
| 3. It is unethical for a dental surgeon to refuse a treatment because the patient is HIV positive or suffering from any other contagious diseases.   1. True 2. False 3. Don’t know | 257 (74%)  63 (18%)  26 (8%) | 0.001\* |
| 4. According to the revised code, it is not unethical to advertise a dental clinic.   1. True 2. False 3. Don’t know | 146 (42%)  154 (45%)  46 (13%) | 0.001\* |
| 5. According to the revised code, it is not unethical to use a dentist’s name in commercial products like tooth pastes, tooth brush etc.   1. True 2. False 3. Don’t know | 99 (29%)  205 (59%)  42 (12%) | 0.001\* |
| 6. According to the revised code, it is not unethical to affix a signboard in chemist shop or in other places where the dentist does not reside or work   1. True 2. False 3. Don’t know | 99 (29%)  191 (55%)  56 (16%) | 0.46 |
| 7. It is not ethical for a dental surgeon to supply or sell drugs in his clinic.   1. True 2. False 3. Don’t know | 184 (53%)  114 (33%)  48 (14%) | 0.001\* |
| 8. According to the revised code, it is not ethical for a dental surgeon to receive gifts from pharmaceutical companies.   1. True 2. False 3. Don’t know | 210 (61%)  93 (27%)  43 (12%) | 0.001\* |

Pearson’s One Sample Chi Square Test. \*Highly significant

**Table 4: Knowledge regarding Consumer Protection Act (COPRA)**

|  |  |  |
| --- | --- | --- |
| **Questions** | **Dentists’ response (%)** | **p Value** |
| 1. Are u aware of Consumer Protection Act (COPRA)   1. Yes 2. No | 223 (65%)  123 (35%) | 0.001\* |
| 2. The Consumer Protection Act was enacted in the year   1. 1986 2. 1972 3. 1973 4. Don’t know | 120 (35%)  66 (19%)  37 (11%)  123 (35%) | 0.001\* |
| 3. In India, the COPRA consists of \_\_\_\_stages grievance redressal mechanisms   1. 2 2. 3 3. 4 4. Don’t know | 42 (12%)  98 (28%)  50 (15%)  156 (45%) | 0.001\* |
| 4. According to COPRA; under district forum, a person can claim compensation up to   * 1. 2 lakhs   2. 5 lakhs   3. don’t know | 116 (34%)  88 (25%)  142 (41%) | 0.001\* |
| 5. Treatment provided at hospitals, health centres or dispensaries free of charge are excluded from the purview of the Consumer Protection Act.   1. True 2. False 3. Don’t know | 121 (35%)  109 (32%)  116 (33%) | 0.001\* |

Pearson’s One Sample Chi Square Test. \*Highly significant

**Table 5: Knowledge regarding Dental jurisprudence**

|  |  |  |
| --- | --- | --- |
| **Questions** | **Dentists’ response (%)** | **p Value** |
| 1. It is necessary to obtain informed consent even for clinical examination and routine radiography   1. Yes 2. No 3. Don’t know | 202 (58%)  108 (31%)  36 (11%) | 0.001\* |
| 2. Consent is invalid when   1. Given under 12 years of age 2. Given under 15 years of age 3. Don’t know | 185 (54%)  90 (26%)  71 (20%) | 0.001\* |
| 3. Are you aware of Professional indemnity insurance?   1. Yes 2. No   3a. If yes, it is done   * + 1. For giving compensation to the patient if doctor is found guilty     2. For protecting the clinic from accidents     3. For protecting costly equipment | 197 (57%)  149 (43%)  145 (74%)  40 (20%)  12 (6%) | 0.001\* |
| 4. Every dental surgeon should maintain his each patient’s records for a minimum of   1. 3 years 2. 5 years 3. 2 years 4. Don’t know | 93 (27%)  165 (48%)  54 (15%)  34 (10%) | 0.001\* |

Pearson’s One Sample Chi Square Test. \*Highly significant