

Perception of Dental Students and Practitioners Towards Dento-Legal Aspects of Dentistry

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Abstract

Background and Aim: Dental surgeons are responsible for each and every step taken for dental treatment of patients. The aim of this study was to assess the knowledge, experience, and perception of dental students and practitioners regarding dento-legal aspects of dentistry.

Materials and Methods: A total of 200 students and dental practitioners were selected from the Chennai colleges. A well-structured validated questionnaire comprising of 21 questions related to dento-legal aspects of dentistry was used for data collection to assess the knowledge, experience, and perception of participants regarding dento-legal aspects of dentistry, which included clinical scenario-based questions. The responses were tabulated and analyzed using OpenEpi software. All variables were analyzed descriptively.

Results: Out of 200 participants surveyed, 53.6% were dental practitioners and 46.4% were dental students. Of all, 75% of dental practitioners and students were well aware of the dento-legal issues. Also, 50% of undergraduates and 65% of postgraduates were aware of their rights to protect themselves in legal cases. More than 50% of dental practitioners and students were aware of how to manage mishaps in a dental clinic. Out of 200 participants, 70% of dental practitioners and students were aware of the rules and regulations, and liabilities related to their practice.

Conclusion: Considering the present results, more emphasis should be placed on raising awareness among undergraduates regarding dento-legal aspects of dentistry and prevention of mishaps due to negligence during treatments.

Key Words: Awareness; Dentists; Students; Dental; Ethics; Medical

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Introduction

The medical profession is among the most sacred and noble professions worldwide [1]. A dentist is a healthcare professional who is responsible for patients' oral health, which is also linked to their general health. The

clinicians' efforts together with patients' compliance can bring about a positive result, and public oral health can be promoted as such.

The word "ethics" originates from a Greek native term "ethos" denoting conduct and character.

Medical ethics is a concept that any professional can refer to in cases of misconduct or conflict.

Ethics is defined as the study of human character and behavior in situations when moral judgements must be made, duties must be performed, and healthy interpersonal relationships must be maintained [2]. In many countries, medical ethics is part of the medical and dental educational curricula, and negligence in this regard can result in losing the license to practice. In recent times, people are becoming more aware and gain more knowledge through the media about their right to compensation. Therefore, medical and dental professionals are under threat of lawsuits. Nowadays, aside from the significance of clinical skills, perception of dental ethics equally plays a major role in sustainability of the profession. A dental surgeon is responsible for each and every step taken towards treatment to provide a quality lifestyle for patients.

Thus, dental clinicians should pay more attention to this subject since dental practice is changing fast under the influence of some factors such as malpractice crisis, changing economic status, and altered regulatory systems [3]. Therefore, it is mandatory for a dentist to be well versed with the code of ethics as well as the medico-legal aspects of dentistry. Keeping in mind the patients' satisfaction, the dentists are obligated to fulfill these norms to the best of their ability.

As all the law books say ignorance of the law is no excuse, it is the duty of every individual to know the law of the land where he resides [4]. Hence, this study was conducted to evaluate the awareness about the medico-legal issues among dental professionals and students in and around Chennai. This study aimed to assess the knowledge, experience, and perception of dental professionals, interns, and post-graduates regarding dento-legal aspects of dentistry.

Materials and Methods

A cross-sectional study was conducted for a period of 6 months from February 2022 to July 2022 among dental professionals as well as interns and post-graduates from various dental institutes and consultancies in and around Chennai, India. The reliability of the questionnaire was confirmed by two specialists. The content validity ratio was calculated for assessment of the validity of the questionnaire which was found to be 0.73.

The designed questions evaluated the knowledge, attitude, and practice of participants regarding informed consent, medico-legal issues, and social responsibilities, and approaches for the given clinical scenarios with a dento-legal aspect.

Participants taking part in the study voluntarily completed a questionnaire containing 21 pre-validated closed ended questions. The questionnaires were administered through Google Forms. Assessment of the content was done by recording the responses of all the participants. The collected data for knowledge, attitude, and practice were computed, and the results were obtained using OpenEpi software. All variables were analyzed descriptively.

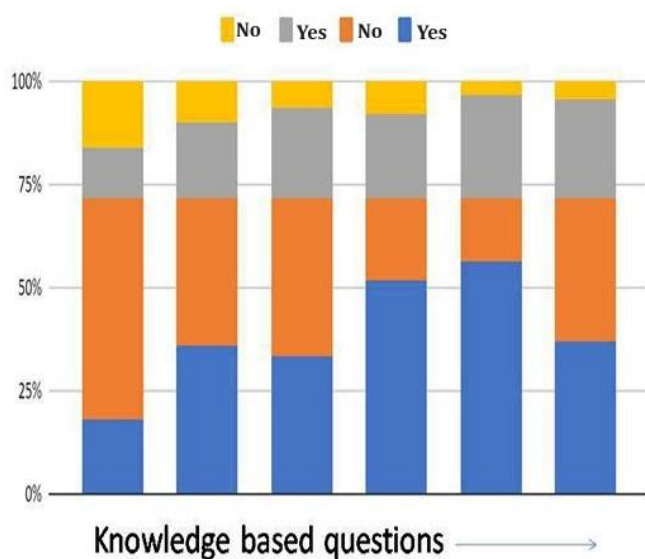
Results

A total of 200 participants were enrolled in our study; the response rate was 100%. Out of 200 participants, 145 were undergraduates and 55 were post-graduates; of which 53.6% were dental practitioners and 46.4% were dental students. The respondents were either a dental practitioner or a dental student with a Bachelor of Dental Surgery (BDS) or Master of Dental Surgery (MDS) degree. Table 1 showed Awareness about medico-legal cases. *Awareness about medico-legal cases (Table 1, Figure 1):*

Table 1. Awareness on medico-legal case

Questions	BDS (in %)		MDS (in %)	
	YES	NO	YES	NO
Are you aware of the provision in the recently amended medico-legal law in our country?	22.5	50	15.5	12
Are you aware of your rights to protect yourself and prove yourself in a medico-legal case?	36	36.5	16.5	11
Do you update yourself on the current guidelines or protocols for any recent treatments?	30	42.5	19	8.5
Do you know the incidence of occurrence of medico-legal cases in India?	56.5	16	18	9.5
Are you aware of the consequences of not following the sterilization protocol for any procedure?	59.5	13.5	21.5	6
Are you aware of the latest developments and research in the subject you have specialized in?	42	30.5	16.5	9

A total of 72-75% of dental practitioners and students from various dental institutes of Chennai were well versed with the medicolegal cases and the consequences of not abiding by the law in India, and were apprehensive of the latest developments and research in the subject. Only 25% of the undergraduates and 43% of the respondents with a MDS degree knew about the provision in the recently amended medico-legal law in India. Also, 50% of the undergraduates and 65% of MDS practitioners were aware of their rights to protect themselves in a legal case.

**Figure 1.** Awareness on medico-legal cases

Moreover, 58% of the undergraduates were unacquainted with the current protocols for any recent treatment.

Awareness regarding dental clinical mishaps (Table 2 and Figure 2):

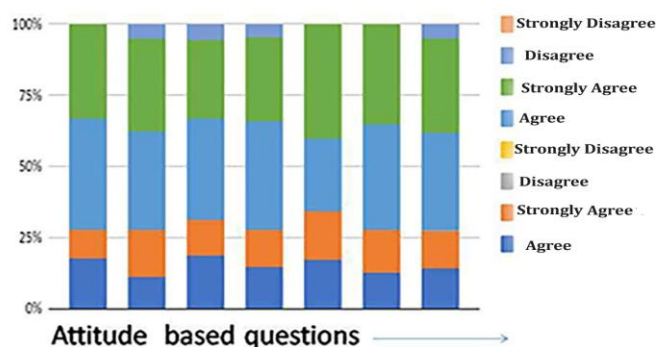
Of all, 54% of undergraduates and 77% of postgraduates and practitioners agreed upon reporting about sharps injury/needle stick injury to them or their fellow team members. Raising voice against malpractice had a 50% agree-disagree status quo amongst the BDS.

graduates, post graduates and practitioners. Also, 64.4% of postgraduates and practitioners and 53% of undergraduates strongly agreed with reporting any adverse drug reaction. Moreover, 86.6% of postgraduates and practitioners reported managing any oral healthcare issue even in patients with communicable/infectious diseases. Statistically significant differences were seen between the post graduates/practitioners and undergraduates (i.e., 73.3% and 44.8%, respectively) about empathizing and re-assuring the patients. About 66% of postgraduates and practitioners and 48.2% of undergraduates were prompt about explaining the patient about the disadvantages and complications of not receiving the treatment.

Table 2. Awareness regarding mishaps in a dental clinic

Question	MDS				BDS			
	AGREE (in %)	STRONGLY AGREE (in %)	DISAGREE (in %)	STRONGLY DISAGREE (in %)	AGREE (in %)	STRONGLY AGREE (in %)	DISAGREE (in %)	STRONGLY DISAGREE (in %)
Dental professionals should report about sharps injury / needle stick injury to them or to their fellow team members.	17.5	10	0	0	38.5	33	0	0
Dental professionals should empathize and re-assure the patients.	11	16.5	0	0	35	32.5	5	0
Dental professionals should manage any oral healthcare issues even in patients with communicable/infectious diseases	19.5	13	0	0	37.5	29	6	0
Dental professionals should report any adverse drug reaction.	19.5	13	0	0	36.5	29.5	9	0
Dental professionals should explain the patient about the disadvantages and complications of not getting the treatment.	13.5	14	0	0	20.5	32	0	0
Dental professionals should not let their personal prejudice affect the patient's choice of treatment.	12.5	15	0	0	32.5	35	0	0
Dental professionals should raise their voice against malpractice.	14	13.5	1	0	34	33.5	5	0

practitioners and 53.7% of undergraduates were confident about not letting their personal prejudice affect the patients' choice of treatment.

**Figure 2.** Awareness regarding mishaps in dental clinical practice

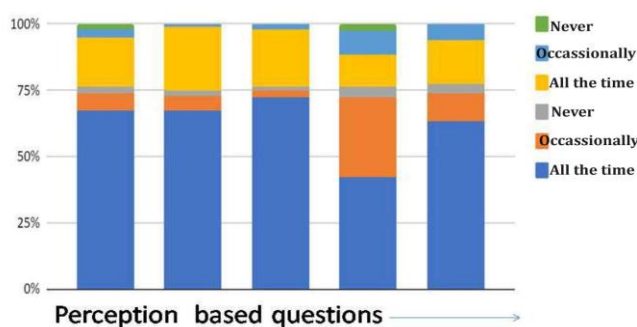
Awareness about clinical situations linked to dento-legal issues (Table 3, Figure 3):

Of all, 88% of undergraduates and 77% of postgraduates and practitioners made it a point to inform patients about the treatment options, the procedure to be performed and the cost effectiveness of the procedure. Also, 83% of undergraduates and 95.5% of postgraduates and practitioners strictly followed proper sterilization protocols after the procedures. About 91-93% of all dental professionals checked the tooth number before performing the procedure to avoid errors (to prevent performing a procedure on a wrong tooth). About 39% of undergraduates did not think it is necessary to count the number of

Table 3. Knowledge about clinical situations linked to dento-legal issues

Question	BDS			MD		
	All the time (in %)	Occasionally (in %)	Never (in %)	All the time (in %)	Occasionally (in%)	Never (in %)
Do you inform the patients about the treatment options, the procedure to be performed, and the cost-effectiveness of the procedure?	64	6	2.5	17.5	3	2
Do you follow proper sterilization protocol after the procedures?	60.5	5	2	21.5	1	0
Do you check the tooth number before performing the procedure to avoid error (to prevent performing a procedure on the wrong tooth)?	63.5	2.5	1.5	20.5	2	0
Do you count the number of sponges and instruments used after procedure to avoid any unwanted substances being left in the oral cavity post operatively?	40	28.5	4	11.5	8.5	2.5
Do you follow biomedical waste disposal protocol?	63.5	10.5	3.5	16.5	6	0

sponges and instruments used after the procedure to avoid any unwanted substances being left in the oral cavity postoperatively. Also, 87.5% of undergraduates and 73.3% of postgraduates and practitioners abided by the biomedical waste disposal protocol.

**Figure 3.** Awareness about clinical situations linked to dento-legal issues

When the facilities at a clinic or healthcare center are not sufficient to perform a complete treatment or the healthcare professional is not experienced enough in the particular line of treatment that is required for the patient, he/she can refer the patient to an experienced

doctor. A total of 80% of dental professionals agreed with this statement.

Discussion

The right to health and healthcare is a human right [5]. Every element of human activity is influenced by law, and dentistry is no different in this sense [6]. The concept of law is unique and no single definition can cover all its components. In simple terms, law may be defined as “an aggregate of rules enforceable by judicial means in a given country” [7]. As healthcare providers, we take on many roles defined by our social responsibilities to our patients and our communities. In order to do what is best for patients, we have to treat everyone as equal to ourselves along with the understanding that their lives are different from our own and they will have different needs. Therefore, positive, supportive, non-judgmental, and trusting relationships between the dentist and each patient would be ideal.

This study showed that almost 75% of dental practitioners were well versed with the medico-legal cases and the consequences of not

following the rules. There was a decline (42%) in response among 145 undergraduates who had taken part in the study regarding the current protocols for any treatment to be performed. Thus, it was concluded that the main source of knowledge on health care ethics was the training period and came with experience [8]. Dash came up with a similar response in their study which was conducted in KIMS Bhubaneswar, Odissa, India [9].

Medical practice is a service, and not accepting to help one in need of treatment and care is a criminal offense [10]. The American Institute of Medicine defines clinical guidelines as “systematically developed statements to assist practitioner and patient decisions about appropriate healthcare for specific clinical circumstances” [11]. A small percentage (0.08%) of BDS graduates disagreed on managing any oral healthcare issues in patients with communicable/infectious diseases. This implies that the majority of participants were well aware of managing and following the protocol in this regard.

About 114 participants strongly agreed on reporting about sharps injury/needle stick injury to them or to their fellow team members. The healthcare workers should take reasonably practicable steps to maintain a safe environment for patients and staff in which patients can be offered treatment in accordance with the duty of care that is owed to them [12,13].

Knowledge about the medicolegal implications in dentistry goes beyond its application to dental practice. Protection from economic, legal, and medico-legal disputes is provided by knowledge of the related issues [14]. The future of dental ethics depends on the future of dentistry and the progress of science; thus, it would be difficult to predict it. In principle, dental ethics should be flexible and open to change. Since dental practice involves many ethical challenges, physicians should be kept informed about modifications of the principles of dental ethics [15].

Conclusion

The dental profession holds a special trust relationship with patients. To uphold this mutual trust, the dental profession makes a commitment to patients that they will adhere to high ethical standards of care and conduct. Most of the participants i.e., dental practitioners as well as dental interns were well aware of the measures to be taken for a safe and ideal treatment environment for their patients. But when it came to the newly amended provision and protocols to be followed to decrease the number of dento-legal cases as well as minor negligence which could lead to a mishap during treatment, they lacked knowledge. It shows the need to spread awareness to raise the quality of services they could provide. This depicts the necessity of in-depth knowledge and implementation for perception of dento-legal aspects of dentistry.

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