Journal of Multidisciplinary Dental Research

RESEARCH ARTICLE

Ethical Dilemmas and Empathy Towards Patient Care among Dental Students in Telangana State - A Cross-Sectional Study

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ARTICLE INFO

Article history:
Received 11.08.2024
Accepted 08.10.2024
Published 30.12.2024

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https://doi.org/10.38138/JMDR/v10i2.17

ABSTRACT

Objective: The aim of this study was to determine the association between Ethical dilemmas and Empathy among dental house surgeons of Telangana state. **Methodology:** A Cross-sectional study was conducted among House surgeons of 7 dental institutions in Telangana state in month of September 2022. A 26-item standardized closed ended questionnaire was administered to study participants which comprise of two domains – dilemmas and empathy. Dilemmas were presented as 6-clinical case scenarios depicting various principles of ethics while Empathy was measured using the HPS-version of Jeferson scale questionnaire. The questionnaire was distributed to the study participants and collected on the same day. Descriptives and chi-square test was done to determine the association between dilemmas and levels of empathy. **Results:** A total of 382 house surgeons, 81.4% were females with mean age of 23.23 $\pm$ 1.098. Participants showed high respect for autonomy, with 84.6% in scenario 1 and 64.5% in scenario 2. However, respect for non-maleficence was lower which is about 31.7% & 48.1% in scenarios 3 & 4 respectively. Respect for principle of beneficence was 22% while truthfulness was 74.3%. Among the study participants, 46.3% exhibited moderate level of empathy. There exists no association between dilemmic situation and levels empathy except for truthfulness. **Conclusion:** Ethical dilemmas are common during dental practice and the way they are handled differ among dentists. Although most of them were empathetic there is no significant association between dilemma and levels of empathy except for truthfulness.

Keywords: Ethical Principles; Dilemma; Empathy; Dental ethics; Case Scenarios

1 INTRODUCTION

Ethics, also called moral philosophy is the discipline concerned with what is good and bad and morally right or wrong. It is derived from Greek word "ethos" which means character or conduct. It is not imposed by a profession or law but by moral obligations [(1)].

Ethics consists of fundamental issues of practical decision making and its major concerns include the nature of ultimate value and the standards by which human action can be judged right or wrong[1]. Ethics often offer principles rather than definitive answers, they aim to clarify issues, allowing individuals to reach their own conclusions [(2)].

In healthcare, bioethics is foundational, comprising justice, beneficence, non-maleficence, and respect for autonomy, with veracity and confidentiality as added pillars [(3)]. Ethical healthcare practice emphasizes informed consent and patient autonomy, shifting from professional paternalism to respecting patient's informed decisions [(4)]. This shift is significant in dentistry, where practitioners face daily ethical dilemmas due to increasing patient demands, technological advancements, and rising cases of dental negligence [(5)].

Ethical dilemmas in dentistry often arise from competing duties and principles. Previous studies conducted by Priyanka SG et al [(6)]. and Mahesh Varma et al [(7)]. indicates a need for greater awareness and practical approaches to resolving ethical dilemmas, particularly patient-related issues.

For a good medical practice, the ethical guidance for doctors outlining core ethical values and attributes is split

into four domains:[8]

i. Knowledge, Skills, and Behaviour

ii. Safety and Quality

iii. Communication, Partnership and Teamwork

iv. Maintaining Trust.

One of the domains of effective communication between health care professional and patient is the ability to identify and understand patient experiences, concern and perspectives which is nothing but empathy[9].

Effective communication, a core domain of ethical medical practice, enhances understanding of patient experiences and concerns, fostering empathy. Unlike sympathy, empathy involves truly understanding and sharing patient's feelings[9]. Essential for dentist-patient relationships, empathy can be measured using scales like the Jefferson Scale of Empathy given in 2009[10] Toronto empathy scale[11], Hogan's empathy scale[12], Kiersma-chen empathy scale[13]. The most accepted is the Jefferson scale of empathy[10], which has versions tailored for health professionals and students and is designed for use in medical and health professional education rather than understanding and sharing feeling beyond the health care which is more applicable for general population.

Studies by Vikram Pal et al.[9] and Sonali Saha et al[14] reveal a decline in empathy as dental students' progress, suggesting the need for education in behavioral sciences. During internships, dental students transition to independent practice, gaining firsthand experience and professional growth. Recognizing and integrating ethical concerns with practical skills and decision-making is crucial for resolving dilemmas and enhancing their capabilities before entering the workforce. So, the aim of the study was to determine whether empathy has a role in resolving a dilemmic situation in clinical practice.

2 METHODOLOGY

A Cross-sectional study was conducted among house surgeons of various dental institutions in Telangana state in the month of September 2022. Ethical clearance was obtained from Institutional Review Board of Sri Sai College of Dental Surgery and permissions were taken from dental institutes for conducting the study.

All the dental institutions who granted permission and House surgeons who were interested and willing to participate in the study were included.

A pilot study was conducted among 30 house surgeons of Sri Sai College of Dental Surgery. This was done to check the feasibility of conducting the study and to note any difficulties encountered during the data collection. This sample was not included in the main study. With details obtained from pilot study, Sample size was calculated with prevalence of moderate empathy being 53%, confidence interval of 95% and marginal error of 5% which was estimated to be 382.

A self-designed structured questionnaire was given to the house surgeons which include six clinical case-scenarios depicting the ethical principles to assess how students resolve ethical dilemma and HPS version of Jeferson scale for empathy[10] which is measured on a 7-point likert scale from strongly disagree to strongly agree.

In-order to assess the Dilemmic situation, clinical case scenarios which are encountered in day-to-day practice were designed and the participants were allowed to choose only one option for each scenario. Based on the respondent answer, the results were dichotomized into yes or no for each scenario. Face validity[15] and content validity[16] was done by giving it to 10 experts who are into clinical practice and had good clinical experience. The content validity score was 0.81 which suggest that questionnaire has good content validity.

For empathy a standardized Jefferson scale of Empathy questionnaire[10] which comprises of 20 items related to perspective taking, compassionate care and walking in patient shoes on a 7-point Likert scale (1 – strongly disagree, 2 – disagree, 3 – somewhat disagree, 4 – neither agree or disagree, 5 – somewhat agree, 6 – agree, 7 – strongly agree) that make up a scale from 20 to 140 points. Perspective Taking (10 items, 10–70 points), Compassionate Care (8 items, 8–56 points), and Walking in Patient's Shoes (2 items, 2–14 points). Based on respondent answers the mean and interquartile range was calculated and were categorized into low, moderate, and high empathy.

The participants who were present on the day of study were gathered in a classroom and were explained about the details of the study. They were informed that no personal information was required, and their filled details will be kept confidential.

Questionnaire form with printed instructions was handed over to the participants and were asked to fill the questionnaire. The investigator was present in the classroom and ensured talking and discussion among the participants while filling the form was avoided. All the participants were given sufficient time after which the forms were collected back on the same day. The final responses obtained were entered into Microsoft excel sheet for statistical analysis using SPSS version 25 and Chi-square test to check the association between dilemma and different levels of empathy.

3 RESULTS

Figure 1 shows distribution of participants based on age and gender. Among 382 house surgeons, 69.1% were of < 23 years age group and 30.9% with > 23 years age group. 81.4% of study participants were females while 18.6% being males.

Table 1 shows distribution of participants based on their responses to the clinical case scenarios depicting ethical dilemmas. For case scenario 1 & 2, 84.6% and 65.4% gave importance to autonomy principle and for case scenario 3 & 4 which shows principle of non-maleficence 31.7% and

48.1% understood the importance of the principle. For case scenario 5, 22% are towards beneficence principle while 74.3% were truthful in case scenario 6.

Table 2 shows the mean scores of study participants based on the HP-S version of the Jefferson scale of empathy. The mean of the perspective domain was 52.67 ± 8.689, compassionate care was 26.62 ± 8.315, and walking in patient shoes was 6.57 ± 2.905. The overall mean empathy of study participants was 85.82 ± 11.108.

Figure 2 shows distribution of participants based on different levels of empathy with a mean score of 85.82 ± 11.108. Among the participants, 109 (28.5%) had low empathy, 177 (46.3%) had moderate empathy and 96 (25.2%) showed high empathy.

Table 3 shows association between different levels of empathy and dilemmas for each clinical case scenario. Among the total participants there is no association between empathy and ethical dilemmas faced by house surgeons except for the principle of truthfulness. The responses for the principle of truthfulness showed significantly greater proportion ($p<0.05$) of people with moderate and high empathy than those with low empathy.

4 DISCUSSION

The cornerstone of effective dental practice is the dentist-patient relationship, founded on mutual trust, adequate knowledge, effective communication, and teamwork, all guided by ethical principles[7]. Our study explored the role of empathy among dental house surgeons in resolving ethical dilemmas during clinical practice.

Case-based questionnaire are questions that require students to analyze a hypothetical situation or scenario. These types of questions were designed to test students' ability to apply their knowledge and understanding of a particular topic to a real-life situation. These scenarios, characterized by versatility, storytelling power, and self-guided learning, allow students to engage with current issues in a simulated environment, enhancing their reasoning and decision-making skills. In this study few case scenarios were utilized to evaluate intern's ability to apply their knowledge in real-life situations[17].

The study included only dental house surgeons, as they are starting point for future successful practice as a clinician / professional development. The mean age of participants was 23.23 years, with a female predominance (81.4%), similar to other studies involving dental students[18].

Empathy is the ability to understand the personal experience of patient in three dimensions – emotional, cognitive, and behavioural without bonding with them. It is a two-way process of exchanging or shaping ideas, feelings and information between dentist and patient which has created interest in dental society. Previous research by Pal et al[9]. indicates a decline in empathy as dental students advance in their studies. Our study found that 46.3% of participants were moderately empathetic, with a mean empathy score of 85.82, In-accordance with Saha et al[14]. This moderate empathy level is likely due to the transition from theoretical knowledge to practical skills and the high patient turnover reducing communication time.

On the other hand, the study focussed on scenarios related to Autonomy, Non-maleficence, Beneficence, and Truthfulness, as these principles frequently present dilemmas for students. Justice and Confidentiality were deemed more relevant to qualified professionals.

The freedom of choice asserts the individuals to make decisions free from external influence or control. Autonomy, or the right to make one's own decisions, was tested in scenarios such as a patient demanding the whitest teeth. Here, 84.6% of participants chose to respect the patient's autonomy by presenting all options and allowing the patient to decide. These results are consistent with findings by Varma et al[7], reflecting a shift from professional paternalism to respecting patient decisions.

Similarly, in a scenario where a patient insisted to call for another dentist during the mid-procedure, 65.4% of interns chose to explain the treatment and gained patient trust. The findings were similar with studies conducted by Porter et al[19] among Queensland dentists where 60% of them respect patient's autonomy.

Although patients have the right to make their own decisions, it is crucial to ensure that their treatment does no harm. Non-maleficence, the principle of not causing harm, was tested in a scenario involving an overhanging restoration. Only 31.7% chose to re-restore the tooth, while 61.8% preferred to address the issue with minimal intervention. These results contrast with Priyanka et al[6] findings, where 83.7% prioritized re-restoration. This dissimilarity may be due to lack of adequate knowledge and perceived risk of failure in managing an overhanging restoration among study participants.

In case-scenario 4, where a patient had come for regular dental checkup and found a retained deciduous tooth with congenitally missing permanent central incisor, 48.1% of study participants were in agreement to retain the tooth till it falls and then replace with new one. This shows interns were aware of the long-term consequences about the situation and acted accordingly following the non-maleficence principle similar to study conducted by Priyanka SG et al[6].

Healthcare providers must actively work not only to ensure of not doing harm but also to promote the well-being and benefit of the patient. Beneficence, or the commitment to act for the patient's good, was tested when a patient returned with a chipped crown. In the present study, a significant proportion of participants (61.8%) opted to replace the prosthesis with lab cost rather than providing it free of cost (22%) similar to Priyanka SG et al.[6] findings. This decision by House surgeons may be driven by desire to avoid accountability for any mistakes made during lab

procedures, rather than the patient's best interests and financial well-being.

While all principles are important in-patient communication and treatment, the core value of trust fundamentally depends on your honesty with patients. Truthfulness, the commitment to honesty, was tested with a scenario where a file separated during a root canal. In this case, 71% chose to inform the patient truthfully. This aligns with Priyanka et al.'s[6] findings, indicating a strong commitment to truthfulness among participants.

The study found that empathy significantly influenced adherence to the principle of truthfulness but did not significantly affect decisions related to autonomy, non-maleficence, or beneficence. Empathetic house surgeons were more truthful, likely because empathy fosters patient-centred care and the belief that truth cannot be concealed indefinitely.

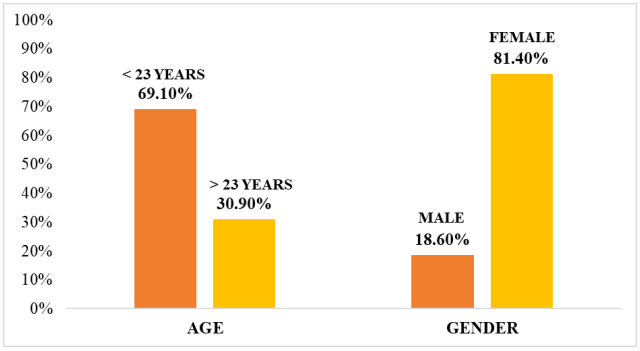

Fig. 1: Distribution of participants based on age and gender

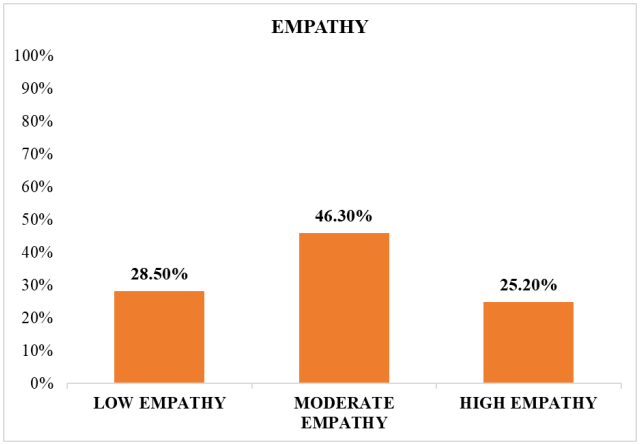

Fig. 2: Distribution of participants based on levels of empathy

5 STRENGTH AND LIMITATIONS

A key strength of the study was the use of case-based scenarios, engaging students in practical decision-making. However, the scenarios could be improved to better reflect current societal issues, as they were designed more from the dentist's perspective rather than the patient's. Additionally, the study did not differentiate between empathy levels and ethical dilemmas based on gender, though studies conducted by Kumar et al.[17] among postgraduates, showed significant difference in empathy based on gender with slight female predominance and the study conducted by Narvaez et al.[20] where there is no significant difference in empathy based on gender.

The study revealed that while empathy plays a crucial role in ethical decision-making, particularly regarding truthfulness, dental house surgeons often face dilemmas in applying principles of non-maleficence and beneficence. The results underscore the importance of integrating ethical training with practical experience to prepare dental students for real-world challenges.

6 CONCLUSION

Though the majority of participants had moderate level of empathy, there exists no significant difference with different levels of empathy with that of ethical principles except for the principle of truthfulness.

7 CONFLICTS OF INTEREST

Authors have no conflicts of interest.

8 ACKNOWLEDGEMENT

I would like to extend my sincere gratitude to the participants who took part in this study. Your valuable time, insights and contributions have been instrumental in shaping the research.

I would like to express my deepest appreciation to my guides whose expertise, guidance and support have been invaluable throughout the research. Their encouragement and constructive feedback have helped us navigate the complexities of the study. Thank you all for your contributions to research. I am grateful for your involvement and support.

Table 1: Distribution of participants based on clinical case scenarios depicting ethical dilemmas

Case Scenarios	N (%)
1. A 65year old edentulous female patient has come to the dental clinic for replacement. After completing maxillo-mandibular relationship record and as you begin with shade selection, the patient insisted in having white teeth because white teeth would make her look younger. How would you deal with this patient.	
a. Show her whitest teeth	2 (0.5)
b. Show her only the shades which are appropriate for her complexion	57 (14.9)
c. Show her all shades, educate her and tell her to decide which shade she wants.	323 (84.6)
2. A 35year male patient complaints of severe pain in lower left back tooth region. On visual examination there is grossly decayed tooth with sinus opening i.r.t 36. Dentist explained the patient about the treatment procedure for extraction and asked medical history before carrying out the procedure. When the dentist just started the procedure by placing the forcep and removing the tooth, the patient started shouting and insisted to stop the undergoing procedure.	
a. Explain the patient about pressure caused by forcep and situation and carry out the procedure	250 (65.4)
b. Call another dentist to carry out the procedure	21 (5.5)
c. Advice antibiotics and analgesics and recall him after two days	111 (29.1)
3. A 32year male patient re-visited dental clinic with a chief complaint of food lodgement in the lower right molar tooth in which a restoration was done two days ago and on radiographic examination there is an overhanging restoration in distal aspect of 46. What is the next course of action.	
a. Re-restoration	121 (31.7)
b. Removal of overhanging restoration with the help of hand instrument(explorer), interdental brush.	236 (61.8)
c. Advise patient to floss/use interdental brush	25 (6.5)
4. A 26year old male patient visited dental clinic along with his friend and on routine dental examination there is a retained deciduous tooth which is firm in the socket and on radiographic examination, there is congenitally missing permanent central incisor (31). What is your treatment option.	
a. Perform RCT and crown	30 (7.9)
b. Extraction followed by replacement	168 (44)
c. To retain the tooth till it falls and later replace with new one.	184 (48.1)
5. A 44year female patient visited dental clinic for replacement of tooth with a fixed one in lower right back tooth region. She informed dentist that she has been using RPD since 6years which is causing difficulty and had not gone for a fixed denture as she couldn't afford it. The dentist examined the tooth, the periodontal condition and adjacent tooth were fine and he replaced with a fixed prosthesis. After 6 months patient re-visited the dentist complaining that she had a rough and pricking sensation in that region and on examination, there is chip off crown in distal aspect of FPD.	
a. Replace with new FPD with no cost	84 (22)
b. Replace with new FPD with only laboratory cost.	236 (61.8)
c. Replace new FPD by asking her to pay 50% /full cost for new one.	62 (16.2)
6. A 32year female patient attended dental clinic on her scheduled appointment day for RCT. While performing the procedure the file got separated in curved canal. How will you deal with the situation.	
a. Inform the patient and explain the clinical situation as best as possible and carry out the procedure	284 (74.3)
b. Extraction of tooth by informing the patient.	39 (10.2)
c. Bypass the separated file and carry out the procedure without informing.	59 (15.5)

Table 2: Mean Score of Participants Based on Jeferson Scale of Empathy

Empathy	Mean	SD
Domain 1: Perspective Taking (Score 10 – 70)	52.67	8.689
Patients feel better when I understand their feelings	6.19	1.172
Understanding patient's body language as important as verbal communication	5.89	2.460
Good sense of humour, contributes to better clinical outcome	4.92	1.578
Imagine myself in patient's shoes when providing care	5.13	1.751
Patients value my understanding of their feelings which is therapeutic in its own right	5.31	1.450
Paying attention to their non-verbal cues and body language	5.25	1.593
Empathy is a therapeutic skill	5.08	1.630
Understanding of their emotional status, as well as that of their families	4.73	1.589
Think like my patients in order to render better care	4.77	1.642
Empathy is an important therapeutic factor in medical or surgical treatment	5.37	1.562
Domain 2: Comapssionate Care (Score 8 – 56)	26.62	8.315
Patients and their families feel does not influence medical or surgical treatment	3.91	2.004
Not to pay attention to my patient's emotions in history taking or physical health	2.71	2.071
Attentiveness to my patient's personal experiences does not influence treatment outcomes	3.37	2.044
Emotional ties to my patients do not have a significant influence on medical or surgical outcomes	2.98	1.790
Asking patients what is happening in their personal lives is not helpful.	3.27	1.774
Emotion has no place in treatment of medical illness	2.69	1.788
Do not allow myself by strong personal bonds between my patients and their family members	4.88	1.687
Do not enjoy reading non-medical literature or the arts	2.81	1.941
Domain 3: Walking In Patient Shoes (Score 2 – 14)	6.57	2.905
Difficult for me to view things from my patient's perspectives	2.97	1.625
Difficult for me to see things from my patient's perspectives	3.60	1.854
Total Empathy (Score 20 – 140)	85.82	11.108

Table 3: Association between dilemma and levels of empathy in a case scenario

S.No	Case Scenarios		Empathy						Chi-Square	P – value
			Low		Moderate		High			
			N	%	N	%	N	%		
1.	Autonomy	Yes	92	84.4	151	85.3	80	83.3	0.189	0.910
		No	17	15.6	26	14.7	16	16.7		
3.	Autonomy	Yes	65	59.6	122	68.9	59	61.5	3.025	0.220
		No	44	40.4	55	31.1	37	38.5		
5.	Non-Maleficence	Yes	36	33	60	33.9	28	29.2	0.658	0.720
		No	73	67	117	66.1	68	70.8		
7.	Non-Maleficence	Yes	48	44	87	49.2	50	52.1	1.392	0.498
		No	61	56	90	50.8	46	47.9		
9.	Beneficence	Yes	29	26.6	32	18.1	21	21.9	2.922	0.232
		No	80	73.4	145	81.9	75	78.1		
11.	Truthfulness	Yes	71	65.1	140	79.1	73	76	7.085	**0.029***
		No	38	34.9	37	20.9	23	24		

Notes: * indicates p-value <0.05 which is statistically significant.

REFERENCES

1) Singer P. Ethics, philosophy. 2024. Available from: https://www.britannica.com/topic/ethics-philosophy.
2) Ethics: a general introduction. . Available from: https://www.bbc.co.uk/ethics/introduction/intro_1.shtml.
3) Burla, et al. Dental ethics: history and philosophy. 2020. Available from: https://theflossopher.com/dental-ethics.
4) Kemparaj VM, Panchmal GS, Kadalur UG. The top 10 ethical challenges in dental practice in Indian scenario: Dentist perspective. *Contemporary Clinical Dentistry*. 2018;9(1):97–104. Available from: https://doi.org/10.4103/ccd.ccd_802_17.
5) Kress GC, Jr TKH, Guo IY. A survey of ethical dilemmas and practical problems encountered by practicing dentists. *Journal of the American Dental Association*. 1995;126(11):1554–1562. Available from: https://doi.org/10.14219/jada.archive.1995.0087.
6) Priyanka SG, Singla H, Lawrence D, Veeresh DJ. Ethical dilemmas among dental professionals in Davangere city-a cross-sectional survey. *Indian Journal of Medical Ethics* . 2016;1(2):87–90. Available from: https://doi.org/10.20529/ijme.2016.024.
7) Verma M, Mohanty VR, Nawal RR, Saini AK. Ethical dilemmas amongst students in a dental institution. *Journal of Management Research*. 2013;13(3):155–162. Available from: https://managementresearch.co.in/download/ethical-dilemmas-amongst-students-in-a-dental-institution/.
8) Ethical guidance for doctors. 2022. Available from: https://www.bmj.com/careers/article/ethical-guidance-for-doctors.
9) Aggarwal VP, Garg R, Goyal N, Kaur P, Singhal S, Singla N, et al. Exploring the missing link-Empathy among dental students: An institutional cross-sectional survey. *Journal of Dental Research*. 2016;13(5):419–423. Available from: https://doi.org/10.4103/1735-3327.192279.
10) Hojat M. Jefferson Scale of Empathy (JSE): User Guide. 2016. Available from: https://www.medicinanarrativa.eu/wp-content/uploads/2016/11/Empathy-Jefferson-Scale-USER-GUIDE.pdf.
11) Spreng RN, McKinnon MC, Mar RA, Levine B. The Toronto Empathy Questionnaire. *Journal of Personality Assessment*. 2009;91(1):62–71. Available from: https://www.highdefpeople.com/wp-content/uploads/2018/07/The-Toronto-Empathy-Questionnaire.pdf.
12) Johnson JA, Cheek JM, Smither R. The structure of empathy. *Journal of Personality and Social Psychology* . 1983;45(6):1299–1312. Available from: http://dx.doi.org/10.1037//0022-3514.45.6.1299.
13) Aronson BD, Chen A, Blakely ML, Kiersma ME, Wicker E. Evaluation and Revision of the Kiersma-Chen Empathy Scale. *American Journal of Pharmaceutical Education*. 2022;86(5):434–441. Available from: https://doi.org/10.5688/ajpe8685.
14) Saha S, Narang R, Aggarwal VP, Brinda GS, Kavita D. Comparison of self-reported empathy levels among dental undergraduate students in Northern India: a questionnaire-based cross-sectional study. *Contemporary Clinical Dentistry*. 2021;12(3):255–258. Available from: https://doi.org/10.4103/ccd.ccd_744_20.
15) Lohfeld L, Goldie J, Schwartz L, Eva K, Cotton P, Morrison J, et al. Testing the validity of a scenario-based questionnaire to assess the ethical sensitivity of undergraduate medical students. *Medical teacher*. 2012;34(8):635–642. Available from: https://doi.org/10.3109/0142159x.2012.687845.
16) Yaghmaie F. Content validity and its estimation. *Journal of Medical Education* . 2003;3(1):25–27. Available from: https://www.researchgate.net/publication/277034169_Content_validity_and_its_estimation.
17) Case study analysis or scenario-based questions. . Available from: https://www.csu.edu.au/division/learning-teaching/assessments/assessment-types/case-study-analysis-or-scenario-based-questions.
18) Kumar PM, Praveen D, Praveen G, Bhupathi PA, Kanth MR, Uloopi KS. Awareness, Knowledge, Attitude and Empathy Levels of Dental Postgraduates Towards Their Patients During Practice and Research-A Questionnaire Based Survey. *Journal of Patient Experience*. 2021;8:1–7. Available from: https://doi.org/10.1177/23743735211056521.
19) Porter SAT, Grey WL. Ethical dilemmas confronting dentists in Queensland, Australia. *Australian Dental Journal*. 2002;47(3):241–248. Available from: https://doi.org/10.1111/j.1834-7819.2002.tb00336.x.
20) Diaz-Narvaez V, Oyarzun-Munoz M, Reyes-Reyes A, Calzadilla-Nunez A, Martínez PT, Gonzalez-Valenzuela C, et al. Psychometry and empathy levels and its dimensions in postgraduate students of dental specialties. *European Journal of Dental Education*. 2021;25(4):785–795. Available from: https://doi.org/10.1111/eje.12658.