

Ethical Issues in Restorative Dental Practice

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Abstract: The ethical issues faced by dentists in today's dental practice have become more complex and seem to arise more often than those faced by dentists in the past. Given the current direction of health and dental care, it is essential that dental professionals understand and practice to make an ethical treatment decision. The aim of this study is to investigate the dental ethical behavior and awareness of dental interns in Saudi Arabia. Questionnaires of 13 questions were distributed to dental interns from different dental colleges in Riyadh city. Each question was in a form of a scenario explaining a daily faced problem in restorative dental practice that requires an ethical decision. The questions are including treatment alternatives, procedural mishaps, over treatments, patient education, and aesthetic procedures. Majority of dental interns' ethical decisions are satisfying the relevant ethical rules and guideline cited by national and international dental regulatory councils and organizations.

Keywords: Ethical Issues, Restorative Dentistry, dental ethical behavior, Dental Treatment.

I. INTRODUCTION

The word ethics comes from the Greek *ethos* originally meaning character or conduct. It is typically used interchangeably with the word moral which is derived from the Latin word *mores*, which means customs or habits.

Ethics are the moral principles or virtues that govern the character and conduct of an individual or a group. Ethics, as a branch of both philosophy and theology, is the systematic study of what is right and good with respect to character and conduct. In the last few decades the balance of decision making in determining what is the 'best' dental treatment has shifted from professional paternalism towards respecting the informed and autonomous decision of the patient. Dentists have come to experience problems when patients seek inappropriate treatment, and when they choose, or are constrained to accept, compromise treatment. Dentists are distressed by evidence of poor quality work provided by another dentist, yet they are also upset by dentists who openly criticize the work of others.

Ethics affect virtually every decision made in a dental office, encompassing activities of both judging and choosing. Ethics affect relationships with patients, the public, office staff, and other professionals. As a dentist, you have to make numerous decisions. Some decisions are straightforward and easy; others can be very difficult. Ethics are inextricably linked with these decisions and with the day-to-day activities of your office. When ethics are ignored, you risk making unethical or less ethical decisions. Unethical decisions can lead to unethical conduct. At a minimum, unethical conduct seriously compromises your service to patients and undermines your ability to function as a professional. ^[1]

II. AIMS OF THE STUDY

- a. To promote the highest standards of professional practice in the dental specialties by providing the ways that Dental students and Dental interns need to be trained to deal with dental mishaps appropriately.
- b. To increase the level of awareness of Dental intern's ethics and responsibilities.
- c. Facilitate an honest relationship between the dentist and patient.
- d. To evaluate the ethical behavior of dental interns related to procedural mishaps in restorative dental practice.

III. JUSTIFICATION

- a. The lack of knowledge accompanied regarding ethics in dental practice leads us to a rare summary of previous researches.
- b. The importance and basic rights for patients to understand operative failure/mistakes lead to strengthen the bond and trust between dentists and their patients.
- c. Searching and studying about some basic ethical methods that many dentists underestimate in advance to improve this ethical issue.

IV. LITERATURE REVIEW

As David T. Ozar and David J. Sokol suggest in *Dental Ethics at Chair side: Professional Principles and Practical Applications*, the ethical issues faced by dentists in today's society have become more complex and seem to arise more often than those faced by dentists in the past. Given the current direction of health and dental care, it is essential that dental professionals understand and practice wholeheartedly the code that has been set forth by the ADA. As with any profession that deals with human rights and liberties, dentists have a responsibility to their patients and communities in which they practice. Much like the Hippocratic Oath, the code of Dental Ethics created by the American Dental Association (ADA) serves as a standard to which all dental professionals are expected to adhere. It states that each member of the dental profession is responsible for "maintaining and enriching" the dental profession. It is important that "each member choose to meet" the obligations of the dental profession "according to the dictates of personal conscience based on the needs of the general public."^[2]

To obtain the necessary background information, a literature review was conducted using numerous online search engines. The chosen articles addressed the topic we are investigating on and it states that Dentistry is complex, people are human, and mistakes do happen. Many patients who have experienced adverse events have said they would be less upset if the health care practitioner had disclosed the error honestly and compassionately and had also apologized. As is true in any profession where every treatment decision has an ethical component, the final decision regarding patient care remains primarily in the hand of the treating dentist. It is important that the dentist provide the patient with every piece of pertinent information relating to treatment so the patient has as much influence in the decision making processes possible.^[3]

Doctors Ozar and Sokol present four steps to making ethical decisions relating to dental situations:

- a. The first step, identifying the alternatives, involves determining the most appropriate course of action, identifying resulting circumstances of the procedure, and relaying the most important features of each treatment to the patient.
- b. The second step, determining what is professionally at stake, relates to the professional opinion of the dentist. The dentist must specifically consider the normative action taken in similar treatment situations and apply those considerations to the decision making process.
- c. The third step, determining what else is ethically at stake, takes a more broad view of what is ethically at stake for the patient in each treatment alternative.
- d. In step four, determining what ought to be done, or ranking the alternatives, the decision is made applying various values, virtues, rules, rights, and professional norms. No matter what the outcome, the principles of ethics come into play during every decision made regarding dental treatment.^[4]

(Ozar, David T. and Sokol, David J. 1994.)

Potential ethical issues and dilemmas include the following area:

1. **Substandard care:** situations in which there is failure to diagnose, failure to refer, or lack of proper infection control or situations in which dental or dental hygiene services are provided that do not meet the accepted standard of care.
2. **Overtreatment:** situations in which excessive services or services that are unnecessary for the particular case are provided. This category would include unduly influencing a patient's care decision as a result of one's position of greater knowledge.
3. **Scope of practice:** instances in which the legally assigned scope of practice is exceeded by a dental hygienist, dentist, or other member of the dental team.

4. **Fraud:** situations in which an insurance claim or other reimbursement mechanism is adjusted to favor the dental office or the patient's financial situation. Other types of cost containment efforts may be included in this category.
5. **Patient confidentiality:** situations in which patient and/or child-parent confidentiality is jeopardized or the opportunity for informed consent is not provided.
6. **Health status:** failure to identify and document, in the patient's medical record, risk factors that may impact the patient's oral health and to inform the patient of these risk factors.

Even the most careful and skilled dentist can do some procedural mishaps during dental procedure. In case it happens, the patient must be warned at the moment of accident and dully informed on the real situation and case prognosis. Explanations must be given in full, but in a proper manner not to alarm the patient and cause misunderstandings.

Dentists must work in compliance with the legal principals of Dentistry and having an ethical behavior at all times in order to build a sound relationship with the people that seek their professional services. When an accident occurs during treatment, dental ethics must guide case management in all instances.

Prevention is the best way to reduce accident rate during endodontic treatment, but whenever the fracture of an endodontic instrument is perceived, is the dentist's responsibility to inform the patient about the occurrence, possible consequences, treatment sequence and prognosis, and to provide a full documentation of the case(e.g.: dental records, radiographs).^[5]

(Baab DA, Ozar DT. 1994)

General Dental Ethics:

- a. Must safeguard the health of patients irrespective of their individual status.
- b. Must not prescribe or provide treatment which is not necessary has the freedom of choice whether to accept or decline to treat a patient, except for the provision of emergency care, for humanitarian reasons.
- c. Must obtain appropriate agreement or consent from the patient for the treatment which is to be carried out.
- d. Information must be provided about the proposed treatment other treatment options and relevant material risks. The patient must have the opportunity to ask questions. The patient should also be informed of the cost of the proposed treatment, as soon as this is known.
- e. Must ensure professional confidentiality and the security of personal health information. Accurate, detailed and relevant medico-dental records must be kept and the dental staff must be aware of the need for confidentiality. Data must be obtained and processed fairly, for specified, explicit and legitimate purposes and according to data protection principles.
- f. Must keep all data relating to patients confidential and secure. Where data is stored electronically special security precautions must be taken to prevent access from outside the premises during electronic transfer procedures or remote maintenance of the system.
- g. May not transmit data on patients to third parties except when it is justified by the written consent of the patient or where it is required under statutory provision. All data passed on to third parties should be recorded as such.
- h. Must accept responsibility for the treatment he undertakes, within the framework of an undertaking to make best efforts.
- i. Must refer for advice and/or treatment any patient requiring a level of competence beyond his or her own. He is obliged to refer a patient to a professional colleague for a second opinion, if that is requested by the patient himself.
- j. Must provide to a patient, or his properly appointed representative, information which is correct and does not mislead.
- k. Must respond to patient complaints and try to resolve the issue.^[6]

(American Dental Association, 2009)

The Main Ethical Principles:

Informed Consent:

Giving and getting consent is a process, not a one-off event. It should be part of an ongoing discussion between you and the patient. Whenever a patient is returning for treatment following an examination or assessment, give them a written treatment plan and cost estimate.

Principles of patient consent aim to:

- a. Protect patients.
- b. Promote confidence in dental professionals.
- c. Be at the forefront of healthcare regulation.
- d. Register qualified professionals.
- e. Set standards of dental practice and conduct.
- f. Assure the quality of dental education.
- g. Ensure professionals keep up-to-date.
- h. Help patients with complaints about a dental professional.
- i. Work to strengthen patient protection.

It is a general legal and ethical principle that you must get valid consent before starting treatment or physical investigation, or providing personal care, for a patient. This principle reflects the right of patients to decide what happens to their own bodies, and is an essential part of good practice. Patients have a right to choose whether or not to accept your advice or treatment. This guidance identifies, and is limited to, the ethical principles of getting patient consent which you should apply to your work. It cannot cover all situations. A patient's informed consent to investigations or treatment is a fundamental aspect of the proper provision of dental care. Without informed consent to treatment, a dentist is vulnerable to criticism on a number of counts, not least those of assault and/or negligence - which in turn could lead respectively to criminal charges and/or civil claims against the dentist.

Voluntary Decision-Making:

- a. The patient must make the decision.
- b. Do not pressurize the patient to accept your advice.
- c. Patients have a right to refuse to give consent for an investigation or treatment. If they do so, you should respect this decision.

The concept of patients' rights, adult responsibility and a mind sound enough to understand, are embodied in the principles of consent. In 1990 The Department of Health, in its advice booklet on obtaining consent, has defined consent as ;the voluntary and continuing permission of the patient to receive a particular treatment. It must be based upon adequate knowledge of the purpose, nature and likely effects and risks of that treatment, including the likelihood of its success and any alternative to it."^[7]

Treatment Alternatives:

A dentist must explain to the patient the treatment proposed, the risks involved and alternative treatments and ensure that appropriate consent is obtained. Quality of care may demand unhurried discussion; valid consent must be obtained. Where appropriate verbal communication should be supported by written information. Plans, procedures, risks and expectations need to be communicated and documented in the patient's notes.

If problems arise, full explanations must be given. Mistakes must be openly acknowledged. When appropriate, apologies must also be given. A patient has a right to expect that a specialist will achieve the highest possible quality of patient care. Awareness and understanding of differing cultural sensitivities is necessary. If a patient requests a second opinion, this should be supported and assistance given in arranging this wherever possible.^[8]

Accepting a Referral:

It is the responsibility of a dentist when accepting a referral to ensure that the request is fully understood. The treatment or advice requested should only be provided where this is felt to be appropriate. If this is not the case, there is an obligation on the dentist to discuss the matter, prior to commencing treatment, with the referring practitioner and the patient. Referral for a specialist opinion should always be made in a manner which preserves patient confidentiality and complies with the provisions of the Data Protection Act. Where the referring practitioner has reason to believe that the patient requires emergency treatment or urgent diagnosis this should be made clear in the correspondence and supplemented by personal contact with the specialist concerned.^[9]

Patient Perspectives of Medical Confidentiality:

Many patients are unaware of or misunderstand their legal or ethical right to medical confidentiality protections, which leads them to both over- and underestimate confidentiality protections. The possibility that medical information might be revealed, intentionally or not, to acquaintances in a clinic or other social community troubles patients as much as information release to insurers or employers. A significant minority of patients distrust confidentiality protections, leading some to report that they delay or forgo medical care. If doubtful that confidentiality will be upheld, patients will act independently to protect information. Our review found a wider variety of understandings and beliefs about medical confidentiality among patients than are often indicated in the writings of practitioners or legal experts. As medical confidentiality regulations evolve, these differences need to be recognized and accounted for in interactions between practitioners and patients. Medical confidentiality, despite its diminished state, remains important to doctors and patients. Effective treatment requires accurate information. Patients are most likely to provide this information when they are not worried about public exposure. Organized medicine has begun to take seriously the need to respond officially to patient concerns.^[10]

An AMA task force has issued guidelines for health care organizations and experts have emphasized the urgent need to take seriously these patient concerns. The federal government has sought to reinforce deteriorating confidentiality protections by limiting some secondary uses of medical information. At the same time, however, new regulations permit or simplify access to medical information for insurers, practitioners, researchers, and law enforcement. Whether the combined effects of these provisions will be to increase, decrease, or bypass patient confidentiality concerns is unpredictable. A more certain consequence may be that patients will be confused about their rights to, and the scope of, medical confidentiality protection. Guiding patients through these changes and preserving the benefits of medical confidentiality will not be easy. A greater awareness of how patients understand medical confidentiality and what they are likely to do when they believe confidentiality protections are inadequate is essential. A shift in perspective can facilitate the process. Instead of analyzing medical confidentiality from the physician's perspective as a professional and bureaucratic responsibility, we look at how patients understand and use it. However, although patient interests are at the core of medical confidentiality policy, patient views are at the margins of scholarly attention. This review has collected what research is available and analyzes it to inform physicians about important, and some unexpected, patient concerns.^{[11], [12]}

Compromised Patient:

1. It is unethical for a dentist to refuse to treat a patient solely on the grounds that the person has a blood borne virus or any other transmissible disease or infection.
2. The dentist/patient relationship is founded on trust and a dentist should not disclose to third party information about a patient acquired in a professional capacity without the permission of the patient. It is the responsibility of the specialist to be aware of and employ the principles of the Data Protection Act (1998).^[13]
3. Similarly, it is the responsibility of the specialist to ensure that any computer system holding patient records is secure and registered under the Data Protection Act (1998).^[14]
4. All patient records are held in trust with the specialist and are confidential. These should not be released without the permission of the patient.^[15]

Ethical behavior among compromised patient HIV:

Refusal to treat patients who have infectious diseases such as HIV or hepatitis viruses can result in charges of discrimination to human rights organizations. The dental associations have issued recommendations indicating that dentists are obligated to provide care for patients with infectious diseases, despite these recommendations. Many dentists are reluctant to treat patients with HIV /AIDS.

Dentists appear to have a more negative attitude toward injection drug users compared with other high-risk groups. Refusal to treat patients with HIV was primarily associated with lack of ethical responsibility and fears related to cross-infection. In addition to increased emphasis on infection control and knowledge of infectivity of blood borne pathogens, teaching of biomedical ethics at the undergraduate and postgraduate level and in continuing education may reduce dentists' refusal to treat HIV-infected patients.^[16]

V. MATERIALS AND METHODS

After we got the approval from the research committee, Questionnaire of about 15 questions was distributed to 100 interns in Riyadh city. Questions were focus on dealing with procedural mishaps that could occur during restorative dental practice and the way of managing them. The questions were in the form of Scenario related to clinical procedures. Results was collected and analyzed statistically using the software SPSS.

VI. RESULTS

One hundred female dental interns in Riyadh city participated in this study and the results were as the following:

1. During root canal treatment and the expected outcome was excellent, on radiographic evaluation of the treatment, the results showed a substandard obturation such as short length or poor density. The most appropriate action is: (Fig1)

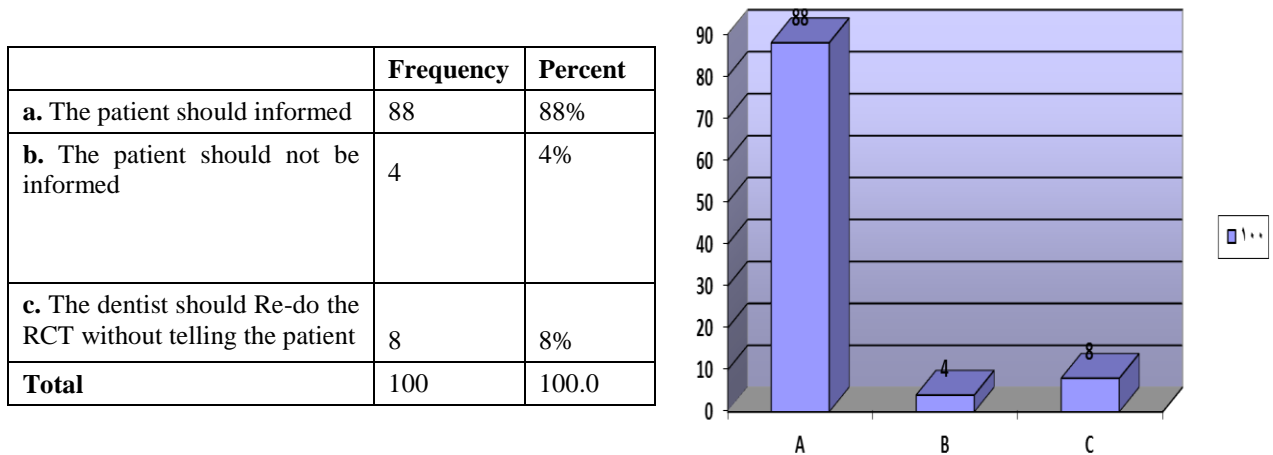


Figure 1. High percent of sample = 88 interns choose answer A (The patient should informed), and only 4 interns choose B (The patient should not be informed), but there is 8 interns choose C (The dentist should Re-do the RCT without telling the patient)

2. During RCT, one of the mishaps happened such as broken instrument or canal perforation, it is preferred to:(Fig2)

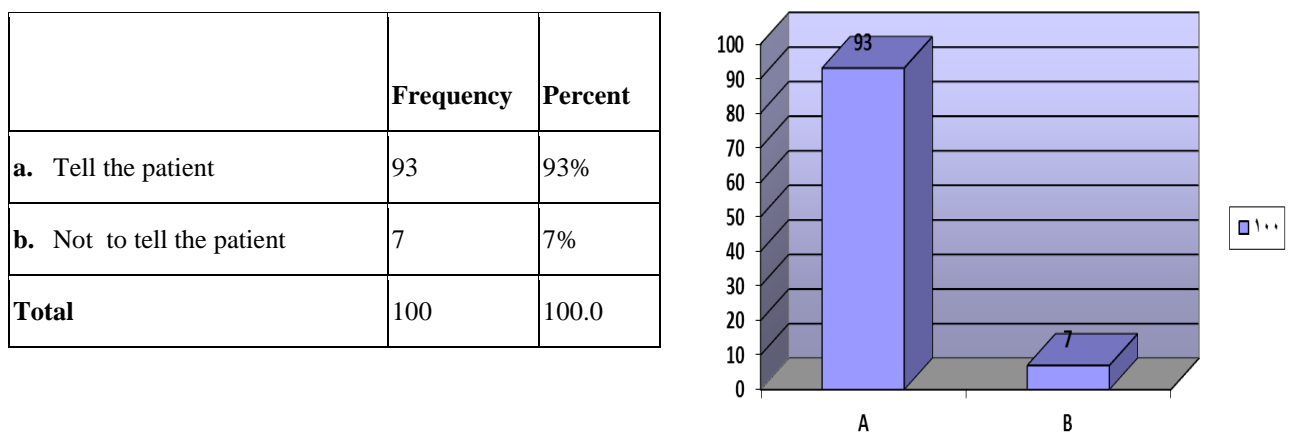


Figure 2. High percent of sample = 93 prefer answer A (Tell the patient) but there is only 7 interns choose answer B (Not to tell the patients)

3. During doing cavity preparation of a healthy tooth, accidental iatrogenic pulp exposure has occurred. The best management is: (Fig 3)

	Frequency	Percent
a. Do pulp capping and ask the patient to come after (6-8) weeks and don't tell him about the exposure.	9	9%
b. Do pulp capping and ask the patient to come after (6-8) weeks and tell the patient about the exposure.	88	88%
c. Do pulp capping and place the definitive restoration and don't tell the patient about the problem and possible prognosis.	2	2%
d. Do RCT.	1	1%
Total	100	100.0

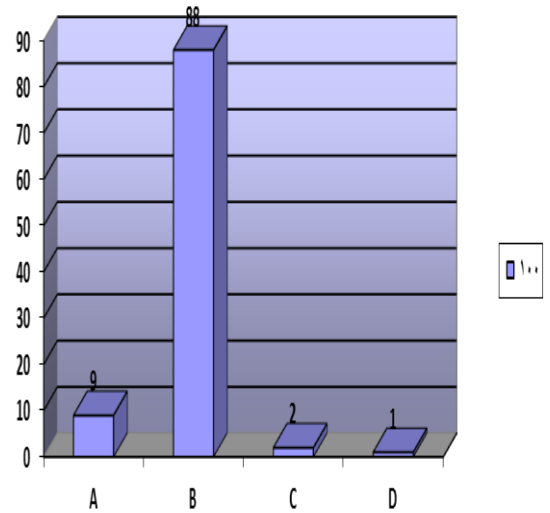


Figure 3. High percent of sample = 88 interns prefer Answer B (Do pulp capping and ask the patient to come after (6-8) weeks and tell the patient about the exposure.). Only 9 interns choose A (Do pulp capping and ask the patient to come after (6-8) weeks and don't tell him about the exposure.). Only 2 interns choose C (Do pulp capping and place the definitive restoration and don't tell the patient about the problem and possible prognosis) and only 1 intern choose D (Do RCT).

4. The patient came to the clinic asking for facial veneers, after examination the dentist found that the problem could be solved with more conservative procedure such as beaching, where there is no need to remove sound enamel, The most appropriate action is: (Fig 4)

	Frequency	Percent
a. The dentist should do the veneers without telling the patient about the more conservative alternatives.	18	18%
b. The other alternative should be discussed with the patient but the final decision is left for the patient	67	67%
c. The other alternatives should be discussed with the patient and dentist should refuse doing the veneers since it is destructive to the tooth even it was patient choice.	15	15%
Total	100	100.0

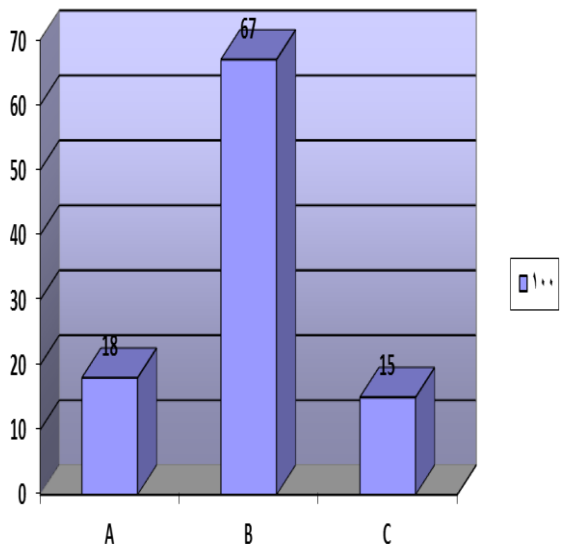


Figure 4. High percent of sample =67 interns prefer B (The other alternative should be discussed with the patient but the final decision is left for the patient). 18 interns go to answer A (The dentist should do the veneers without telling the patient about the more conservative alternatives).Only 15 interns choose C (The other alternatives should be discussed with the patient and dentist should refuse doing the veneers since it is destructive to the tooth even it was patient choice.

5. Old prosthesis without any signs of failure and patient asked to replace it and he is ready to pay: (Fig 5)

	Frequency	Percent
a. Replace it immediately.	0	0%
b. Tell the patient that the condition of the prosthesis is acceptable and if he insists then it should be replaced.	68	68%
c. Refuse replacement even if the patient insists after telling him that the condition is acceptable and there is no failure.	30	30%
d. Make a referral to another dentist	2	2%
Total	100	100.0

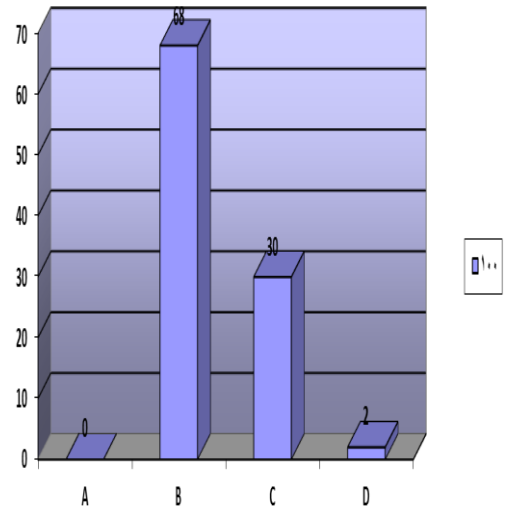


Figure 5. 68 of sample prefer answer B (Tell the patient that the condition of the prosthesis is acceptable and if he insist then it should be replaced). 30 interns go to answer C (Refuse replacement even if the patient insists after telling him that the condition is acceptable and there is no failure). Only 2 interns choose D (Make a referral to another dentist), and no one of sample choose A (Replace it immediately).

6. If a patient requests fixed partial dentures involving teeth that are seriously compromised periodontally and are not expected to last more than a year or two: (Fig 6)

	Frequency	Percent
a. It is considered unethical to construct the restorations even though the patient might demand that it be done and be willing to pay.	29	29%
b. The dentist should do the fixed prosthesis according the patient request.	3	3%
c. The dentist should explain the situation and leave the final decision for the patient.	25	25%
d. The dentist should explain the situation and refuse doing such treatment.	43	43%
Total	100	100.0

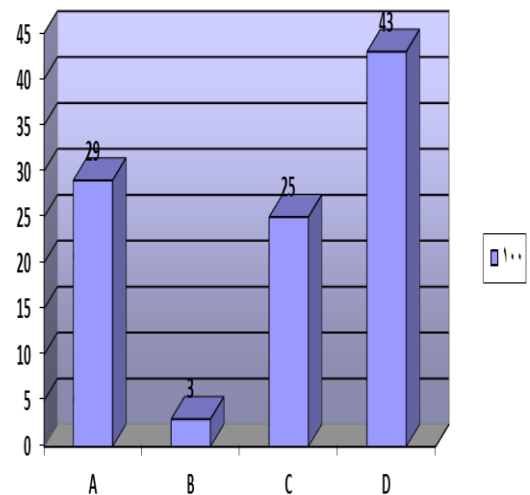


Figure 6. 43 of sample prefer D (The dentist should explain the situation and refuse doing such treatment.) 29 interns go to A (It is considered unethical to construct the restorations even though the patient might demand that it be done and be willing to pay), and 25 interns choose C (The dentist should explain the situation and leave the final decision for the patient). Only 3 choose B (The dentist should do the fixed prosthesis according the patient request).

7. What do you do when you see a patient who's had poor quality work done by another dentist? (Fig7)

	Frequency	Percent
a. Should not tell anything regarding the previous treatment to respect your colleague.	41	41%
b. Immediately I should tell the patient that the treatment is poor quality and this is one of the rights of the patient.	50	50%
c. Contact the previous dentist and tell him about the mishap that he did	9	9%
Total	100	100.0

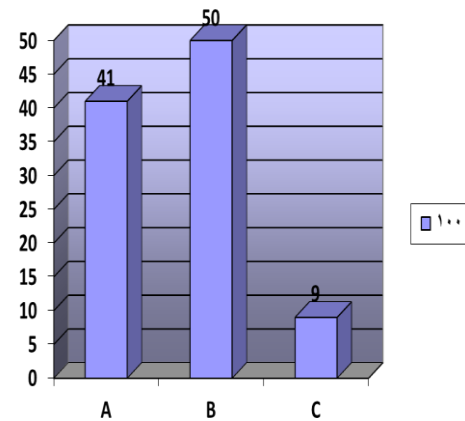


Figure 7. 50 interns prefer answer B (Immediately I should tell the patient that the treatment is poor quality and this is one of the rights of the patient). 41 interns go to A (Should not tell anything regarding the previous treatment to respect your colleague.). Only 9 interns choose C (Contact the previous dentist and tell him about the mishap that he did).

8. If you are included in a research team to conduct a clinical study to evaluate the effect of calcium hydroxide and sterile cotton pellet intra-canal medication on postoperative pain. Each patient will be assigned randomly in each of the two groups: (Fig 8)

	Frequency	Percent
a. The patient should be told since both medications are acceptable.	16	16%
b. Verbal consent should be taken after explanation the study.	5	5%
c. Informed written consent should be taken and signed by the patient.	79	79%
Total	100	100.0

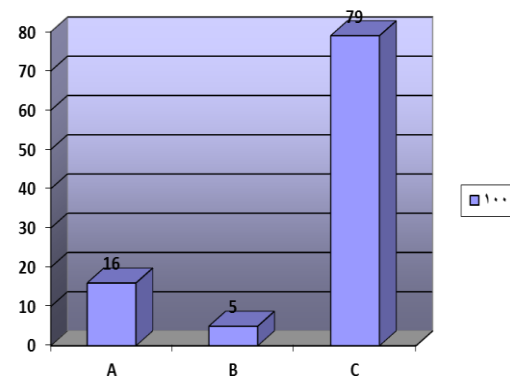


Figure 8. High percent of sample=79 choose C (Informed written consent should be taken and signed by the patient.). And 16 interns go to A (The patient should be told since both medication is acceptable).Only 5 interns choose B (Verbal consent should be taken after explanation the study)

9. A comprehensive case came to your clinic which is suitable for a seminar case presentation; you need to use the patient photographs and x-rays in the presentation, do you? (Fig 9)

	Frequency	Percent
a. Informed the patient and let him sign on consent.	82	82%
b. The dentist has the rights to use his patient record.	18	18%
Total	100	100.0

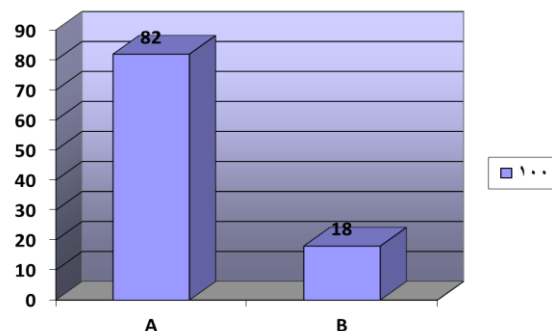


Figure 9. 82 of interns choose A (Informed the patient and let him sign on a consent.) and only 18 go to B (The dentist have the rights to use his patient record)

10. Refusing treating the patients with infectious diseases such as HIV or HBV is considered: (Fig 10)

	Frequency	Percent
a. Right of the dentist.	35	35%
b. The dentist must not refuse such cases.	65	65%
Total	100	100.0

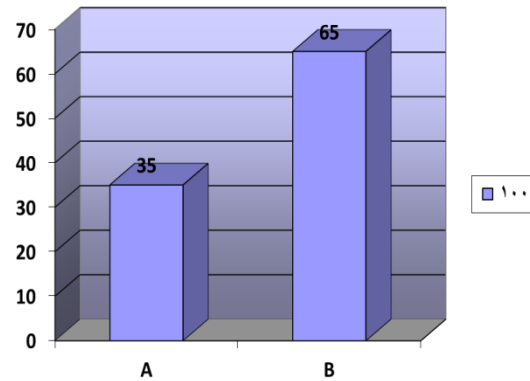


Figure 10. 65 of interns prefer answer B (The dentist must not refuse such cases) and 35 of interns go to answer A (Right of the dentist).

11. Spending a time to educate the patient how to improve their oral care and hygiene: (Fig 11)

	Frequency	Percent
a. One of the rights of the patients.	38	38%
b. Should be done with some cases which need.	13	13%
c. Should be done with all patient	49	49%
Total	100	100.0

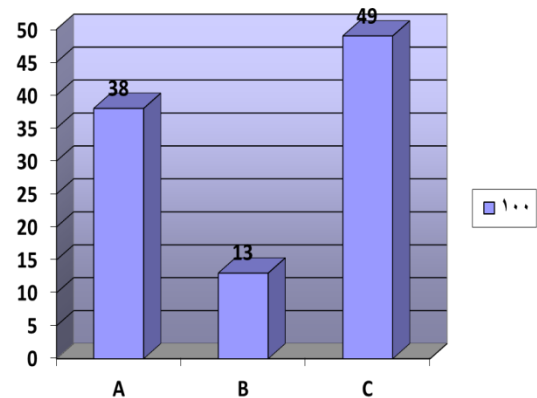


Figure 11. 49 of interns prefer C (Should be done with all patients) but 38 interns go to answer A (One of the rights of the patients) and only 13 interns choose B (Should be done with some cases which need)

12. Identifying and presenting the treatment alternatives before decision making for all dental treatments: (Fig 12)

	Frequency	Percent
a. The decision should be left completely to the patient after presenting alternatives.	15	15%
b. The patient should be guided to the most suitable treatment according to the view of the dentist.	73	73%
c. The decision should be taken by the treating dentist because he knows better which treatment is better.	12	12%
Total	100	100.0

Figure 12. High percent of interns prefer B (The patient should be guided to the most suitable treatment according to the view of the dentist). But there is 15 interns go to A (The decision should be left completely to the patient after presenting alternatives).and only 12 interns choose C (The decision should be taken by the treating dentist because he knows better which treatment is better.)

13. Patient started endodontic or prosthodontic treatment with one of you colleague and after one or two visits he decided to complete the treatment with you, what you will do? (Fig 13)

	Frequency	Percent
a. Do the treatment for him immediately.	10	10%
b. Take the permission from your colleague and give him an appointment.	37	37%
c. Refuse his request.	2	2%
d. Accept the patient request only if there is referral from the your colleague	51	51%
Total	100	100.0

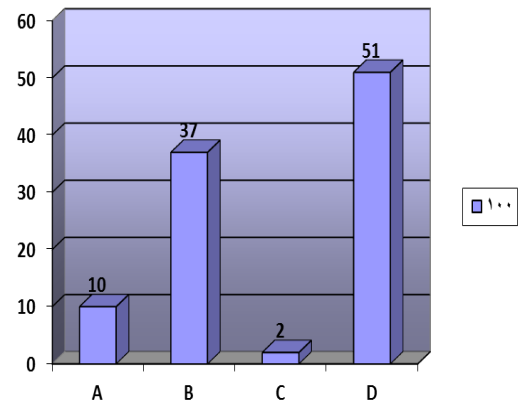


Figure 13. 51 of interns prefer answer D (Accept the patient request only if there is referral from the your colleague).37 of interns go to B (Take the permission from your colleague and give him an appointment).10 interns choose A (Do the treatment for him immediately.) and only 2 interns choose C (Refuse his request)

Secondly:

The results are based on (Ethical Issues Related to Restorative Dentistry) Related Interns answers

The following Table shows the Mean (M) and Standard Deviation (St.D):

N	Items	Mean	St.D	Ranking
1	During root canal treatment and the expected outcome was excellent, on radiographic evaluation of the treatment, the results showed a substandard obturation such as short length or poor density. The most appropriate action is	1.212	0.56	11
2	During RCT, one of the mishaps happened such as broken instrument or canal perforation, it is preferred to:	1.08	.025	13
3	During doing cavity preparation of a healthy tooth, accidental iatrogenic pulp exposure has occurred. The best management is	1.96	0.38	8
4	The patient came to the clinic asking for facial veneers, after examination the dentist found that the problem could be solved with more conservative procedure such as beaching, where there is no need to remove sound enamel, The most appropriate action is	1.98	0.57	7
5	Old prosthesis without any signs of failure and patient asked to replace it and he is ready to pay:	2.36	0.51	4
6	If a patient requests fixed partial dentures involving teeth that are seriously compromised periodontally and are not expected to last more than a year or two:	2.84	1.26	2
7	What do you do when you see a patient who's had poor quality work done by another dentist?	1.69	0.63	9

8	If you are included in a research team to conduct a clinical study to evaluate the effect of calcium hydroxide and sterile cotton pellet intra-canal medication on postoperative pain. Each patient will be assigned randomly in each of the two groups	2.65	0.74	3
9	A comprehensive case came to your clinic which is suitable for a seminar case presentation; you need to use the patient photographs and x-rays in the presentation, Do you?	1.19	0.38	12
10	Refusing treating the patients with infectious diseases such as HIV or HBV is considered	1.66	0.47	10
11	Spending a time to educate the patient how to improve their oral care and hygiene:	2.13	0.93	5
12	Identifying and presenting the treatment alternatives before decision making for all dental treatments:	1.98	0.52	6
13	Patient started endodontic or prosthodontic treatment with one of you colleague and after one or two visits he decided to complete the treatment with you, what you will do	2.96	1.13	1
Overall mean		1.97		

VII. DISCUSSION

The current study investigates the knowledge and behavior of dental interns regarding some ethical issues in daily practice of operative dentistry. One hundred female interns participated in this study from different dental colleges in Riyadh city. The questionnaire consisted from 13 questions in a form of scenarios explaining a condition that require an ethical decision from the dentist. In most dental curriculum, dental ethics are not taught in a separate course and most of the ethical behaviors of dentists come from their moral background and social and religious values. Saudi commission of health science- as a part of their duties in setting the principals and standards for practicing health care profession- has published a reference "Ethics of the medical profession" focusing on the legitimacy of certain issues in accordance with Sharia Law. Codes of ethics are guidelines derived from values and principles intended for the appropriate behavior while practicing various professional activities. Hence, the ethics of the profession indicate the way a doctor is expected to behave; whole the regulations indicate the way a doctor should behave. It is worth mentioning here, that the profession regulations need, in the first place, to be formulated into rules and established from within the ethics of the profession.^[17]

In Riyadh colleges of Dentistry and Pharmacy, Dental Ethics are taught in a two week course in the final year of dental curriculum within operative modules. We found some argues that the caring behavior of previous generations of dentists, and their commitment to ethical conduct, has earned the profession the trust and confidence of society.

So if this professional relationship is to be sustained, each new generation of dentists must come to understand the nature of a profession, and the ethical obligations and no need for teaching such a course like this because ethics is developed early in life. While others suggested that if dental interns and students are not morally virtuous upon matriculation, instruction in ethics is a must. Early (ethics) education is an important determinant of one's commitment to the moral life. The intention of teaching professional ethics is to facilitate all dental interns and students becoming 'good-professional' dentists and the goal is to encourage them to develop and rely on a moral compass they have made their own. Results obtained from this study revealed an acceptable level of ethical obligation and conduct from the participants toward their patients.^[18]

VIII. CONCLUSION

Majority of dental interns' ethical decisions are satisfying the relevant ethical rules and guideline cited by national and international dental regulatory councils and organizations.

IX. RECOMMENDATIONS

Skills of analysis must be developed in using the concepts, principles and rules of ethics.

1-Development and exercise of problem solving abilities in ethics has real practical value.

2-Critical thinking in ethics assists dental interns as human beings and as health professionals in discriminating between good and bad consequences and therefore, right and wrong behavior.

3- Education of dental ethics should be included in the undergraduate dental curriculum.

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