ORIGINAL ARTICLE

Knowledge, Attitude, and Practices of Bioethics among Postgraduate Students – An Institution-Based Study

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ABSTRACT

Aim: The aim of the study was to assess the level of knowledge, attitude, and practices toward bioethics among postgraduate students of a dental institution.

Method: A self-administered pretested questionnaire was given to 80 students selected on the basis of convenience sampling. The questionnaire consists of questions related to knowledge and attitude toward principles and practice of bioethics in clinical research, informed consent, and role of the ethical committee in the institution. Statistical analysis was done using SPSS version 20. 1st, 2nd, and 3rd-year students were compared using Chi-square test.

Results: About 75% of the students have formally taken Hippocratic Oath. Knowledge, attitude, and practice regarding Institutional Ethical Committee, and informed consent was more among final year students when compared to their juniors. Source of knowledge of bioethics was multiple. Department lectures were not preferred a mode of learning (20.3%).

Conclusion: There is an urgent need to include practical education of ethics to bridge the gap in the knowledge, attitude, and practices regarding ethics in clinical practice and research.

Keywords: Bioethics, Hippocratic Oath, Informed consent, Institutional Ethical Committee.

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INTRODUCTION

The concept of ethics and psychology is mostly related to human behavior. Psychology explains the actual behavior of the man whereas ethics explains how he tends to behave. The main of parts of ethics includes statements encircle the rules that a person can apply in his life. It specifies professional protocols or conduct between professional groups and stresses universal moral principle.[1] The Hippocratic Oath (which forms the moral ground of clinical practice) is currently viewed logically. In some major documents such as Nuremberg code and Helsinki declaration, the classical basis of ethical aspects of clinical practice is redefined with inevitable progress in medicine and commercialization. The importance of health-care morals in a specific nation is like the overarching laws. In addition, financial limitations and contemporary gregarious esteems regularly shape and decide ethical practice. The four basic standards of medical ethics (independence, justice, helpfulness, and non-perniciousness) frame the substructure for wellbeing experts to manage and choose what rehearses are moral in clinical settings.[2,3] These basic ethical principles are grounded on the major documents of healthcare ethics (Hippocratic Oath, Nuremberg code, and Helsinki declaration).[4] However, in spite of all these guidelines, there are still some incidents that give a detailed explanation about the unethical behavior of medical students and health practitioners with patients as well as colleagues.[5-7] This may be partly due to a demand of practical of good repute guidance from one end to the other the information phase. Recently, In India, as the medical profession has been brought under "Consumer Protection Act,"[8] the complaints of poor ethical conduct against health-care practitioners have been increasing. This may be due to laxity in practices taken by the health-care professionals and increased public awareness. Sound development of ethical issues contributes to a top doctor-patient relationship and medical outcome. Studies from the South Asian countries quote chapter and verse that medical students require knowledge and achievement of the survival of institutional ethics panel and its corresponding role.[9] Such studies would be pertinent to inspect ethical practices and refresh patient outcomes.

An informed assent is a crucial tool of standard ethical medical practice. It is the practice of sharing information by all the patients that are essential to their flexibility to make pragmatic choices among infinite options in their perceived marvelous interest.[10] It is universally

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recognized as an essential safeguard to secure the safety of an individual's rights.[11] Informed consents, which are generally provided in all health assistance environments including dental clinics, are a pertinent source of evidence to aid patients to figure informed decisions about their proposed treatment.[12,13] The work of certain consents is rooted in moral, cultural, and legal principles.[14,15] Informed consents are constantly perceived as inexorable for legal precaution against malpractice claims.[16] The initial step is to explain the prevailing knowledge and therapy of health-care professionals in the frantic region. The present study was carried out to verify the level of knowledge, attitude, and practices toward bioethics among postgraduates at one of the well-known dental institutions.

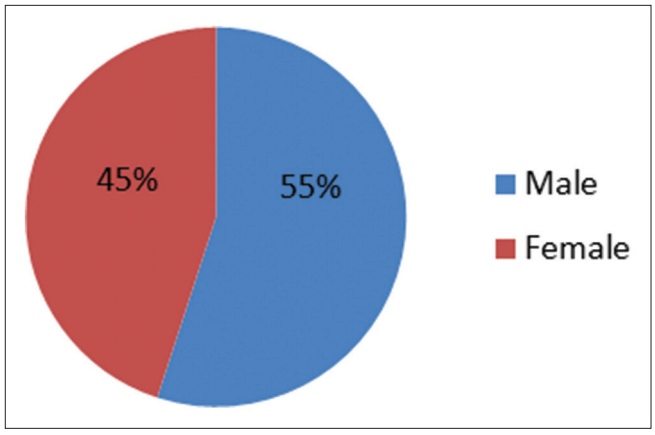
MATERIALS AND METHODS

A cross-sectional study was conducted in the postgraduate students of all the nine specialties present in the dental college which is located in the southern part of India. A self-administered pre-tested questionnaire was given to 80 postgraduate students selected on the basis of convenience sampling. In the first part of the questionnaire demographic details and year of the study was taken and the questionnaire consists of 15 questions related to knowledge and attitudes toward principles and practice of bioethics in clinical research, informed consent and role of the ethical committee in the institution. Among all the questions 5 are knowledge questions, 3 are attitude questions, and 7 are practice questions. It is the extent to which all of the items of a test measure the same latent variable. Ethical clearance was obtained from the Institutional Ethical committee. Data were analyzed using SPSS version 20. Chi-square test was used to compare 1st, 2nd, and 3rd-year students. All responses had a good response for internal consistency and met the criteria of 0.7 for Cronbach's alpha.

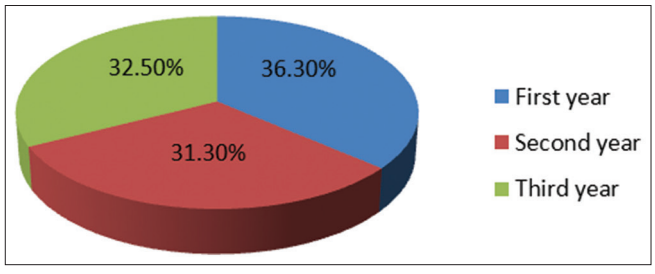
RESULTS

Graph 1 shows the distribution of male and female in the study population. Out of the total 80 subjects, 55% were male and 45% were female. Graph 2 represents the year wise distribution of study subjects 1st-year P.G's were 36.30%, 2nd-year P.G's were 31.30%, and 3rd-year P.G's were 32.50%. Graph 3 explains the percentage of study subjects who have taken Hippocratic Oath after graduation, i.e., 75% has taken the oath and rest was not.

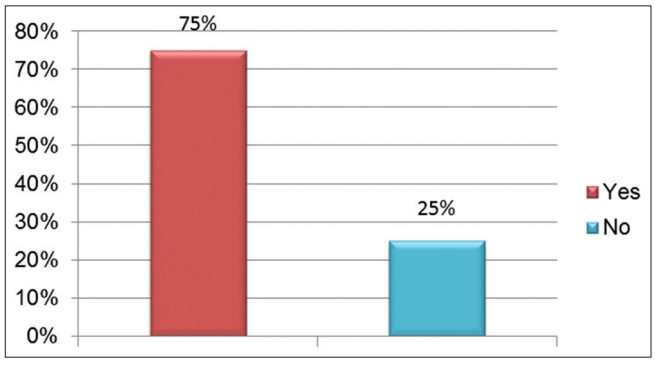
Graph 4 illustrates about knowledge, attitude, and practices of postgraduates regarding IEC. 17.50% have no awareness about IEC in the institution. 24.80% does not submit the application in IEC for review of research. 93.80% does not pursuance of research work even after rejection of the application. Only 40% are aware about the composition of IEC. 67.50% has accepted that IEC



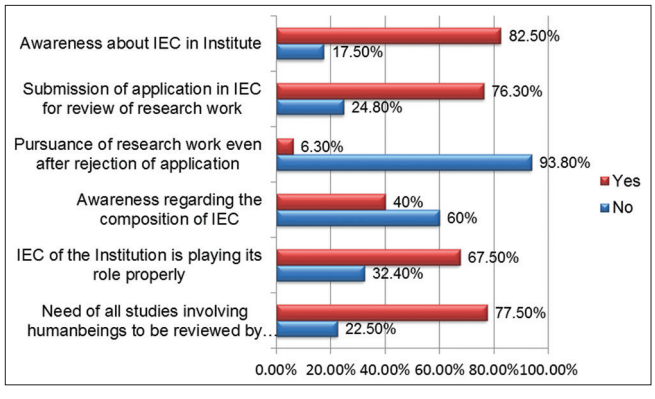
Graph 1: Distribution of study subjects according to gender



Graph 2: Distribution of study subjects according to year of study subjects



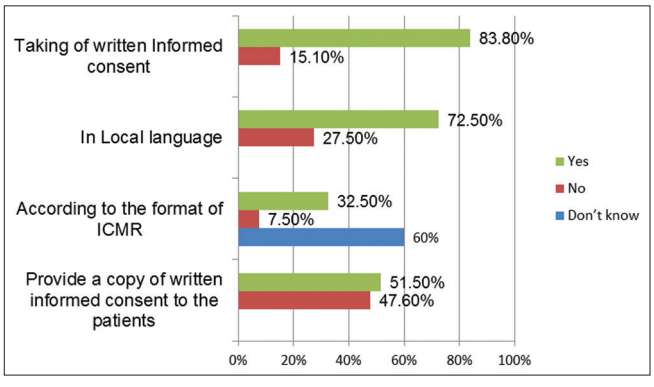
Graph 3: Percentage of study subjects who have taken Hippocratic Oath after graduation



Graph 4: Knowledge, attitude, and practices of postgraduates regarding IEC

of the institution is playing its role properly. 22.50% opined that there is no need for all studies involving human beings, need to be reviewed by IEC. Table 1 shows the relationship between year of study subjects and knowledge, attitude, and practice regarding IEC. 3rd-year P.G's have more knowledge regarding IEC and only awareness regarding the composition of IEC shows statistical significance ($P \geq 0.016$).

Graph 5 exemplifies the knowledge, attitude, and practices of postgraduates regarding informed consent. 83.80% declared that they have taken the written informed consent in their research work and that to 72.50% has take in the local language. 60% of the postgraduate does not know about the ICMR format and 7.50% in the rest 40% did not follow the ICMR format while taking the informed consent. Only 51.50% of the PG's gave a copy of the written informed consent to their patients. Table 2 illustrates the relationship between the year of study and knowledge, attitude, and practice regarding informed consent, 3rd-year P.G's have more knowledge about informed consent when compare to the 1st and 2nd years and taking written informed consent, in local language show statistical significance ($P \geq 0.06$ and $P \geq 0.017$).



Graph 5: Knowledge, attitude, and practices of postgraduates regarding informed consent

Graph 6 shows that majority (30.80%) of the P.G's are getting knowledge of bioethics from books/journal, 20.30% are having from lectures in the departments, and 20.30% are obtaining it from the conference/symposiums/workshops, and the others are getting it from media and colleagues'.

DISCUSSION

The very important thing that people who conduct research or use and apply research results must know the contents of ethical research. The researchers should have contemporary knowledge about the policies and procedures that are designed to ensure the safety of research subjects and to prevent sloppy research. The ignorance of policies that are designed to protect research subjects is not considered as a viable excuse for ethically questionable projects. Hence, it is the responsibility of the researcher to fully understand the policies and theories that are designed to upright research practices.

In the examination populace, the larger part of them was male when contrasted with females this distinction might be expected that the greater part of the male is joining P.G after their U.G; however, females are not preceding with their instruction after U.G because of some societal reasons. Year wise distribution of study participant was all most equal in every year because the number of P.G seat will remain the same in the college.

In the recent study, the percentage of students who take formal Hippocratic Oath after U.G course is 75%. However, in the study done by Mohammad *et al.*, only 22.2% of the residents and 47.1% of the faculty have formally taken Hippocratic Oath.[17] 17.05% of the P.G students are not aware of the IEC in the institution. Most of them are 1st-year P.G's because before thesis submission they will have no work with the IEC. 76.3%

Table 1: Relationship between year of study subjects and knowledge, attitude, and practice regarding IEC

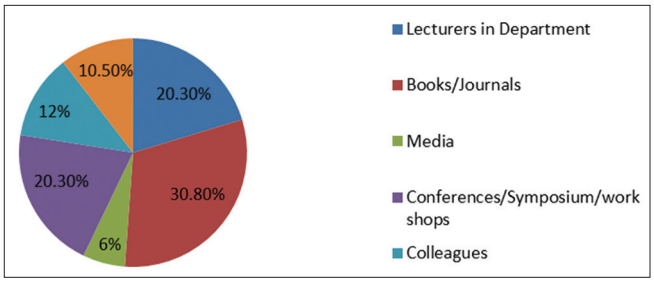
Questions regarding IEC	1st year (%)	2nd year (%)	3rd year (%)	*P* value
Awareness about the IEC in Institute	79.3	80	88.5	0.62
Submission of application to IEC for review of research work	69	72	88.5	0.19
Pursuance of research work even after rejection of the application	3.4	12	3.8	0.358
Awareness regarding the composition of IEC	24.1	36	61.5	0.016
IEC of the Institution is playing its role properly	79.3	64	57.7	0.215
Need of all studies involving human beings to be reviewed by IEC	72.4	72	88.5	0.265

Chi-square test; statistical significant value $P \geq 0.05$

Table 2: Relationship between the year of study and knowledge, attitude, and practice regarding informed consent

Questions regarding informed consent	1st year (%)	2nd year (%)	3rd year (%)	*P* value
Taking of written informed consent	72.4	80	100	0.06
In local language	58.6	68	92.3	0.017
According to the format of ICMR	31	28	38.5	0.379
Provide a copy of written informed consent to the patients	48.3	52	53.8	0.663

Chi-square test; statistical significant value $P \geq 0.05$



Graph 6: Source of knowledge of bioethics among postgraduates

are submitting the application to IEC for review of their research work; a majority of them are 3rd-year P.G's. This may be because the final years need article publication; many journals accept the articles when there is an IEC clearance certificate. Completion of research work even after rejection of application was very less, i.e., 6.30%, these results are in contrast with the Nadig *et al*. study done in 2011.[18] 67.50% are opined that IEC of the institution is playing its role properly. 22.50% does not acknowledge that there is a need for all studies involving human beings to be reviewed by IEC. There is no critical connection between the year of study subjects and information, state of mind, and work on with respect to IE.

83.80% are having the habit of taking a written informed agreement. 72.50% of the P.G's said that they are taking permission in the local language, but only 32.50% of them were obtaining according to the ICMR guidelines. 51.50% has to provide a copy of the written informed agreement to the patients. The connection between a year of study and information, state of mind and work on with respect to educated assent is high in 3rd year when contrasted with 2nd year and 1st year. Occupants knowledge and states of mind toward well-being research enhance essentially with expanding year of study which is like the investigation conducted by Khan *et al*.[19] Significant relationship is seen only with the habit of taking a written, composed consent and taking consent in the regional language. However, the present results are in contrast with the Mohammad *et al*. study.[17]

Mohammad *et al*. announced that curricular preparing with respect to bioethics is either deficient or insufficient as department teachers are not assuming an essential part and are not favored the method of learning.[20] This finding was like the present study. In the study done by Adhikari *et al*., a significant number of the specialists opined that they are looking for learning of morals from lectures and nurses believe that from journals and books.[21] The study was done by Chopra *et al*. also highlighted gaps in the knowledge about practical aspects of health-care ethics among physicians and nurses which they encounter in day-to-day practice at the workplace.[22]

CONCLUSION

Health professionals, very frequently come across ethical dilemmas in their day-to-day practice. They are not provided formal training in practical aspects of ethics in their curriculum. To overcome this, emphasis should be given to postgraduate training on legal jurisprudence, and legal medicine as this is essential for dentists to protect themselves from civil litigation (trespass, assault, or battery) and even criminal proceedings for common aggravated or indecent assault.

In the present study, departmental lectures are not preferred a mode of learning. Hence, there is an urgent need to include practical education of ethics to bridge the gap in the knowledge, attitude, and practices regarding ethics in clinical practice and research. It should be remembered that the profession exists as long as it enjoys the trust of the society, and this can be assured by always placing the interest of the patient above one's own interest.

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REFERENCES

1. Hirremath SS. Textbook of Public Health Dentistry. Ethics in Dentistry. 3rd ed. St. Louis, MO: Elsevier Publications; 2016. p. 224-6.
2. Summers J, Morrison E. Principles of Healthcare Ethics. Health Care Ethics. 2nd ed. Sudbury: Jones and Bartlett Publishers; 2009. p. 41-58.
3. Beauchamp TL, Childress JF. Principles of Biomedical Ethics. USA: Oxford University Press; 2001.
4. Adhikari S, Paude K, Aro AR, Adhikari TB, Adhikari B, Mishra SR. Knowledge, attitude and practice of healthcare ethics among resident doctors and ward nurses from a resource poor setting, Nepal. BMC Med Ethics 2016;17:68.
5. Green MJ, Farber NJ, Ubel PA, Mauger DT, Aboff BM. Lyingto each other: When internal medicine residents use deception with their colleagues. Arch Intern Med 2000;160:2317-23.
6. Baldwin DC Jr., Daugherty SR, Rowley BD, Schwarz MD. Cheating inmedical school: A survey of second year students at 31 schools. Acad Med 1996;71:267-73.
7. Baldwin DC Jr., Daugherty SR, Rowley BD. Unethical and unprofessional conduct observed by residents during their first year of training. Acad Med 1998;73:1195-200.
8. The Consumer Protection Act; 1986. Available from: www.consumer-voice.org. [Last accessed on 2013 Mar 18].
9. Chatterjee B, Sarkar J. Awareness of medical ethics among undergraduates in a West Bengal medical college. Indian J Med Ethics 2012;9:93-100.
10. Andre J. Bioethics as Practice. Chaepel Hill: University of North Carolina Press; 2002.
11. Simon RI. Clinical Psychiatry and the Law. Chapter-Informed

Consent: Maintaining a Clinical Perspective. 2nd ed. Washington DC: American Psychiatric Press; 1992. p. 121e53.
12. Worthington R. Clinical issues on consent: Some philosophical concerns. J Med Ethics 2002;28:377-80.
13. Dierks MM, Sands DZ, Safran C. Re-engineering the Process of Surgical Informed Consent. Proceeding AMIA Symposium; 1999. p. 731-5.
14. Jefford M, Moore R. Improvement of informed consent and the quality of consent documents. Lancet Oncol 2008;9:485-93.
15. Faden RR, Beauchamp TL, King NM. A History and Theory of Informed Consent. New York: Oxford University Press; 1986.
16. Meisel A, Kuczewski M. Legal and ethical myths about informed consent. Arch Intern Med 1996;156:2521-6.
17. Mohammad M, Ahmad F, Rahman SZ, Gupta N, Salmanet T. Knowledge, attitudes and practices of bioethics among doctors in a tertiary care government teaching hospital in India. J Clin Res Bioethics 2011;2:1-5.
18. Nadig P, Joshi M, Uthappa A. Competence of ethics committees in patient protection in clinical research. Indian J Med Ethics 2011;8:151-4.
19. Khan H, Khan S, Iqbal A. Knowledge, attitudes and practices around health research: The perspective of physicians in training in Pakistan. BMC Med Educ 2009;9:46.
20. Mohammed AM, Ghanem MA, Kassem AA. Knowledge, perceptions and practices towards medical ethics among physician residents of university of Alexandria hospitals, Egypt. East Mediterr Health J 2012;18:935-45.
21. Adhikari S, Paudel K, Aro AR, Adhikari TB, Adhikari B, Mishra SR. Knowledge, attitude and practice of health care ethics among resident doctors and ward nurses from a resource poor setting, Nepal. BMC Med Ethics 2016;17:68.
22. Chopra M, Bhardwaj A, Mithra P, Singh A, Siddiqui A, Rajesh DR. Current status of knowledge, attitudes and practices towards healthcare. Ethics among doctors and nurses from Northern India-a multicentre study. J Krishna Inst Med Sci Univ 2013;2:62-8.