**Title: Knowledge and attitude about medical ethics among junior medical graduates in a tertiary care hospital, Manipur: A cross-sectional study**

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**Short title:** Rajkumari B\_ Knowledge attitude medical ethics

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**Abstract**

Conventional medical training offers students little help in resolving the ethical dilemmas they will encounter as healthcare professionals. After completing their studies, healthcare professionals are expected to know ethical principles and apply them in their clinical practices. This cross-sectional study was conducted to assess knowledge and attitude about medical ethics and to determine the factors influencing among junior medical graduates in a tertiary care hospital in Manipur by using a pretested, semi-structured, self-administered questionnaire. Approval of the institutional Ethics committee was obtained. Descriptive and analytical statistics were used. Out of 311 participants, 257 responded. Overall, 67(26.1%) respondents have good knowledge about medical ethics. Higher age (p-value=0.036) and being a post-graduate trainee (p-value=0.008) were significantly associated with higher knowledge level. Majority of the respondents have a positive attitude towards medical ethics. There is an urgent need to include practical education in medical curricula and increase sensitisation of health professionals on Medical ethics.

**Keywords:** Medical-ethics, Knowledge, Attitudes.

**INTRODUCTION**

Recently, in India, as the medical profession has been brought under “Consumer Protection Act”, there have been increasing complaints of poor ethical conduct against healthcare practitioners. This may be due to increased public awareness or inappropriate practices by the healthcare professionals.1-2 Ethical dilemmas are usually encountered in areas such as abortion, contraception, treatment of a patient with a terminal illness, professional misconduct, maintaining patient’s confidentiality, religion, traditional medicine, conflict of interests etc. The conventional medical course offers junior medical graduates little help in resolving the ethical dilemmas which they may encounter as healthcare professionals. Training in medical ethics has been made mandatory in the undergraduate curriculum and the Medical Council of India (MCI) in 2002 released its Code of Ethics, a regulatory document on professional conduct, etiquette, and ethics of doctors.3

Significant proportion of doctors are still unaware of health care ethics as shown by previous studies.4-6 This study was taken up as there are limited studies regarding knowledge and attitude about medical ethics among doctors in Manipur.

**Material and methods:**

This cross-sectional study was conducted among junior medical graduates of Jawaharlal Nehru Institute of Medical Sciences (JNIMS), Manipur during the month of November-December 2018. The study aims for universal coverage of all the target population and those who were not willing to participate and who could not be contacted after 2 visits were excluded. A pre-tested, semi-structured, self-administered questionnaire was used. There were 14 knowledge questions and 14 attitude related questions which were measured on a three point Likert Scale. Out of the total knowledge score of 17 those scoring more than 10 were classified as having Good/Adequate knowledge. Descriptive and Analytical statistics were generated and a p-value of <0.05 was considered as statistically significant. The study was granted an exempt review by the Institutional Ethics Committee vide letter No.Ac/04/IEC/JNIMS/2018(157) dated 20th Nov 2018. No direct identifiers were collected and strict confidentiality was maintained for collected data.

**RESULTS**

Out of the total of 311 junior doctors 257 responded. The median age was 27 years and males constituted 45.9%. PGTs constitute 33.1% of the and about 7 (2.7%) participants passed MBBS before 2010.In response to the knowledge questions about 82.1% were aware of the existence of an ‘Ethics committee’ in the institution. Around 43.2% of the participants did not know “who enforces the code of ethics in India.” When asked “what is the apex body in India for the formulation and promotion of biomedical research?” only 42.8% responded correctly. About 52.9% of the participants knew that the approval of institutional ethics committee is required for conducting a medical research project and 26.1% knew that a medical practitioner should participate in at least 30 hours in CME programs every 5 years to maintain good clinical practice. Very few participants knew about the four principals of biomedical ethics (10.5%).

Overall, 26.1% of the participants have good knowledge about medical ethics with PGTs scoring highest (31.8%). Majority (82.5%) disagreed that confidentiality is not an important aspect of treatment. Around one-third (30.4%) of the respondents agrees to the statement that ‘If a terminally ill patient wishes to die, he/she should be assisted in doing so’. Post-graduate trainees have significantly higher knowledge score as compared to JRs, interns (p=0.008).

**DISCUSSION**

More than half of the participants were aware that a prior approval from IEC is mandatory before conducting any medical research on human and majority (82.1%) of the participants were aware of the existence of an Institutional Ethics Committee which was higher than awareness level found in previous studies.5,8 This could be because of their exposure to medical research projects during undergraduate and postgraduate trainings in the institute. Majority (82.5%) of the participants disagreed that confidentiality is not an important aspect of treatment. Similar observation (81.3%) was also found among physicians in a study done by Chopra M et al.9 More than one fifth (23%) of the participants had a misconception that physicians are allowed to run their own chemist shop for selling medicines and surgical appliances. This is an area of concern and need to be addressed in time to avoid criticisms against healthcare practitioners. Majority (61.1%) of the participants were uncertain that receiving any monetary grants from any pharmaceutical industry for individual purpose is a violation of code of conduct for doctors. This further reflects the lack of in-depth knowledge about medical ethics and the influences of pharmaceutical companies. Around 30.4% of the participants agreed to physician-assisted death for terminally ill patient who wishes to die, other studies reported similar findings.7,9 The limitation of the study is thatduring data collection, some participants were busy at their work and so returned the questionnaires late which might reduce validity of the information provided. There is an urgent need to include practical education about ethics in medical curricula. A test on the code of ethics at the time of registration could also be considered.

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**References**

1. Prakash C, Roy Chaudhari SK, Bala R, Shrivastav B, Rai A, Roham. Consumer Protection Act (CPA / COPRA) related to medical profession. JIAFM. 2007; 29(3):39-41.
2. Moser RH. A few thoughts about professionalism (editorial). South Med J 2000;93:1132-33.
3. MCI. Indian Medical Council. Professional Conduct, Etiquette and Ethics Regulations, 2002. Gazette of India. 2002;Part-III-Sec-4.
4. Iswarya S and Bhuvaneshwari S. Knowledge and attitude related to medical ethics among medical students. Int J Community Med Public Health 2018;5(6):2222-25.
5. Mohammad M, Ahamad F, Rahman SZ, Gupta V, Salman T. Knowledge attributes and practices of bioethics among doctors in Tertiary care government teaching hospital in India. J Clinic Res Bioeth 2011;2:118-20.
6. Janakiram C, Gardens S, knowledge, attributes and practice related to healthcare ethics among medical and dental postgraduate students in south India. Indian journal of medical ethics 2014;XI(2):99-104.
7. Singh S, Sharma PK, Bhandari B, Kaur R. Knowledge, awareness and practice of ethics among doctors in tertiary care hospital. Indian J Pharmacol 2016;48:89-93.
8. Brogen SA, Rajkumari B, Laishram J, Joy A. Knowledge and Attitude of Doctors on Medical Ethics in Teaching Hospital Manipur. Ind J Med Ethic 2009;6(4):194-7.
9. Chopra M, Bharadwaj A, Mitha P, Sign A, Siddiqui A, Rajesh PR. Current status of Knowledge, Attitude ad Practices towards Healthcare Ethics among Doctors and Nurses from North India-A Multicenter Study. JKIMSU 2013;2(2):102-7.