# **Original Article**



# Awareness Among Healthcare Workers Regarding Medical Laws and Ethics in Tertiary Care Hospital in Himachal Pradesh

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## **Abstract**

Background: There is increased violence and litigations against healthcare workers due to their lack of knowledge about medical law and ethics. There are various laws governing medical profession in India which majority of doctors and nurses are not aware of. Training of healthcare professionals regarding this is required for which we need to know their current understanding of the topic. Aims and Objectives: To assess the knowledge of doctors and nurses regarding medical ethics and medical acts, rules and guidelines so that their trainings can be planned accordingly. Methods: This study was conducted as a survey using Google form for various categories of our hospital staff - faculty doctors, trainee doctors and staff nurses which was shared through their whatsapp groups. The participation was voluntary and anonymous. The questionnaire was regarding the attitude towards medical ethics and knowledge about various laws enacted in India to regulate medical practice. Results: A total of 200 doctors and nurses participated in the survey. Most of our doctors and nurses had good knowledge of medical ethics because of regular trainings regarding quality and NABH guidelines. But many of them lacked knowledge about various medical acts, laws and guidelines. Conclusion: There is a need to train our hospital staff regarding medical laws enacted in the country which can be done through lectures, CME, workshops which will be organized in near future by our hospital. Further multi centric studies are required regarding this topic in the future.

Keywords: AETCOM, Healthcare, MCI, medical ethics, medical law, NABH, NMC

#### Introduction

With technology developments in healthcare, there has been increased awareness among the public regarding treatment protocols available [1]. This has led to increased litigation and increased violence against health care workers. Along with this the health care sector was also brought under Consumer Protection Act [2]. Traditional training of health care professionals put little focus on medical ethics and this lack of knowledge leads to more litigation and violence [3]. Various verdicts of court are also in favour of patients and against the healthcare professionals [4]. In our country medical ethics are emphasized in research but not in clinical practices and there is a lot of difference between research ethics and clinical ethics [5].

The Government of India has enacted various legislative laws and acts to control the medical practice and ensure ethical practice and they have been revised from time to time <sup>[4]</sup>. The Medical Council of India has established detailed regulations regarding professional conduct and ethics for Registered Medical

Practitioners <sup>[6]</sup>. There is lack of knowledge among healthcare professionals regarding these laws too. But now the National Medical Commission (NMC) and Ministry of Health and Family Welfare (MOHFW) has started putting focus on Attitude, Ethics and Communication (AETCOM) as part of training of both undergraduates and postgraduates.

Some reports stress the importance of incorporating ethical and legal issues into health curriculum <sup>[7]</sup>. Few studies are available in literature regarding awareness of medical ethics but almost none regarding awareness of Indian medical laws and acts among healthcare professionals. In our institute we plan to train our healthcare professionals regarding medical laws and ethics. As a first step of it, it was important to know current basic knowledge of our doctors and nurses about the same. So, we have designed this study to:

- Assess the attitude of doctors and nurses towards medical ethics.
- 2. Assess the knowledge of doctors and nurses about medical rules, guidelines and acts.

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Received: February 19, 2025; Revised: April 02, 2025; Accepted: April 06, 2025

To plan trainings regarding medical laws and ethics as per staff needs.

#### **Materials and Methods**

This study was conducted as a survey through Google form by Quality department of Maharishi Markandeshwar Hospital Solan Himachal Pradesh in December 2024. The Google form which was created by the researchers was internally validated by the members of quality department and approved by the Medical Superintendent of the hospital. This Google form was released and available to teaching faculty doctors (Professors, Associate Professors, Assistant Professors and Senior Residents), trainee doctors (Junior Residents and Medical Interns) and Staff Nurses of the Hospital on their individual WhatsApp groups between 12th December 2024 and 19th December 2024. The approval of the Hospital Administration and ethical committee was taken for this survey. The participation in this survey was voluntary.

The survey focused on two areas:

- 1. Awareness and knowledge about medical ethics
- Awareness and knowledge about various medical rules, guidelines and acts in India

The survey was conducted in the form of questionnaire. The survey was anonymous. The names, e mail id and hospital employee id number of the participants were not collected.

The results were analysed in form of percentage using Statistical Package for Social Sciences (SPSS) software.

## Results

A total of 200 hospital staff participated in the study, out of which 63 were faculty doctors, 59 were trainee doctors and 78 were staff nurses. Most of the participants were of younger age group (< 30 years) - 64.5% and were Females - 68% (**Table 1**).

Regarding familiarity with medical laws of our country, only 46.5% respondents said they were familiar, the highest among trainee doctors (63%) (**Table 3**).

Only 40% of respondents said that they received a training regarding medical ethics, which was maximum for trainee doctors at 56%. Around 33% respondents said that they faced a problem regarding medical law and ethics in their career, which was almost uniform among all the three groups.

When asked whom will they consult if they face a problem regarding medical law and ethics, a majority of doctors preferred hospital administration and head of department, whereas majority of nurses preferred hospital administration and nursing administration (**Table 4**).

The respondents were asked various questions regarding medical ethics and their responses were noted (**Table 5**).

The questions regarding knowledge about medical laws and acts were asked to the respondents and responses noted (**Table 6&7**).

All the respondents were of opinion that those guilty of violating medical ethics must be punished as per law. All the respondents suggested that trainings regarding medical laws and ethics must be given to the health care workers and even including it in curriculum of students. This was asked as a open end question to the respondents.

| Table 1: Age distribution of the participants |                 |                 |              |       |  |
|---|-----------------|-----------------|--------------|-------|--|
| Age group                                     | Faculty doctors | Trainee doctors | Staff Nurses | Total |  |
| < 30 years                                    | 20              | 49              | 60           | 129   |  |
| 30-50 years                                   | 24              | 10              | 18           | 52    |  |
| > 50 years                                    | 19              | 0               | 0            | 19    |  |
| Total   | 63              | 59              | 78           | 200   |  |

| Table 2: Sex distribution among participants |                 |                 |              |       |  |
|--|-----------------|-----------------|--------------|-------|--|
| Sex  | Faculty doctors | Trainee doctors | Staff Nurses | Total |  |
| Male   | 33              | 31              | 0            | 64    |  |
| Female                                       | 30              | 28              | 78           | 136   |  |
| Total  | 63              | 59              | 78           | 200   |  |

| Table 3: Familiarity with the Medical Laws of our country |                 |                 |              |            |  |
|---|-----------------|-----------------|--------------|------------|--|
| Familiarity   | Faculty doctors | Trainee doctors | Staff Nurses | Total      |  |
| Familiar  | 26 (41%)        | 37 (63%)        | 30 (38%)     | 93 (46.5%) |  |
| Somewhat familiar   | 35              | 22              | 45           | 102        |  |
| Not familiar  | 2               | 0               | 3            | 5          |  |
| Total   | 63              | 59              | 78           | 200        |  |

| Table 4: Consultation on medical law and ethics issues |                 |                 |              |       |  |
|--|-----------------|-----------------|--------------|-------|--|
| Consultation   | Faculty doctors | Trainee doctors | Staff Nurses | Total |  |
| College administration                                 | 10              | 4               | 3            | 17    |  |
| Hospital administration                                | 17 (28%)        | 16 (29%)        | 28 (36%)     | 61    |  |
| Nursing administration                                 | 3               | 0               | 32 (41%)     | 35    |  |
| Head of Department                                     | 16 (25%)        | 24 (40%)        | 13           | 53    |  |
| Colleagues   | 9               | 6               | 0            | 15    |  |
| Internet   | 8               | 9               | 2            | 19    |  |
| Total  | 63              | 59              | 78           | 200   |  |

| Table 5 Knowledge about Medical Ethics                    |                 |                 |                 |                   |  |  |
|---|-----------------|-----------------|-----------------|-------------------|--|--|
| Question  | Faculty doctors | Trainee doctors | Staff Nurses    | Total             |  |  |
| Do you think patient relatives must be informed on        | YES - 53 (84%)  | YES - 48 (81%)  | YES - 63 (81%)  | YES - 164 (82%)   |  |  |
| medical errors  |                 |                 |                 |                   |  |  |
| Do you think confidentiality in patient care is important | YES - 62 (98%)  | YES - 59 (100%) | YES - 78 (100%) | YES - 199 (99.5%) |  |  |
| Do you think consent in patient care is important         | YES - 63        | YES - 59 (100%) | YES - 78 (100%) | YES - 200 (100%)  |  |  |
|   | (100%)          |                 |                 |                   |  |  |
| Do you think patient and family counseling in patient     | YES - 63        | YES - 59 (100%) | YES - 78 (100%) | YES - 200 (100%)  |  |  |
| care is important   | (100%)          |                 |                 |                   |  |  |
| Can you refuse treatment to a violent patient             | YES - 35 (56%)  | YES - 39 (66%)  | YES - 24 (31%)  | YES - 98 (49%)    |  |  |
| Can a critically ill patient refuse treatment             | YES - 42 (67%)  | YES - 32 (54%)  | YES - 41 (53%)  | YES - 115 (57.5%) |  |  |
| If a patient wishes to die, can we assist him in doing so | YES - 10 (16%)  | YES - 4 (7%)    | YES - 20 (26%)  | YES - 34 (17%)    |  |  |

| Table 6: Knowledge about Medical rules, guidelines and acts -I |                 |                 |                |                   |  |  |
|--|-----------------|-----------------|----------------|-------------------|--|--|
| Question   | Faculty doctors | Trainee doctors | Staff Nurses   | Total             |  |  |
| Are you aware of ICD coding of medical records                 | YES - 33 (52%)  | YES - 36 (61%)  | YES - 64 (82%) | YES - 133 (66.5%) |  |  |
| Are you well versed with MCI code of medical ethics            | YES - 14 (22%)  | YES - 22 (37%)  | YES - 10 (13%) | YES - 46 (23%)    |  |  |
| regulation 2002  |                 |                 |                |                   |  |  |
| Are you aware of Clinical establishment act guidelines         | YES - 14 (22%)  | YES - 20 (34%)  | YES - 16 (21%) | YES - 50 (25%)    |  |  |
| 2010   |                 |                 |                |                   |  |  |
| Are you aware of PCPNDT act guidelines                         | YES - 29 (46%)  | YES - 34 (58%)  | YES - 41 (53%) | YES - 104 (52%)   |  |  |
| Are you aware of medical termination of pregnancy rules        | YES - 33 (52%)  | YES - 39 (66%)  | YES - 51 (65%) | YES - 123 (61.5%) |  |  |
| Are you well versed with palliative care rules                 | YES - 17 (27%)  | YES - 27 (46%)  | YES - 41 (53%) | YES - 85 (42.5%)  |  |  |
| Are you well versed with Narcotic drugs and                    | YES - 17 (27%)  | YES - 20 (34%)  | YES - 23 (30%) | YES - 60 (30%)    |  |  |
| psychotropic substances (NDPS) rules                           |                 |                 |                |                   |  |  |

| Table 7: Knowledge about medical rules, guidelines and acts -II |                 |                 |                |                  |  |  |
|---|-----------------|-----------------|----------------|------------------|--|--|
| Question  | Faculty doctors | Trainee doctors | Staff Nurses   | Total            |  |  |
| Do you know how to read an act and are you well versed          | YES - 10 (16%)  | YES - 12 (20%)  | YES - 10 (13%) | YES - 32 (16%)   |  |  |
| with structure of act   |                 |                 |                |                  |  |  |
| Are you well versed with Artificial reproductive technology     | YES - 14 (22%)  | YES - 20 (34%)  | YES - 20 (26%) | YES - 54 (27%)   |  |  |
| rules and regulations   |                 |                 |                |                  |  |  |
| Have you read/ heard of reasonable accommodation for HIV        | YES - 21 (33%)  | YES - 23 (40%)  | YES - 24 (31%) | YES - 68 (34%)   |  |  |
| positive persons as per HIV and AIDS act 2017                   |                 |                 |                |                  |  |  |
| Have you read the Mental health care act 2017                   | YES - 20 (32%)  | YES - 24 (41%)  | YES - 25 (32%) | YES - 69 (34.5%) |  |  |
| Have you read the transplantation of human organs and           | YES - 25 (40%)  | YES - 27 (46%)  | YES - 30 (39%) | YES - 82 (41%)   |  |  |
| tissues rules 2014  |                 |                 |                |                  |  |  |

## Discussion

A total of 200 doctors and nurses participated in our survey. The majority of our participants were of younger age group (< 30 years). Most of our respondents were females. This was because all the trainee doctors are of younger age group and all staff nurses in our hospital are females [**Table 1 & 2**]. Even in other study by Khongshei *et al*, most of the hospital staff were of younger age group [8]. Another study by Thirunavukarasu *et al*, all nurses were females<sup>[1]</sup>.

Only 46.5% of our staff claimed to be familiar with medical laws of our country. This was maximum for trainee doctors at 63% [Table 3]. This maybe because National Medical Commisson (NMC) has introduced Attitude, Ethics and Communication (AETCOM) in the trainee doctors curriculum. Similar results were obtained in other studies. A study by Hariharan *et al* also showed that more than half of respondents had no or little knowledge of law [2]. A majority of our doctors preferred hospital administration and head of department to consult if they face a problem regarding medical law and ethics whereas majority of nurses preferred hospital administration and nursing administration in our study [Table 4]. Similar results were obtained in the study by Hariharan *et al* where physicians preferred to contact Head of department whereas nurses

preferred to contact their matron  $^{[2]}$ . Similar results were obtained by Adhikari *et al* in their study in Nepal  $^{[9]}$ .

Regarding attitude about medical ethics almost all our staff understand the importance of consent, confidentiality and counseling in patient care. Majority of them agreed that the patients must be informed on medical errors [Table 5]. The increased awareness about these common ethical issues among our staff is because of continuous Quality trainings imparted to our staff especially in last 7 years as ours is a NABH 5th edition accredited hospital. Only nearly half of our staff believe they can refuse treatment to violent patient and a critically ill patient can refuse treatment. Only 17% of our staff responded that they can assist a patient in dying, if the patient wishes so [Table 5]. Similar results were obtained in studies by Hariharan et al [2], Adhikari et al [9]. In a study by Singh et al in 2016, 14.5% believed they can refuse treatment to violent patient, 76.1% believed in family counseling, 70.1% responded that patient wish is important [5]. Another study by Subramanian et al majority of staff gave importance to patient wish and counseling. 55% doctors and 85% non doctors responded that they can refuse treatment to violent patients. But 54% doctors and 76% non doctors in their study believed that they can assist a patient to die if the patient wishes so, which is contrary to our study [10].

Around two third of our staff were aware of ICD coding of diseases which is maximum among staff nurses. But only 16% of our staff knew how to read an act and were well aware of structure of act. Among the various acts, more than half of our staff were aware of PCPNDT and Medical termination of pregnancy rules. But a majority of our doctors and nurses were not aware of other acts and rules like organ transplantation, artificial reproductive technology, mental health, HIV and AIDS, narcotics and palliative care. Majority of our doctors and nurses were not aware of MCI code of ethics and Clinical establishment act either [Table 6 and 7]. There are no studies available on knowledge on medical acts among health care professionals in India. But another study done in Saudi Arabia by Bin Shiah et al also showed poor awareness of medical law among health care practitioners [11]. A study done by Rasheed et al regarding the knowledge and attitude regarding pharmacovigilance programme of India among interns also showed lack of awareness regarding regulatory authorities [12].

Looking at the results of our study, we conclude that there is need to train our doctors and nurses regarding medical laws and ethics. Trainings about various Indian medical acts and rules is equally important to protect healthcare professionals from legal and physical assaults. This can be done through lectures, CME, workshops and by sharing the literature among healthcare professionals.

The limitation of our study is that the survey is limited to one hospital. More multicentric studies are required to be done in future.

## Conclusion

There is lack of awareness among healthcare workers regarding medical laws. Our hospital staff has been trained in medical ethics due to implementation of NABH standards in our hospital since last 7 years. But their knowledge about various acts, rules and guidelines regarding medical profession enacted in the country is highly inadequate. There is need to organize lectures, CME, workshops for our staff regarding medical laws which have been planned in our hospital in near future. There is also need to include medical laws and ethics in the teaching curriculum of healthcare students. The NMC has taken the first right step in this direction by introducing AETCOM for medical students. But further steps in teaching various laws governing medical profession in our country have to be taken. This will prevent the incidences of violence against healthcare professionals and also protect them from various legal litigations in the court of law.

#### List of Abbreviations

NMC: National Medical Commission

MOHFW: Ministry of Health and Family Welfare

AETCOM: Attitude Ethics and Communication

NABH: National Accreditation Board for Hospitals and Healthcare

providers

MCI: Medical Council of India

HIV: Human Immunodeficiency Virus

AIDS: Acquired Immunodeficiency Syndrome

CME: Continuing Medical Education

PCPNDT: Pre Conception and Pre Natal Diagnostic Techniques

ICD: International Classification of Diseases

## **Declarations**

#### Conflict of Interest

None

# Funding/financial support

NIL

## **Ethical Clearance**

Yes

# **Consent for publication**

Yes

#### **Authors contribution**

Dr Manpreet Singh Nanda, Initial planning of the study, Approval and designing of google form, Analysis of data, Writing the manuscript, Final approval of manuscript

Dr Shivani Singh, Initial planning of the study, designing of google form, Analysis of data, Final approval of manuscript

Ms Himangi Trivedi, Initial planning of the study, Analysis of data, Writing the manuscript, Final approval of manuscript

## Acknowledgements

The authors would like to thank the doctors and staff who participated in the survey. We would also like to thank the hospital administration and nursing administration for supporting our study. We would also like to thank the quality team of the hospital for validating the questionnaire.

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