

Original Research Article


Medico-legal knowledge assessment of interns and post graduate students in a medical institution

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Abstract

Background: Forensic Medicine and Toxicology is an essential subject for medical students as it deals mainly with legal aspects

Aim and objectives: To assess medico legal knowledge and awareness in interns and post graduate students.

Materials and methods: A cross-sectional, questionnaire with 15 questions was designed and distributed to 120 interns and 80 post graduate students from January 2015 to December 2015. The data was collected and analyzed statistically for number and percentage using EPI-Info statistical software version 6.

Results: Total 200 students were included in our study. We found that 84 (70%) interns and 32 (40%) post graduate students had no proper knowledge in handling medico legal cases independently. 55 (45.83%) interns and 63 (78.75%) post graduate students were of opinion that the present UG teaching is not sufficient for them to tackle medico legal cases. Only 36 (30%) interns and 33 (41.25%) post graduate students were aware about the preservatives that are generally used for chemicals analysis of organs and 25 (20.83%) interns and 65 (81.25%) post graduate students were aware of Consumer Protection Act.

Conclusion: We found that interns and post graduate students did not have sufficient knowledge about routine medico legal aspects and there is a need to bring awareness among them.

Key words

Gastric lavage, Forensic medicine, Medico legal cases, Medical record.

Introduction

Forensic Medicine and Toxicology is a very important subject that deals primarily with evidence in criminal cases. The syllabus for undergraduate students of this important subject has been reduced over the years, hence is losing its significance. Doctors should have sufficient knowledge in this field, as general public through easily available print and electronic media have become well aware about their legal rights. Now that medical care has come under the purview of consumer protection act, the responsibilities of doctors has increased and it is mandatory to have thorough knowledge about Forensic Medicine and Toxicology [1, 2].

Day by day there is increase in complaints against both government and private doctors by the patients, and judicial system is also passing negative remarks about doctors. Keeping the above facts in mind, medical colleges all over India should increase the importance of Forensic Medicine and Toxicology subject by covering all its aspects theoretically in 2nd MBBS and also by conducting regular medico legal workshops all through their course, as it is very common that they will forget the subject in course of time and need to be refreshenned on regular basis [3].

Doctors are called to the court to give expert witness regarding assault cases, poisoning cases. Due to lack of proper medico-legal knowledge, most of the doctors are very badly exposed in courts. Every doctor should realise that irrespective of the post graduate speciality they chose, throughout their career they have to deal with medico-legal cases. Hence they should have sufficient knowledge about medico-legal aspects whether they work in private clinics or government hospitals [2, 4, 5].

Keeping the above facts in mind, we carried our study to assess interns and postgraduates about the knowledge in Forensic Medicine and

Toxicology and also to make them aware of this important subject so that they can effectively handle medico-legal cases.

Materials and methods

A questionnaire based cross-sectional study was conducted in SVS Medical College, Mahabubnagar, Telangana, India for a period of one year (January 2015 to December 2015) after obtaining approval from Institutional Ethics Committee. The study was carried out in 120 interns and 80 post graduate students. A good rapport was established with them. They were explained the purpose of study and prior written informed consent was obtained from all of them. They were informed about the confidentiality of the information collected, so as to get more reliable answers from them. A self-administered questionnaire containing 15 questions relating to the knowledge of Forensic Medicine was designed.

Questionnaire

1. Do you think that the present UG teaching is sufficient to know about medico legal responsibilities -Yes/No
2. What are the preservatives used for chemicals analysis of organs
3. Awareness about Consumer Protection Act -Yes/No
4. What are the important steps in management of a poisoning case
5. How do you preserve gastric lavage in poisoning cases
6. What are the evidences to be collected in a rape case
7. Do you have knowledge of injury certificate -Yes/No
8. Do you know what is Rule of Nine - Yes/No
9. Do you know about Death certificate designed by WHO -Yes/No
10. Can you handle MLC cases independently -Yes/No

11. What is the best type of consent in MLC
12. Do we need to register MLC irrespective of patients or relatives request- Yes/No
13. What is the minimum age of consent for organ donation in India
14. Is Hospital legally bound to maintain records - Yes/No
15. Do you need to preserve medico-legal records in computer - Yes/No

The data obtained was tabulated and analyzed statistically for number and percentage using EPI-Info statistical software version 6.

Results

Total 200 students were included in our study. We found that 84 (70%) interns and 32 (40%) post graduate students had no proper knowledge in handling medico legal cases independently. 55 (45.83%) interns and 63 (78.75%) post graduate students were of opinion that the present UG teaching is not sufficient for them to tackle medico legal cases. Only 36 (30%) interns and 33 (41.25%) post graduate students were aware about the preservatives that are generally used for chemicals analysis of organs and 25 (20.83%) interns and 65 (81.25%) post graduate students were aware of Consumer Protection Act (**Table - 1**).

Table – 1: Number and percentage of students having knowledge about Basics in Forensic Medicine.

Sr. No.	Variable	Interns	PGs
1	Can handle MLC cases	36 (30%)	48 (60%)
2	Opinion regarding present UG teaching sufficient to know medico-legal responsibilities	55 (45.83%)	63 (78.75%)
3	Knowledge about preservatives use for chemicals analysis of organ	36 (30%)	33 (41.25%)
4	Awareness about Consumer Protection Act	25 (20.83%)	65 (81.25%)

We also observed that 86 (71.66%) interns and 54 (67.5%) postgraduates were aware of various steps of management of poisoning cases. 110 (91.66%) interns and 69 (86.25%) postgraduates had knowledge regarding preservation of gastric lavage in poisoning cases. 68 (56.66%) interns and 71 (88.75%) postgraduates knew about collection of essential evidences in sexual assault cases. Of all the questions students irrespective of the category had least knowledge about how to write an injury certificate, only 5 (4.16%) interns and 12 (15%) postgraduates were able to state what and how to write it properly. Rule of Nine, that is used in burns patients was well known to the students, interns 90 (75%) and postgraduates 74 (92.5%) knew about it. 86 (71.6%) interns and 65 (81.25%) postgraduates were aware of most common drugs of addiction. Death certificate that is designed by World Health Organization was known to 32 (26.66%) interns and 36 (45%) postgraduates. Very few

interns 25 (20.83%) and 29 (36.25%) postgraduates were aware that three copies of death certificate have to be prepared. Dead body is not to be sent for postmortem examination in natural cases was known to 90 (75%) interns and 69 (86.25%) postgraduates (**Table - 2**).

83 (69.16%) interns and 69 (86.25%) postgraduates were found to have awareness regarding the best type of consent being informed consent. Only 21 (17.5%) interns and 16 (20%) postgraduates knew about the minimum age, an individual can give consent for organ donation in India. We also found that 92 (76.66%) interns and 68 (85%) postgraduates were aware about the action to be taken during registering MLC, even when there is request from patients or their relatives for not to register MLC (**Table - 3**).

46 (38.33%) interns and 39 (48.75%) postgraduates knew about the duration for which medical records of hospital have to be preserved. 84 (70%) interns and 44 (55%) were of the opinion that the present undergraduate teaching curriculum of Forensic Medicine is not sufficient to handle medico-legal responsibilities (**Table - 4**).

Table - 2: Number and percentage of students having knowledge about Clinical Forensic Medicine.

Sr. No.	Variable	Interns	PGs
1	Important steps in management of poisoning case	86 (71.66%)	54 (67.5%)
2	Preservation of gastric lavage in poisoning cases	110(91.66%)	69 (86.25%)
3	Knowledge of injury certificate	5 (4.1%)	12 (15%)
4	Evidences to be collected in a rape case	68 (56.66%)	71 (88.75%)
5	Knowledge of Rule of Nine	90(75%)	74 (92.5%)
6	Death certificate designed by WHO	32(26.66%)	36 (45%)
7	Number of copies of death certificate	25(20.83%)	29 (36.25%)
8	Dead body to be sent for post-mortem	90 (75%)	69 (86.25%)

Table - 3: Number and percentage of students having knowledge about various aspects of Consent.

Sr. No.	Variable	Interns	PGs
1	Best type of consent in MLC	83(69.16%)	69(86.25%)
2	Minimum age of consent for organ donation in India	21(17.5%)	16(20%)
3	Duty to register MLC irrespective of patients or relatives request	92(76.66%)	68(85%)

Table - 4: Number and percentage of students having knowledge about Awareness about Medical record keeping.

Sr. No.	Variable	Interns	PGs
1	Duration for which medical records of hospital have to be preserved	46 38.33%)	39(48.75%)
2	Present undergraduate teaching curriculum of Forensic Medicine is not sufficient	55 45.83%)	63(78.75%)

Discussion

There is increased use of internet, electronic and print media there is an increase in awareness among public on the subject of ethical conduct of medical practitioners. Hence there are more cases against doctors, which is an issue of immediate concern to the medical fraternity. To keep away from this, doctors need to make acquainted themselves with laws and regulations that concern their practice. This will result in fulfilment of ethical, moral and legal obligations in their duties [1, 6, 7].

We carried out a study to determine the medico legal knowledge and awareness in interns and post graduate students in our institution. During the study of 120 interns and 80 postgraduates, we noticed that most of the interns and postgraduates had no experience of handling medico-legal cases, which is in agreement with the findings observed by Rai JJ, et al. This might be due to the fact that most of them would not have come across medico-legal cases during their course. Hence, it is suggested to make a curriculum which exposes these students regarding medico-legal cases [8].

Most of them were not aware whether doctors are covered under consumer protection act which is in agreement with the findings of Kachare RV, et al. [9] This lack of awareness cannot be ignored as they have to face this act in their clinics or hospitals and there is a strong need to make them aware of this act. Workshops with few examples of cases where doctors were penalized by consumer protection act should be carried out [1, 9].

Regarding knowledge of Clinical Forensic Medicine, very few were familiar with Rule of Nine, management of poisoning cases, collection of evidences in sexual assault cases, and preservation of gastric lavage. We also observed that very few interns and postgraduates knew exactly about the details about injury certificate. Medical council of India (MCI) has recommended that it is desirable and compulsory for MBBS graduates and post graduates to know about reporting of injury, collection of biological material and all aspects of medico-legal cases. Our findings are in agreement with the findings of Giri PA, et al. and Pratibha A Mardikar and Arti A. Kasulkar [1, 10].

We found out that there is general awareness about informed consent among students, however, very few interns and postgraduates were aware of minimum age for giving consent for organ donation. Knowledge of medico-legal issues was very poor which is in concordance with findings of Giri PA, et al. [10]. We also found that they had a very less knowledge about medico-legal records A similar study was conducted by Rai JJ, et al. in Vadodara among interns and postgraduates which also similar findings to our study regarding knowledge about medico-legal records among the interns and postgraduates [8].

Keeping in view of our findings and that of previous similar studies that assessed knowledge among students about medico-legal cases, we suggest few changes in the curriculum for medical students to make them aware about

medico-legal aspects so that they can avoid complications in their future practice [1, 8-10].

- There should be regular practical classes in this subject.
- Like rotatory internship, students should be posted compulsorily in mortuary to observe and conduct post-mortems on rotational basis.
- MCI should increase the number of teaching hours of subject Forensic Medicine and Toxicology.

If not budding doctors will not be able to know the basic medico-legal guidelines that not only may cause professional problems to them but also may deny due justice to the innocent people [8-10].

Conclusion

Our study was honest attempt to gauge the acquaintance of interns and postgraduates about different facets of medico-legal issues. We detected that the knowledge about various medico-legal aspects needs to be freshened up time to time chiefly at internship and postgraduate levels. They need be refreshed about various medico-legal aspects which can be done by giving training to them.

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References

1. Pratibha A. Mardikar, Arti A. Kasulkar. To Assess the Need of Medicolegal Education in Interns and Postgraduates in Medical Institution. Journal of Evolution of Medical and Dental Sciences, 2015; 4(17): 2885-9.
2. Sharma BR, Harish D, Chavali KH. Teaching, training and practice of Forensic Medicine in India: An overview. JIAFM, 2005; 27(4): 247-51.

3. Dash SK. Medical ethics, duties and medical negligence awareness among the practitioners in a Teaching Medical College, Hospital-A survey. *J Indian Acad Forensic Med.*, 2010; 32(2): 153-6.
4. Shilekh Mittal, Garg Sonia, Singh Mittal Moneeshindra. Need of Forensic Medicine in trauma care. *Medico-Legal Update*, 2007; 7(3): 81-6.
5. Khandekar Indrajit, Tirpude Bipinchandra, Murkey Pankaj, Pawar Vishwajeet. Development of Clinical Forensic Medicine in India: A need of time. *J Indian Acad Forensic Med.*, 2012; 32(1): 8590.
6. Mayeda Mayumi, Takase Kozo. Need for enforcement of ethic ledged Education an analysis of the survey of postgraduate clinical trainees. *BMC Medical Ethics*, 2005; 6: 8.
7. Selvaraj Kokila, Sivaprakassam P, Nelson SB, Kumar Midhum. Perception of interns and postgraduates towards medical ethics education. *Int J Curr Microbiol App Sci.*, 2013; 2(9): 198203.
8. Rai JJ, Acharya RV, Dave D. Knowledge and awareness among interns and postgraduates about medical law and negligence in medical college in Vadodara-A questionnaire study. *Journal of Dental and Medical Sciences*, 2013; 3(4): 32-8.
9. Kachare RV, Akhade SP, Rohi KR. Awareness about consumer protection act among junior doctors. *Journal of Forensic Medicine, Science and Law*, 2012; 21(2): 2-8.
10. Giri PA, Chavan KD, Phalake DB. Knowledge about medicolegal problems amongst the interns and resident from rural tertiary care teaching hospital in western Maharashtra-A cross sectional study. *Indian journal of Forensic Medicine and Pathology*, 2010; 3(3): 89-93.