A cross-sectional study on knowledge of registered medical practitioners, regarding management of medico-legal cases in Meghalaya

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ABSTRACT

Introduction: Medico-legal issues are handled by every registered medical practitioner in their day-to-day medical practice but if they are not well versed with rules of managing such cases and laws behind them, they often land into criticism and are distressed at the courts while disposing of the cases. Objective: To assess the knowledge of registered medical practitioners in Meghalaya regarding the management of medico-legal cases in day-to-day medical practices. Materials and Methods: This was a cross-sectional study, conducted at the Department of Forensic Medicine, North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS) for 6 months. The study group included registered medical practitioners working in the government sector who were approached through the Director of Health Services (DHS), Meghalaya. Study tools included one preformed and pretested questionnaire. Knowledge was assessed along with designation and years of experience. A P value of < 0.05 was considered statistically significant. Results: From 94 subjects analyzed for their answers, 56% had adequate knowledge. Amongst nonspecialist doctors (n = 53), 52.8% had adequate knowledge and amongst specialist doctors (n = 34), 67.6% had adequate knowledge in various aspects of management of medico-legal cases, and it was found that 6.4% had adequate knowledge in documentation, 21.2% in consent, 3.2% in the Protection of Children from Sexual Offences (POCSO) Act, 71.2% in autopsy, 88.2% in legal duties in emergency care. A total of 68.7% of those having 16–20 years of experience had adequate knowledge. Chi-square test of designation and years of experience on knowledge was found to be 0.33 and 0.75, respectively. Conclusion: Nearly half of the registered medical practitioners of Meghalaya have adequate knowledge. However, years of experience and designation have no significance with the knowledge of registered medical practitioners regarding the management of medico-legal issues.

Keywords: Adequate knowledge, medico-legal practice, registered medical practitioners

Introduction

Medical science is a vast arena where many branches amalgamate, and a doctor must be well versed and acquainted with all the branches for proper and smooth medical practice. Apart from their regular medical course, understanding the law of the country is a must for all medical professionals.[1] There has been a spike of violence and litigations against medical professionals over the years and as individuals are getting aware of their rights, paternalism is no more a modality of the doctor-patient relationship, which prevailed earlier. Autonomy of the patients is a dire necessity in these modern times and as such the curious, intelligent, consumer patients are open to the world of lawsuits.

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The health care delivery system is accountable as are other services in the present times. Knowledge of management of medico-legal issues can thus help to prevent litigations and is the need of the hour. Any lacunae in the knowledge of practising doctors should be managed without any delay as it involves ethical, legal, and moral obligations. Nash and his colleagues in 2007 surveyed 566 general physicians and stated that trust of the patients in them was acquired by improving the quality of care which was dependent upon their education and training of the management of, medico-legal matters. In another study conducted by Sulmasy and Marx, it was seen that if senior medical practitioners had inadequate knowledge on matters of ethical and medico-legal aspects, then the junior medical practitioners who acquired knowledge from them had inadequate knowledge on the same. In spite of the rising atrocities against medical professionals, management of medico-legal issues is yet to be incorporated widely into the medical curriculum. Typically, all the established medical institutions have an institutional medico-legitimate manual which gives in a stage savvy detail, the right method of managing the different sorts of medico-legal cases. Regardless of whether such manuals are accessible or not, these cases can be handled using due care and skill with knowledge of laws and their amendments. Appropriate documentation, convenient data, a precise and intensive assessment including every significant examination, and referrals when appropriate are important to see such cases through effectively. However, there is ample scope for learners through training and continued medical education. The training period of medicos apart from their medical curriculum should be considered the pivotal time for building up the moral perspectives and mindfulness in doctors through hands-on training regarding the management of medico-legal cases. These doctors who would further manage as medical officers or specialists in their respective establishments would find it beneficial while dealing with such cases.

**Objectives**

1. To assess the knowledge of registered medical practitioners of Meghalaya regarding the management of medico-legal cases.
2. To find out the significance of designation and years of experience on knowledge of registered medical practitioners of Meghalaya regarding the management of medico-legal cases.

**Materials and Methods**

A prospective cross-sectional study was conducted over a period of 1 year from 1st December 2019 to 30th November 2020. This study was conducted at a tertiary care medical institute in Meghalaya. The study population included registered medical practitioners of Meghalaya who were currently working in the government sector. This is the first-of-kind study in this respect in the state of Meghalaya. They were approached through the Director of Health Services of the state. Their e-mail IDs were collected, and the consent form and informed consent document were sent to them through e-mail. If they agreed to participate in this study, they were included in the study group. Confidentiality was maintained throughout. Study tools included one preformed and pretested questionnaire. The questionnaire consisted of 16 multiple choice questions, which were based on different aspects of medico-legal issues that are faced in day-to-day practice. The questions were classified into five groups. These five groups had questions based on documentation, consent, the Protection of Children from Sexual Offences Act (POSCO), autopsy, and legal duties during emergency care. Documentation, consent, POSCO Act, and autopsy had three questions each, and legal duties during emergency care had four questions. The multiple-choice questions are as below:

1. Documentation is necessary-
   a. For continuity in evaluation of patient's treatment.
   b. For follow up
   c. To avoid legal litigations
2. Medico-legally important records should be preserved for -
   a. 5 yrs
   b. 10 yrs
   c. 25 yrs
3. In patient Case sheets/OPD tickets provisional diagnosis is to be noted.
   a. Yes
   b. No
4. What should be the age of individual to give a valid consent for any surgical procedure?
   a. 12 yrs
   b. 16 yrs
   c. 18 yrs
5. Recording of the consent should preferably be done in -
   a. English language
   b. Hindi language
   c. Khisi language
   d. Patient's own vernacular language
6. In case of a deaf and dumb patient of age 14 yrs, consent for medical examination should be taken from -
   a. Patient himself/herself
   b. Patient himself/herself with help of special interpreter
   c. Parents/Guardians
7. In cases booked under the POSCO Act, the survivor is -
   a. Girl child below 18 yrs
   b. Girl child below 16 yrs
   c. Child below 18 yrs
8. As per POSCO Act, examination of the survivor can be done by -
   a. Any Registered Medical Practitioner
   b. Any Registered Female Medical Practitioner
   c. AYUSH Female Medical Practitioner
9. As per POSCO Act, examination of the survivor is done at -
   a. Hospital where child is brought
   b. Child's home
   c. Anywhere the survivor wishes
10. Medico-legal cases coming to Casualty should be registered in -
    a. Emergency Register
    b. Medico-legal Register
11. In a suspected poisoning case, police information to be given -
   a. When poison is administered by someone else
   b. When poison is taken by self
   c. In all cases.
12. In Medico-legal autopsy; viscera for chemical analysis should be addressed to -
   a. Department of Pathology
   b. Department of Forensic Medicine
   c. Forensic Science Laboratory
13. After collection of evidence, it should be sealed in an envelope using -
   a. Cello-tape
   b. Glue
   c. Sealing wax
14. Police information to be given in -
   a. Brought dead cases
   b. Criminal abortion cases
   c. Attempted suicide cases
   d. Sexual assault cases.
15. Custody of viscera after post-mortem should be handed over to -
   a. Hospital staff
   b. Relative of deceased
   c. Police (I/O)
16. In Injury Report, it is essential to mention the type of wound.
   a. Yes
   b. No

Respondents were given percentages of correct answers as scores. Independent variables that were noted were designation (medical health officers and specialist doctors) and years of experience (0–5 years, 6–10 years, 10–15 years, 15–20 years, 20–25 years, >25 years). All the data were entered into Microsoft Excel version 2018, and the data were expressed in numbers and percentages. Those with correct responses above 67% were defined as having adequate knowledge, those between 34% and 67% as having partial knowledge, and those having below 34% were defined to have poor knowledge. Chi-square test was conducted to find out the significance of designation on knowledge and years of experience on knowledge. A P value of < 0.05 was considered statistically significant.

**Results**

From 94 subjects analyzed for their answers, 87 respondents filled up the forms properly in regards to their designation, and 84 respondents in regards to their experience and were considered for the study accordingly. Out of them, 53 were medical health officers, and 34 were specialist doctors. Fifty-six percent had adequate knowledge. Amongst non-specialist doctors (n = 53), 52.8% had adequate knowledge, 45.28% had partial knowledge, and 1.8% had poor knowledge. Amongst specialist doctors (n = 34), 67.6% had adequate knowledge, 29.4% had partial knowledge, and 2.9% had poor knowledge. When we checked with years of experience with knowledge, it was found out that adequate knowledge was present in 42.8% with 0–5 years of experience (n = 14), 58.3% in 06–10 years of experience (n = 12), 60% in 11–15 years of experience (n = 25), 68.7% in 16–20 years of experience (n = 16), and 58.9% in those having 20 years or more experience (n = 17). [Table 1]. We analyzed the answers of the medical officers according to their level of knowledge with various aspects of management of medico-legal cases and found that 6.4% had adequate knowledge in documentation, 21.2% in consent, 3.2% in the POCSO Act, 71.2% in autopsy, and 88.2% in legal duties in emergency care. [Table 2]. The Chi-square test was applied to find out the significance of designation and years of experience on knowledge, which was found to be 0.33 and 0.75, respectively.

**Discussion**

Practicing medicine in this current era is no less than a hazardous and risky job, for the numbers of lawsuits including both civil and criminal, as well as violence against medical professionals are on the rise. For the execution of high caliber of medical care practice, professionals must be well acquainted with recent clinical and innovative advances and also should have decent information on lawful obligations and ethical knowledge. The way in which medico-legal issues are handled by medical professionals and hospitals has a profound impact on their public image. Informed consent is obligatory for all clinical and dental procedures. Informed consent is fundamentally an individual's own choices about their medical services that are made with information on the advantages and potential dangers of the treatment method and are clarified by the medical professionals preceding the procedure. Numerous medical professionals are worried about dealing with medico-legal cases as they might land up in courts of law, be badgered by the attorneys, and be questioned by police staff. This study was conducted with the aim of assessing knowledge of medical officers in the government sector in Meghalaya because no other studies of similar nature preceded it. In our study, we found that 56% had adequate knowledge. Many researchers like Mir, Jan, and Yatoo found out increasing knowledge in the management of medico-legal issues with years of experience; however, our study contradicted it and showed that years of experience has no role on knowledge. It can be inferred that an individual's self-learning and sensitization towards medico-legal issues is more important than just the years of experience. In our study, we also found the same with the designation. There was no significance between the level of knowledge and the designation of the candidate. One study conducted at Karnataka on knowledge of government medical officers found out that more than half of them had adequate knowledge on medico-legal autopsy procedures, which was also substantiated in our study. However, our study also showed that medical officers’ knowledge in documentation, POCSO act, and consent taking was found to be deficient.

**Conclusion**

Nearly half of the registered medical practitioners of Meghalaya have adequate knowledge. Among the medico-legal issues,
medical officers have better knowledge about autopsy procedures than other aspects. Multiple hands-on training, continued medical education, and seminars should be conducted on regular basis to keep them updated with changing procedures in the medico-legal field and amended acts. However, years of experience and designation had no significance with the knowledge of registered medical practitioners regarding the management of medico-legal issues.

Ethical clearance
Permission was taken from the Institutional Ethical Clearance Committee of North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Shillong, Meghalaya, India vide NEIGR/IEC/M9/F6/19 Dated 24th September 2019. Written informed consent was obtained from study subjects. No part of it was submitted to any journal or presented at any meeting/seminar or conference.

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Conflicts of interest
There are no conflicts of interest.

Table 1: Frequency and percentage of medical officers according to their level of knowledge with their years of experience

| Level of knowledge | 0-5 years | 6-10 years | 11-15 years | 16-20 years | > 20 years | Total |
|--------------------|-----------|------------|-------------|-------------|-----------|-------|
| Adequate knowledge | 6, 42.8%  | 7, 58.3%   | 15, 60%     | 11, 68.7%   | 10, 58.9% | 49, 58.4% |
| Partial knowledge  | 8, 57.2%  | 5, 41.7%   | 9, 36%      | 5, 31.3%    | 6, 35.3%  | 33, 39.3% |
| Poor Knowledge     | 0, 0%     | 0, 0%      | 1, 4%       | 0, 0%       | 1, 5.8%   | 2, 2.3%  |
| Total              | 14, 16.7% | 12, 14.2%  | 25, 29.8%   | 16, 19.1%   | 17, 20.2% | 84     |

Table 2: Frequency and percentage of medical officers according to their level of knowledge with various aspects of management of medico-legal cases

| Level of knowledge | Documentation | Consent | POCOSO Act | Autopsy | Legal duties in emergency care |
|--------------------|---------------|---------|------------|---------|-------------------------------|
| Adequate knowledge | 6, 6.4%       | 20, 21.2% | 3, 3.2% | 67, 71.2% | 83, 88.2%                     |
| Partial knowledge  | 44, 46.8%     | 63, 67.1% | 29, 30.9% | 21, 22.4% | 10, 10.7%                     |
| Poor Knowledge     | 44, 46.8%     | 11, 11.7% | 62, 65.9% | 6, 6.4%   | 1, 1.1%                       |
| Total              | 94            | 94       | 94         | 94       | 94                            |

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