

Assessment of Attitude and Knowledge of Law Students Towards Medico-Legal Autopsies

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ABSTRACT

BACKGROUND: Autopsies play an important role in aiding the judicial system. Forensic Medicine is the bridge that connects medical knowledge and the law together and Autopsies are the vital part in this link. In order to create better efficiency in the judiciary, strengthening and sharing knowledge is important on both the Forensic Expert's and the Lawyer's view. The attitude or perception of autopsies is equally important as much as the knowledge about the same.

AIMS: The purpose of this study is to assess the knowledge and attitude of law students about and towards medico legal autopsy and to identify the reasons if any and suggest some corrective measures.

MATERIAL AND METHODS: A cross sectional prospective study done in a Law College in Mangalore, with a sample size of 140 undergraduate law students using a semi-structured questionnaire distributed online.

RESULTS: Response rate was 98.57% with a female to male ratio of 1.8:1; mean age of the participants came to 24.52 years. 40% of participants knew what is an autopsy and why autopsies are done. 12% knew about exhumation while 66.7% were aware about the need for a complete autopsy. 44.2% said autopsies are beneficial and 31.9% participants said it does not harm socio-religious norms and were in favor of conducting an autopsy of their kin, if it was necessary.

CONCLUSION: Most participants have a positive outlook towards medico-legal autopsies although further enhancement on knowledge on the same is needed.

KEY MESSAGE: Even a minor knowledge gap is of prime significance as their knowledge and

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positive perception about medico legal autopsies is crucial towards delivering justice. Thus, a clear understanding of medico-legal autopsies should be inculcated in law students. It can be achieved through workshops, seminars, exhibitions, guest lectures etc.

Keywords: Autopsies; Law Students; Expert witness; Exhumation; Judiciary.

INTRODUCTION

The term namely autopsy or necropsy deals with post mortem examination to identify the deceased and the cause of death.¹ While Forensic or Medico-legal autopsy is solely recognized as a part of inquest that is mainly recognized as a blender of legal and scientific investigative approach.² An autopsy can be marked as complete when all the body cavities are opened and examined thoroughly to come to a conclusive cause of death.³ A partial autopsy is worse than no autopsy at all, as it is more likely to lead to a miscarriage of justice.⁴

Autopsy is one of the sensitive medical procedures that are bound by legal jurisdictions. Individuals with different notions and lack of awareness about the procedure are more likely to question and object to it. This rejective attitude may lead to conflicts related to the entire process of autopsy.⁵ Without autopsy, identifying the cause or any unnatural deaths would become nearly obsolete. The number and types of deaths involving autopsy differs significantly from place to place.^{6,7} Requests for an autopsy are primarily done by police officers under the section of 174 of Criminal Procedural Code (Cr.P.C). Also, a Magistrate can call for an autopsy under the section of 176 of Cr.P.C.⁸

The salient aim of this research is to analyze the views of law students according to the term autopsies as they have a large impact on the judgments of a case that indirectly impacts on the perception of other people. This particular research can be considered as an attempt to develop a clear notion about the perception and knowledge of law students, about autopsies.

METHODOLOGY

Studies were done prior on attitude and aptitude of the general public and medical undergraduate students towards autopsies. However at the time of conducting this study, no prior studies on the topic were done, involving law students

- **Design of study and participant characteristics:** A Cross sectional prospective study using an online questionnaire based survey was conducted among final year undergraduates in SDM College of Law, Mangalore.
- **Site of study:** SDM College of Law, Mangalore.
- **Process:** After obtaining clearance from

the Institutional Ethics Committee, a well-structured online questionnaire in English, designed by medical professionals and validated by the peer colleagues was given to the mentioned participants, to conduct the survey. Participants were able to access the questionnaire after consent was given.

- Data analysis was drawn using descriptive statistics and using SPSS version 25.0

RESULTS

- Out of 140 questionnaires distributed, 138 students responded, giving a response rate of 98.57% (Women 64.5%; Men 35.5%).
- Female: male ratio of 1.8:1.
- Mean age of the respondents = 24.52 years.
- 76 (55.07%) out of 138 respondents knew the term medico legal autopsy (Fig. 1). Among the 76 respondent's answers for reasons to perform medico legal autopsy, the most common one was to know cause of death 56 (73.68%).

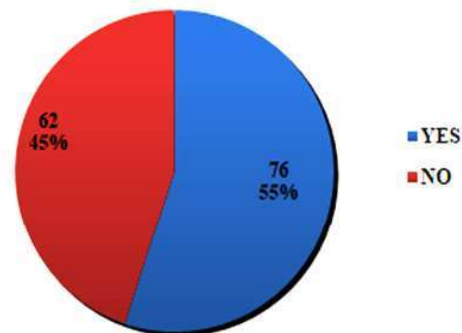


Fig. 1: Do you know the term Medico Legal Autopsy?

- Most of the 138 respondents i.e. 98 (72%) thought all autopsies involved police (Fig. 2) and the commonest reason for responding

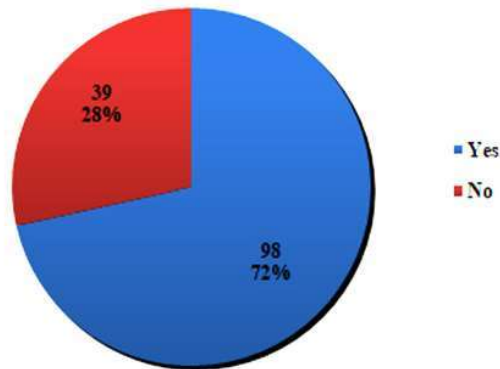


Fig. 2: Do all autopsies involve police?

“yes” to the question was involving unnatural deaths 77(77.7%).

- The study shows majority of respondents i.e. 89 (64.5%) replied “no” when asked if the doctor can start the autopsy immediately after receiving the body (Fig. 3). 112 (81.2%) respondents thought that it is the autopsy surgeon who hands over the body to the family of the deceased and not the police.

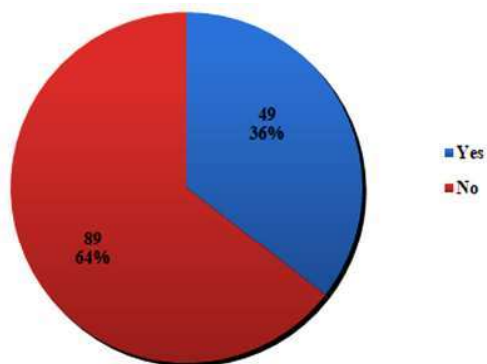


Fig. 3: Can the doctor proceed with the autopsy immediately after receiving the body?

- It was observed that 27.5% of the respondents were of the opinion that autopsies can be conducted outside mortuaries out of which the majority (60.5%) said that it can be conducted outside mortuaries in case of re-

examination / during exhumation.

- Almost two third of the responses i.e. 92 (66.7%) were implying that an autopsy must always be complete and should never be prejudiced only to the site of visible external injuries only.
- Among the unwilling fraction, fear of blood was the major limiting to witness an autopsy; others included not being able to comprehend the procedure, felt like wasting the time of the forensic surgeon, fear of the mortuary itself, etc. (Fig. 4)

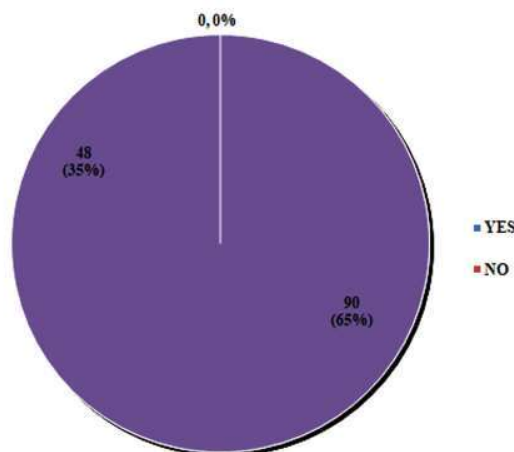


Fig. 4: Given a chance, I would witness an autopsy

Table 1: Aptitude and Perception towards autopsies (N=138)

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. Autopsy will cause disfigurement of the body and will only add further misery to the relatives of the deceased	16	27	61	29	5
2. Post mortem examination is of no use to the deceased	61	24	22	20	11
3. By using technical aids like Computerized Tomography and Magnetic Resonance Imaging scans, the efficiency of an autopsy would be better over dissecting the body.	25	19	48	32	14
4. I would not be in favor of conducting an autopsy, if the body is of my own relative	44	37	35	13	9
5. Autopsy would disturb the peace of the family of the deceased	24	25	42	27	20
6. I feel that autopsies are violating the cultural and religious views of the family of the deceased.	43	44	29	12	10

- Bulk of the respondents i.e. 61, were neutral (44.2%) while 16 strongly disagreed (11.6%), 27 disagreed (19.6%), 29 agreed (21%) and only 5 (3.6%) strongly agreeing to the mentioned statement ‘Autopsy will cause disfigurement of the body and will only add further misery to the relatives of the deceased’. (Table 1)
- The response trend to ‘post mortem examination being of no use to the deceased’ were having a majority of 61 responses (44.2%) strongly disagreeing, 24(17.4%) disagreeing, 22(15.9%) being neutral, 20(14.5%) agreeing and the rest 11(8%) strongly agreeing. (Table 1)

- To the implementation of virtual autopsies over conventional autopsy, majority of the responses were neutral, 48(34.8%), while 25(18.1%) strongly disagreed, 19(13.8%) disagreeing, 32(23.2%) agreeing and 14(10.1%) strongly agreeing. (Table 1)
- About 44 (31.9%) respondents had a favorable attitude in conducting autopsy on a deceased kin, if needed. (Table 1)
- Most participants remained neutral to the comment that autopsies will have a negative impact in the mental peace of the family of the deceased. (Table 1)
- It was also observed that 44(31.9%) participants were of the opinion that autopsies will not hamper any socio-religious or cultural beliefs. (Table 1)

DISCUSSION

Previous literature^{9,10} citing the knowledge and attitude to autopsies, were done among students of arts, medicine and commerce along with the general population. The present study has accounted the same on law students, and have shown a generally favourable attitude in the context of autopsy, but needs more improvement in terms of basic technical aspects of an autopsy. The present study has shown similarities with that of one conducted in Malasiya, citing that autopsies are solely used to identify the cause of death.¹¹ The notion about this is found to be more clearer only in participants from a medical background.⁹ Although the majority were aware of the fact that the forensic surgeon had to wait to obtain the inquest report before the commencement of the autopsy, only a minor fraction of participants knew that the body of the deceased was handed over to the family by the police and not by the forensic surgeon.

Majority of the study population were willing to witness an autopsy, if given a chance which shows a positive outlook to the concept of necropsy and willingness to inculcate more knowledge about it. Fear of blood was the main reason for the latter fraction to disagree. In this study, there were more positive responses on consenting to conduct an autopsy of a relative if needed as compared to the study done in Manchester, on medical students.¹² This is also in conjunction with a study conducted in Delhi¹³ that also highlighted where most participants showing willingness to conduct autopsies of their deceased kin, if needed.

Post mortem imaging or virtual autopsies are an adjuvant but not a replacement to conventional autopsy practices.¹⁴ This particular study reveals that most of the participants are not clear about the term 'Virtual autopsies'. Compared to a study done in Shanghai, China¹⁵ where the major fraction of general population strongly agreed about having fear of disfigurement of the body during autopsy, the response obtained in our study were less apprehensive.

Conflicting responses were also seen among a study in Malaysia¹⁶ where the study population who had good knowledge on autopsy but did not show interest in it leading to autopsy refusal; main factors for refusal included body disfigurement after the autopsy, considered "no use" in conducting it, etc. In our study, most participants felt that medico legal autopsy were beneficial to the family of the deceased; similar to that of study done among the general public in Mangalore, India.¹⁰ This indicates that their outlook towards medico legal autopsy is slowly progressing to a promising positive scale.

People who have sufficient knowledge regarding the process and need for autopsies are not likely to show keen interest in the context of using it. Although there can be no absolute alternative for postmortem examination to date, trying to understand the apprehension, empathize can be a trust building exercise.¹⁰

This particular study also revealed a positive attitude from law students in the context of cultural aspects. Cultural aspects mainly depend on several religious views of a locality. Cultural and values related to a specific country are also found to be involved in the concept of autopsy as revealed by the present research.¹⁶ It is important to note that autopsies can also provide peace of mind or closure and more importantly, justice for the bereaved family in certain situations. Therefore, a comprehensive education on the necessity of autopsies should be encouraged in all communities regardless of religion upon all unnatural death for the check of justice.³ The study is the first to date that assess the attitude and aptitude of law students towards medico-legal autopsies. It highlights that most participants have a positive outlook towards medico-legal autopsies; but there still is a requirement to strengthen the awareness and aptitude among the law students, related to medico legal autopsy and forensic science. The limitation of the study is that only one setup could be involved in the conduction of data collection, as multiple study setups would have given a comprehensive input for assessment.

A run through of the medico legal procedure should be restructured and delivered to the law students in a simplest way possible through workshops, seminars, exhibitions, guest lectures and so on. It may be helpful to involve the support of religious organizations in these educating programs, so that resistance to conducting autopsies is reduced. An aggressive attempt to educate not only law students but also the general public, on the importance of post mortem examination and its value, is necessary.

To conclude, enhancing the aptitude and attitude of students of law, towards medico legal autopsy is a major necessity. Even a minor knowledge gap is of prime significance as their knowledge and positive

perception about medico legal autopsies is crucial towards delivering justice.

CONCLUSION

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REFERENCES

1. **Vij K.**
Textbook of forensic medicine and toxicology: principles and practice, 5/e. Elsevier India; 2011.
2. **Hosseini M, Malekpour A, Khoshnoud R, Abbasinia H, Gholamzadeh S, Tarian T, Hashemi A.**
Fatal cases of strychnine ingestion referred to Fars Legal Medicine Organization; Autopsy findings and Analytical methods used in strychnine detection. Trends in Pharmaceutical Sciences. 2017 Sep 1; 3(3):209-14.
3. **Mahanta P.**
The Medico-Legal Autopsy-It's Religious and Social Attitudes. J Indian Acad Forensic Med. 2010;32:2.
4. **Narayan Reddy KS, Murty OP.**
The essentials of forensic medicine and toxicology. Medical Book Company, Hyderabad. 2010;26:51-3.
5. **Gharehdaghi J, Abedi Khorasgani MH, Ghadiani MH, Kazemifar AM, Solhi H, Solhi S.**
Prevalence of HCV, HBV, and HIV seropositivity among cadavers referred to autopsy hall of legal medicine bureau of Tehran, Iran. Advances in preventive medicine. 2017 Nov 29;2017.
6. **Kružić I, Jerković I, Mihanović F, Marušić A, Anđelinović Š, Bašić Ž.**
Virtual autopsy in legal medicine: literature review and example of application on the mummified remains. Medicine, Law & Society. 2018 Oct 22;11(2):67-90.
7. **Saukko P, Pollak S.**
Short Historical Overview. Forensic Pathology. 2016 Sep 23:83.
8. **Nakao KI, Tatara Y.**
An analysis of alcohol and drug intake in forensic autopsy cases of traffic fatalities. IATSS research. 2019 Jul 1;43(2):75-8.
9. **Shetty K, Suresh B, Rastogi P, Rao PP, Shetty H, Kotian MS.**
Knowledge, Attitude Vis-À-Vis to Medico Legal Autopsies among the Non-Teaching Staff in a Private Medical College in Mangaluru. Medico-Legal Update. 2018 Jan 1;18(1).
10. **Jha RN, Badiadika KK, Vaswani VR, Shenoy VK.**
Knowledge and Perceptions Regarding Medico-legal Postmortem Examination among the Arts and Commerce Stream Students of Mangalore, India. Indian Journal of Forensic Medicine & Toxicology. 2019 Jul;13(3):34-7.
11. **Nataraja Moorthy T, Thenmoli R.**
Study of Knowledge, Attitude and Perception regarding Medicolegal Autopsy among Malaysian Hindus: A Focus on Hinduism. J. Bio. Innov. 2016;5(6):890-9.
12. **Benbow EW.**
Medical students' views on necropsies. Journal of Clinical Pathology. 1990 Dec 1; 43(12):969-76.
13. **Behera C, Rautji R, Dogra TD.**
Relatives' attitudes towards medico-legal investigation and forensic autopsy: a study from South Delhi. Medicine, Science and the Law. 2008 Apr; 48(2):159-62.
14. **Roberts IS, Benamore RE, Benbow EW, Lee SH, Harris JN, Jackson A, Mallett S, Patankar T, Peebles C, Roobottom C, Traill ZC.**
Post-mortem imaging as an alternative to autopsy in the diagnosis of adult deaths: a validation study. The Lancet. 2012 Jan 14; 379(9811):136-42.
15. **Zheng WQ, Fan YH, Ng A.**
Public attitudes towards the autopsy in China. Pathology. 1998 Jan 1;30(2):92-4.
16. **Mohammed M, Kharoshah MA.**
Autopsy in Islam and current practice in Arab Muslim countries. Journal of forensic and legal medicine. 2014 Mar 1;23:803.

