

Knowledge and Attitude of Medical Students Towards Forensic Autopsy

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Abstract

Autopsy is a research tool which has been used for centuries. Various studies have established that autopsy has been central to medical education, as it teaches students about clinic-pathological correlations, gross anatomy of disease, death certification and death statistics. The aim of this study was to investigate the general attitude of medical students of 2nd, 3rd and 4th years towards medico-legal autopsy. This study was conducted among medical students of 2nd, 3rd and 4th year. Questionnaires were prepared and distributed to students. 129 (64.5%) of the students stated that the number of autopsies they witnessed was enough, while 71 (35.5%) said that the number was not enough. However, a total of 179 (89.5%) students would recommend medical students to watch more autopsies. The majority, 111 (55%), suggested that medical students should actively participate in performing autopsies. Most of the students 190 (95%) felt that autopsy should not be scrapped from the medical curriculum. This study showed that medical students have positive attitude towards observing the autopsies. The knowledge of medico-legal autopsy will broaden the student's perceptive and will help the legal system in delivering quick justice in criminal cases.

Key words: Attitude, Medical Students, Autopsy, Knowledge, Medical education, Medico legal/forensic autopsy

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Introduction:

Autopsy is a research tool which has been used for centuries. The word autopsy is derived from the Greek word autopsia- "to see with one's own eyes". In nineteenth century, Virchow and Osler used the autopsy to understand the pathology of fatal diseases such as endocarditis and pulmonary embolisms. The autopsy is beneficial in determining, the cause of death, the time of death, validity of therapeutic modalities, potential medicolegal issues surrounding death, and providing data on disease and injury¹.

Various studies have established that autopsy has been central to medical education, as it teaches students about clinic-pathological

correlations, gross anatomy of disease, death certification and death statistics²⁻⁴. Despite the high value placed on the autopsy as a teaching tool in the past, their use in this setting has dramatically declined, leading to a situation where many students will no longer see any autopsies at all during the course of their undergraduate studies. The reasons behind this falling rate of the autopsies are financial constraints, unfavorable attitude of healthcare professionals towards autopsies, clinicians not asking for permission to have the autopsy performed on their patients⁵.

The need to expose the students to autopsy cannot be over emphasized because eventually these students will become clinicians and as clinicians they are not likely to advocate autopsies if they have not been properly exposed to the same. It is obvious that knowledge of autopsy will broaden the students mind and enhance a more accurate diagnosis during the subsequent years of their clinical practice as doctors. Very few studies

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have been conducted on the attitudes of medical students to clinical autopsy/medico-legal autopsy. The aim of this study was to investigate the general attitude of medical students of 2nd, 3rd and 4th years towards medico-legal autopsy/Clinical autopsy.

Aim of the Study:

To study the attitude of medical students towards autopsy specifically medico-legal autopsy.

Materials and Methods

This study was conducted among medical students of 2nd, 3rd and 4th year. Comments of the students were obtained by asking them to answer a questionnaire on the subject. Questionnaires were prepared, after consulting other faculty members of the dept. going through literature and day today interactions with students during autopsy. The questionnaires were distributed to the students and participation in the study was voluntary. The students were asked not to disclose their identity. Their comments were analyzed in detail on the following aspects: usefulness and necessity of autopsy in medical practice and education; their personal distaste for the procedure, whether attendance at an autopsy should remain a compulsory part of medical education, staff attitudes, observance of relative's wishes; and feelings about autopsies carried out on self or relatives. A total of 200 students participated in the study.

Results:

In the evaluation of response, 182 (91%) students stated that post-mortem examination is needed in all cases of sudden and unnatural death. Almost all the students were having a fair knowledge about the gross procedure involved (96%) in the post-mortem examination. 129 (64.5%) of the students stated that the number of autopsies they witnessed was enough, while 71 (35.5%) said that the number was not enough. However, a total of 179 (89.5%) students would recommend medical students to watch more autopsies. Most of the students 164 (82%)

were of the view that autopsy is necessary, not only from the medico-legal point of view, but it also helps them to understand various anatomical relations and pathology of the organs. The majority, 111 (55%), suggested that medical students should actively participate in performing autopsies. In spite of the fact that the students view autopsy whether medico-legal or clinical, as being necessary, 47.5% of them would not want autopsies to be performed on them or their relatives after death.

Most of the students 190 (95%) felt that autopsy should not be scrapped from the medical curriculum. Majority of the students were not interested in specializing in Forensic Medicine because it deals with death, while 55% of them had made up their mind to specialize in other specialties, 2% of them felt that forensic medicine as a profession is not lucrative, because there is very little scope at present in India for this specialty. Most of the students were of the view that use of primitive instruments such as chisel, hammer should be replaced with the more modern equipment like oscillating saw and care should be taken to keep the autopsy room clean and odour free. About a third of the respondents felt that inadequate respect had been shown to the dead. They were of the view that the autopsy was done very quickly, viscera were thrown about and the organs stuffed in a bag. They also pointed to the unnecessary chats and remarks by the staff during the procedure. 82% of the students felt that casualty posting specifically for Forensic Medicine for trauma, poisoning and other medico-legal cases should be there.

Discussion:

Autopsy plays an important role in determining the cause of death, manner of death and time since death. In the present study, all the students witnessed a minimum of ten autopsies each. Although 64.5% of the students said that the number of autopsies they witnessed were enough, 179 (89.5%) students recommended that medical students should watch more autopsies. This is in similarity to

the study by Ekanem and Akhibe⁶, where the figure was 57% and 74% respectively. Most of the students, 164(82%), agreed that autopsy is necessary and they learnt something from watching and participating in an autopsy. This compares favourably with the studies of other authors.⁶⁻⁹ In Nigeria several students commented that attendance at autopsy may have fundamental psychological benefits, “----aiding students to come to terms with the death of a patient,” and “attending one or more autopsies is good for medical students in that it is one way in which we can come to terms with mortality.”¹⁰

In present study 96.5% of the students agreed that autopsy is necessary in medical education. This compares favorably with the study of Botega et al⁷ in Brazil and a study by Conran et al⁸ in Ohio, USA, where 85% of the students also said that autopsy should be mandatory for all medical students. Joon Joon in Malaysiya indicated 77.5% of the students recommended making autopsy session compulsory during undergraduate medical training. In our study only 52.5% agreed to an autopsy being performed on them. Which is similar to the study by Ekanem and Akhibe⁶, where only 34% agreed to autopsy being performed on themselves, and is in contrast to the studies by Sanner¹¹ in Sweden, and Jadav CJ et al⁹ in which 90% and 82.5% of the students respectively agreed for autopsy to be performed on themselves, though most of them felt uncomfortable at the thought of it.

Very few students (9.5%) were of opinion that postmortem examination is disrespect to human body, which is favoured by study of Khoo Joon Joon¹². Only 2.5% of the students opined that postmortem examination is harassment to the relatives of the deceased. The majority, (111, 55.5%), suggested that students should actively participate in performing autopsies rather standing and watching as mute spectators. The same view was expressed by the students (76%) in a study conducted by Ekanem and Akhibe.⁶ 42% respondents felt that inadequate respect had been shown to the dead. They were of the view that the autopsy was done very quickly;

chisels and hammers were indiscriminately used to open the body cavities. Viscera were thrown about and unnecessary remarks and chats were made during the procedure. Similar feelings were also expressed by students in a study conducted by E W Benbow.³ However, none of the respondents had suggested how the procedure might be modified to afford proper respect. 70% students suggested that primitive instruments such as chisel, hammer and saw should be replaced with modern oscillatory electric saw in the autopsy room.

The majority of the students were not interested in specializing in Forensic Medicine because it deals with death, while 55% of them had made up their mind to specialize in other specialties. 2% of them felt that forensic medicine as a profession is not lucrative, because there is very little scope at present in India for this specialty. Though no other study has been exclusively done on this subject i.e. medico legal autopsy, a similar study by Ekanem and Akhibe⁶ on the clinical autopsy compares favourably with the present study, where students have shown the same response for the subject of pathology.

Conclusion:

Medical students have positive attitude towards observing the autopsies. The knowledge of medico-legal/clinical autopsy will broaden the student's perceptive and will help the legal system in delivering quick justice in criminal cases. Autopsy is an important procedure which has the ability to advance medical knowledge and improve clinical practice. Medical students should be encouraged to be more interested in observing Forensic autopsies.

Conflict of interest: None

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Ethical clearance: Obtained from Institutional Ethics committee

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Table 1: Questionnaire

Is postmortem examination is needed in all cases of sudden, unnatural death?	Yes=182 (91%)
	No=16 (8%)
	Ignorant=2 (1%)
Taking out of viscera for histopathological examination and toxicological analysis for medico legal autopsy	Yes=192 (96%)
	No=6 (3%)
	Ignorant=2 (1%)
The purpose of doing Postmortem examination	Done to know the cause of death=198 (99%)
	Mere legal formality=38 (19%)
	Harassment to the relatives of the deceased=5 (2.5%)
	Helpful in reaching the culprit of crime=174 (87%)
The reaction of the students on the first exposure to postmortem examination	Comfortable=20 (10%)
	Slightly uncomfortable=73 (36.5%)
	Moderately uncomfortable= 27 (13.5%)
	Very uncomfortable=71 (35.5%)
	Indifferent=9 (4.5%)
Do you think that autopsy helps in solving crimes and give important information to police?	Yes=191 (95.5%)
	No =9 (4.5%)
Are the number of cases witnessed by students is enough	Yes =129 (64.5%)
	No=71 (35.5%)
Students should watch more postmortem examination	Yes=179 (89.5%)
	No =21 (10.5%)
Should medical students actively participate in performing autopsies?	Yes=111 (55.5%)
	No =89 (44.5%)
Given a chance would you choose not to watch P.M examination at all?	Yes =55 (27.5%)
	No =145 (72.5%)
Did you learn anything from the autopsies you watched?	Yes=164 (82%)
	No=36 (18%)
The utility of P.M examination in medical education.	Yes =190 (95%)
	No =10 (5%)
Whether postmortem examination causes disfigurement of body?	Yes =56 (28%)
	No =144 (72%)
Whether doing Postmortem examination is disrespect to human body?	Yes =19 (9.5%)
	No =181(90.5%)
Should autopsy be scrapped from the medical curriculum	Yes= 10 (5%)
	No =190 (95%)
Reasons for Not Specializing in Forensic Medicine	Not interested in Forensic Medicine=35%
	Interested in other specialties=55%
	Not lucrative, Scope in India is minimal=2%
	No reasons=11%
Suggestions for Improvement in Autopsy Procedure	Improvement in hygiene and sanitation in autopsy room=60%
	More involvement of autopsy surgeon during autopsy=20%
	Replacement of primitive instruments with modern ones in the autopsy room=70%
	Active participation of students during autopsy=63%
	Show more respect towards dead body=42%
Casualty posting specifically for Forensic Medicine for trauma, poisoning & other medico-legal cases.	Yes =82%
	No =18%
If the need arises, will they allow post-mortem examination on them or their relatives	Yes =105 (52.5%)
	No =95 (47.5%)

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