

CURRENT STATUS OF PERCEPTIONS TOWARDS AUTOPSY AND POST-MORTEM EXAMINATION AMONG MEDICAL UNDERGRADUATE STUDENTS

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ABSTRACT

Background- Declining rate of autopsy worldwide in recent decades is a matter of concern. Knowledge & attitude of the medical professionals is one of identified reason for this decline. Medical students act as an interface between the laymen and the qualified professional and would play a central role in improving autopsy rates in any country, the ultimate desired goal. Aim- The present cross sectional study was conducted to ascertain the knowledge and attitude of medical students towards autopsy and post-mortem examination. Methods-The study was carried out among 354 undergraduate students of a medical college in Haryana in the month of February 2013 using pretested self-administered questionnaire. Those students who could not be retrieved even after the third visit to classes were excluded from the study. SPSS version 20.0 was used for analysis. Results- Almost all the students were having a fair knowledge about the gross procedure involved in the post-mortem examination. 72.6% of males and 61.9% of female students showed positive attitude towards active participation in performing the autopsies. Almost 80% of the male students would not mind autopsy to be performed on themselves. Conclusion- Autopsy rates likely to rise in future if these students with fair knowledge and positive attitude are equipped with skills required for the procedure.

Keywords: Autopsy, Medical students, KAP study

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INTRODUCTION

The autopsy and post-mortem has played a vital role in the accumulation of medical knowledge and as an indispensable examination tool in the medico legal investigation of unnatural and unexplained deaths.^{1,2} It is, however, a procedure burdened with a variety of misconceptions, myths, and emotions by

lay people as well as by physicians.³

There has been a steady decline in the autopsy rate and decline in the rate of obtaining permission for autopsy as well, worldwide in recent decades and is matter of concern as pointed out by many journal articles on the value of the autopsy, the reasons for this decline, and possible ways to improve this situation.^{4,5,6} Fear of litigation, shortage of pathologists, concern about costs, failure to obtain consent from patient or relatives in spite of having substantial information about patients before their demise and knowledge & attitude of the medical professionals are some of identified reasons for this decline.^{7,8,9}

Various studies have been conducted to assess the attitude of deceased family members and medical professionals in order to identify factors related to such decline. Medical students occupy a privileged position and act as an interface between the laymen and the qualified professional and would play a central role in improving autopsy rates in any country, the desired goal. Therefore present study was conducted to ascertain the knowledge and attitude of medical students towards autopsy and post-mortem examination.

MATERIALS AND METHODS

The present descriptive cross sectional study was carried out among undergraduate students of a tertiary care teaching hospital in India in the month of February 2013 using pretested self-administered questionnaire. The study population consisted of undergraduate medical students (MBBS) who were either currently studying or had studied Forensic Medicine & Toxicology subject. Students are taught para-clinical subjects namely, Pathology, Microbiology, Forensic

Medicine & Toxicology and Pharmacology during the 2nd year of MBBS curriculum. Hence all the students currently studying in the medical college except 1st year MBBS students were included in the study. Those students who could not be retrieved even after the third visit to classes were excluded from the study. Students were explained about the nature and purpose of study and requested to fill the questionnaires which were distributed by authors in the classrooms just after the completion of classes.

A detailed proforma containing 24 questions was framed for the purpose of capturing socio-demographic information of the study participants, questions concerning knowledge about the post-mortem and questions regarding their attitude towards post-mortem. The questionnaire was pre tested on 20 students and amended for clarity with the addition of some answer options and was modified accordingly. Informed consent was obtained. Ethical committee approved the study.

The collected data was coded and entered onto SPSS (Statistical Package for the Social Sciences) version 20. The results were expressed as proportions using appropriate graphs and tables. For comparison across the groups, Chi square test was used and $p < 0.05$ will be considered statistically significant.

RESULTS

During different visits made by the authors to classes, 423 students were present. Out of which 377 completed and returned the questionnaires giving an overall response rate of 89.1%. Twenty three proforma were discarded during data analysis due to lack of internal consistency. Finally data of 354 subjects were compiled and included in the study.

The mean age of students was 19.12 years with a standard deviation of 1.5. The socio demographic profile of the students was almost similar.

Three hundred and two students (85.3%) were aware that post-mortems are conducted to know the cause and manner of death. Eight students (2.2%) opined that the post-mortem is to harass the relatives of the deceased. Almost all the students were having a fair knowledge about the gross procedure involved (100% & 99.4%) in the post-mortem examination. (Table 1)

More than seventy percent (72.6%) of males and more than sixty percent (61.9%) of female students showed positive attitude towards active participation in performing the autopsies. ($p < 0.05$) In spite of the fact that they view autopsy as being necessary, 278 of them would not want autopsies to be performed on them or their relatives at death. (Table 2)

The majority of students (296, 83.6%) would, however, not specialise in Forensic Medicine, Pathology (Morbid Anatomy) out of which 171 (80.6%) were males and 125 (88.0%) were females. Majority of male students would not wish to specialize in morbid anatomy because it deals with death, while most of female students said either they had made up their mind to specialize in some other fields or they do not want to touch and dissect dead bodies. ($p < 0.05$)

DISCUSSION

Today's medical students are tomorrow's forensic medicine experts and pathologists. Their knowledge and attitude is bound to affect the autopsy rate in any country, making it important to develop a positive attitude with

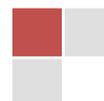
installation of adequate knowledge and information in them, especially in the present era where existence of the autopsy is being threatened at some institutions.¹⁰

Decline in autopsy rate has posed a great deal of concern to pathologists and medical educators. Various reasons have been given for this decline and these include improvement in modern diagnostic technique, inadequate training of doctors as to the importance of autopsy, and failure to obtain consent from relatives.¹¹ It is not uncommon for a doctor to undergo training without observing autopsy.¹²

The response rate in the present study was 89%, which is in consistency with British study¹³ on medical students. Other studies from Sweden¹⁴ and US¹⁵ reported little lower response rate.

Almost 90% of the students were having the knowledge about the essentiality of the post-mortem examination in the country, whereas only 10% were ignorant on this issue. The data clearly show that the majority students are aware of the needs and usefulness of post-mortem examination. This compares favourably with the study conducted at Ohio¹⁶ (USA) where 85% of the students also said that autopsy should be mandatory for all medical students. But this comes in contrast with the findings of another study¹⁷ which observed that almost one third of the students were ignorant about essentiality of the post-mortem examination in the country. It is worth noticing and good sign that almost nil students opined that post-mortems are conducted to harass the guardians/relatives thus showing a positive attitude towards this procedure.

It was observed in the present study that almost 80% of the male students would



not mind autopsy to be performed on themselves. This finding tallies with the findings of Sanneretal¹⁸ from Sweden, who reported that 90% of students agreed to autopsy being performed on them. Another study from Nigeria¹⁹ contradicts the observations on this aspect of the study. Wilkes et al²⁰ from UK reported that several students were willing to request autopsies on their patients, but rejected it on members of their own family. It is gratifying to note the positive attitude of medical students on this aspect.

CONCLUSION

The findings of the present study clearly show that medical students possess a reasonable knowledge and positive attitude on the subject in this part of country. But, knowledge and positive attitude alone may not be enough for increasing the post-mortem/autopsy rate, unless they acquire the skills required for the procedure as currently they are not provided with any training during their medical curriculum. This aspect of training of medical students is required to be strengthened in order to achieve the desired goal.

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Table 1: Distribution of subjects according to their knowledge on various dimensions of post-mortem examination.

Knowledge on various dimensions of post-mortem examination	Males N (%)	Females N (%)	p-value
Do you think autopsy is a legal formality?	195(91.9)	123(86.6)	.10
Can post-mortem determine actual cause and manner of death?	190 (89.6)	112 (78.9)	.005*
Are post-mortem conducted to harass the relatives of the diseased?	7(3.3)	1(0.70)	.10
Is post-mortem essential in all cases of death?	12(5.6)	7(4.9)	.76
Is post-mortem essential in unnatural and sudden unexpected deaths?	171(80.6)	115(80.9)	.93
Post-mortem involves examination of dead body internally as well as externally.	212(100)	142(100)	.22
Post-mortem involves taking out visceral organs for toxicological, histopathological and other examinations.	210(99.05)	142(100)	.24
Do you think the number of autopsies you watched were enough?	128(60.3)	89(62.6)	.66
Do you think that autopsy helps in solving crimes and give important information to police?	205(96.6)	138(97.1)	.79
Can the relatives request the doctors for doing autopsy without police information?	117(55.1)	105(73.9)	.00*
Do you think body can be handed over to the relatives without postmortem if the cause of death is known in MLC cases?	134(63.2)	83(58.4)	.36
Males (n=212), Females (n=142), *p<0.05			



Table 2: Distribution of subjects according to their attitude on various dimensions of post-mortem examination.

Attitude on various dimensions of post-mortem examination	Males N (%)	Females N (%)	p-value
Would you recommend that medical students should watch more autopsies?	181(85.3)	102(71.8)	.00*
Are you confident enough to perform autopsy of your own with the knowledge gained by watching autopsies?	130(61.3)	95(66.9)	.28
Should medical students actively participate in performing autopsies?	154 (72.6)	88 (61.9)	.03*
Given a choice would you have opted not to watch autopsy at all?	23(10.8)	40(28.1)	.00*
At death would you like autopsy to be performed on you or your relatives if cause of death is not known?	173(81.6)	105(73.9)	.08
At death would you like to perform autopsy on general public?	195(91.9)	123(86.6)	.10
Do you think performing autopsy is disrespect to the dead body?	15(7.07)	22(15.4)	.01*
Males (n=212), Females (n=142), *p<0.05			

Table 3: Reasons for not specialising in Morbid Anatomy.

Reasons for not opting for specialisation in morbid anatomy.	Males (n=171)	Females (n=125)	p-value
Because this science doesn't deal with living persons so i am not willing in this subject.	105(61.4)	31(24.8)	.00*
I have no interest as this subject is not interesting.	17(9.9)	15(12)	.57
I do not want to touch and dissect dead bodies.	13(7.6)	37(29.6)	.00*
Autopsy is a dirty procedure.	9(5.2)	5(4)	.61
I have made up my mind not to specialise in morbid anatomy	27(15.7)	37(29.6)	.00*
I don't want to go to court for any evidences	132(77.1)	110(88)	.01*
*p<0.05			

