

# Knowledge and Perception of Public Towards Medico Legal Autopsy in Nepal

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## ABSTRACT:

**Introduction:** Autopsy is an important tool to determine the cause of death. This study was conducted with the objectives to assess the knowledge and perception of Nepalese people towards medico legal autopsy. **Methods:** It was a questionnaire based cross sectional study performed among the general public of Nepal. A standard pretested questionnaire was used to collect the responses on knowledge and perception of the people about medico legal autopsy. Independent samples *t-test* was used to compare the mean score of knowledge among the various groups. *P* value of  $< 0.05$  was considered significant. **Results:** Mean age of the respondents was 29.06 years ( $SD = 10.50$ ) and 72.31% were male ( $n = 188, N = 260$ ). Mean score of knowledge was 6.65 ( $SD = 1.76$ ) out of a total ten. The score was significantly higher ( $p = 0.02$ ) among the respondents whose relatives had undergone an autopsy than those whose were not. It was comparable among the educated and uneducated groups. A total of 75.77% respondents ( $n = 197, N = 260$ ) would not reject the autopsy of their relatives. **Conclusion:** People lack knowledge mostly in basic elements of medico legal autopsy. Most of the people showed positive perception towards autopsy and those who were negative, feared of disfigurement of the bodies after an autopsy.

**Keywords:** attitude • autopsy • consent • knowledge • Nepal

## INTRODUCTION:

Autopsy has been proven to be the most accurate method to determine the cause of death and therefore to audit the accuracy of clinical diagnosis, diagnostic tests and for death certification.[1] Nepalese law makes provision for performing a medico legal autopsy after an inquest done by the police in seemingly unnatural deaths due to any reasons.[2]

Though medico legal autopsy is mandatory in most of the setup, the relatives of the deceased may have negative attitude towards autopsy.[3,4] Only few Romanian people had known the meaning of autopsy in a study by Marinescu et al.[5] In the recent times, researches have shown that people have developed positive attitudes towards autopsy and even understood the technical aspects of autopsy. [6,7] Although social aspects affect the public view more than religious facts, Islam also now accepts autopsies when useful.[8]

Relatives of the deceased deny the performance of complete autopsy in Nepal though there is no provision of consent of relatives. The knowledge and attitude of Nepalese people towards medico legal autopsy has not been analysed so far. The study was conducted with objectives to assess the knowledge of Nepalese people towards medico legal autopsy and their perception towards it.

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## METHODS:

A cross sectional study was designed to



assess the knowledge and perception of autopsy among the adult Nepalese people aged more than 18 years. The study was conducted at Gandaki Medical College Teaching Hospital, Pokhara from the month of January to March, 2018. Non-probability respondent-driven sampling technique was used. A structured questionnaire was used to assess the knowledge and perception of medico legal autopsy. The questionnaire was based on previously published studies.[9,10] and modified in the context of Nepal. The questionnaire was originally prepared in English Language and was translated to Nepali to collect the responses. The linguistic equivalence was achieved by the method of forward and backward translation using independent bilingual translators. The questionnaire was pretested among 26 people who had not participated in the study.

The study population were the general public excluding the health care personnel and health sciences students. The questionnaire was distributed through social network to reach the people of different parts of the nation by purposive sampling method. Google form was used as a tool for the online survey. The local people were reached directly through the Community Diagnostic Program (CDP) conducted by the college. To those who were illiterate, the questionnaire was filled directly by interviewing them during the CDP. For the questions assessing knowledge of the respondents, a score of one was given for each correct response and zero for wrong response as has been done by Parmar et al.[9] A total score was calculated, and mean score analysed with various variables.

#### Ethical clearance and consent:

Ethical clearance was obtained from Institutional Review Committee of Gandaki Medical College. The consent was considered if the respondents agreed to answer the questionnaire. It was ensured that the response would be anonymous and solely used for research purpose.

#### Statistical Method:

The data was entered in Microsoft™ Excel™ and analysis done by Statistical Package for the Social Sciences (SPSS™) version 16. Descriptive statistics was used to analyse the results. Mean score of the knowledge of the respondents was compared with the level of education and performance of autopsy of their relatives using independent samples *t-test*. *P* value less than 0.05 was considered significant.

## RESULTS:

Among the study population, 72.31% ( $n = 188$ ,  $N = 260$ ) were males while 27.69% ( $n = 72$ ) were females. Mean age of the respondents was 29.06 years ( $SD = 10.5$ ). Demographics of the participants is shown in Table 1. Most (47.31%,  $n = 123$ ) of the participants were educated up to bachelor level. Most (38.46%,  $n = 100$ ) of the respondents were students. A total of 95% ( $n = 247$ ,  $N = 260$ ) of the respondents were Hindu.

Table 1: Demographics of the participants

| Variables          |                     | <i>n</i>   | %          |
|--------------------|---------------------|------------|------------|
| Sex                | Males               | 188        | 72.31      |
|                    | Females             | 72         | 27.69      |
| Level of education | Illiterate          | 11         | 4.23       |
|                    | Primary education   | 6          | 2.31       |
|                    | Secondary education | 12         | 4.61       |
|                    | Intermediate        | 45         | 17.31      |
|                    | Bachelor            | 123        | 47.31      |
|                    | Master and above    | 63         | 24.22      |
| Profession         | Business            | 29         | 11.15      |
|                    | Office bearer       | 64         | 24.61      |
|                    | Student             | 100        | 38.46      |
|                    | Unemployed          | 22         | 8.46       |
|                    | Others              | 45         | 17.31      |
| <b>Total</b>       |                     | <b>260</b> | <b>100</b> |

When we had asked whether the respondents had heard about autopsy, 98.46% ( $n = 256$ ,  $N = 260$ ) answered positively. A total of 32.31% ( $n = 84$ ,  $N = 260$ ) respondents told that their relatives had undergone an autopsy.

Mean score of knowledge about medico legal autopsy was 6.65 ( $SD = 1.76$ , range 0 to 10). Details about the knowledge is presented in Table 2. A total of 71.92% ( $n = 187$ ,  $N = 260$ ) responded that the family members must give consent before performing a medico legal autopsy, which is not correct in the Nepalese context. Only 35.76% ( $n = 93$ ,  $N = 260$ ) correctly answered that the expenses of medico legal autopsy are borne by the government.

The perception about objection of autopsy is presented in Table 3. Only 24.23% ( $n = 63$ ,  $N = 260$ ) of the respondents objected autopsy of their relatives. The main concern of objection of autopsy in 47.61% ( $n = 30$ ,  $N = 63$ ) respondents was fear of disfigurement of body.

Table 2: Knowledge of medico legal autopsy among the participants (N = 260)

| Questions/statements   | Answers                       | n   | %     |
|--|-------------------------------|-----|-------|
| Autopsy is the medical examination of a dead body to find out the cause and matter of death. | Yes*                          | 256 | 98.46 |
|  | No                            | 0   | 0     |
|  | Don't know                    | 4   | 1.54  |
| Autopsy is not needed if the nearest relatives of the deceased do not request for it.        | Yes                           | 88  | 33.85 |
|  | No*                           | 113 | 43.46 |
|  | Don't know                    | 59  | 22.7  |
| The family members must give consent before performing a medico legal autopsy.               | Yes                           | 187 | 71.92 |
|  | No*                           | 28  | 10.77 |
|  | Don't know                    | 45  | 17.31 |
| The body has to be dissected to perform autopsy.   | Yes*                          | 242 | 93.08 |
|  | No                            | 5   | 1.92  |
|  | Don't Know                    | 13  | 5     |
| The dissected body is reconstructed to make it presentable after conduction of an autopsy.   | Yes*                          | 199 | 76.54 |
|  | No                            | 22  | 8.46  |
|  | Don't Know                    | 39  | 15    |
| Who bears the expenses of medico legal autopsy?  | Government*                   | 93  | 35.77 |
|  | Relatives of deceased         | 69  | 26.54 |
|  | Don't know                    | 98  | 37.69 |
| Autopsy is indicated in:   | Accidental deaths*            | 183 | 70.38 |
|  | Suicidal deaths*              | 227 | 87.31 |
|  | Homicidal deaths*             | 187 | 71.92 |
|  | Sudden and suspicious deaths* | 238 | 91.54 |

\* Denotes correct response(s)

Table 3: Perception of medico legal autopsy about objection (N = 260)

| Questions/statements   |                                   | n   | %     |
|--|-----------------------------------|-----|-------|
| If your relatives would have to undergo an autopsy, would you object it? | Yes                               | 63  | 24.23 |
|  | No                                | 197 | 75.77 |
| If you object, what are the reasons of objection?                        | Expenses will increase            | 9   | 14.3  |
|  | It will delay the funeral process | 10  | 15.9  |
|  | The body will be disfigured       | 30  | 47.6  |
|  | Religious reasons                 | 8   | 12.7  |
|  | Others                            | 28  | 44.4  |

Relationship between mean score of knowledge of the respondents with variables is shown in Table 4. The knowledge of respondents whose relatives had undergone a medico legal autopsy was significantly higher than those whose relatives' autopsy had not been done ( $p = 0.02$ ). The knowledge was comparable between groups with education level of secondary and below and those with education of intermediate and above.

Table 4: Relationship between knowledge of medico legal autopsy and other variables (N = 260)

| Variables          |                        | mean (SD)   | statistics                               |
|--------------------|------------------------|-------------|--|
| Education          | Secondary and below    | 6.21 (2.19) | $t = 1.45$ ,<br>$df = 258$<br>$p = 0.07$ |
|                    | Intermediate and above | 6.71 (1.69) |  |
| Relatives' autopsy | Done                   | 7.02 (1.43) | $t = 2.36$ , $df = 258$ , $p = 0.02$     |
|                    | Not done               | 6.48 (1.88) |  |

## DISCUSSION:

This is a questionnaire based cross sectional

study among the general public of Nepal to assess the knowledge of medico legal autopsy and to

know their perception, particularly about the factors for rejection of autopsy of their relatives. We had taken responses from 260 people from different parts of the country. It is important to explore the knowledge and perception of public towards medico legal autopsy as it helps the police and doctors to understand the required fields where they have to inform the near relatives of the deceased about the legal requirements and procedure of an autopsy. We had included only the general public excluding the health professionals and students as it would reflect the scenario of the people who would potentially accompany the deceased for a medico legal autopsy. Most of the respondents had heard about autopsy and the relatives of 32.31% participants had undergone an autopsy. Medico legal autopsy is a routinely conducted procedure and is a valuable tool in exploring the cause and manner of death. It is also a valuable method of medical research and education as well.[11] A minimum of one third of death certificates are possibly incorrect and 50% of autopsies demonstrate some findings not diagnosed before death.[12] Therefore autopsy plays a vital role in determining the true cause of death.

Most of the respondents had known that autopsy is the medical examination of a dead body to find out the cause and matter of death. Parmar et al.[9] also reported that people had good knowledge on this question.

We had calculated mean score of the knowledge of medico legal autopsy among different education groups. The knowledge was not significantly associated with level of education (secondary and below and intermediate and above). It was also not significantly different among illiterate and the literate people. The findings are in contradiction with the findings presented by Oluwasola et al.[13] It reflected that even educated people are not much aware about medico legal autopsy. A total of 33.84% wrongly responded that autopsy is not needed if the nearest relatives of the deceased do not request for it. Likewise, 71.92% had incorrectly responded that consent should be provided by the relatives of deceased before performing a medico legal autopsy. People think that if the relatives request the concerned authority, then autopsy is initiated. Medico legal autopsy is performed for the purpose of exploring the cause, manner and time since death for legal purposes and is initiated by the state. So, it is the responsibility of the relatives or anyone who suspects unnatural

death of a person to inform the police. Then, police conducts necessary inquest and can forward the body to perform medico legal autopsy.[14] It is not mandatory to take consent from the relatives before the autopsy. Consent is not required for medico legal autopsy in most of the countries, including Japan. [14] People have to be made aware of the process and need of a medico legal autopsy so that the relatives won't resist to perform autopsy of their near ones.

In a study from Japan, the family members were frustrated and angry after the autopsy of their relatives, most of them were not satisfied by the explanation provided to them before the autopsy. [14] Though legally, formal consent is not needed, it is still important to explain the family members well before commencing autopsy.

More than one third of the respondents did not know who would bear the expenses of a medico legal autopsy and 26.54% incorrectly answered that the relatives of the deceased have to pay for it. As the autopsy is done for legal proposes, the state has to bear the expenses. But in our setup, the mortuary attendants ask for some money from relatives in exchange for the work on the dead body and the relatives also often pay them.[15] This could be the reason why people think that the relatives have to pay for the medico legal autopsy.

Most of the respondents were aware that medico legal autopsy is indicated in unnatural deaths like accidental, suicidal, homicidal, and sudden suspicious deaths. When we had asked them whether they would reject the autopsy of their relatives, most of them responded that they would not. It is important issue that many people now accept autopsies if indicated. Behera et al.,[6] in a study from Delhi, also presented that most of the relatives had positive or indifferent attitude towards medico-legal autopsy and most of them accepted it. Sullivan et al.[3] presented that ninety percent of parents positively valued autopsy as a means to explore the cause of death of their child.

Among the respondents who rejected autopsy, most of them feared of disfigurement of the body of their near ones. Similar findings were presented in other studies.[6,7] One of the objectives of a medico legal autopsy is to cosmetically reconstruct the body. Not only the post mortem incisions have to be stitched properly, but also other injuries and tissue loss should be reconstructed for better appearance before presenting to the relatives of the deceased. This will help them to better tolerate autopsy of their

near ones. The system of proper reconstruction of the bodies after autopsy should also be explained prior to the autopsy. In our set up, the reconstruction of bodies after an autopsy might not be satisfactory in most of the institutions. This could be because of the less importance given to the event and also the lack of expertise of the doctors and mortuary technicians. This study has explored the level of knowledge and perception of the general public of Nepal towards medico legal autopsy. Proper counselling about the procedure and the need of autopsy before the commencement is important. This will help in alleviating the grievances of the relatives of the deceased who are already traumatized by the loss of their loved ones.

### Limitations:

More people representing the overall population of Nepal could have been included by a systematic sampling method to get a better picture about the knowledge and perception of medico legal autopsy in Nepal. This study has reflected a scenario for conducting such a population based national survey.

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### CONCLUSION:

People lack knowledge about the need of consent, permission from the relatives of the deceased, and the expenses to be borne for a medico legal autopsy. Most of the people have positive attitude towards autopsy and those who deny performing autopsy of their near ones, do so mostly due to the fear of disfigurement of the bodies.

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None declared

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