

# A Questionnaire Based Study on Knowledge of Body Donation among Undergraduate Students

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## ABSTRACT

**Aim & Objective:** Anatomy set forth the fundamentals of human body in the course of all health care professionals. Cadaveric dissection is the principal way to understand the Human anatomy by the medical students. Donated bodies fulfill the need of cadavers in learning and teaching anatomy. Apart from the use of cadavers students must be aware of particulars regarding body donation. The aim of present study is to assess the knowledge of medical students on body donation.

**Methods:** The research work is questionnaire based study carried out among 263 undergraduate medical students in Siddhartha medical college, Vijayawada. Structured questionnaire was prepared and distributed among the students. The data was collected, compiled and analyzed.

**Results:** All the study members knew the term body donation. Majority of the students are unaware of the time limit to donate the body and the age limit of body donation. 57.03% knew who can donate body. 89.7% knew that the death certificate is mandatory during body donation process. 60.45% had clear idea of reasons for body rejection when donated. 96.57% had clear idea about the uses of donated body. 59.31% of the students were willing to donate their body and 93.53% were interested in propagating the message of body donation.

**Conclusion:** Our study suggests that the medical students should be aware of act, process and committee of body donation before they involve in the propagation about body donation among public.

**Key Words:** Awareness, anatomy act, body donation, donation forms.

## INTRODUCTION

Health care professionals include a wide range of people related to public health. Out of them medical graduates play a major role involving directly with the public health issues. Though number of subjects were taught in the under and post graduation of health care professionals, anatomy is an indispensable part of their education. Anatomy that deals with study of human body is the basic subject in the curriculum of medical students. Cadaveric dissection is a part and parcel of anatomy learning, teaching and research [1]. Cadaveric dissection may influence the behavioral aspects with patients and people further [2]. Practical knowledge attained by hand on dissection in anatomy cannot be replaced by the theoretical knowledge gained by various sources of information available. Dissection remains as primary tool for teaching anatomy in a best way [3]. Dissection during under graduation also helps in practicing surgical skills as well as developing new surgical techniques [2]. Increase in medical institutions all over India in last few years created a major obstacle for better learning of anatomy. It caused lack of proportionality in student to cadaveric ratio as available cadavers are less to the joining MBBS students. This has led to lack of cadaveric dissection practice

which further created problem of understanding the basic anatomy of human body [4]. Donated bodies are the main source of cadavers all over the world. Body donation must be considered as a way to be useful after death and should be appreciated by the educators [1]. Due to various reasons such as lack of awareness about body donation, familial or social inhibitions poorly developed willed body donation programs available body donors are far less than needed. There is a need of motivation for voluntary body donation through propagation in order to cope up with the required cadaver to student ratio. Health care professionals play a key role in achieving beneficial results through motivating programs [5,6]. But how many of the healthcare professionals themselves are aware of body donation? This question prompted us to undertake this survey with the aim to assess the knowledge, attitude and practices regarding ‘Body Donation’ among the students of medical college.

## MATERIALS AND METHODS

The present study is questionnaire based, KAP (Knowledge, attitude & practice) study, carried among 263 undergraduate medical students in the Siddhartha medical college, Vijayawada, Andhra Pradesh. A specially designed self-administered questionnaire covering, knowledge and attitude of the participants was prepared by the research team. The inclusion criterion for the study population was 263 medical students of both the sex and exclusion criterion was those who are not interested in the survey. Data was analyzed using Microsoft excel 2010, every question had a yes or no option and percentage of particular response were calculated in the percentage scale and represented graphically.

## RESULTS

The questionnaire was distributed among the students and is filled by all the study members. After filling, the forms were collected and the data was compiled for

analysis. Data was presented as tables and graphs. Gender information of the participants was given in Table 1.

**Table1: Study members information**

Gender	Percentage
Male	22.05%
Female	77.94%
Total	263

All the study members knew the term body donation. For the question of sources from where the participants came to know about body donation, half of the study population knew through media and very few through family and friends. Majority of them don't know that the body donation is one of the method of body disposal and mentioned about traditional methods only. Majority of the students are unaware of the time limit to donate the body and the age limit of body donation. 57.03% knew who can donate body and Table 2 depicts the percentage of respondents with knowledge to who can donate body.

**Table2: Knowledge of the participants about who can donate body**

Who can donate the dead body	Percentage of participants response
Person alive	3.04
Relatives	0.8
Police	26.99
Mental hospitals	4.56
All the above	57.03
Relatives & police	3.42
Person alive & police	0.76
Person alive, relatives & police	1.14
Mental hospitals, relatives & police	1.14
Mental hospitals & police	1.14

Only 5 % knew the process of body donation and 4% knew the act which governs the body donation. Merely 20.91 % are aware of the body donation committee in the college and surprisingly 2% knew the committee members. Table 3 depicts the response of the participants to the regarding the certificates required for body donation. 89.7% knew that the death certificate is mandatory during body donation process.

**Table3: Knowledge of certificates for body donation**

S. No	Certificates required	Percentage
1.	Death certificate	1.52%
2.	Body donation duly filled form	3.42%
3.	Both	89.73%

Figure 1 depicts the knowledge of the study members about bodies rejected for donation. 60.45% had clear idea of reasons for body rejection when donated. Figure 2

depicts the attitude and opinion of donating their body and reasons behind their rejection for body donation.

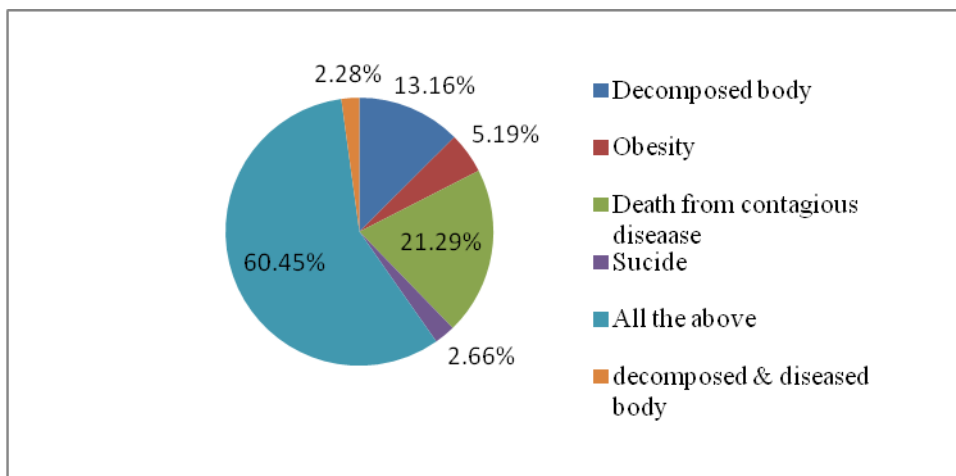


Fig 1: Knowledge of participants about reasons for rejecting a dead body for donation

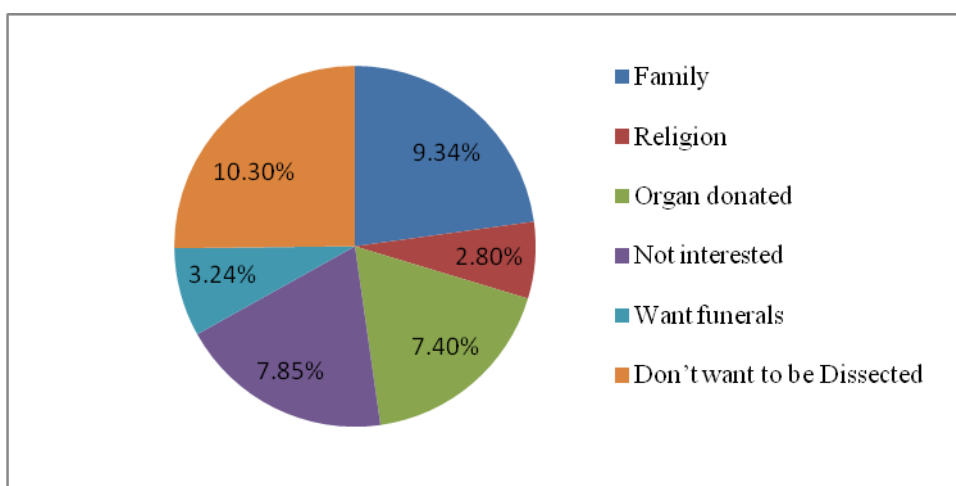


Fig 2: Attitude of participants towards body donation

## DISCUSSION

In ancient India human body was dissected by Shushruta by about 500 B.C. He believed that an Anatomist can only be a skill full surgeon. Though it seems to be against to religious aspects, human body donation is the primary source of understanding human anatomy. Andreas Vesalius (1514-1564) in the fifteenth century initiated the utilization of cadaver dissection. On time importance of training with cadaver was slowly recognized and now it is principal route for attaining knowledge on human body [1]. In this regard to assess the knowledge of the medical students regarding body donation,

we conducted the study using KAP (knowledge, attitude and practice) based questionnaire.

In the present study all the participants are aware of the term body donation. 51.33% of the participants knew about body donation through media, 8.7% through health workers, 22.4% during their course and 17.87% through their family and friends. Majority of the students mentioned traditional methods of body disposal. 42.42% of the participants mention both burial and burning methods where as 22.73% mentioned only burial and 34.84% mentioned burning method only as methods of body disposal. Of all the study members

57.03% knew who can donate the body clearly. Surprisingly very few respondents are aware of the act and process of body donation. Only 20.91% knew the committee for body donation in the college. Still the members are to be aware of the committee members. Majority of the study members knew the use of donated body.

Our study highlighted that merely 59.31% of study members are willing to donate their body. However, few of the participants mentioned reason as that they are interested in donating organs, they don't want to be dissected. Other participants mentioned various reasons out of which the majority of them said that they are not interested. The disrespectful behavior and indignity towards the cadavers negatively affect the volunteering towards body donation. Though cadaver is lifeless it is associated with lot many emotions and pride of the family, it should be considered as first patient of the doctors during medical education and must be honored as students learn more from cadavers than just dissection. People are often unaware or may be misled by wrong interpretation of religious texts or teachings<sup>[5]</sup>. 93.53% of study members are willing to propagate the message of body donation among the public and institutions.

From the results it can be observed that the students lack of complete knowledge regarding body donation. Our study suggests that the medical students should be aware of act, process and committee of body donation before they involve in the propagation about body donation among public. Awareness and positive mindset must be inculcated among public thorough possible means in an organized way. Medical professionals plays key role in achieving change in people orientation towards body donation as their opinions have a strong impression over people's belief. Community has to be motivated towards body donation as a noble act of educating the future generations like blood and organ donation as a noble act of saving someone's life. Thus we would like

take the liberty and suggest including the concept of body donation and its related information in curriculum at both undergraduate and postgraduate level.

## CONCLUSION

The body donation is honorable and gracious act which helps society future doctors in developing skills of handling patients. Body donation is an important source of cadavers for dissection which is inseparable from anatomy learning, teaching and research. Medical students are having impaired knowledge regarding the act, process of body donation and there is a need for creating awareness among the students as well as public.

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## Authors' Contribution

All the authors have contributed in carrying out work, preparation and editing of work.

## Conflict of Interest:

The authors declare that they have no conflicts of interest.

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