

## BODY DONATION MYTHS AND PERCEPTION: A CROSS SECTIONAL QUESTIONNAIRE BASED STUDY

Dattatray Digambarrao Dombe \*<sup>1</sup>, T. Anitha <sup>2</sup>.

\*<sup>1</sup> Associate Professor, Department of Anatomy, Chalmeda Anandrao Institute of Medical Sciences, Bommakal, Karimnagar, Telangana, India.

<sup>2</sup> Professor and Head, Department of Anatomy, Chalmeda Anandrao Institute of Medical Sciences, Bommakal, Karimnagar, Telangana, India.

### ABSTRACT

**Introduction:** Last two decade experienced a sudden rise in number of medical institutions in government and private sector across India. It created a unique problem for anatomy teaching, availability of the cadavers. Body donation is associated with many taboos and misconceptions in society. We hypothesized that many of the well-educated and willing persons are unaware of the provision of body donation.

**Materials and Methods:** This was a questionnaire based cross-sectional prospective study, was approved by institutional ethical committee. Total 2000 questioners were distributed and 1834 participants took part voluntarily. Responses were analyzed in percentage scale by using Microsoft excel 2010.

**Results:** only 17 percent of our study population have heard about body donation and 10 percent believed in the concept of body donation. Major factors responsible were unawareness about the provision of body donation, apprehension about the religious and social issues, doubts about honor and dignity maintained in the dissection halls while performing dissections.

**Conclusion:** Our study highlighted the issue of the awareness of body donation in general population and medical community itself. Awareness campaign for body donation and sensitization of the students, medical faculty and handlers of cadavers about dignity and respect of the donated body.

**KEY WORDS:** Anatomy Teaching, Cadavers, Body Donation Awareness, Medical Research, Anatomy Act.

**Address for Correspondence:** Dr. Dattatray D. Dombe, C/O Dombe D. P., Bhagyalaxmi Nagar, Near Shankaracharya Temple, Basmat Road, Parbhani, Parbhani (Maharashtra), India – 431401. Phone No: 09405519678 **E-Mail:** drdattadombe79@gmail.com

### Access this Article online

#### Quick Response code



DOI: 10.16965/ijar.2016.347

**Web site:** International Journal of Anatomy and Research  
ISSN 2321-4287  
[www.ijmhr.org/ijar.htm](http://www.ijmhr.org/ijar.htm)

Received: 31 Jul 2016

Peer Review: 01 Aug 2016

Revised: None

Accepted: 29 Sep 2016

Published (O): 31 Oct 2016

Published (P): 31 Oct 2016

### INTRODUCTION

Cadaveric dissection in the anatomy curriculum is preached and practiced in modern medicine all over the globe. Last two decade experienced a sudden rise in number of medical institutions in government and private sector across India. It created a unique problem for anatomy teaching, availability of the cadavers. Cadaveric dissection is there in the curriculum and it is

indispensable [1]. Day by day cadaver to student ratio is increasing and many students admitted in first MBBS professional course complain about lack of hand on dissection which leads to difficulty in understanding Anatomy of human body. Body donation is associated with many taboos and misconceptions in society [2]. Present study was designed to find the barriers and solution in the honorable act of body

donation. We hypothesized that many of the well-educated and willing persons are unaware of the provision of body donation, what happens to their body once they donate it and how they can donate body after death. This study highlighted the need for massive campaigning and publicity for body donation.

### MATERIALS AND METHODS

This was a questionnaire based cross-sectional prospective study, was approved by institutional ethical committee. We circulated a prevalidated semi structured questionnaire [3] in the degree colleges, clubs and socially active bodies of our city and informed consent was taken from all the participants. Questions in the questionnaire were mainly about the awareness about body donation, to find willingness of body donation, and to find main myths and misconceptions about body donation. In total 2000 questionnaires were distributed of which 1834 participants returned the questioner. Participation was voluntary and persons in the age group of 18 to 75 years were included in study. 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.

### RESULTS

We distributed 2000 questionnaires of which 1834 participants returned the filled questionnaire. Average age of the participants was 31.6 years, 34 percent of participants were females and 66 percent were males. 47% were of Hindu, 18% were Buddhist, 11% were Muslims. Remaining were from other minor communities.

Question 14 was an open ended question on personal comments and questions about body donation.

Few of the interesting questions and queries were "Is it legal?" "Can a handicapped person donate his/her body." "What happens to the remains of the body after they are dissected, we heard they are thrown somewhere" "Can My relatives see my body after donation?" "Can my relatives perform the religious cremation/ burial once the body is dissected and the purpose is over?" "Does the female bodies get appropriate treatment after donation?" "I don't

want some medical student posing with my dead body for a selfie" "I think medical students are not giving the respect to body" "How many doctors themselves donate bodies?"

**Table 1:** Showing responses of the participants in percentage scale.

Sr. no	Question	Yes (Percentage)	No (Percentage)
1	Have you heard about 'Body Donation'?	17	83
2	I know that "Body Donation is defined as the act of giving one's body after death for the medical research and education"	8	92
3	Do you know the significance of 'Body donation'?	6	94
4	Do you know the donated body is used for the medical education?	8	92
5	Do you know the donated body can be used for the research and other purposes?	7	93
6	Do you believe in 'Body Donation'?	10	90
7	I do not believe in 'Body Donation' due to my religious tradition	85	15
8	I believe that donated bodies are misused	45	55
9	I will bring awareness about 'Body Donation' among people.	16	84
10	I can think about 'Body Donation' for myself in future	9	91
11	I am willing for 'Body Donation'.	5	95
12	Medical professionals should explain, aware and educate the general public about the importance of this gracious act of 'Body Donation	47	53
13	Teaching Anatomy and research in medical science can be done without cadavers.	45	55

### DISCUSSION

Present cross sectional study was conducted with a hypothesis that there is lack of awareness about body donation in society. Anatomy is a subject where visual three dimensional orientation is of immense importance. It is needed for future surgeon to master their skills, now a days cadaveric dissections and demonstrations are organised for orthopaedic surgeons for new skill demonstrations and learning. For all these cadavers are important. So, its need of hour to increase awareness about body donation [4].

**Does the general population know about body donation?** Our study once again affirmed findings of other studies across the globe [5-7], in general there is gross unawareness about existence of provision of body donation. We found that only 17 percent of our study population knew about body donation and only

6 percent of the study population was having idea about the significance of body donation. When it came to knowledge about importance of body donation in medicine and research only 7 percent of the participants knew that in medical education and research cadavers used. Its need of the hour to arrange body donation awareness campaign [8] and make general public aware of provision and process of body donation.

**Attitude towards body donation:** In general, attitude of the population towards body donation was negative. 10 percent of the study population actually believed in body donation. Various social, cultural and religious factors might be responsible for it. Religious traditions of cremation or burial and concept of "life after death" can be responsible for less inclination towards body donation as highlighted in this study. Similar results were found by other studies also. Golchet et al [6] and Bulware et al [5,9] in their separate studies highlighted that many factors like age, gender, religious traditions, concept of mortality, humanitarian concerns are responsible for decision of body donation.

Religious beliefs are proved to be a major factor responsible for less body donations in our country. Majority of our participants agreed that due to the religious reasons they don't want to donate body and believed that their last rights should be performed in order to get "Moksha" or "Haven" or "Jannat" this concept of life after death needs to be altered with the help of spiritual leaders and mass awareness campaign. What are the main myths and queries regarding body donation. Though Donation is agreed upon most of the religions but stand of most of the spiritual texts is not clear about body donation. Body donation is a taboo in our society many questions were there in the minds of the participants of the present study. When we asked them to ask it in response to our open ended question. Few questions which are worth discussion were.

**"Is it legal?":** Many of the participants were unaware of the existence of body donation act. Body donation and anatomy act legalises the process of body donation, across the world there are various Body Donation Acts [10] according

most of them are same in context with minor differences. In India every state process of body donation is governed by Body Donation Act of that state [11], usually unclaimed bodies of unknown person, prisoners died in the prison and willing donors having a valid will for donation of their body are given to the medical institutions and research centres on their demand and availability of cadavers.

Second interesting question was "What happens to the body after donation?" every donor have a right to know the outcome of their donation. So we are of the opinion that a visit to the anatomy department the all prospective donors should be arranged. Every anatomy department of every medical college should have a museum or a wing to encourage body donation. Picture charts and guided tour to the dissection hall can be arranged. This endeavour will increase the awareness and eliminate doubts of general population about the outcome of body donation. Question like if the relatives of the donor can see the body after donation? If they can perform the last rights once the body is dissected and other technical question and practical difficulties in doing so can be explained to the prospective donors and maximum counselling.

Anatomy of male and female is different and both need to be studied by the medical students. In general there is fewer donations by the females than males and female cadavers are less available. In this regard a question about if the female cadavers are given due respect in the dissection hall? Was a real challenging question to answer? This again needs awareness campaign in the medical students, teachers and handlers of the cadavers in the anatomy department. A female body should be given respect and handled with dignity even after death. As it is associated with lot many emotions and pride of the family. Increasing trend of social media and irresponsible use of smart phone in dissection hall by students was reflected in the questions asked by participants. One participant replied that she was inclined towards body donation but recently she happened to see a photo of medical student with a cadaver while dissecting private parts and posing with Skelton. She said she changed her



mind after seeing such photos on social media. This was alarming, as she was right on her opinion. This irresponsible use of smart phone and social media should be strongly discouraged. This is becoming an inhibiting factor for body donors.

**Do medical practitioners or anatomists themselves donate bodies?** This question led to an introspection. Its easy to preach and difficult to practice. So if an anatomist or a medical practitioner asks same question to themselves? In our study medical practitioners were not separately evaluated from general population. A future study or a continuation of same study we are planning to evaluate inclination of medical practitioners and medical students about body donation which might be able to throw light of the attitude of medical professional toward body donation. As most of them are beneficiaries of these donation and if they are ready to become donor themselves is a question need to be answered. "Charity begins from home" we can see if this proverb fits for medical professional or not a study conducted by Sheril US et al [12] reported that most of the medical professional and anatomist themselves are not willing for body donation.

## CONCLUSION

Body donation for medical education and research is a novel act and need to be appreciated. In general there is negative opinion about body donation in our study population. Many factors were responsible for this few of them were general unawareness of provision of body donation and concept that it is also novel act like organ donation and governed by legal process. We are of the opinion that there should be mass awareness campaign arranged by teaching hospitals and beneficiaries of body donation in society there are many willing donors but they are worried about some religious and humanitarian issues like treatment of the their remains in the dissection hall and dignity of their relatives in the hands of future doctors

and handlers of the body. Attitude of the medical students toward the cadavers should be monitored and moderated. Their irresponsible behaviour might lead to negative outcomes in future. So, it's advocated that medical students, teachers and handlers of the body in the dissection hall should give appropriate treatment and maintain the respect and dignity of remain of the donor's body.

**Conflicts of Interests: None**

## REFERENCES

- [1]. Patnaik V.V.G.: Editorial J Anat Soc India.2002; 50(2):143-144.
- [2]. Ajita R., Singh YI. Body donation and its relevance in anat-omy learning- a review. JASI 2007;56(1):44-7.
- [3]. D.K. Sharma.'Body Donation Awareness' - The only Solution for the Scarcity of Cadavers in Medical Education in India. Indian Journal of Anatomy 2014;3(3):149-55.
- [4]. Gillman J. Religious prospective on organ donation. Crit. Care Nur.1999;22(3):19-29.
- [5]. Bulware LE., Ratner LE., Cooper LA., LaVeist TA., Powe NR. Whole body donation for medical sciences: a population based study clin.Anat. 2004;17(7):570-7.
- [6]. Golchet G., Carr J., Harris MG. why can't we have enough cornea donors. Optometry.2000;71(5):318-28.
- [7]. Recharadson R., Humitz B. Donors attitude towards body donation for dissections. Lancet. 1995; 346(8970):277-9.
- [8]. Pundge SJ. Wadker P., Gangane S. Borate S. Body Donation and effect of awareness campaign in Mumbai. Int J Cur Res Rev.2014;6(20):70-73.
- [9]. Bulware LE., Ratner LE., Sora JA., Cooper LA., LaVeist TA. & Powe. Determinant of willingness to donate living related & cadaveric organ: identifying opportunities for intervention transplantation. 2002;73(10):1683-91.
- [10].Anatomy Act 1832. Available at [http://en.wikipedia.org/wiki/Anatomy\\_Act\\_1832](http://en.wikipedia.org/wiki/Anatomy_Act_1832). Accessed on 15 May 2011
- [11]. Bombay Act No. XI of 1949 (The Bombay Anatomy Act, 1949). Available at [http://bombay\\_high\\_court.nic.in/libweb/acts/1949.11.pdf](http://bombay_high_court.nic.in/libweb/acts/1949.11.pdf).
- [12]. Sheril US, Soka E., Sarikaya G. Attitude of Turkish anatomists towards cadaver donation. Clin.Anat.2004;17(8): 318-28.

### How to cite this article:

Dattatray Digambarrao Dombe, T. Anitha. BODY DONATION MYTHS AND PERCEPTION: A CROSS SECTIONAL QUESTIONNAIRE BASED STUDY. Int J Anat Res 2016;4(4):2887-2890. DOI: 10.16965/ijar.2016.347