

 <p>ISSN NO. 2320-5407</p>	<p>Journal Homepage: - www.journalijar.com</p> <h2 style="text-align: center;">INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)</h2> <p style="text-align: center;">Article DOI: 10.21474/IJAR01/3738 DOI URL: http://dx.doi.org/10.21474/IJAR01/3738</p>	 <p>INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR) ISSN 2320-5407 Journal homepage: http://www.journalijar.com Journal DOI: 10.21474/IJAR01</p>
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RESEARCH ARTICLE

“AWARENESS AND ATTITUDE OF MEDICAL FRATERNITY TOWARDS WHOLE BODY AND ORGAN DONATION”.

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Manuscript Info

Manuscript History

Received: 15 January 2017
Final Accepted: 13 February 2017
Published: March 2017

Key words:-

Awareness, Organ and Whole body donation, Medical Fraternity.

Abstract

This study is undertaken to evaluate the awareness and attitude of medical fraternity towards whole body and organ donation. A cross sectional study was conducted among undergraduates, graduates and post graduates. Total 500 participants answered the multiple choice questionnaire containing information about demographic features, awareness and attitude towards whole body and organ donation. Out of 500 participants, 44% were willing to donate organs, 47.8% were willing to donate body only for organ transplantation, while only 5.8% for dissection purpose. 16.2% and 36.4% were not willing to donate organs and body respectively. 55.4% were self motivated followed by media (27.7%). Mistrust or misconception was the major reason for unwillingness to donate followed by premature organ removal. Although there is high level of awareness about whole body and organ donation, most of the medical students did not filled the pledge form. It is suggested that there is a need for reviewing medical school curricula and focussing on organ and whole body donation so, that there will be an altruistic change in attitude of future medical professionals.

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Introduction:-

Best method to deliver anatomy training to medical students is by cadaveric dissection. Voluntary whole body donation and unclaimed bodies obtained by the police is the principal means by which universities acquire bodies for dissection. In India, the rate of increase in number of medical students is not correlating with the number of whole body donors. As a result, there is a diminished opportunity for an individual student to carry out dissection of the cadaver. In Japan, cadavers for dissection were totally supplied by body donation.⁽²⁾

The idea of donating bodies to medical science was decreased significantly from 31.5% to 19.6% among medical students after exposure to dissection.⁽¹¹⁾

Replacing the organ was the only treatment for patients with end stage organ disease. There are two kinds of donors: live and cadaveric (brain dead persons). Highest rate of cadaveric donation in world occurs in Spain being 32 per

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million population, in USA and UK, it is 22 and 14 per million population, where as in India, it is just 0.16 per million population ⁽¹³⁾. Only 23% knew about the concept of cadaver as brain death and 93% were able to distinguish between brain death and persistent vegetative state ⁽¹³⁾.

The medical personnel are the one who derive maximal benefit from dissection and they are also the one who will have maximum knowledge on organ and whole body donation. So, this study was undertaken to examine the awareness and attitude of medical students and doctors towards both whole body and organ donation.

Materials and Methods:-

A cross sectional study was conducted in GITAM Dental College and Hospital, Andhra Pradesh, among 500 medical students from Nov 2015 to Jan 2016 to evaluate the awareness and attitude towards whole body and organ donation. Medical students were categorized as Undergraduates, Graduates and Post graduates. Undergraduates were again categorized as third and fourth year students. For this, a multiple choice questionnaire had been given to the participants which includes information about donation.

Attitude and Awareness of Medical Fraternity towards Organ / Whole Body Donation

A.) Age (year):

B.) Sex:

C.) Religion:

- | | |
|----------------|-------------------|
| • Hinduism | • Islam |
| • Christianity | • Others(specify) |

D.) Educational Qualifications

- | | |
|--------------------------|------------|
| • Inter/Higher secondary | • Graduate |
| • Post graduate | • Other |

OPINION REGARDING ORGAN / BODY DONATION

E.) What is your idea about organ donation:

- | | |
|---|---|
| • Organ donation from living donor only | • Organ donation from living & cadaver both |
| • Organ donation from cadaver only | • No idea |

F.) What is your idea about Body Donation:

- | | |
|---|-----------|
| • For dissection purpose of medical students only | • Both |
| • For purpose of organ transplantation only | • No idea |

J.) Will your family agrees for body donation:

- Yes without any hesitation
- No absolutely not
- Yes but need persuasion
- No idea

G.) Are you willing to donate your organ after death:

- | | |
|--------------------------------|-------------|
| • Yes, with out any hesitation | • No idea |
| • Yes, but need persuasion | • For money |
| • No absolutely not | |

H.) Do you want to donate your body after death:

- | | |
|---------------------------------------|-------------|
| • Yes, only for organ transplantation | • Unwilling |
| • Yes, only for dissection purpose | • For money |
| • For both purpose | |

I.) Will your family agrees for organ donation:

- | | |
|------------------------------|----------------------|
| • Yes without any hesitation | • No, absolutely not |
| • Yes but need persuasion | • No idea |

J.) For those who are willing to donate Body or Organ only continue this; And those who are not willing to donate continue page no.4

FOR THOSE WHO ARE WILLING ONLY

K.) From where you are motivated for organ / body donation:

- By medical person / Doctor
 - By media (TV, Radio, News paper, Internet etc)
 - By family members
 - By voluntary organization
 - Self motivated
- L.) Have you already filled up donor card pledge form:
- Yes
 - No
- M.) Reason behind willingness to donate body / organ but not filled up pledge form till now:
- Not decided yet
 - Will do later
 - Want to know much more
 - No idea about procedure
 - Religious Barrier
 - Family not agreed
 - No benefit
- N.) What is your opinion regarding positive attitude of Body / Organ donation:
- To be live by other peoples life
 - To avoid unnecessary wastage of body by cremation
 - To save other needy people's live
 - To facilitated medical teaching process more
 - To avoid environmental pollution
 - All of above
 - Others
- O.) If willing which organ would you like to donate:
- Kidney
 - Heart
 - Liver
 - Brain
 - Whole body
- FOR THOSE WHO ARE NOT WILLING**
- P.) Reason behind willingness regarding body / organ donation:
- Organ could be wasted
 - Don't want to cut body in to pieces
 - Organ / Body could be misused / abused
 - Religious barrier
 - Prevented by family members
 - Psychological anxiety
 - No reason
 - No knowledge about this
 - Any other reason
 - No monetary benefit for family
- Q.) Do you have any Religious beliefs for not donating organ:
- Yes
 - No
- R.) Do you have any fear of premature organ removal:
- Yes
 - No
- S.) Do you have any mistrust / misconception about how the medical community treats registered organs:
- Yes
 - No
- T.) If you have monetary benefit, will you accept for donation of Body / Organ?
- Yes
 - No

[Table/Fig-1]: Questionnaire

Results:-

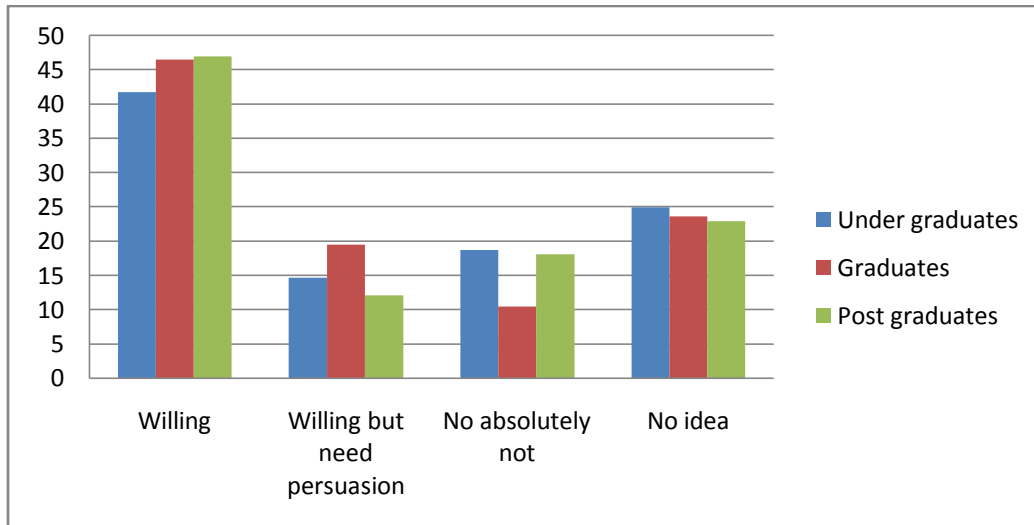
Questionnaires were answered by all 500 participants, out of which 273 were undergraduates, 144 were graduates and 83 were post graduates.

Majority of participants were willing to donate organ and 24% had no idea about organ donation. Responses from organ donation was close among undergraduates, graduates and post graduates with a little higher willingness among graduates and post graduates. Regarding cadaveric donation, maximum (48%) of participants were willing to donate only for organ transplantation while for dissection purpose was very poor (6%).

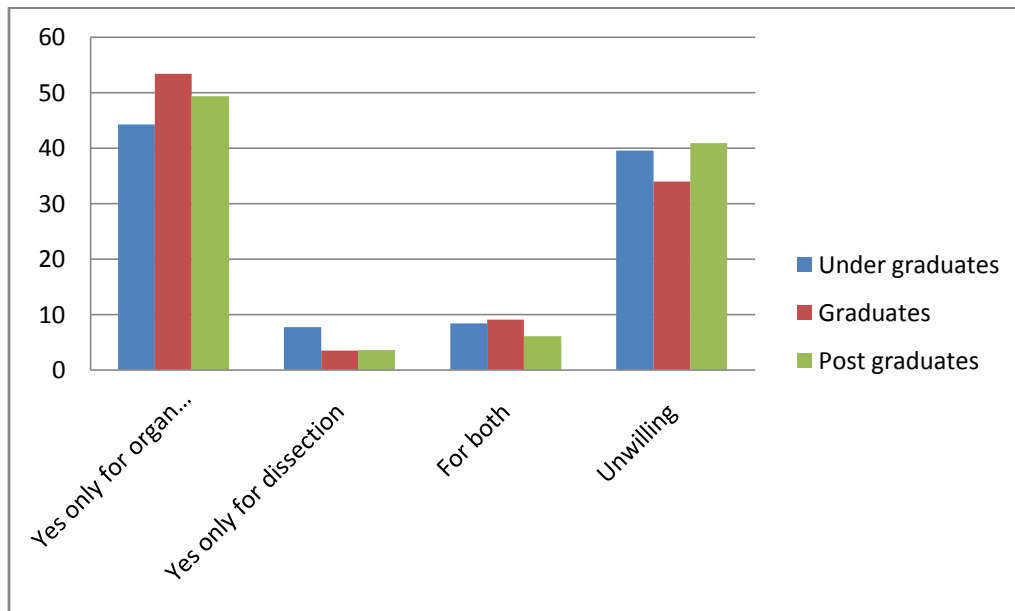
Majority of participants were self motivated followed by media. Very less percentage of participants were motivated by medical person / doctor. Even though, majority of participants were willing to donate, only one had filled donor card. 33% of participants had no idea about donation. Mistrust or misconception was the main reason behind unwillingness to donate organs. Reasons behind unwillingness to donate organs is shown in Table/Fig 7.

Groups		Male	Female	Both	Percent
Undergraduates	Third year	31	113	144	28.8
	Fourth year	32	97	129	25.6
	Total	63	210	273	56.4
Graduates		24	120	144	28.8
Post graduates		31	52	83	16.6

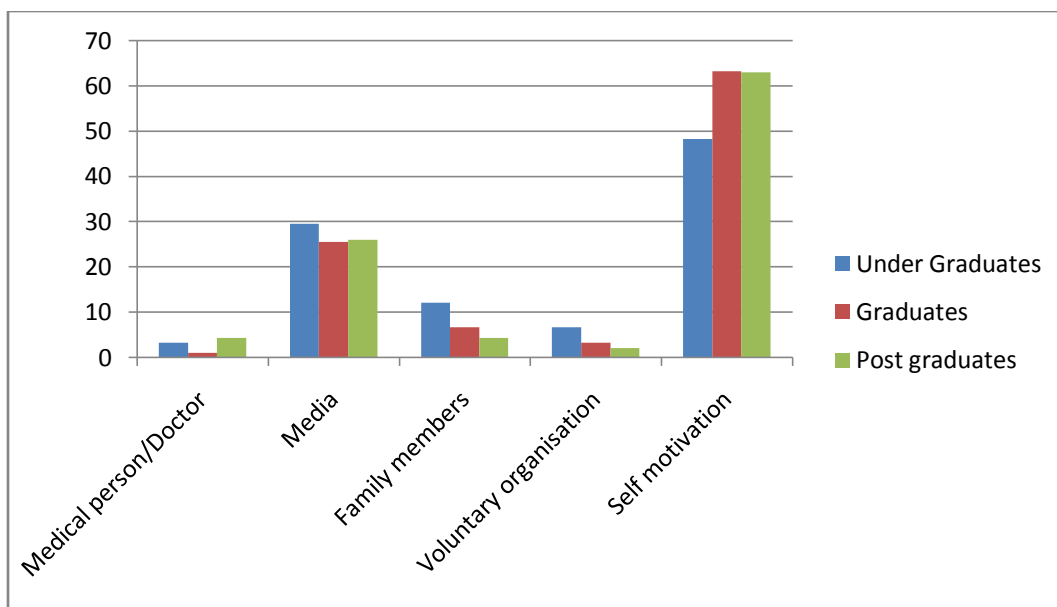
Table/Fig-2: Distribution of demographic parameters



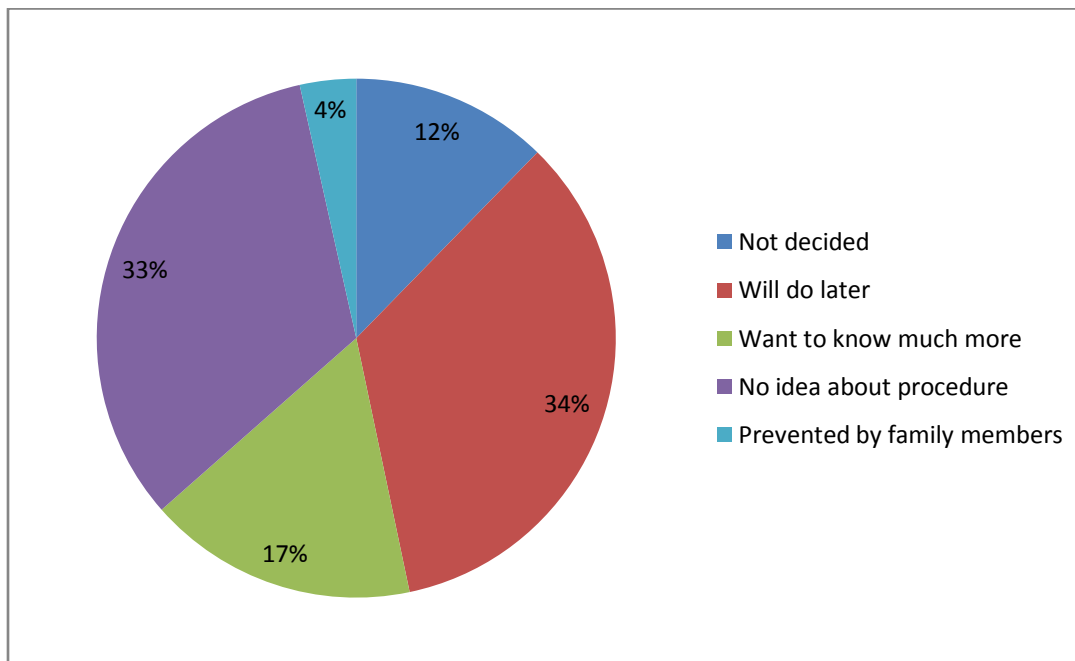
Table/Fig-3: Attitude towards organ donation



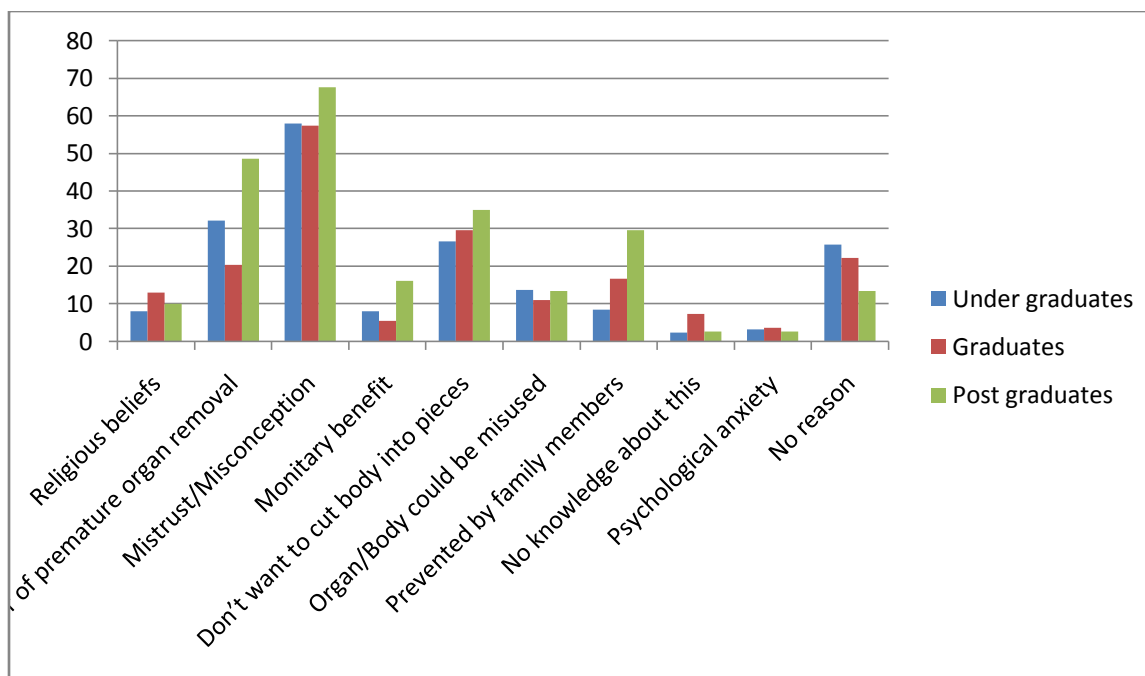
Table/Fig-4: Attitude towards body donation.



Table/Fig-5: Motivating factors for donation



Table/Fig-6: Reasons for not filled up donor card



Table/Fig-7: Causes of unwillingness to donate organs

Discussion:-

Body donation to science was first occurred in 1832, when British utilitarian philosopher, Jurist and social reformer Jeremy Bentham's body donated their body according to their will ⁽¹⁰⁾.

In India, it was first experienced in year 1956, when the body of pandurang Sridhar Apte was donated to BJ Medical college, Pune ⁽¹⁰⁾. Even though, body donation was started in 1956 there was no significant improvement in percentage of body donation. The rate of increase in medical students was not correlating with the body donors for cadaveric dissection and research purposes. And the demand for organs was also increasing as the patients with end stage organ diseases were increasing. As physicians will have maximum knowledge on organ donation process, they can play a key role in solving this problem of shortage of organs and body by eliminating the barriers for organ and body donation by creating awareness, educating and motivating others but they may fail because of lack of knowledge about donation⁽⁹⁾. So, this study is undertaken, to know the awareness and attitude among 500 medical personnel which includes undergraduates, graduates and post graduates.

In this study, we found that 44% of respondents were willing to donate organs, 47.8% were willing to donate body only for organ transplantation while for dissection purpose was very poor and females were more willing to donate than males. Very negligible members were willing to donate for money where as in Turkey, 58.4% were willing to donate their organs and the acceptance of live organ donation was higher than cadaveric donation ⁽³⁾.

Majority of students were self motivated followed by media and only 8 members were motivated by medical person / doctor and 59.3% of students said that they want to save other needy people's live. In other studies they found that print / electronic media as their major and primary source of knowledge ^(2,3,4,8).

Although, more than half of our students were willing to donate, only one student has filled up donor card and only 8 of them asked for donor cards which were similar to a study done in turkey, where only 1.2% had a organ donor card ⁽³⁾. It states that the participants who are willing to donate are not whole heartedly willing to donate and some participants did not know about the procedure. So, proper guidance and counselling of and also incorporating organ donation topics in medical curriculum thereby creating awareness about it is very much essential.

Reasons behind unwillingness to donate organ or body was not wanting cut their body into pieces because of their previous experience with dissection hall followed by mistrust or misconception, fear of premature organ removal, religious barriers and monetary benefit Very less percentage of people were prevented by their family members.

Idea of donating bodies to medical science among medical students decreases significantly from 31.5% to 19.6% but not levels reported in general population⁽¹⁰⁾.

In a study done among medical and dental members, showed that 80% believed in mistrust and are not ready to donate their bodies⁽⁶⁾ which was similar to a study done in Malaysia⁽⁷⁾.

So, in India, Anatomy act was implemented in 1949, a state act published in state government gazette, which regulates the use of unclaimed bodies for medical research and education. It states that any death occurring in the state hospital or in a public place within the prescribed zone of medical institution and there are no claimants for body provided the police declared a lapse of 48 hours, they can be used for medical education⁽¹⁰⁾.

In Pakistan, Transplantation of human tissues and organ bill was passed by Pakistan parliament in 2007 and it includes restriction of organ donation only to a closed blood relative. It also created the "Human organs transplantation authority" which established transplant registry and recognized centers for transplantation⁽²⁾⁽⁶⁾.

A similar act was established in 2004 in Libya known as Libyan organ transplantation program to initiate deceased organ transplantation activity and helps in obtaining legal approval for organ donation and also organizes educational campaigns and meetings with the religious leaders to overcome the religious beliefs⁽¹²⁾.

Awareness of brain death and its importance for organ transplantation was extremely low in India especially among villagers⁽¹⁴⁾. Brain stem death was now legal in India under the passage of legislation by the Indian parliament act 1994 and it applies only when organ transplantation was intended⁽¹⁴⁾.

Most important reason for nobody donation in Indians is lack of awareness followed by religious beliefs⁽¹⁰⁾. In Libya, lack of adequate knowledge and religious implications were the major reasons for refusal⁽⁵⁾.

So, shortage of organs was not only due to mistrust or misconception but also because of lack of awareness, thought of being dissected and religious implication.

Conclusion:-

It is emphasized that there is a need for reviewing medical school curricula and focusing on organ and whole body donation so, that there will be an altruistic change in attitude of future medical professionals towards organ and whole body donation.

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