
AWARENESS ON ORGAN TRANSPLANTATION AMONG HEALTH CARE PROFESSIONALS AND MEDICAL STUDENTS

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Abstract

This cross sectional study was conducted in different medical college hospitals of Dhaka city during the months of Jan-March 2009. The objective of this study was to find out the awareness level on organ transplantation amongst the teachers, doctors and nurses working in these medical college hospitals and 1st to 5th year students. A structured questionnaire was given to the respondents. The total number of respondents was 462 of which 103 (22.3%) were doctors, 268 (58%) were medical students and 91 (19.7%) were nurses. Among the study group 31.4% knew that there was an organ transplantation law in Bangladesh and 16.5% said that there was no such law whereas 52.2% had no idea whatsoever about the law. Of the respondents 33.8% were willing to donate their organs after death, 41.6% did not want to donate and 24.2% were not sure. This study revealed that there was a lack of understanding regarding the religious views on organ transplantation. Only 37.1% of respondents thought that there was no religious objection to organ transplantation whereas 27.1% felt that there was religious objection while 35.7% were not sure.

The study shows that there is significant lack of awareness regarding organ transplantation issues among the health care professionals and medical students in Bangladesh. The dictates of religion on this matter were also not clear to most of the respondents.

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Introduction

An organ transplant is a surgical operation where a failing or damaged organ in the human body is removed and replaced by a new one. The organs and tissues to be transplanted may come from three sources: a) homologous transplantation- here tissue is moved between sites on the same body b) live donation- in this process tissue is taken from a living donor whose tissues have been matched to or are compatible with those of the recipient and the largest source c) cadaver or deceased donation- when the organs are taken from a recently deceased person.¹

The results are the best if the organs are obtained while circulation is still present or immediately after cessation of the circulation giving rise to the importance of the concept of brain death. If an individual can be certified to be brain dead, his or her organs may be removed for transplantation purposes provided there are legal sanctions to the process of organ transplantation in the country in question. Most developed countries have sophisticated laws to regulate organ donation and transplantation. The world has come a long way since the times of third century saints

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Damian and Cosmos trying to replace the gangrenous leg of the Roman deacon Justinian with the leg of a recently deceased Ethiopian.²

An Organ Transplantation Law also exists in Bangladesh. The law is embodied in an act known as the “Human Organ Transplantation Act 1999”. This act defines ‘Organ’ as kidney, heart, liver, pancreas, bone, bone marrow, eyes, skin or any other human organ or tissue. The act also defines the legal heirs or successors of the body of a deceased person and is according to priority as follows: husband, wife, adult son and daughter, adult brother or sister, or any other adult blood related persons. Section 5 of the act defines the meaning of brain death and is in conformity with the clinical criteria of diagnosing brain death. The act also specifies the composition of the brain death declaration team.³

However, in spite of this law, organ transplantation is yet to gain grounds in Bangladesh. Though there are many reasons behind such a situation it is felt that lack of awareness and religious misconceptions are primary. This study attempts to find out the awareness level and attitude regarding organ transplantation among health care professionals and medical students in large teaching hospitals in the capital of the country who can play a pioneering role in popularizing the procedure.

Materials and Methods

This descriptive cross-section designed study was conducted at Ibrahim Medical College and BIRDEM Hospital, Holy Family Red Crescent Medical College and Hospital and Holy Family Red Crescent Nursing Institute in Dhaka city during the month of Jan, 2009 to March 2009. In total 462 respondents were selected purposively, of them 71 were graduate doctors, 32 post-graduate doctors, 41 diploma nurses, 50 BSC nursing students and 268 medical students. They were interviewed by a pre-tested structured questionnaire. Data were analyzed with the help of a computer.

Results

Of the respondents, 137 (29.6%) were males and 325 (70.4%) were females. The mean age of the doctors was 34.2 years, while for the nurses, it was 31.5 years and 20.5 for the medical students. Three fourths (76.4%) were Muslims, followed by Hindus (16.9%), Christians (5.4%) and Buddhists (1.3%).

Table-1: Distribution of respondents according to their awareness about organ transplantation law in Bangladesh.

Respondents	Yes	No	Not Known	Total
MBBS Doctor	25 (35.2)	12 (16.9)	34 (47.9)	71 (100)
Post graduate doctor	17 (53.1)	8 (25)	7 (21.9)	32 (100)
Diploma Nurse	11 (26.8)	7 (17.1)	23 (56.1)	41 (100)
BSC nursing student	14 (28)	13 (26)	23 (46)	50 (100)
Medical students	78 (29.1)	36 (13.4)	154 (57.5)	264 (100)
Total	145 (31.4)	76 (16.5)	241 (52.2)	462 (100)

More than half (53.2%) of the post graduate doctors, 35.1% of the MBBS doctors, 26.8% of the diploma nurses, 28% of the BSC nursing students and 29.1% of the medical students and on average 31.4% of the total respondents knew that there was an organ transplantation law in Bangladesh while 16.5% said that there was no such law, whereas 52.2% have no idea about organ transplantation law (Table 1).

Although 70.8% of the respondents were in favour of the need of an organ transplantation law in our country, 7.4% were not in favour of such a law. A fifth (21.9%) had no idea about such a law to enable them to comment (Table 2).

Table-2: Distribution of the respondents on need of organ transplantation law in Bangladesh

Respondents	Yes	No	Not sure
MBBS Doctor (n = 71)	54 (76.1)	5 (7.0)	12 (16.9)
Post graduate doctor (n = 32)	28 (87.5)	1 (3.1)	3 (9.4)
Diploma Nurse (n=41)	24 (58.5)	7 (17.1)	10 (24.4)
BSC nursing student (n = 50)	31 (62)	12 (24)	7 (14)
Medical students (n = 268)	190 (70.9)	9 (3.4)	69 (25.8)
Total (n = 462)	327 (70.8)	34 (7.4)	101 (21.9)

Table-3: *Distribution of the respondents willing to donate their organs after death*

Respondents	Yes (%)	No (%)	Not sure (%)
MBBS Doctors (n = 71)	36 (50.7)	19 (26.8)	16 (22.5)
Post graduate doctors (n = 32)	13 (40.6)	12 (37.5)	7 (21.9)
Diploma Nurses (n = 41)	11 (26.8)	27 (65.9)	3 (7.3)
BSC nursing students (n = 50)	15 (30.0)	27 (54.0)	8 (16.0)
Medical students (n = 268)	81 (30.2)	109 (40.7)	78 (29.1)
Total (n = 462)	156 (33.8)	194 (42.0)	112 (24.2)

Almost one half (50.7%) of the MBBS doctors were willing to donate their organ(s) after death whereas 40.6% of the post graduate doctor, 26.8% of the diploma nurse, 30% of the BSC nursing student and 30.2% of the medical students were willing to make such a donation. In total, 33.8% of the respondents were in favour of organ donation, 41.9% did not want to donate and 24.2% were not sure about donation of their organs after death (Table 3).

Opinion was sought from the respondents on which organ or organs they were willing to donate after their death. The most common organ cited was the eye. 140 (30.3%) were willing to donate their eyes, 42 (9.1%) their kidneys and 23 (4.9%) their heart (Table 4).

A question was asked if religion was any bar when the question of donation of organs came up. As seen from Table 5, of the 462 respondents 125 (27.1%) thought that there is religious objection regarding organ

Table-4: *Distribution of organs likely to be donated by the respondents*

Name of organ	Frequency
Eye	140 (30.3)
Kidney	42 (9.1)
Heart	23 (4.9)
Lungs	1 (0.2)
Liver	6 (1.3)
All	57 (12.3)

Table-5: *Distribution of the respondents on religion as a bar to organ donations*

Respondents	Yes (%)	No (%)	Not sure (%)	Total (%)
MBBS Doctors	15 (21.1)	18 (25.4)	38 (53.5)	71 (100)
Post graduate doctors	11 (34.4)	5 (15.6)	16 (50.0)	32 (100)
Diploma Nurses	15 (36.6)	20 (48.8)	6 (14.6)	41 (100)
BSC nursing students	13 (26.0)	29 (58.0)	8 (16.0)	50 (100)
Medical students	71 (26.5)	100 (37.3)	97 (36.2)	268 (100)
Total	125 (27.1)	172 (37.2)	165 (35.7)	462 (100)

transplantation, 172 (37.1%) said that there was no such thing and 165 (35.7%) of the respondents were not sure on the matter (Table 5).

Most of the respondents (87.01%) believed that patients do benefit from organ transplants and a third to three fourths also said that there are contraindications to organ transplants. Most of them mentioned HIV/AIDS, Hepatitis B, mismatched blood groupings and blood related relatives as the contraindications. Majority of the respondents (86.8%) were of the opinion that awareness campaigns should be intensified to gain grounds in organ donations and transplantations.

Discussion

Organ transplantation is yet to gain momentum in Bangladesh. Although there are many reasons for such a situation, this study reveals that lack of awareness even amongst the health providers is a major cause. A belief that there may be a religious objection to organ transplants is quite evident from this study. In this regard it may be said that although there are some divisions of opinion, many of the Arab and also some contemporary Indo-Pak Muslim scholars are of the opinion that under certain conditions, organ transplantation is permissible in Islam. The Council of Scholars from all the major Muslim Schools of Law in Great Britain together with three distinguished lawyers has considered the issue of organ transplantation and put forward resolutions which go very much in favour of organ transplants.⁴

It may be mentioned that in the absence of clear directives and guidelines, a booming trade in human organs is going on in many countries of the world. This situation has become particularly prominent in developing countries. Various South East Asia Region (SEAR) countries are now faced with problems relating to illegal organ trading in the guise of medical tourism and are in the process of sorting out these matters by strict implementation of legal codes.⁵ On the other hand countries like Spain, Belgium, France and Portugal have achieved remarkable progress in the field of organ transplantation.⁶

Kidney transplants are taking place in several government and private Institutes and Hospitals in Bangladesh. However, this remains mostly unknown due to lack of awareness and publicity to the common people and most renal failure patients are doomed to a life of misery and hardship with the only means of survival being dialysis which again is very costly. The best option and cost effective treatment for End Stage Renal Failure (ESRF) patients is renal transplantation.⁷ Transplants for other organs are rarely done except probably the cornea which is quite well established, thanks to the active campaigns of voluntary organizations.

Conclusion

This study highlights the need for an all out effort from all quarters to bring about awareness regarding organ transplantation in Bangladesh. It is particularly important to motivate the medical professionals in this regard. State intervention is sought in this regard and it is strongly suggested that a national committee on organ transplantation be set up on an urgent basis. It is suggested that advice and guidance may be sought from international organizations such as the World Health

Organization which is strongly advocating the scientific advancement of organ transplantation and is urging member countries to formulate or improve existing legal frameworks to accommodate rapidly changing technologies.⁸ As there also appears to be some confusion regarding the religious acceptability of organ transplantation it is suggested that certain guidelines in this regard may be obtained from the relevant competent authority such as the Ministry of Religious Affairs and Islamic Foundation. Open discussion should be held by religious scholars in this regard in order to motivate the general population towards the benefits of organ transplantation.

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