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Attitudes Toward Human Organ Transplantations
A Field Study of 119 People in the Greater Detroit Area

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This study is an attempt to provide information on attitudes toward human organ transplantation for the theologian as well as for the physician. It is based on interviews with a heterogeneous sample of respondents using 17 standard questions.

On Saturday, December 3, 1967, Dr. Christian Barnard successfully transplanted the heart of Denise Ann Darvall into the chest of Louis Washkansky. Many acclaim this first in medical history as another “giant step for mankind.” Others express fear that man may have ventured into a forbidden realm, or might better have vested his resources in other areas of human need.

To settle the issue, some have weighed the question of human organ transplantation against their knowledge of God’s will. Some see God at work, reasoning that God would not permit new life-giving techniques to evolve in man’s mind if it were not in the Divine order of evolution. Still others maintain that God did not give license to bring to reality all that man can conceive.

Catherine Lyons¹ sees a need for medical science, as well as other disciplines, to examine carefully the question of “whether man should always do all he is technically and scientifically capable of doing.”

Helmut Thielicke² speaks to the essence of man in human organ transplantation. He confronts us with the question: “What in man can or should be exchanged?” In other words, what can be exchanged and still remain that human being?

Dr. J. R. Elkinton³ acknowledges a need for a more definitive ethical standard in medical science. This he feels must come from society, for he sees the physician as one who must “operate within the ethical consensus of the society as a whole.” However, since society has not reached a consensus, Dr. Elkinton says the physician has no choice but to use “his own conscience and his professional tradition as a guide.”

To discover what may be society’s
attitude toward human organ transplantation, the following survey was undertaken. It is an attempt to provide information for the theologian as well as the physician.

The Questionnaire

An interview consisting of 17 standard questions was used to gather the data. In structuring the interviews, the anonymity of the respondent was assured. All were asked to express their personal viewpoint whether it agreed or disagreed with their pastor, priest, or rabbi's religious viewpoint.

In formulating the questions as to whether people would donate an organ, it seemed important to ask how they felt about life, so the following questions were asked first:

1. No one knows how long he will live, but for the purpose of this survey, how long do you hope to live? _______ (years)

2. Do you find life worth living? Yes ___ No ___ If your answer is No, please explain why you feel as you do.

How informed are people on the success or failure of transplants? Would people be willing to make an organ donation if their chances of survival were minimal? The third question was centered on this question:

3. From what you have heard and read, what percentage of those who receive kidney transplants survive longer than two years? Please circle your answer. (90% 70% 50% 30% 10%)

If the need arose, would they be willing to donate one of their two kidneys? This was the basic question of the survey:

4. To preserve life, would you donate one of your two kidneys to an immediate member of your family? Yes ___ No ___ What is the reason for your answer?

When a life weighs in the balance, do family conflicts become determining factors? How broad is man's love? How deep are his hatreds? The question that might uncover some of these feelings was expressed in these words:

5. Without mentioning names, might there be a member of your immediate family for whom you would not be willing to make such a donation? Yes ___ No ___ What is the reason for your answer?

How does the average person define "family"? Does he have concern for the family of mankind? The question was phrased:

6. If it is medically possible, would you donate an organ to a stranger? Yes ___ No ___ What is the reason for your answer?

For the average man, is there an age when man loses his value or worth? Would this be approximately at the age when a transplant is considered medically impractical? The search for this information was handled with the following questions:

7. Should an age limit for transplant recipients be established? Yes ___ No ___ What is the reason for your answer?

8. What should be the age beyond which one should not receive a transplant? What is the reason for your answer?

Ingrained prejudices were the reason behind the next question:
9. Check the person for whom you would not donate an organ.

Atheist  White  Black
Jewish  Others

What is the reason for your answer?

Are people willing to donate an organ if it may mean the sacrifice of their own life? To elicit a response, the following question was used:

10. Would you donate a kidney if there was a 90-10 chance that your other kidney might fail? Yes  No  What is the reason for your answer?

In contrast, to make a decision concerning a newly deceased relative, the people interviewed were asked:

11. If you had to make the decision, would you donate the organ of a relative who had just died or is about to die? Yes  No  What is the reason for your answer?

How informed are people in the field of genetics and, again, do their prejudices show, motivated the next question:

12. If you were in need of a transplant, and there was a choice from whom you could receive an organ, indicate your preference by grading the six categories 1-2-3-4-5-6. (You may choose to grade them all the same.)

Genius  Christian
Black  White  Others
Jewish  Atheist

What is the reason for your preference?

Medical science today defines death as when all brain activity has ended and is irreversible. Using such a definition, questions pertaining to the donor as a criterion for possible transplants would seem to be eliminated. Such, however, is not the case as evidenced by recent lawsuits.4,5

How does the average man feel about medical science's definition of death? How effective has medical science been in informing the public of its safeguards to protect the life of the donor? These thoughts were the basis for the next question:

13. Medical science today defines death as when all brain activity has ended and is irreversible. If the person is a good prospect as a donor for an organ transplant, machines can sustain his heartbeat and maintain circulation after his brain is dead. Do you have any problem accepting this definition of death? Yes  No  If your answer is Yes, please give your reason.

To anyone filling out the questionnaire, the questions listed thus far might appear merely academic. Should they be put to the test and asked for a donation, would their response be consistent? Although the next question does not ask for a commitment, it might be viewed as the next thing to it.

14. Would you sign a donor card? Yes  No  If your answer is yes, please specify what limitations, if any, you would make by checking the spaces on the form that follows. (An example of a Uniform Donor Card as developed by the National Kidney Foundation was shown to the respondent.)

When discussing transplants, are people's answers consistent with their religious faith? To what extent does faith in God play a part in decisions? The next question was intentionally placed near the end of the question-
naire to see if there might be some correlation:

15. As you understand the will of God, do you believe that transplants are in accord with His will? Yes _____ No _____ Not sure _____.

What extreme measures will man use to prolong life and postpone death? The following question was included to shed some light on this concern:

16. If medical science continues its research, we may see the day when men will live with a number of mechanical parts. In your opinion, do you believe this would be for the good of mankind? Yes _____ No _____ Not sure _____

If your answer is No, how do you suggest we stop the program of spare parts?

Finally, it was felt that there might be some correlation between the answers people give and their religious or non-religious identification. The questionnaire was concluded with this question:

17. Please specify your religious affiliation or non-religious identification. Agnostic _____ Atheist _____ Catholic _____ Baptist _____ Episcopalian _____ Christian Scientist _____ Lutheran _____ Methodist _____ Unitarian _____ Other _____

The data was collected from March to June 1971 from 104 people from the Greater Detroit area and 15 students from Michigan State University. The test group differed in sex (25 men and 94 women), race (25 black and 94 white) and occupation: 23 were in medicine and 94 were not in medical fields. Age ranged from 18 to 75 with a mean of 46 and a median of 45. One hundred of the total had at least nominal membership in a church or synagogue.

Whether or not the person being interviewed knew his interviewer seemed to have no bearing on the data collected at this time. It might be considered in future tests, however.

Findings

From question 1, the data revealed that 95% of the total group hoped to live above the age 70 and 77% hoped to live above age 75. Twenty-six did not answer the second question but of those who did only three did not find life worth living.

As well informed people are about the success or failure of transplants can be seen as we compare their estimate with data from the Kidney Registry Headquarters in Boston, as well as from other medical sources.

The report on our survey shows a wide range of opinion on how long people survive a kidney transplant. The question, as stated in the questionnaire, did not specify whether they were to estimate the survival rate from living donors or cadavers. However, because of its order in the questionnaire, it is possible that the majority of respondents thought in terms of transplants from living donors.

Eleven of 17 nonmedical men (57%) and 53 of 68 nonmedical women (78%) said the survival rate for kidney transplants was less than 30%, yet 14 of the 17 men and 60 of the 68 women said they would donate one of their kidneys to a member of their family.

Of the medical people, none of the men believed the survival rate for kidney transplants was under 30%, while 68% of the women felt that the survival rate was under this figure. All
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For comparison, The American Journal of Medicine recorded the following information:

As of January 1, 1968, data from a total of 1,700 transplants had been compiled. This information has shown that among monozygotic twins who receive kidney transplants from each other, 90% survive for one year; this rate is not significantly reduced at two years. However, after six, seven or eight years, this rate decreases as the transplanted kidney often ceases to function because of recurrence of the original disease; by ten years, the survival rate is only 50%.

Patients who receive kidney transplants from dizygotic twins have a 79% one-year survival (which is slightly better than transplants in non-twin siblings in whom the one-year survival is 68%).

Recipients of transplants from parents and other relatives have about a 60% one-year survival.

The worst survival rate is among the recipients of transplants from unrelated living donors since only 23% of these recipients survive for one year. The survival of those given cadaver kidney transplants is almost twice that, 38%. The reason for this is unknown.

When the results of renal transplantation during the periods before and after January, 1966 are compared, the one-year survival rate among related recipients who received transplants after 1966 is 75% as compared with 60% in those who received transplants prior to 1966. Two-year survival rate among those who received transplants is even less. However, if the results before and after 1966 are compared, the results are improving; one-year survival increased from 27 to 45%.

Data from selected reports may show much better survival rates for kidney transplants than the results reported by the Kidney Transplant Registry. In a report from Australia this year, the survival rate for patients receiving cadaver kidney transplants was 65% which compares favorably with the rate for patients receiving transplants from living related donors reported by the Kidney Transplant Registry. One group in Denver has reported a 95% one-year survival for their past 20 patients receiving transplants from living related donors.

The surgical team of Henry Ford Hospital performed its first kidney transplantation on January 4, 1968. As of August, 1971, the hospital reported 19 renal transplants. Five were from living donors and 14 from cadavers. Four of the recipients of living donors (80%) have survived the two-year period. The survival rate of those receiving transplants from cadavers has been 35%.

When the life of one's immediate family weighs in the balance, family conflicts seem to have no bearing on willingness to donate a kidney. Love or guilt or the desire for acceptance seem to run deeper than man's hatreds.

Nine of 17 nonmedical men (53%) and 7 of 77 nonmedical women (9%) answered that they would exclude some member of their family. The reason for excluding certain members of their family was predominantly age versus the risk of the operation.

For family members, the medical personnel exclude no one.

On the question about donating a kidney to a stranger, 9 of the 17 nonmedical men (53%) said, “No”. No feeling of obligation to a stranger and fear of shortening one's own life were the major reasons. The eight who said “Yes” made it clear they would do so only if there was no risk to their life.

Thirty-six of the 75 nonmedical women (47%) said they would not donate one of their kidneys to a stranger. They gave the same reasons as the nonmedical men. However, the majority of those who said “yes” seemed to be willing to make such a donation without reservations.

Under certain circumstances and stipulations, 14 of the 17 medical women (82%) said they would donate
an organ to a stranger. The medical men had greater reservation. It was their consensus that under current circumstances there is doubtful long term survival. The thought was expressed that, with the possibility of the patient obtaining the organ from his own family or from a terminal patient, it seemed inadvisable to risk one's own health.

In answering questions 7 and 8, 50% of the nonmedical men who advocated an age limit expressed the opinion that the risk beyond the age of 50 was too great for the recipient. One man expressed the opinion that if there were any exception in giving organs to older people, it perhaps should only be to people like Einstein. The other 50%, who said there should be no established age limit for recipients, said the decision should be left to the doctor.

Thirty-nine of 68 (57%) of the nonmedical women stated there should be an age limit for the recipient, and that mortality was too great beyond age 57. The 39 women who said "no" to age limit for recipients offered no suggested ceiling on age.

In the medical community, 12 of the 17 women (70%) said that age should not be a determining factor. Those who did reasoned, as did the medical men, that there should be a physiological age limit, judged by a knowledgeable medical group in each case, not a fixed chronological age.

Responding to Question 9, regarding prejudices, 15 of the 16 nonmedical men (94%) said they would exclude no one. Only one, a Caucasian, stated that color might be a factor.

Sixty-seven of the 77 nonmedical women (87%) stated they would exclude no one, the rest rejected either an atheist, a black person, a Jew or a person known to drink.

Only two of the women and none of the men of the medical personnel would let the color or origin of the recipient be a factor as to whether they would donate an organ.

Would people be willing to donate one of their kidneys if there was a 90-10 chance that their other kidney might fail? Ten of the 14 nonmedical men (71%) answering said they would not donate with such odds. Four of the number would do so for a close member of their family.

Fifty-four of the 78 nonmedical women (56%), answering this same question, said they would not donate under such a risk factor. Of the 24 who said they would, 10 would give only to a close member of their family.

On the 90-10 odds factor, none of the medical men and only 3 of the medical women would donate an organ.

On Question 11, 13 of the 14 nonmedical men (95%) who answered said they would assume the responsibility and donate the organ of a deceased relative. Two of these would not donate an organ from their own body.

Thirty-eight of the 62 nonmedical women questioned (61%) would donate the organ of a deceased relative. Of the 15 women who said they would not, 13 would donate one of their own two kidneys.

The medical men would donate the organ of a deceased relative. Thirteen of 17 medical women (77%) would.

Given a choice of donors for their own need, 16 of the 17 laymen (95%) had no preference in answering Question 12. The one exception stated: "I would not accept a donor who was less than 50 years old."
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and religious distinctions are meaningless, but racial differences may affect my body's acceptance of the organ tissue."

Fifty of the 72 women (69%) who answered the question had no preference. Of the 22 who had a preference, their choice ranged from Christian—the most acceptable—to white, genius, Jewish, black and atheist—the least acceptable to them.

Matching was the only concern in selecting an organ as a recipient for the medical men. The medical women were equally concerned on this point, but three preferred the organ of a Christian over that of an atheist.

How does the average person feel about medical science's definition of death? Fifteen of the 17 nonmedical men (88%) had no difficulty accepting science's definition of death for the possible donor. The other two had difficulty verbalizing a reason.

Twenty-one of 69 nonmedical women (30%) had some problem of accepting the definition. Also, 22 avoided answering the question, so 49% had some difficulty with the definition.

One of the six medical men said the mean should stop of its own accord before his vital organ should be used, one of the women voiced a similar view.

The investigator believed that asking people would sign a donor card, 26 women (35%) said they would not and 32 women (43%) omitted the question. Fourteen of the 26 who would not sign the card gave an affirmative answer when asked if they would be willing to donate one of their two kidneys, while 26 of those who did not answer the question previously stated they would donate one of their two kidneys.

The men from the medical group would sign the donor card but three of the medical women would not.

These results and the number of subjects who did not answer the donor card questions cause one to question whether those who say they will make an organ donation would do so when put to the test.

The investigator was concerned as to whether people's attitudes on transplants were consistent with their religious faith. It was for this reason the questionnaire included the question regarding transplants being or not being in accord with God's will.

Seven out of 17 nonmedical men (41%) thought they would be acting in accord with the will of God.

Nineteen of 71 nonmedical women (26%) thought transplantations agreed with the will of God while 30 of the 71 (42%) were not sure transplants had God's endorsement.

Of the six medical men, two were not sure transplantation was according to God's will. Six of the 17 women had a large question mark for this question.

Extreme measures to prolong life and postpone death (question 16) were favored by 9 of 17 nonmedical men (52%).

Only 17 of the 69 nonmedical
women (24%) answered "yes" to that question. Thirty-three of 69 (49%) were not sure whether this would be good for mankind.

Fifty per cent of the medical men and 60% of the medical women were not sure that a day when men would live with a number of mechanical parts would be a day to envision.

In question 17, people were asked to identify their religious beliefs. No correlation could be found between the answers given and their religious or non-religious identification although 93% of those interviewed claimed a Christian church affiliation and 7% found no identity with any Christian denominations or were listed as agnostics or atheists.

Summary and Conclusion

According to the norms of our society, the people interviewed appeared to be healthy, well-adjusted individuals. Ninety-one per cent of the nonmedical people gave cautious support of the transplant program. This can be interpreted, in the face of their answers to Questions 1 and 2, as a willingness to perform a humanitarian act.

When the life of an immediate member of one's family weighs in the balance, family conflicts seem to have little importance in deciding whether one would donate a kidney. Love or guilt or the desire for acceptance seem to run much deeper than man's little hurts and hatreds, the conclusions indicate.

Fifty-nine per cent expressed considerable reservation when asked whether they would make the same donation to a stranger. The 41% who would felt a strong moral obligation. The mean age for the recipient according to the group, should not exceed 53. This average was established as the people weighed the risk of the recipient and donor.

The question as to when life loses value was not answered through the survey.

For 90% of the group, the color, creed, or ethnic origin of the recipient would not be a determining factor. However, in receiving an organ, the group wanted to be more selective. Thirty-four per cent expressed a preference as recipients, compared to 9% as donors. The women seemed especially to favor the organ of a Christian over that of an atheist.

The survival estimates given to recipients with kidney transplants were of wide range. Forty per cent of the men and 70% of the women estimated that 31% of the recipients would live longer than two years. It seems worth noting that the majority of the same people were still willing to donate a kidney. Does this show the god-like quality that many seem to ascribe to medical science? Perhaps it indicates a belief that the other kidney is like a spare tire and, with science as a back up for protection, they have no need for concern. Another possible suggestion is that there is a lack of thought or knowledge as to what is involved in transplantations. One final view, and this relates to the "test" question of whether they would sign a donor card, is that one can give an answer, any answer, as long as there is no real commitment or cost.

One might expect that a generation gap would show in the views expressed on transplantation. However, if the investigator had not known the age of those who gave the answers, one might be inclined to think that the views expressed were the result of education and knowledge of procedures.
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Those interviewed, he would not have known the age range from the answers given. The young people were that much in harmony with their elders on basic questions.

Ninety-five per cent of the men would donate the organ of a deceased relative but only 69% of the women would do so.

The women had more difficulty than the men in accepting the definition of death defined by medical science.

The idea of signing a donor card was not received too favorably even hypothetically. Seventy-eight per cent of the women and 12% of the men were not willing to commit themselves.

It raises the question of whether or not people would donate when they are put to the actual test. Some of the mystery may lie in people's fear of legal entanglement in signing a card in the event that they should change their mind.

More than half of the group were not sure that transplants were in accord with the will of God. This doubt or conviction did not deter the majority from their willingness to donate one of their two kidneys to an immediate member of their family, if it were needed. It is evident that people who profess faith in God do not always make decisions that agree with their perception of God's will. It also seems clear that many are puzzled as to where God stands in the total question of organ transplants.

Forty-two per cent of the men and 95% of the women did not not look forward to the day when men will live with a number of mechanical parts. However, again, this did not seem to provide a basis for calling a halt or setting limits on transplantation.

People have many unanswered questions on the subject of human organ transplants. Medical science has a kind of god-like quality for many. They are not always sure, however, that this "god" will make the right decisions, especially as it affects their lives or the life of a member of their own family. However, since they often feel that they have no one else to whom they may turn for answers to their questions, they are investing in the scientist a great deal of hope for life. Many may find here a correlation to their faith in God.

In conclusion, it seems essential that not only should the philosopher and theologian enter into dialogue with the physician in the great questions concerning organ transplants, but the average man and woman should also be included since they are called upon to be donors or recipients.

REFERENCES


