# TISSUE AND ORGAN DONATION: THE RELATIONSHIP BETWEEN ATTITUDE STRUCTURE AND INTENTION TO DONATE

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This study explored the attitudes and intention of donor behaviour. The attitudes and intentions towards organ and tissue donations were compared, and medical personnel and community members were compared regarding these variables. The hypothesis of multidimensionality of attitudes towards tissue donation was tested. Both medical personnel and community members in this study expressed highly positive attitudes towards tissue and organ donation. However, medical personnel held less positive attitudes towards organ donation compared to the community sample. Attitude structure towards tissue and organ donation proved to be multidimensional. There were significant connections between attitudes towards tissue and organ donation. Moreover, all of the measures of intention were significantly intercorrelated implying that there are some general factors that underlie all donor-related variables. Attitudes were good predictors of intention and intention towards tissue donation was best explained using the moral component of attitudes, while intention towards organ donation was best explained by the negative aspects of donation. The medical personnel's intention to enquire about donation was strongly influenced by their view that it is the right thing to do.

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## INTRODUCTION

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Due to the enormous development of medical sciences in the last few decades (improvement of surgery techniques and invention of immune-suppressors), tissue and organ transplantation has became a frequent and successfully used proce-

dure to save human lives. Nevertheless, the number of transplantations is far from satisfactory and the greatest problem is lack of tissues and organs for transplantation. Perkins (1987) argues that the success in transplantation technology has led to a lack of transplants. People wait for days to get a blood transfusion and die because a suitable organ donor cannot be found. For example, about 50% of persons aged from 18 to 65 years can donate blood, but only 3-6% actually do. There is a popular explanation in the medical literature that people do not donate because they are not aware of the need for tissue and organ transplants. However, different researches (Manninen and Evans, 1985; Evans and Manninen, 1988) have shown that almost everyone is aware of the lack of tissues and organs for transplantation and that people feel empathy towards persons who need transplantation. Therefore lack of knowledge and sympathy cannot be reasons for the less than satisfactory number of donations. Similarly, people do hold positive (and mostly highly positive) attitudes towards donation, but for some reason they never really make the decision to donate. This is where we need to turn to psychology to investigate the reasons for the discrepancies between such positive attitudes and so little effect.

Authors who have investigated this problem try to discover the general characteristics of the donor (Callender, 1987; Pollak et al., 1986; Johnson, 1988; Manninen and Evans, 1985; Wilms et al., 1987; Belk and Austin, 1986; Royster et al., 1987), the factors that underlie motivation to donate (Obone and Bradley, 1975; Oswalt, 1977; Oswalt and Napoliello, 1974; Piliavin, 1990; Briggs et al., 1986; Horton and Horton, 1991) with persuasive methods that may increase donation, and models of combined variables such as attitudes, norms, past behaviour etc. that would predict donor behaviour (Giles and Cairns, 1995; Bagozzi, 1981; Bagozzi, 1983; Zuckerman and Reis, 1978; Ferrari and Leippe, 1992). In addition, a wide range of studies focus on persuasion techniques to improve donation (Alcalay, 1983; Gabel et al., 1989; Callender, 1987; Prottas, 1983; Ferrari and Leippe, 1992).

All this research mainly uses one kind of donation as the target behaviour, while other forms of donations are neglected. It is important to find out whether there is a connection between different types of donation and whether it is correct to generalize findings regarding blood donation to other forms of donations. Undoubtedly, various forms of donation almost certainly have some factors in common, but on the other hand, they differ in many components. In this study, we are interested in tissue and organ donation to an unrelated, unknown recipient that is intended to save a life or increase its quality. These include blood, bone marrow and organ donations. While blood and bone marrow are donated from a living person,

organs can only be donated from a cadaver. Blood donation is the most popular form of donation, it does not require much time and it is the least painful and risky. Blood marrow donation is much more complicated; the donor has to be under anaesthetic and it is more painful. On the other hand, it is possible that the difficulty of the procedure and knowledge that the bone marrow is for a specific person, gives donors the feeling that they are doing something extremely valuable and heroic. Correspondingly, as regular blood donors have proved to be good prospects as potential unrelated bone-marrow donors (Beatty et al., 1989; McCullough et al., 1986) it is logical to expect that there is a factor that determines both behaviours.

In accordance with this idea that the same factors influence blood and bone marrow donation since they both can be defined as tissue donation from a living, unrelated person, we chose to treat tissue donation as one attitude object and organ donation as another. Subsequently, attitude scales were developed according to this hypothesis.

Although much research has been implemented to explore variables that may influence tissue and organ donation, some relevant questions, concerning the intention to donate have never been asked or explored.

1. The willingness to donate tissues and organs has never been compared by taking attitude structure into account. If the relation exists such findings might enhance our understanding of decisions to donate in general.

2. The willingness to receive tissues and organs and its possible relation to willingness to donate and attitudes towards donation, might provide clues on the nature of the process that determines both intentions.

Furthermore, it is not yet clear how we should treat attitudes towards donation; as continual on one dimension from positive to negative, or, as recent research suggests (Briggs et al., 1986; Sarason et al., 1993; Parisi and Katz, 1986), as bivalent or multivalent processes that are the bases of attitudes towards donation. The aforementioned research implies that different factors influence positive and negative attitudes toward donation, making them multidimensional. Since most of this research uses instruments that do not allow for the testing of this hypothesis, because it takes unidimensional structure for granted (Cacioppo and Gardner, 1993) the possibility of multidimensional structure requires examination.

In addition, some researches argue that medical personnel (nurses and doctors) are responsible for the lack of tissues and organs for transplantation because they do not ask people to donate, nor do they inform them about the possibility of donating. Sophie et al. (1983), Carbury (1987), Corlett (1985), Gaber et al. (1990), Grogan (1979), Robinette and Stiller (1985),

Shepard, (1988), Wolf (1990), Kent et al. (1995) and Prottas and Batten (1988) stress the importance of nurses as those who develop contact with both patients and their families. Through this contact, they can influence both decisions to receive and donate tissues and organs. Following this hypothesis we decided to examine, as separate from the community sample, medical personnel attitudes and intentions towards organ and tissue donation as well as their willingness to donate tissues and organs and to ask other persons to donate. Therefore:

3. The willingness of medical personnel to ask about donation with respect to their attitudes towards tissue and organ donation will reveal their possible doubts towards donation, incongruity between attitudes and intentions, and provide information on how responsible medical personnel are for the dissatisfactory number of donations.

The objective of this study was to assess attitudes and intentions towards tissue and organ donation and analyse the structure of attitudes:

– to explore the attitude structure towards tissue and organ donation;

– to compare the attitudes and intentions of medical personnel with other persons' attitudes and intentions;

– to find out if there is a connection between various types of intentions concerning tissue and organ donation;

– to explore the relationship between attitudes and intentions.

## METHODOLOGY

### Development of attitude scales

Two different Likert type attitude scales were developed: (1) to assess attitudes towards tissue donation; (2) to assess attitudes towards organ donation. Both scales were devised in the same way using the following procedures:

a) *Collecting the items for the scales* – Items for the scales were collected from ten small groups of subjects (participants in different courses, workers in companies, students at evening classes, sport club members). An interviewer approached each group and asked them to write three statements that approve donation and three statements against donation. Half of the participants wrote about organ donation, and the other half wrote about tissue donation. In this way, 121 statements concerning organ donation and 133 statements concerning tissue donation were obtained.

*Constructing the preliminary version of the scales* – Collected statements were examined and if there were two or more identical statements, only one was kept in the first version of

the scales. Following this reduction, the scale for assessing attitudes towards organ donation contained 47 items and the scale for assessing attitudes towards tissue donation contained 52 items. The items were rated on a five point scale (1 – strongly disagree to 5 – strongly agree).

These scales were applied to a new sample of 120 persons. Participants were chosen from different groups like courses, clubs, schools, etc.

b) *Constructing the final scales* – Item analyses was applied to the first version of the attitude scales. The items with the highest correlation with the total score were kept for the final version. The final versions of the scales contained 14 items each.

### Final questionnaires

The final questionnaire for the community sample included *attitude scales* (towards tissue and organ donation) and *intention measures* (Intention to donate: "Would you give your blood to a stranger who needs it?", "Would you donate your organs to another person after your death?", "Would you donate your bone marrow to a stranger who needs it?", "Would you donate the organs of your next-of-kin after their death?"; intention to receive transplant: "Would you receive a blood transfusion from a stranger if you needed it?", "Would you receive a bone marrow transplant from a stranger if you needed it?", "Would you receive an organ transplant from a dead person you do not know if you needed it?"). In the medical personnel questionnaire attitude scales towards tissue and organ donation were also applied, and the intention to receive transplants was replaced with the intention of medical personnel to ask about transplants ("If you were in a position to ask a person to donate their blood, would you?"; "If you were in a position to ask a person to donate their bone marrow, would you?"; "If you were in a position to ask a person to donate organs of their deceased relative, would you?"). Demographical variables and some other variables, irrelevant to the present paper were also examined in both samples.

## PARTICIPANTS & PROCEDURE

Interviewers approached community sample participants in their homes whereas medical personnel were approached at their workplace, in hospitals. All participants responded to attitude scales, intention measures and demographical variables.

From both samples we excluded persons with any health problems that might prevent them from donating (N=20 for ordinary sample and N=12 for medical personnel). The final number of participants was (N=200 for ordinary sample and N=108 for medical personnel).

*Community sample***.** Two hundred persons (121 females and 79 males) who participated in the research were randomly chosen from Zagreb and its surroundings. The Zagreb area was divided into several regions and the percentage of participants in each region corresponded to the number of inhabitants in it. For every region streets, street numbers, and the position of the apartments inside the house, were randomly chosen. The person to be interviewed in the household was chosen according to the birth date. The age range (18-60), which corresponds to the period when a person can donate tissue and organs, was the only limitation. The average age was 39 years and most of our participants (62%) had secondary school education.

*Medical personnel*. The medical personnel sample was constituted from doctors and nurses at different hospitals in Zagreb. 108 participants, 75 nurses and 33 medical doctors, took part in this study.

## RESULTS AND DISCUSSION

### Attitudes towards tissue and organ donation

**Attitude scales**

The participants from both samples generally showed a positive attitude towards tissue and organ donation. Since the theoretical range on both scales was 14 (14 x 1) to 70 (14 x 5), the average result of M = 55.5 for tissue donation, and M = 59.3 for organ donation indicate quite positive attitudes. (Table 1)

A significant difference was found between the two scales; in that attitudes towards organ donation were more positive than attitudes towards tissue donation.

Medical personnel also expressed a very positive attitude M = 54.4 for tissue donation and M = 56.1 for organ donation.

➲ TABLE 1
Attitudes towards organ and tissue donation – means and standard deviations

| Community sample (N=198) | | | | Medical personnel sample (N=100) | | | |
|---|---|---|---|---|---|---|---|
| Tissue donation | | Organ donation | | Tissue donation | | Organ donation | |
| M | σ | M | σ | M | σ | M | σ |
| 55.5 | 8.08 | 59.3 | 9.64 | 54.4 | 8.06 | 56.1 | 9.62 |
| $t = 7;\ p < 0.01;\ N = 198$ | | | | $t = 2.35;\ p < 0.05;\ N = 100$ | | | |

Overall, the results show that people hold more positive attitudes towards organ donation compared to tissue donation. Moreover, this difference is larger among participants from the community sample compared to the medical personnel.

The reason, probably, lies in the pain and health risk that is involved in tissue donation, while organ donation is not related to any risk because the donor is a deceased person. Furthermore, while tissue donation is an actual behaviour that any respondent can undergo at the present time, organ donation is distant and can take place only after a person's death.

**Tissue donation scale**

*Scale characteristics.* Reliability analysis produced Cronbach alpha of 0.81 for the community sample, and Cronbach alpha of 0.79 for medical personnel, which are both quite satisfactory.

It is often assumed that beliefs underlying donor attitudes are organized along a negativity – positivity continuum. Since most instruments are developed according to this assumption there is little room to test the validity of this hypothesis. Nevertheless, there is empirical evidence (Briggs et al., 1986) that demonstrates we are not dealing with positive and negative poles of a single continuum, but rather with a multidimensional structure of attitudes. These authors found that the greater the perception of personal risk for bone marrow donation; the person is less willing to join the pool of bone marrow donors. Furthermore, Sarason et al. (1993) compared the willingness to donate bone marrow and blood and found that people are less likely to donate bone marrow because it is "more time-consuming and painful and involves more risk to the health of the donor". In view of these findings we used factor analysis to explore the structure of attitudes.

TABLE 2
Factor Analysis: Attitude scale towards tissue donation, rotated factor matrix, varimax rotation

| Item | Community sample N=200 | | | | Medical personnel sample N=108 | | | |
|---|---|---|---|---|---|---|---|---|
| | F1 | F 2 | F 3 | F4 | F1 | F 2 | F 3 | F4 |
| 1. Tissue donation saves lives. | *.747* | .089 | .319 | -.04 | *.559* | -.209 | .363 | .058 |
| 2. Tissue donation is contrary to the laws of nature. | .302 | .330 | *.520* | .085 | .061 | .119 | *.687* | .025 |
| 3. Tissue donation helps build solidarity in society. | *.754* | .063 | -.060 | .253 | *.759* | .078 | .058 | -.157 |
| 4. Tissue donation can cause illnesses to spread. | .096 | *.617* | -.211 | .049 | .148 | *.693* | .065 | .239 |
| 5. Tissue donation is risky. | .086 | *.799* | -.055 | .154 | -.203 | *.636* | .008 | .381 |
| 6. Tissue donation ruins the donor's health. | .209 | *.649* | .289 | .069 | -.167 | *.602* | *.445* | .232 |
| 7. We have received our tissue from "someone" and therefore it is good to give it to someone in need. | *.694* | .158 | .085 | .077 | *.744* | .176 | .219 | .073 |
| 8. Tissue donation is an important civil duty of every citizen. | .270 | .214 | -.051 | *.781* | *.761* | .140 | .049 | .144 |
| 9. Tissue donation is dangerous. | .059 | *.673* | .362 | .181 | .371 | *.766* | .068 | .201 |
| 10. We could also be in need of tissue transplant - and someone will help. | *.747* | .136 | .185 | .168 | *.517* | -.107 | .369 | .112 |
| 11. Tissue donation is immoral. | .143 | .171 | *.727* | .135 | .295 | .086 | *.705* | .148 |
| 12. Tissue donors should serve as examples to others. | *.648* | .071 | .144 | *.475* | *.559* | .171 | *.528* | -.004 |
| 13. Every healthy person should be a tissue donor. | .142 | .137 | .300 | *.811* | .327 | .065 | *.470* | *.534* |
| 14. There is no reason why I would give a part of me to a stranger. | .079 | -.210 | *.660* | .038 | .026 | .078 | .045 | *.803* |

| Community sample (N=198) | | | | Medical personnel (N=100) | | | |
|---|---|---|---|---|---|---|---|
| Factor | Eigenvalue | % Var | Cum % | Factor | Eigenvalue | % Var | Cum % |
| 1 | 4.59324 | 32.8 | 32.8 | 1 | 4.15791 | 29.7 | 29.7 |
| 2 | 1.62229 | 11.6 | 44.4 | 2 | 1.89573 | 13.5 | 43.2 |
| 3 | 1.29157 | 9.2 | 53.6 | 3 | 1.26139 | 9.0 | 52.3 |
| 4 | 1.00491 | 7.2 | 60.8 | 4 | 1.02615 | 7.3 | 59.6 |

TABLE 3
The percent of explained variance for each factor

For both samples factor analyses extracted four significant factors that explain about 60% of variance (Tables 2 and 3). Community sample Items 1, 3, 7, 10 and 12 are saturated most with Factor 1 related to personal obligation to donate tissue. Items 4, 5, 6 and 9 are saturated most with Factor 2 that contains negative consequences of tissue donation. Items 2, 11 and 14 are saturated with Factor 3 describing moral barriers of tissue donation. Finally, Items 8, 10 and 13 are saturated with Factor 4 explaining civil duty for tissue donation.

This analysis shows that attitudes towards tissue donation are multidimensional, and confirms the hypothesis that we can differentiate positive aspects (Factor 1, 4) and negative consequences (Factor 2, 3) towards tissue donation.

Interestingly, both positive and negative aspects can be further subdivided into two groups. For positive aspects there are: personal obligation which shows how people feel intrinsically about tissue donation – is it the right thing to do; and civil duty that refers to the level of social responsibility towards tissue donation. (Items 3 and 12 are also saturated with this factor, although they are not so high, as Factor 1 dominates them).

Negative aspects can also be subdivided into two groups: moral barriers of donation that refer to a personal feeling that donation is wrong for some moral or ethical reason; while negative consequences refer to physical dangers of tissue donation.

For medical personnel the factor structure is not so clear--cut but it still follows the pattern of the community sample. The first factor (items: 1, 3, 7, 8, 10 and 12) refers to positive aspects in general. The second factor (items: 4, 5, 6, 9) is identical to Factor 2 in the community sample and explains negative physical consequences and danger to donors' health. Factor 3 (items: 2, 6, 11, 12, 13) includes both moral aspects of donation and civil duty and outlines critical questions and extreme beliefs. Finally, Factor 4 (items: 13 and 14) refers to absolute hypothesis of donation.

*Item analysis*. Item analysis (Table 4) has shown that all items correlate positively and significantly with the total result wi-

thin the range of 0.31 to 0.67 for the ordinary sample and 0.36 to 0.62 for medical personnel. The following scale items towards tissue donation show the highest correlations with the overall result of the scale: "We could also be in need of blood and bone marrow transplant and someone will help", "Tissue donors should serve as examples to others", "Every healthy person should be a tissue donor" and "Tissue donation is an important civil duty of every citizen". All these items refer to social solidarity.

The most positive responses are to the items that explain the reasons for donation, appeal to solidarity and moral aspects of donation. The least positive scores are on items related to negative consequences of donation.

The situation is different for the medical personnel. Items that correlate most with the total score are those that describe the negative aspects of donations ("Tissue donation is dangerous" and "Tissue donation is immoral") and social responsibility item ("Tissue donors should serve as an example to others"). Similar to the community sample, among medical personnel most positive answers are found at positive items, while less positive ones are connected with items describing negative consequences of tissue donation.

TABLE 4
List of items "tissue donation scale" with descriptive statistics and correlations to total result

| Item | Community sample N=200 | | | Medical personnel sample N=108 | | |
|---|---|---|---|---|---|---|
| | Correlations with total result | M | σ | Correlations with total result | M | σ |
| 1. Tissue donation saves lives. | 0.58 | 4.64 | .70 | 0.36 | 4.64 | .73 |
| 2. Tissue donation is contrary to the laws of nature. | 0.57 | 4.36 | 1.01 | 0.53 | 4.41 | .97 |
| 3. Tissue donation helps build solidarity in society. | 0.57 | 4.17 | .98 | 0.47 | 4.24 | .85 |
| 4. Tissue donation can cause illnesses to spread. | 0.35 | 3.02 | 1.18 | 0.48 | 3.16 | 1.27 |
| 5. Tissue donation is risky. | 0.52 | 3.26 | 1.18 | 0.33 | 3.31 | 1.29 |
| 6. Tissue donation ruins the donor's health. | 0.57 | 3.87 | 1.10 | 0.42 | 3.84 | 1.14 |
| 7. We have received our tissue from "someone" and therefore it is good to give it to someone in need. | 0.58 | 4.22 | 1.01 | 0.46 | 4.01 | 1.11 |
| 8. Tissue donation is an important civil duty of every citizen. | 0.62 | 3.19 | 1.26 | 0.47 | 3.47 | 1.17 |
| 9. Tissue donation is dangerous. | 0.58 | 3.64 | 1.15 | 0.58 | 3.90 | 1.06 |
| 10. We could also be in need of tissue transplant – and someone will help. | 0.64 | 4.42 | .89 | 0.45 | 4.20 | .98 |
| 11. Tissue donation is immoral. | 0.52 | 4.57 | .89 | 0.62 | 4.42 | 1.05 |
| 12. Tissue donors should serve as examples to others. | 0.67 | 4.37 | .92 | 0.58 | 4.14 | 1.06 |
| 13. Every healthy person should be a tissue donor. | 0.63 | 3.89 | 1.14 | 0.50 | 3.70 | 1.07 |
| 14. There is no reason why I would give a part of me to a stranger. | 0.31 | 3.93 | 1.33 | 0.36 | 3.98 | 1.16 |

TABLE 5
Factor Analysis: Attitude scale towards organ donation, rotated factor matrix, varimax rotation

**Organ donation scale**

*Scale characteristics.* The organ donation scale also proved to be reliable in accordance with Cronbach alpha: 0.90 for the ordinary sample, and Cronbach alpha: 0.82 for medical personnel.

| Item | Community sample N=200 | | Medical personnel sample N=108 | | | | |
|---|---|---|---|---|---|---|---|
| | F1 | F2 | F1 | F2 | F3 | F4 | F5 |
| 1. Donating organs to another person is human. | .323 | *.677* | .190 | .268 | -.048 | *.754* | -.035 |
| 2. A dead person is ruined by organ transplantation. | *.606* | *.406* | .394 | .013 | .369 | *.551* | .290 |
| 3. I don't think it is part of my religion to donate organs. | *.659* | .298 | *.828* | .013 | .056 | .054 | -.033 |
| 4. Organ donation saves lives. | .439 | *.466* | .080 | *.691* | .329 | .173 | .051 |
| 5. Organ donation insults human rights. | *.792* | .269 | *.753* | .086 | .116 | .269 | -.026 |
| 6. Organ donation improves life in the community. | .211 | *.766* | .172 | *.664* | .028 | .338 | .045 |
| 7. If we donate organs after our death we will prolong the life of another person. | .274 | *.791* | .014 | *.849* | .125 | .028 | .053 |
| 8. Organ donation disturbs the peace of a dead person. | *.822* | .242 | *.522* | .203 | *.497* | .218 | .295 |
| 9. It is not important for a person to be buried with all their organs. | *.641* | .130 | .077 | .107 | .182 | .108 | *.853* |
| 10. The spirit of a dead person is not peaceful if their organs live in the body of another person. | *.731* | .108 | *.465* | .333 | *.515* | -.300 | .047 |
| 11. It is possible to cure some illnesses through organ donation. | .131 | *.735* | .156 | *.671* | .139 | -.019 | .339 |
| 12. If we decide to donate organs it is like we are ready to die. | *.558* | .204 | .092 | .051 | *.860* | .056 | .165 |
| 13. A dead person doesn't need any organs. | *.609* | .348 | *.497* | .377 | -.123 | -.202 | *.506* |
| 14. Organ donation insults human dignity. | *.705* | .385 | *.611* | .177 | .240 | .346 | .233 |

| Community sample (N=198) | | | | Medical personnel (N=100) | | | |
|---|---|---|---|---|---|---|---|
| Factor | Eigenvalue | % Var | Cum % | Factor | Eigenvalue | % Var | Cum % |
| 1 | 6.540 | 46.7 | 46.7 | 1 | 4.506 | 32.2 | 32.2 |
| 2 | 1.284 | 9.2 | 55.9 | 2 | 1.778 | 12.7 | 44.9 |
| | | | | 3 | 1.179 | | 53.3 |
| | | | | 4 | 1.104 | | 61.2 |
| | | | | 5 | 1.011 | | 68.4 |

TABLE 6
Explained percent of variance for each factor

For the community sample factor analysis (Tables 5 and 6) extracted two significant factors that explain 55.9% of variance. The first factor refers mainly to the negative aspects of organ donation while the second explains the positive characteristics. An obvious problem appears for item 13 as it is treated like a negative item, while it should be positive. This item is somehow specific, as it is the only one that does not

refer to any aspects of donation, but only to an absence of the reason not to donate, and this could explain why it behaves like a negative item.

For the medical sample factor analysis extracted five significant factors explaining 68.4% of variance. The first factor (items 2, 4, 8, 10, 13, 14) refers to the negative aspects of organ donation, while the second factor (items 4, 6, 7) describes the positive consequences of organ donation. In addition, the third factor (items 8, 10, 12) deals with threat of ruining a dead person, while the fourth factor (items 1 and 2) explains the absolute hypothesis of donation, and finally the fifth (items 9 and 13) refers to the need of organs after death.

Responses to the organ donation scale from the community sample show that only two factors are significant. In contrast, responses from the medical personnel sample, to the same scale, interestingly highlight five factors. Moreover, the attitude structure for the community sample is rather simple and divided into negative and positive aspects, whereas the medical personnel show more complex attitude structure. This is probably because medical personnel know more about organ donation, through their work and thus have developed more structured beliefs about it. While the first factor that refers to negative beliefs about organ donation and the second factor that describes positive consequences are similar to factors found in the community sample, the other factors describe aspects of beliefs about organ donation that we do not find in the community sample. Factor 3 contains beliefs about disturbing the peace of a dead person and illustrates fears of death. Factor 4 is interesting as it contains a positive as well as a negative item. It is not illogical that the item "Donation of organs to another person is humane" is not saturated with the second factor (positive aspects of donation) but with the fourth factor. Although it is a positive item it does not describe consequences, like other items related to Factor 2, but rather provides a general hypothesis for donation – is it the right thing to do. Factor 5 refers to posthumous need for organs, and as we will see later, it plays an important role in creating the intention to enquire about donation.

*Item analysis.* Item analysis (Table 7) showed that all the items correlate with the total score within a range of 0.56 to 0.78 for the community sample and 0.42 to 0.63 for the medical personnel sample.

For the community sample responses to the following organ donation scale items: "Organ donation insults human rights", "Organ donation ruins the peace of a dead person", "Organ donation disturbs human dignity" showed the highest corre-

lations with the overall result. Since these are "moral" statements, this finding suggests that persons with more positive attitudes are those who do not have a moral dilemma with regard to organ donation. For the medical personnel sample the situation is similar, the highest correlations with the total result are related to moral issues.

Both medical personnel and ordinary people showed the most positive attitudes for items that refer to the positive consequences of organ donation, while lower scores were for items related to moral issues.

| Item | Community sample N=200 | | | Medical personnel sample N=108 | | |
|---|---|---|---|---|---|---|
| | Correlations with total result | M | σ | Correlations with total result | M | σ |
| 1. Donating organs to another person is human. | 0.65 | 4.43 | .82 | 0.42 | 4.40 | 0.92 |
| 2. A dead person is ruined by organ transplantation. | 0.71 | 4.06 | 1.17 | 0.59 | 3.97 | 1.20 |
| 3. I don't think it is part of my religion to donate organs. | 0.70 | 4.08 | 1.21 | 0.54 | 4.05 | 1.26 |
| 4. Organ donation saves lives. | 0.6 | 4.67 | .64 | 0.53 | 4.56 | 0.82 |
| 5. Organ donation insults human rights. | 0.78 | 4.35 | .99 | 0.59 | 4.17 | 1.19 |
| 6. Organ donation improves life in the community. | 0.63 | 3.83 | 1.08 | 0.47 | 3.80 | 0.99 |
| 7. If we donate organs after our death we will prolong the life of another person. | 0.67 | 4.44 | .84 | 0.43 | 4.34 | 0.91 |
| 8. Organ donation disturbs the peace of a dead person. | 0.78 | 4.32 | 1.06 | 0.63 | 4.18 | 1.22 |
| 9. It is not important for a person to be buried with all their organs. | 0.61 | 3.95 | 1.22 | 0.42 | 3.28 | 1.48 |
| 10. The spirit of a dead person is not peaceful if their organs live in the body of another person. | 0.65 | 4.07 | 1.17 | 0.57 | 4.16 | 1.19 |
| 11. It is possible to cure some illnesses through organ donation. | 0.56 | 4.09 | 1.04 | 0.45 | 3.96 | 1.13 |
| 12. If we decide to donate organs it is like we are ready to die. | 0.56 | 4.54 | 1.00 | 0.57 | 4.32 | 1.11 |
| 13. A dead person doesn't need any organs. | 0.68 | 4.23 | 1.10 | 0.60 | 3.45 | 1.54 |
| 14. Organ donation insults human dignity. | 0.77 | 4.40 | .97 | 0.62 | 4.34 | 1.00 |

TABLE 7
List of items "organ donation scale" with descriptive statistics and correlations with total result

Finally, it is worth noting that positive items correlate most with the total result on the attitude scale towards tissue donation, while negative items correlate most with the total result on the attitude scale towards organ donation. Thus, with regard to tissue donation people with different attitudes can be easily identified through their differentiation of positive items, and when considering organ donation people's attitudes will mostly differ with regard to negative items. A possible reason for this is that people form a positive attitude towards tissue donation because they are aware of its positive

aspects, and that the positive attitude towards organ donation is formed because people deny the negative consequences. Moreover, this is related to attitudes and does not say anything about intention, which is to be elaborated later in this article.

**Differences between the two samples**

Although a very positive attitude was found towards both targets in either sample, the difference between the medical personnel sample and the other sample exists. Unexpectedly, in regard to organ donation, doctors and nurses hold less positive attitudes than other persons ($t=2.7$; $p<0.01$).

This tendency regarding less positive attitudes is present for all items, but a significant difference ($p<0.01$) can be seen for two items: "It is not important for a person to be buried with all their organs", and "A dead person doesn't need any organs". These two statements are similar, in that they are both saturated with Factor 5 (need of organs after death), and since this difference can be seen in both cases we can argue that, for some reason, doctors and nurses are less willing than others, to say that organs are useless to a dead person. However, it should be stressed that medical personnel express positive attitudes ($M=3.28$ for the first item, and $M=3.45$ for the second).

A difference between the medical personnel sample and the other sample with respect to attitudes towards tissue donation was not found.

## The intention to donate and be recipient of tissues and organs

Participants showed a strong willingness to donate both tissues and organs for transplantation (Table 8). As the theoretical range is from 1 to 5, and the theoretical mean, in this study is 3.0, the intention to donate and be recipient of tissues and organs is very strong. The intention to donate the organs of a deceased relative was positive as well but not so intensive. Participants were also willing to receive tissues and organs in case of need.

The results showed that people hold positive attitudes towards tissue and organ donation and that they are ready to donate. These results are similar to those that researchers in other countries have found so far (Manninen & Evans, 1985; Evans & Manninen, 1988; Corlett, 1985; McIntyre et al., 1987; Moores et al., 1976; Prottas, 1983). Furthermore, on both receiving and donation issues, the intention is strongest for blood and weakest for organ transplants. People are most certain that they would donate blood to a person in need, and that they would receive a blood transfusion if they needed it. Still

positive, but not a strong intention was found with regard to the donation of organs of a deceased relative. Analyses of the answers showed that most of the participants do not know whether they would donate the organs of a deceased relative (37%). This finding corresponds to the well-known fact that people usually do not know how particular family members feel towards organ donation. People usually do not talk about organ donation within families, and if the possibility to donate organs arises they do not know the wish of their deceased relative. Therefore, people should be encouraged to talk about organ donation in their families. Considering mostly positive attitudes towards organ donation in the population generally, this procedure would increase organ donation, but, also, make the decision easier for the family who wants to follow the wish of the deceased relative, but does not know it.

TABLE 8
Intention to donate and receive tissues and organs

| Intention | Community sample N=200 | | Medical personnel sample N=108 | |
|---|---|---|---|---|
| | M | σ | M | σ |
| Would you donate your blood to a stranger who needs it? | 4.7 | 0.58 | 3.8 | 0.92 |
| Would you donate your bone marrow to a stranger who needs it? | 4.1 | 0.99 | 3.9 | 0.85 |
| Would you donate organs after your death to a person you do not know who needs it? | 4.0 | 1.12 | 4.4 | 0.69 |
| Would you donate the organs of your next-of-kin following their death to a stranger who needs it? | 3.4 | 1.16 | 4.6 | 0.71 |
| Would you receive a blood transfusion from a stranger if you needed it? | 4.6 | 0.69 | | |
| Would you receive a bone marrow transplant from a stranger if you needed it? | 4.3 | 0.95 | | |
| Would you receive an organ transplant from a dead person you do not know if you needed it? | 4.3 | 0.94 | | |

TABLE 9
Intention to ask about tissue and organ donation (medical personnel, N=108)

| Intention | M | σ |
|---|---|---|
| If you were in position to ask a person to donate their blood, would you? | 3.6 | 1.10 |
| If you were in position to ask a person to donate their bone marrow, would you? | 3.8 | 1.21 |
| If you were in position to ask a person to donate organs of their deceased relative, would you? | 3.4 | 1.18 |

The medical personnel sample also showed positive attitudes and intentions towards organ donation (Table 9), although they were not as strong as the community sample.

It is interesting that the medical personnel sample are more willing to donate their own organs and the organs of their

deceased relative, than to donate blood or bone marrow. This is probably because the medical personnel sample have a different view of death compared to the community sample, and take it as more final and are less afraid that organs could be taken by mistake. Hence, the medical personnel sample probably think that organ donation is the least risky.

When we compare the attitudes and intentions between the two samples, it seems that although the medical personnel hold less positive attitudes towards organ donation, they are still more ready to donate their own organs and the organs of their deceased relatives, compared to the community sample. If we take a closer look at the scores on the attitude and intention scales, it is obvious that there is a large gap between the attitudes and intention of non-medical persons in this study. Namely, they have a very positive attitude yet a moderate intention, while the medical personnel sample is more consistent.

Although the medical personnel sample showed positive intention to ask about donation, this intention is not as strong as it should be. We expected (or at least hoped) that the medical personnel would be ready to ask people about donation. The medical personnel should have a clearly defined position with regard to asking about donation, because they have to react promptly when the situation arises. Therefore, hospitals should arrange discussions where medical personnel could discuss and express their fears of asking patients about donation, and prepare them for real-life situations.

## Correlations between variables and prediction of intention

Pearson's correlations were computed. As we expected attitudes towards organ donation correlated with attitudes towards tissue donation positively and highly ($r=0.63$; $p<0.01$). Significant correlations ($p<0.01$) were also found between all variables of intention. Therefore it is obvious that attitudes and intentions towards tissue and organ donation are related, so people with a more positive opinion on any aspect of donation tend to have a positive opinion with regard to other aspects. These connections are probably due to some other personal characteristics (some more general attitudes, personality traits, etc.) that influence attitudes and intentions to both tissue and organ donation. Further research should determine which common factors are the bases of tissue and organ donation.

Furthermore, participants who have a more positive attitude towards tissue donation are also more willing to donate blood ($r=0.45$; $p<0.01$), bone marrow ($r=0.46$; $p<0.01$), their own organs ($r=0.46$; $p<0.01$), and organs of their next-of-kin ($r=0.4$; $p<0.01$). These persons are also more willing to receive a blood transfusion ($r=0.19$; $p<0.05$), bone marrow transplant

(r=0.38; p<0.01), or organ transplant (r=0.29; p<0.05) than persons with a less positive attitude towards tissue donation (Table 10).

Participants who have a more positive attitude towards organ donation are more willing to donate blood (r=0.39; p<0.01), bone marrow (r=0.33; p<0.01), their own organs (r=0.68; p<0.01) and organs of their next-of-kin (r=0.56; p<0.01). These persons are also more willing to receive a transplant, especially an organ transplant (r=0.51; p<0.01) (Table 10).

| Attitude object | Blood donation | Bone marrow donation | Organ donation | Next-of-kin organ donation | Blood receiving | Bone marrow receiving | Organ receiving |
|---|---|---|---|---|---|---|---|
| Tissue | 0.45** | 0.46** | 0.52** | 0.44** | 0.19* | 0.38** | 0.29** |
| Organ | 0.39** | 0.33** | 0.68** | 0.56** | 0.14* | 0.36** | 0.51** |

TABLE 10
Correlations of Attitudes towards tissue and organ donation with intention to donate (Community sample N=198)

These results show that attitudes are correlated with all variables of intention, so people with more positive attitudes towards tissue and organ donation, also form stronger intentions to donate tissues and organs and are more willing to be a recipient of a transplant.

All variables of intention are intercorrelated (Table 11) suggesting that there is a general factor of willingness to donate and receive tissues and organs. For the community sample, the highest correlations are within the "intention to donate" group and "intention to receive" group and not between the groups. For the medical personnel, the strongest correlations are also within groups. However, the intention to donate the organs of a deceased relative does not correlate significantly with the intention to donate blood and bone marrow.

TABLE 11
Correlations of variables of intention (Community sample, N=198 above the diagonal, Medical personnel, N=100, below the diagonal)

Community sample

| | 1. Blood donation | 2. Bone marrow donation | 3. Organ donation | 4. Next-of-kin organ donation | 5. Blood receiving | 6. Bone marrow receiving | 7. Organ receiving |
|---|---|---|---|---|---|---|---|
| 1. | | .5160 | .3804 | .2730 | .2629 | .2913 | .2125 |
| 2. | .6862 | | .4944 | .4274 | .1869 | .3909 | .1975 |
| 3. | .4241 | .6407 | | .6808 | .2764 | .4733 | .4929 |
| 4. | .1181 | .2113 | .4295 | | .1367 | .2942 | .3689 |
| 5. | .3015 | .4566 | .3834 | .3738 | | .6725 | .5134 |
| 6. | .5812 | .4408 | .3597 | .4065 | .4845 | | .6217 |
| 7. | .5939 | .4191 | .3856 | .3480 | .3480 | .8110 | |

| | Blood donation 1. | Bone marrow donation 2. | Organ donation 3. | Next-of-kin organ donation 4. | Ask for blood donation 5. | Ask for bone marrow donation 6. | Ask for organ donation 7. |
|---|---|---|---|---|---|---|---|

Medical personnel

## Prediction of intention

Clearly, as shown in this study attitudes are multidimensional. Since they are the only predictors that explain a significant percent of the variance of intention we decided to investigate how factors of each attitude scale behave in explaining the variance of intention.

In the following procedures we treated factor scores as independent variables to predict intention.

TABLE 12
Regression analysis on intention to donate/receive tissues (independent variables are factor scores) (Community sample, N=198)

| Intention to... | donate blood | | | donate bone marrow | | | receive blood transfusion | | | receive bone marrow transplant | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variable | Beta | T | P | Beta | T | P | Beta | T | P | Beta | T | P |
| Personal obligation | .277 | 4.38 | .00 | .157 | 2.51 | .01 | .111 | 1.59 | .11 | .188 | 2.84 | .00 |
| Negative consequences | .127 | 2.03 | .05 | .245 | 3.92 | .00 | .045 | 0.64 | .52 | .214 | 3.25 | .00 |
| Moral barriers | .331 | 5.22 | .00 | .295 | 4.72 | .00 | .216 | 3.09 | .00 | .284 | 4.30 | .00 |
| Civil duty | .177 | 2.79 | .01 | .29 | 4.64 | .00 | .024 | 0.34 | .73 | .084 | 1.28 | .20 |
| | | $R^2$=0.23 | | | $R^2$=0.25 | | | $R^2$=0.06 | | | $R^2$=0.18 | |
| | | F=14.5 | | | F=16.38 | | | F = 3.15 | | | F = 9.69 | |
| | | P<0.01 | | | p<0.00 | | | p<0.02 | | | p<0.00 | |

When predicting intention to donate and receive blood and bone marrow, the strongest predictor is the third factor, which is related to moral issues with regard to tissue donation (Table 12).

When predicting blood donation, the weakest predictor is Factor 2, which explains the negative consequences of donation. This finding does not match the results of Condie et al. (1976), Obone and Bradley (1975), Oswalt and Napoliello (1974) and Pomazal and Jaccard (1976). These authors showed that negative consequences of donating differentiate people who intend to donate from those who do not intend to become blood donors. Our research suggests that potential donors differ mostly on moral issues related to donation, and that personal obligation (Factor 1) plays a significant role in having the intention to donate. Since other research deals more with the direct physical consequences such as pain and time consumption it is possible that this caused the difference. The method we used to develop our attitude scale guarantees that we did include all the relevant questions regarding attitude towards donation. For blood donation, the negative consequences, such as health risks, do not increase the percentage of explained variance significantly. For bone marrow donation, besides moral barriers, civil duty is an important predictor, and negative consequences do explain an important part of variance of intention, while personal obligation does not influence prediction significantly.

Therefore, this research confirms that negative beliefs (moral barriers for blood donation and negative consequences for

bone marrow donation) and not positive beliefs are most responsible for differentiating potential donors from non-donors.

The intention to donate tissues is poorly explained with the predictors used. When predicting the intention to receive a blood transfusion (Table 12) only moral issues play a significant role. In any case, the percent of explained variance is very low, and we cannot consider that this is a satisfactory prediction.

The intention to receive bone marrow depends on moral issues, but the fear of negative consequences and personal obligation are also important.

TABLE 13
Regression analysis on intention to donate/ receive organs (independent variables are factor scores) (Community sample, N=198)

| Intention to... | donate own organs | | | donate organs of deceased relative | | | receive organ transplant | | |
|---|---|---|---|---|---|---|---|---|---|
| Variable | Beta | T | p | Beta | T | p | Beta | T | p |
| Negative aspects | .589 | 11.15 | .00 | .476 | 7.95 | .00 | .44 | 7.09 | .00 |
| Positive aspects | .341 | 6.46 | .00 | .297 | 4.93 | .00 | .259 | 4.18 | .00 |
| | $R^2 = 0.46$ | | | $R^2 = 0.31$ | | | $R^2 = 0.26$ | | |
| | $F = 83.09$ | | | $F = 43.79$ | | | $F = 33.81$ | | |
| | $p<0.00$ | | | $p<0.00$ | | | $p<0.00$ | | |

Predicting the intention to donate organs on the basis of attitudes is quite satisfactory, explaining 46% of variance for donating one's own organs and 31% for donating the organs of a deceased relative (Table 13). The negative aspects of organ donation are more important than the positive ones, which supports the hypothesis of Parisi and Katz (1986) that the negative subscale is the one that makes the difference.

The intention to receive an organ transplant is also mostly influenced by the negative aspects of organ donation.

TABLE 14
Regression analysis on intention to ask for tissue/organ donation (independent variables are factor scores) (Medical personnel, N=100)

| Intention to... | ask for blood donation | | | ask for bone marrow donation | | |
|---|---|---|---|---|---|---|
| Variable | Beta | T | p | Beta | T | p |
| Positive aspects | .204 | 1.98 | .05 | .221 | 2.29 | .02 |
| Negative physical consequences | .058 | .56 | .57 | .108 | 1.12 | .26 |
| Moral aspects & Civil duty | .330 | 3.21 | .00 | .304 | 3.15 | .00 |
| Absolute hypothesis of donation | .493 | 4.80 | .00 | .331 | 3.43 | .00 |
| | $R^2 = 0.32$ | | | $R^2 = 0.26$ | | |
| | $F = 9.1, p<0.00$ | | | $F = 7.04, p<0.00$ | | |

| Intention to ask for organ donation | Variable | Beta | T | p |
|---|---|---|---|---|
| | Negative aspects | .311 | 3.52 | .00 |
| | Positive consequences | .118 | 1.34 | .18 |
| | Threat of ruining a dead body | .059 | .67 | .50 |
| | General hypothesis of donation | .308 | 3.49 | .00 |
| | Need of organs after death | .402 | 4.56 | .00 |
| | $R^2 = 0.37$ | | | |
| | $F = 9.53, p<0.00$ | | | |

For the medical personnel sample the results were more interesting (Table 14). Predicting the intention to donate blood, bone marrow, one's own organs or the organs of a deceased relative was not possible based on their attitudes as none of the F-values proved to be significant.

On the other hand, their attitudes proved to be a relatively good predictor of the intention to ask about donation. Unexpectedly, neither perception of the negative physical consequences of tissue donation or the positive consequences of donation are the basis of intention to ask about tissue donation. On the contrary, more general beliefs differentiate those who would ask from those who would not or at least are not sure that they would. Absolute hypothesis for donation (Factor 4) which refers to whether a person should donate organs or not, is the main predictor, and moral and ethical issues and social responsibility (Factor 3) also influence the intention to ask for blood and bone marrow donation.

When considering the intention to ask about organ donation Factor 5 which relates to the need for organs after death is the most influential whereas Factor 1 (negative aspects of donation) and Factor 4 (general reasons for donation) explain a significant percentage of variance of the intention.

## CONCLUSION

Overall, attitudes towards tissue and organ donation are very positive, and most people are willing to donate tissues and organs, as well as receive tissue or an organ transplant.

Attitudes towards tissue and organ donation are highly correlated implying that people who hold positive attitudes towards tissue donation are more likely to hold positive attitudes towards organ donation as well.

Furthermore, the intentions to donate and receive tissues as well as organs are significantly correlated, meaning that those who intend to donate blood are more willing to donate bone marrow and organs, and be recipients of tissues and organs in a case of need. Therefore, the same factor is probably underlying the attitudes and decision to donate in all kind of donations. The practical implication of this finding is that a pool of blood donors offers the best opportunity for finding bone marrow and organ donors, since blood donors are more willing to donate in general. Furthermore, relying on some general predisposition that underlies attitudes to donate, it may be worthwhile to merge campaigns that promote donations by appealing to donation in general.

The intention to donate tissues and organs and receive organ transplants is well explained by attitudes, while the intention to receive transfusion or a bone marrow transplant cannot be predicted based on attitudes.

Attitudes towards tissue and organ donation were found to be multidimensional producing four significant factors for tissue donation (personal obligation, negative physical consequences of donation, moral barriers and civil duty), and two significant factors (positive and negative aspects) of organ donation in the community sample.

For the medical personnel sample attitude structure was similar to the community sample with regards to tissue donation. Four significant factors were found (personal obligation, negative physical consequences, moral aspects and civil duty and absolute hypothesis of donation). On the organ donation scale, we found five significant factors (positive consequences, negative aspects, threat of ruining a dead person, absolute hypothesis of donation and need for organs after death) implying more structured beliefs concerning organ donation exist among doctors and nurses than in the community sample, probably because they are more familiar with organ donation.

When people consider blood donation their decision is based on moral and ethical thoughts that they hold about tissue donation, as well as feelings of personal obligation and civil duty. The possible negative consequences, while unimportant for blood donation, play a significant role for bone marrow donation.

While positive feelings mostly determine attitudes towards tissue donation, fear is behind attitudes towards organ donation. Moreover, in both cases the intention is formed in the absence of negative beliefs (moral barriers being the dominant factor for tissue donation and negative consequences for organ donation). This finding strongly suggests that we should not use the simple sum of items on attitude scales, as subjects with high results will be those who hold positive beliefs but simultaneously are not best predictors of intentions. While the situation with multidimensionality of attitudes towards donation is not clear, factor scores should be used as predictors of intention. In addition, when developing attitude scales towards donation, it is advisable to use the recommended procedure for constructing such scales, and to supplement item ratings in view of how important they are for the decision to donate and for the decision not to donate. This procedure would allow us to identify and incorporate those items that do not correlate highly with the total result but are still significant predictors as the consequence of the multidimensionality of the scales.

Attitudes are a good predictor of the intention to ask about donation among medical personnel, and the factor related to the general hypothesis of donation is the most important. Therefore, it is not the absence of a fear of negative con-

sequences, or humanitarian motives that motivate medical personnel to ask about donation, but the general idea that it is the right thing to do.

Although attitudes and intention within both samples are positive, the community sample held more positive attitudes towards tissue and organ donation compared to the medical personnel sample. In addition, they were more willing to donate blood. However, when intentions were analysed, medical personnel were more willing to donate the organs of their deceased relative, compared to community members. Evidently, medical personnel are more comfortable with posthumous donation and perceive it as less risky. Although the intention to ask about donation is positive, there is still room for improvement.

A difference between the community sample and the medical personnel sample was not found on any of the items of the attitude scale towards tissue donation. However, two items differed significantly on the attitude scale towards organ donation. Both items were explained by the same factor (Importance of organs for a dead person), and this factor also proved to be a significant predictor for the intention of medical personnel to ask people about organ donation. Moreover, the factor that explained most of the variance of intention to ask for both tissues and organs about transplantation is the General hypothesis of donation, explained as: "Is it the right thing to do?". This factor is present only among medical personnel and discloses the uncertainty of doctors and nurses with regard to the ethics of donation in general. As the present research does not offer insight into the context of this finding, we can only speculate as to why medical personnel are less certain that organs are not important after death and why they are not confident about the appropriateness of donation, until subsequent research explains this finding. Knowing that the decision to ask about donation is determined by the doctors' general comprehension of donation as well as its moral and ethical issues, further research should examine what underlies their fears and doubts regarding tissue and organ donation.

It is important to discover why the dilemma concerning the validity of the donation process exists and what exactly do medical personnel consider when they refer to "need of organs after death". These findings would give information that could be used in discussions with doctors and nurses to help them overcome these fears.

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# Darivanje tkiva i organa: povezanost strukture stavova i namjere

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Ovo istraživanje ispituje stavove i namjeru vezane uz davateljska ponašanja. U istraživanju su uspoređeni stavovi i namjere prema darivanju tkiva i organa, a medicinsko osoblje je prema tim varijablama uspoređeno s uzorkom građana. Testirana je hipoteza multidimenzionalnosti stavova. Medicinsko osoblje i građani pokazali su visoko pozitivan stav prema darivanju tkiva i organa. Ipak, stav medicinskoga osoblja prema darivanju organa je manje pozitivan od stava građana. Pokazalo se da je struktura stava prema darivanju tkiva i organa multidimenzionalna. Ustanovljena je značajna povezanost između stavova prema darivanju tkiva i organa. Štoviše, sve mjere namjere značajno su povezane, implicirajući da postoje generalni čimbenici u pozadini varijabla vezanih uz darivanje tkiva i organa. Stavovi su dobri prediktori namjere, pri čemu je namjera prema darivanju tkiva najbolje objašnjena moralnom komponentom stavova, a namjera prema darivanju organa najbolje je objašnjena negativnim aspektima darivanja. Namjera medicinskoga osoblja da traži osobu da postane davatelj tkiva ili organa pod snažnim je utjecajem njihova dojma o ispravnosti davateljskoga postupka.

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# Organ- und Gewebespenden: der Bezug zwischen Einstellungen und Spendebereitschaft

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In dieser Untersuchung werden Einstellungen und Spendebereitschaft hinsichtlich Organ- und Gewebespenden hinterfragt. Auf eine Umfrage unter "Normalbürgern" folgt ein Vergleich mit diesbezüglichen Einstellungen und Absichten, die von medizinischem Fachpersonal vertreten werden. Das Ziel war, die Hypothese der Multidimensionalität von Einstellungen zu testen. Sowohl medizinisches Fachpersonal als auch "Normalbürger" zeigten eine sehr positive Einstellung hinsichtlich Organ- und Gewebespende. Dennoch erwies sich, dass auf Seiten des medizinischen Fachpersonals die Spendebereitschaft geringer und die Meinungsstruktur bezüglich dieses Themas multidimensional ist. Man stellte fest, dass zwischen Einstellungen und einer tatsächlichen Spendebereitschaft ein wesentlicher Zusammenhang besteht. Ebenso zwischen sämtlichen Maßnahmen, mit denen die Spendebereitschaft in die Tat umgesetzt werden soll; diese implizieren das Bestehen genereller Faktoren, die der Bereitschaft zur Organ- und Gewebespende vorausgehen. Einstellungen sind gute Prädiktoren einer Spendebereitschaft, wobei stets eine moralische Komponente mitspielt, während Bedenken am ehesten durch negative Aspekte der Organ- und Gewebe-spende zu erklären sind. Die Suche der Mediziner nach einem Organ- oder Gewebespender steht unter dem starken Eindruck, dass die Bereitschaft zur Organ- und Gewebespende menschlich korrekt ist.