

Public attitudes to organ donation in South Africa

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Abstract Public attitudes to organ donation may be influenced by cultural beliefs as well as racial prejudices and superstitions. In South Africa we are able to examine these issues from both a First- and a Third-World perspective. In this study the attitudes of 1 299 urban white, 625 rural black and 826 urban black South Africans were examined.

Eighty-nine per cent of white, 84% of rural black and 76% of urban black South Africans are prepared to donate their own organs. All groups are less willing to donate the organs of close relatives (76% white, 76% rural black and 67% urban black). Most people felt that this decision should be made by the person before death.

Most black people (88%) felt that the race of both donor and recipient were irrelevant. Only 23% of black people were prepared to donate their corneas, compared with the 69% and 70% willing to donate their kidneys and heart respectively.

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The success of any transplantation programme depends on a constant supply of suitable donor organs. The supply of organs continues to be much less than the demand.¹⁻³ The availability of organs for transplantation is influenced by the attitudes of both the general public and the medical community.³⁻⁵

The attitudes of the medical community are probably the most important aspect of organ donation, for without donor referrals there can be no transplant programme, regardless of how willing members of the general public are to donate organs. The attitudes of doctors towards organ donation have yet to be investigated in South Africa and will not be discussed in this paper.

Religious teachings have a profound effect on attitudes to organ donation. Muslims are unable to donate their organs because of religious laws⁶ and Jews do not readily consent to organ donation; Christians and Hindus have no such religious constraints. However, the influence of cultural beliefs, racial prejudices and superstitions on public attitudes to organ transplantation, in particular to the concepts of brain-stem death and organ donation, is not known.

In South Africa, as in the rest of the English-speaking world, we have organ procurement legislation that requires consent ('opt-in'), i.e. consent to organ donation must be obtained from the next-of-kin.⁷ Many European countries have presumed-consent legislation ('opt-out') which allows for the removal of organs without the consent of the family, unless the deceased has indicated before death that he does not want his organs used for transplantation.⁷ In South Africa we are dependent on the goodwill of the public for a constant supply of donor organs.

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Methods

Type of study

Urban whites were selected to represent the attitudes of the First-World sector of South African society, and rural blacks to represent the Third-World (traditional) sector. An urban black group was included to determine the effect of urbanisation on traditional attitudes.

Field surveys were conducted between December 1987 and November 1990. The interviews were done face-to-face by trained interviewers, working under the supervision of field managers. The questions were compiled by the SA Organ Donor Foundation (ODF) and added, free of charge, to existing market research questionnaires. Some of the questions put to the urban whites were altered for the urban and rural black studies.

A random suburb sampling technique was used to ensure a representative cross-section of the public. The sample of respondents studied depended on those targeted for the particular product being researched and so are not equal or even similar in some of the groups.

The surveys were conducted by a Cape Town-based market research company (Research Surveys (Pty) Ltd).

The sample

Urban white South Africans

Seven hundred and ninety-nine white women were interviewed in November 1987 and 500 white men in December 1987. The results of these two surveys were combined for the purposes of this paper (Table I). The 1 299 respondents were initially asked whether or not they would accept a transplant if it were the only treatment option available to them; 1 041 (80%) answered positively and only these were asked any further questions.

TABLE I.
The sample - urban whites, urban blacks and rural blacks

	White (urban)	Black	
		Urban	Rural
Male	500	500	0
Female	799	326	625
Age (yrs)			
18 - 24	197	210	145
25 - 34	411	302	213
35 - 49	428	211	237
> 50	263	103	30
Language group			
English	656	0	0
Afrikaans	643	0	0
Zulu	0	356	211
Xhosa	0	316	141
Tswana	0	58*	197
Sotho (N and S)	0	96	76
Area			
PWV	791	258*	—
Transvaal	—	—	351
Durban	144	264	—
Natal	—	—	150
E Cape and Bloemfontein	157	145	124
East London	—	159	—
Cape Town	207	—	—

* = all males.

Urban black South Africans

Three hundred and twenty-six urban black women were interviewed in December 1989 and 500 men in October 1989; the results of these two surveys were combined for the purposes of this paper (Table I).

Rural black South Africans

Six hundred and twenty-five rural women were interviewed in September 1990. There were no rural black men in the sample (Table I).

Data analysis

All the surveys were processed by the market research company. The original questionnaires were not available for examination.

Data were statistically analysed by means of χ^2 analysis for two-by-two tables. A P -value $< 0,05$ with the Bonferroni correction⁸ was regarded as statistically significant. The statistical analyses were performed using the IBM-compatible microcomputer programme Epistat.

Results

Urban white South Africans

Eighty-nine per cent of whites said that they would donate their own organs, and 77% would give permission for donation of a close relative's organs. Table II classifies these attitudes according to the sex, age, language and demographic area of the respondents. Whites aged 18 - 24 years were less willing to donate the organs of relatives than those in the older age groups ($P = 0,0001$). Afrikaans-speaking whites were more willing than English-speaking whites to donate both their own

TABLE II.
Positive attitudes to organ donation (%) according to age, sex, demographic area and language

	White (urban)		Black			
	Own	Rel.	Own	Rel.	Own	Rel.
Total	89	76	76	67	84	76
Male	89	78	72	63	0	
Female	88	75	80	74	84	76
Age (yrs)						
18 - 24	90	66	78	70	90	85
25 - 34	89	75	76	71	87	77
35 - 49	91	82	79	65	78	71
> 50	84	79	64	55	77	73
Language group						
English	87	73	-	-	-	-
Afrikaans	91	80	-	-	-	-
Zulu	-	-	70	73	83	73
Xhosa	-	-	81	79	83	82
Tswana	-	-	62*	57	84	78
Sotho (N and S)	-	-	89	65	87	68
Area						
PWV	91	75	75*	63	-	-
Transvaal	-	-	-	-	85	76
Durban	91	87	65	59	-	-
Natal	-	-	-	-	82	72
E Cape and Bloemfontein	90	79	76	85	85	81
East London	-	-	84	74	-	-
Cape Town	80	69	-	-	-	-

* = all males.

Own = own organs; Rel. = relative's organs.

($P = 0,04$) and their relatives' organs ($P = 0,005$). Whites living in Cape Town were less willing than any other group to donate both their own ($P = 0,00008$) and their relatives' organs, while those living in Durban appeared to be more willing than any other group to donate the organs of relatives.

Eleven per cent of whites were unhappy about donating their own organs for the reasons shown in Table III. The reasons for not wanting to donate the organs of a close relative are shown in Table IV.

TABLE III.
Reasons why some people were unwilling to donate their own organs (%)*

	White (urban)	Black	
		Urban	Rural
Percentage negative	11	15	10
It is against my beliefs/ do not believe in it	18	-	-
Just could not agree to it/ would not like it	30	35	32
I do not want anything removed	-	39	55
I am too old/nothing would be useful	8	-	-
Only when physically dead	9	-	-
I would be very sick so my organs would be no good	-	4	4
None	17	-	-
Do not know/not sure at the moment	12	-	-
Other	8	-	-

* More than one response was recorded in some cases.

TABLE IV.
Reasons why some people were unwilling to donate the organs of a close relative (%)

	White (urban)	Black	
		Urban	Rural
Percentage negative	23	32	24
It is not up to me to decide/ not my responsibility/ not my body	24	29	12
The relative may not like this	1	10	6
Depends what their wishes were/ only if he had agreed to it	17	17	8
He would have to be physically dead — brain dead is not dead/ only God knows when we are dead	21	5	2
It is against my beliefs/it is not our custom to remove organs	20	9	18
You cannot just cut someone up like that/people should be buried as they are	7	12	17
It will not help the other person	-	5	2
Other	5	13	43

Urban black South Africans

Seventy-six per cent of urban blacks were prepared to donate their own organs for transplantation, and 68% would donate the organs of a close relative (Table II).

Urban blacks living in East London and Port Elizabeth appeared to be more willing than other groups to donate both their own organs and the organs of a close relative. Fifteen per cent of urban blacks were not prepared to donate their own organs (Table III), and 9% were unsure. The reasons urban blacks would not donate the organs of a close relative are shown in Table IV.

Rural black South Africans

Eighty-four per cent of rural blacks were prepared to donate their own organs while 76% said they would give permission for the donation of the organs of a close relative (Table II).

Rural black women aged 18 - 24 years were more positive about donating their own organs as well as the organs of close relatives when compared with those in the older age groups ($P = 0,008$). Sotho-speaking rural blacks appeared less willing to donate the organs of a relative than any other group.

The reasons for 10% of rural blacks not wanting to donate their own organs are shown in Table III. Six per cent were unsure whether they would donate their organs. Twenty-four per cent said they would not be willing to donate the organs of a close relative for the reasons shown in Table IV.

Racial issues

All the black groups were asked whether they thought 'organs should only be exchanged between people of the same race group'. Eighty-eight per cent felt that race was irrelevant. The reasons for some (12%) thinking that organs should only be used in people of the same race group are shown in Table V.

TABLE V.
Black South Africans' reasons why organs should only be used in persons of the same racial group (%)

	Urban	Rural
To save our nation	28	15
The different blood will be a problem	24	15
Political reasons/I am a racist	11	8
The different races have different diseases	38	17
Each race group has its own culture	5	6
Other	33	48

* More than one response was recorded in some cases.

Organs willing to donate

The willingness of rural and urban blacks to donate particular organs is shown in Fig. 1. Most black people are willing to donate their heart (70%) and kidneys (69%); however, less than half would be prepared to donate their liver and lungs and very few would be willing to donate their corneas. These differences were similar for both the urban and rural samples.

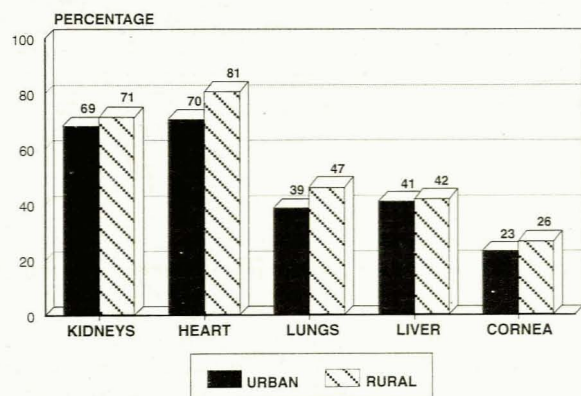


FIG. 1.
Black South Africans — willingness to donate particular organs.

Discussion

The lack of cadaver organs continues to be a major limiting factor in organ transplantation.¹⁻³ We hypothesised that several factors including cultural beliefs, racial issues and superstitions may influence public attitudes towards organ donation. We also postulated that the greater sophistication of the First-World (industrial capitalist) sector of our society would favourably influence attitudes toward organs donation when compared with the more traditional views of the poorer, less sophisticated Third-World sector. In this study people of different social, racial and cultural backgrounds were surveyed to assess the effect of these factors on attitudes towards organ donation.

The study has a number of major methodological shortcomings; however, it is the first such study undertaken in South Africa and forms a baseline for future analyses of attitudes. Firstly the surveys were done over a period of 3 years, during which time the ODF were actively promoting organ donation. Secondly, because the questions were tagged onto existing market research surveys, the number and samples in the various groups were not similar. For example the urban white study included no men in the western Cape while the rural black study included no men at all. In the urban black study all Tswanas interviewed were male; no one living in the western Cape was included, and no women living in the PWV area were included. Furthermore the urban white survey may have been positively slanted by the exclusion of the 258 respondents (20%) who said that they would not be willing to accept a transplant even if this were the only treatment modality open to them.

Eighty-two per cent of South Africans are willing to donate their own organs and 78% the organs of close relatives. In an American public survey conducted in 1987 it was found that only 49,3% of Americans were willing to donate their own organs, while 62,5% were willing to donate the organs of a close relative.⁹

Twenty-three per cent of urban whites said they would be unwilling to donate the organs of a close relative, stating that this was a decision the brain-dead person should have made before death. A study at Groote Schuur Hospital found that only 9% of 'whites' refused permission for the use of a relative's organs for transplantation.¹⁰

It was surprising to note that whites in the western Cape, the area of the country most exposed to transplantation-related publicity, are less willing to donate their own organs and the organs of close relatives than those anywhere else. This finding does not appear to be influenced by the fact that there were no males in this group, as attitudes between males and females are similar.

It is often stated that black South Africans are reluctant to donate their organs for transplantation. At Groote Schuur Hospital consent for organ donation from the families of black brain-dead patients was obtained in 42% of cases.¹⁰ In this study 75% of black people said they would be willing to donate their organs. Rural blacks showed very similar attitudes to those of urban whites. This would imply that blacks do not have traditional views on this subject because organ donation for medical purposes is a recent concept; however, the removal of organs for other reasons is not new.

Human organs have apparently been used in the past by the *sangoma* (traditional healer) to make powerful *muti* (traditional medicine to ward off spells) and by 'witches', 'wizards' and 'sorcerers' for black magic. This clearly is a different issue, but because of the association it may adversely influence attitudes towards organ donation. It is a traditional Xhosa belief that when a person dies he joins his ancestors (*izinyanya*) in the world of spirits (T. Marala, black heart transplant recipient —

personal communication). There is, however, nothing which prescribes that a person needs all his organs in order to join his ancestors; in fact the world of spirits cannot be entered into in a physical form.

We were surprised to find that rural blacks appeared more willing (not statistically significant) to donate organs than those in urban areas. This could be because the rural respondents were all female — in the urban study women appeared to be more willing than men to donate organs. It seems more likely, though, that this is the result of negative propaganda by either political organisations or church groups. Church teachings influence black opinions to a large extent (T. Marala — personal communication). Even if the church has no definite policy on the matter, the local opinion may be based on the sometimes 'biased, unscientific' opinion of a strong individual within the church.

The fact that young people, except for urban whites, are more willing to donate organs than those in the older age groups is encouraging in that it indicates a changing attitude.

The Xhosa groups in both the urban and rural surveys were slightly more willing to donate organs than blacks in any of the other groups. This is probably the result of extensive radio and magazine campaigns by the ODF which have been aimed at Xhosa-speaking people; however, it could also indicate different cultural beliefs. Callender¹¹ reports that the main reason why black Americans donate organs infrequently was a lack of awareness about organ donation and transplantation.

It was interesting to note that while the Sotho group were willing to donate their own organs they were less willing to donate those of a close relative. The authors can find no explanation other than possible cultural differences for this, and would be interested to have comments on the subject.

All groups gave similar reasons for being unwilling to donate their own organs. A major factor appears to be a lack of knowledge about brain death, organ donation and transplantation. In contrast, the reluctance to donate the organs of a close relative reflects a lack of communication within the family about the issue. The concept of organs being donated between the different racial groups does not play a major role in black attitudes to organ donation.

Of interest is the finding that donation of the heart and the kidneys are equally acceptable to black people from all areas and language groups, while donation of the corneas is not.

Recommendations

1. Attitudes to organ donation should be discussed with immediate family and friends.
2. Public education about brain death, organ donation and transplantation should be implemented.
3. Media exposure and education on these matters need to be aimed at all language groups within the black communities.
4. More knowledge about the beliefs of the black community with regard to specific organs and organ donation is required.
5. The attitudes of the South African public to presumed consent (opt-out), as practised in most countries of the European Community, need to be assessed.⁷ This is one way of guaranteeing the constant supply of donor organs for transplantation and may be feasible as so many of the South African population are in favour of organ donation.
6. The attitudes of the South African medical community to organ donation need to be determined.

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REFERENCES

1. Wallwork J. Organs for transplantation. *BMJ* 1989; **299**: 1291-1292.
2. Kootstra G. Will there still be an organ shortage in the year 2000? *Transplant Proc* 1988; **20**: 809-811.
3. Prottras J, Batten HL. Health professionals and hospital administrators in organ procurement: attitudes, reservations and their resolutions. *Am J Public Health* 1988; **78**: 642-645.
4. Wakeford RE, Stepney R. Obstacles to organ donation. *Br J Surg* 1989; **76**: 435-439.
5. Gaber AO, Hall G, Phillips DC, et al. Survey of attitudes of health care professionals toward organ donation. *Transplant Proc* 1990; **22**: 313-315.
6. Ebrahim AFM. The moment of death. *Bulletin of the Islamic Medical Association of South Africa* 1991; **11**(2).
7. Stuart FP, Veith FJ, Cranford RE. Brain death laws and patterns of consent to remove organs for transplantation from cadavers in the United States and 28 other countries. *Transplantation* 1981; **31**: 238-244.
8. Murray GD. Statistical aspects of research methodology. *Br J Surg* 1991; **78**: 777-781.
9. Evans RW, Manninen DL. US public opinion concerning the procurement and distribution of donor organs. *Transplant Proc* 1988; **20**: 781-785.
10. Pike RE, Kahn D, Jacobson JE. Demographic factors influencing consent for cadaver organ donation. *S Afr Med J* 1991; **79**: 264-267.
11. Callender CO. Organ Donation in blacks: a community approach. *Transplant Proc* 1987; **19**: 1551-1554.