

How Organ Donors are Different from Non-donors: Responsibility, Barriers, and Religious Involvement

Lillian M. Range · Geoffrey F. Brazda

Published online: 19 December 2014
© Springer Science+Business Media New York 2014

Abstract To see if religious involvement, previously linked to various health behaviors, was linked to organ donation, 143 ethnically diverse undergraduates stated whether they were registered donors (53 % were), and completed measures of organ donation attitudes and religious involvement. Compared with non-donors, donors reported fewer barriers, more family responsibility, and more willingness to receive donor organs, but were not different in religious involvement. Even in 2014, when being a “good Samaritan” by agreeing to organ donation is as easy as checking one box on a driver’s license application, religious involvement does not seem to be a factor in checking this box.

Keywords Organ donation · Religion · Religious involvement

Introduction

There is quite a bit of variation in the percentage of a particular population who report being organ donors. On the low side, in 2011, only 20.6 % of African American churchgoers in southeastern Michigan were current organ donors (Resnicow et al. 2011). On the high side, slightly more than half of some groups report that they are registered organ donors: 50.7 % of Australian nurses who completed an online survey in 2012 (Marck et al. 2012), 51.5 % of Islamic religious leaders in 2013 (Uskun and Ozturk 2013), and 54 % of US women college students in 2010 (Boland and Baker 2010). End sentence to this paragraph.

Organ donors are different from non-donors. A meta-analysis in 2008 of 24 research studies indicated that organ donors were more: educated, religious, knowledgeable about organ donation, positive in attitude toward organ donation, positive in social influences

L. M. Range (✉) · G. F. Brazda
Department of Counseling and Behavioral Sciences, Our Lady of Holy Cross College, 4123 Woodland Drive, New Orleans, LA 70131, USA
e-mail: lrange@lhcc.edu

such as social support or family discussion, altruistic, and younger in age; and, less fearful of organ donation. Further, donors and non-donors were not significantly different on gender, ethnicity, or marital status (Nijkampa et al. 2008). This analysis did not look at religious involvement specifically. Further, it was completed 6 years ago. Technology, as well as overall attitudes toward organ donation, has changed dramatically in that time. For example, many of the studies included in the meta-analysis were done with people signing an organ donor card.

At the present time, many states in the US allow people to declare willingness to be organ donors as they obtain a driver's license. Those who do so obtain a small organ donor symbol (red heart) on their driver's license. This process means that if they were in an automobile accident or mortally injured in some other way, their family would know that they intended to be organ donors. This process makes concrete the person's wishes, eliminating the fallibility of memory at what is probably a very difficult time for family members, as well as the necessity of a prior discussion of what might be a very difficult or awkward topic.

Donors are more likely to have discussed their wishes than non-donors. For example, in a 1999 study of US adults randomly selected for a telephone interview, those who had signed an organ donor card were more committed than non-donors to discussing their intentions with their families (Guadagnoli et al. 1999). Nevertheless, not all people, even those willing to be organ donors, have discussed their organ donation preferences with the specific person (e.g., next of kin) who would have to agree to organ donation. Thus, a process that asks about willingness to donate at the time of obtaining or renewing a driver's license is expedient and smooth, eliminating the necessity of signing a separate card specifically for organ donation.

Religious involvement has been linked to having a healthy diet (eating more vegetables; Holt et al. 2014), and having a mammogram (Holt et al. 2003). Religious behaviors, but not religious beliefs, were linked to prostate cancer screening among African Americans (Holt et al. 2009). In different groups, as religious involvement increases, so do proactive health behaviors. Thus, it would be reasonable to expect that likelihood of organ donation would increase as well. Therefore, similar to others, we expected donors to report more religious involvement than non-donors. We also expected those with high religious involvement to report fewer barriers, more family and racial responsibility, and more altruism.

Method

Participants

Participants were 143 undergraduate and graduate students at a small, Catholic-based coeducational college in the southeastern USA. Most (123, 86 %) were women, about half (81, 57 %) were European American, and about half were Catholic (74, 52 %). In terms of major, about half were counseling/psychology (62, 43 %) but a high number were nursing (43, 30 %), and some were health (20, 14.4 %) or other (14, 10.1 %). Also, 76 (53 %) reported being organ donors, 60 (42 %) denied being organ donors, and seven did not answer this question.

Materials

Organ Donation Scale (Resnicow et al. 2011) was originally 18 questions in three subscales: barriers, family and racial responsibility, and altruism in donating their own organs.

Resnicow used strongly disagree to strongly agree scoring, but in the present project we used 1 (*Yes, Quite a Bit*) to 7 (*No, Not at all*) scoring in order to be consistent across all items. Also, we simplified the wording slightly, eliminating the phrase “African Americans,” or the word “black,” which changed the meaning of one item to make it altruism instead of racial responsibility, and two other items to make them more about community than racial responsibility. Resnicow reported that the scales were internally consistent when completed by African American church-goers (barriers = .77; responsibility = .87; altruism = .81). In the present study, the subscales were adequately internally consistent ($\alpha = .74, .75, \text{ and } .77$, respectively, for barriers, responsibility, and altruism).

Religious Involvement (Lukwago et al. 2001; Roth et al. 2012) is nine items (e.g., *I often talk openly about my faith with others*) originally scored on a 4-point response scale (strongly disagree, disagree, agree, and strongly agree). This scale was internally consistent and reliable over 2 weeks among African American women (Roth et al.). To be consistent throughout, we used the same 7-point response scale that we used for organ donation (*Yes, Quite a Bit* to *No, Not at all*). In the present sample, this scale was internally consistent ($\alpha = .88$).

We also asked their organ donation experience, understanding (Brown 2012), confirmation of their wishes with next of kin (adapted from Berry et al. 2012), and willingness to donate organs from children or next of kin, using the same a 7-point scale, 1 (*Yes, Quite a Bit*) to 7 (*No, Not at all*). We also asked five questions about receiving organ donations for self (e.g., Boland and Baker 2010), adult next of kin, children, and from a deceased person (e.g., Martinez-Alarco et al. 2006) and a live person answered on the same 7-point scale. In the present sample, these items were internally consistent ($\alpha = .91$).

Procedure

Students completed the one page of questions either directly before or directly after class. They received no incentives to complete the scales. They answered anonymously. Also, we informed them that they could get free counseling in the event that the questions bothered them.

Results

Donors perceived significantly fewer barriers ($M = 40.08$, $SD = 8.82$, “virtually no barriers”) than non-donors ($M = 36.18$, $SD = 8.59$, “not many barriers”), $F(1,127) = 6.32$, $p = .013$, $\eta^2 = 6.39$. Also, donors perceived significantly more family and community responsibility ($M = 14.68$, $SD = 5.26$, “neutral on responsibility”) than non-donors ($M = 21.98$, $SD = 7.74$, “no family or community responsibility”), $F(1,131) = 41.85$, $p = .000$, $\eta^2 = 26.00$. In addition, donors reported significantly more altruism ($M = 2.80$, $SD = 2.21$, “it absolutely will help others in need”) than non-donors ($M = 4.34$, $SD = 3.24$, “it will help others in need”), $F(1,132) = 10.70$, $p = .000$, $\eta^2 = 1.08$. Also, although everyone on average was positive toward receiving organs, donors were very positive ($M = 8.07$, $SD = 5.92$), whereas non-donors were only mildly positive ($M = 15.26$, $SD = 9.80$), $F(1,130) = 27.21$, $p = .000$, $\eta^2 = 24.91$.

In contrast to these differences in barriers, responsibility, and altruism, donors were not significantly different from non-donors in religious involvement. Overall, students were mildly positive about religious involvement ($M = 25.35$, $SD = 12.43$). Unexpectedly,

religious involvement did not correlated significantly with responsibility, altruism, or barriers.

Compared with non-donors, donors were no different in terms of experience and understanding. Students, on average, reported only a little experience of a loved one receiving organ donation ($M = 5.72$, $SD = 2.32$) and were neutral about their understanding of organ donation ($M = 3.65$, $SD = 2.14$), and whether they had confirmed their wishes with their next of kin ($M = 4.63$, $SD = 2.62$). However, donors were more likely than non-donors to have confirmed their organ donation wishes with their next of kin ($M_s = 3.68$, $SD = 2.62$ vs. 5.95 , $SD = 1.96$), $F(1, 133) = 31.07$, $p = .000$, $\eta^2 = 2.49$.

There were racial/ethnic differences in attitudes toward organ donation. In this sample, students who identified as white, compared with all others, reported more family and community responsibility on the Organ Donation Scale ($M_s = 16.46$, $SD = 6.86$, “a little responsibility” vs. 20.30 , $SD = 8.07$, “neutral about responsibility”), $F(1, 113) = 7.00$, $p = .009$, $\eta^2 = 6.31$. This finding was also true if only white and black students were compared. In addition, those who identified as white were more likely to be willing to receive organs than all others, $F(1, 114) = 5.59$, $p = .02$, $\eta^2 = 5.95$. Also, students who identified as white reported less religious involvement ($M_s = 28.06$, $SD = 12.88$, “some” vs. 20.17 , $SD = 10.24$, “a good deal”), $F(1, 111) = 10.44$, $\eta^2 = 28.20$. There was no significant ethnic background difference in barriers, altruism, or actually being an organ donor.

Further, nursing and counseling/psychology majors were significantly more likely to be donors than health and other majors, $F(1,133) = 5.19$, $p = .02$. However, nursing and counseling/psychology majors were not significantly different from all others in barriers, responsibility, altruism, religious involvement, or whether they would receive donated organs.

Discussion

Present college students, who were relatively inexperienced and uninformed about organ donation, and had about a 50/50 chance of being registered organ donors on their driver’s license, were positive in their attitudes toward organ donation, although donors were more positive than non-donors. The fact that donors perceived fewer barriers to organ donation, and felt more personal responsibility with regard to being donors, is consistent with past results with African Americans on organ donation barriers and altruism (Resnicow et al. 2011), even though present were ethnically diverse students and had a 50 % chance of being organ donors, whereas Resnicow’s sample was entirely African American churchgoers who had only a 20 % chance of ever signing up to be an organ donor.

Unexpectedly, religious involvement did not make a difference in organ donation in the present sample. Donors were no more likely to report high religious involvement than non-donors. African American students nevertheless reported more religious involvement than European American students, which is consistent with past research (Chatters et al. 2009). The religious nature of the present Catholic co-educational college may have drawn students who were different from other research samples.

Consistent with this idea is that in the present sample, European American students actually reported more family and community responsibility than African American students. Notably, students overall felt little responsibility; their feelings on this point may change with maturity. Further, in modifying the survey, we eliminated the terms “African Americans” and “black,” because our sample was 57 % European American. Although

the revised subscales were internally consistent, we may have nevertheless changed the underlying meaning of some of the items.

In this study, we did not make a prediction about racial differences in organ donation because this kind of demographic difference, such as whites indicating more willingness to donate (e.g., Guadagnoli et al. 1999), or blacks indicating more distrust of the medical establishment (e.g., Morgan 2006), has been reported in the past. Unexpectedly, among these mostly women of diverse ethnic backgrounds, there was no racial difference in likelihood of being an organ donor. The high proportion of nursing and counseling/psychology majors may have overridden any possible racial differences.

Unexpectedly, religious involvement did not make a difference in terms of the behavior of being an organ donor, or in terms of attitudes toward organ donation. Whether a person says yes or no to the organ donation question on the driver's license application, though not related to religious involvement, may be connected to other variables such as being approached directly by a person at the driver's license office (e.g., Quick et al. 2013) rather than simply seeing a yes/no box on the application.

Although present respondents in general were positive on the five questions about receiving organs, donors were even more so than non-donors. Note that the present questions about receiving organs were somewhat more comprehensive than the two questions about receiving tissue from living or deceased donors that have been used in some other research (Morar and Dura 2014). In addition, these questions were internally consistent. Present students had only about a 50/50 chance of saying yes to being organ donors, but on average were unequivocal to saying yes to receiving donated organs. This discrepancy is one of the reasons why there is an organ donation shortage (typical wait time is 1–2 years, Organ Procurement and Transplantation Network 2014).

A limitation of these results is that the organ donation scale we adapted (Resnicow et al. 2011), although comprehensive, was originally designed to measure attitudes of African Americans and was used with a sample from Baptist churches in southeastern Michigan. Likewise, the religious involvement scale was also designed to measure attitudes of African American. The present ethnically diverse college students from a Catholic undergraduate program in southeastern Louisiana could be quite different, particularly in terms of their organ donation attitudes and behaviors, and religious involvement.

A strong point of the present study was that we asked whether respondents were actually donors, not whether they had ever signed up to be donors (Resnicow et al. 2011) and not whether they had registered their choice with the organ donation register (Marck et al. 2012), which is the typical practice in Australia but may be more difficult than checking one box. Even in 2014, when being a “good Samaritan” by agreeing to organ donation is as easy as checking one box on a driver's license application, religious involvement does not seem to be a factor in checking this box.

References

- Berry, C., Salim, A., Ley, E. J., Schulman, D., Anderson, J., Navarro, S., & Chan, L. S. (2012). Organ donation and Hispanic American high school students: Attitudes, beliefs, perceptions, and intent to donate. *The American Surgeon*, *78*, 1555–9823.
- Boland, K., & Baker, K. (2010). Female college students' perceptions of organ donation. *College Student Journal*, *44*, 178–188.
- Brown, E. R. (2012). African American present perceptions of organ donation: A pilot study. *The ABNF Journal*, *23*, 29–33.

- Chatters, L. M., Taylor, R. J., Bullard, K. M., & Jackson, J. S. (2009). Race and ethnic differences in religious involvement: African Americans, Caribbean Blacks and non-Hispanic Whites. *Ethnic and Racial Studies*, 32, 1143–1163.
- Guadagnoli, E., Christiansen, C. L., DeJong, W., McNamara, P., Beasley, C., Christiansen, E., & Evanisko, M. (1999a). The public's willingness to discuss their preference for organ donation with family members. *Clinical Transplantation*, 13, 342–348.
- Guadagnoli, E., McNamara, P., Evanisko, M. J., Beasley, C., Callender, C. O., & Poretzky, A. (1999b). The influence of race on approaching families for organ donation and their decision to donate. *American Journal of Public Health*, 89, 244–247.
- Holt, C., Clark, E. M., Debnam, K. J., & Roth, D. L. (2014). Religion and health in African Americans: The role of religious coping. *American Journal of Health Behavior*, 38, 190–199.
- Holt, C. L., Lukwago, S. N., & Kreuter, M. W. (2003). Spirituality, breast cancer beliefs and mammography utilization among urban African American women. *Journal of Health Psychology*, 8(3), 383–396.
- Holt, C. L., Wynn, T. A., & Darrington, J. (2009). Religious involvement and prostate cancer screening behaviors among Southeastern African American men. *American Journal of Men's Health*, 3(3), 214–223.
- Lukwago, S. L., Kreuter, M. W., Bucholtz, D. C., Holt, C. L., & Clark, E. M. (2001). Development and validation of brief scales to measure collectivism, religiosity, racial pride, and time orientation in urban African American women. *Family and Community Health*, 24, 63–71.
- Marck, C. H., Weiland, T. J., Neate, S. L., Hickey, B. B., & Jelinek, G. A. (2012). Personal attitudes and beliefs regarding organ and tissue donation: A cross-sectional survey of Australian emergency department clinicians. *Progress in Transplantation*, 22, 317–322.
- Martinez-Alarco, L., Rios, A., Conesa, C., Alcaraz, J., Gonzalez, M. J., Ramirez, P., & Parrilla, P. (2006). Attitude of kidney patients on the transplant waiting list toward related-living donation. A reason for the scarce development of living donation in Spain. *Clinical Transplantation*, 20, 719–724.
- Morar, S., & Dura, H. (2014). Transplant acceptability among the students of Sibiu Faculty of Medicine. *Acta Medica Transilvanica*, 2(2), 199–201.
- Morgan, S. E. (2006). Many facets of reluctance: African Americans and the decision (not) to donate organs. *Journal of the National Medical Association*, 98(5), 695–703.
- Nijkampa, M. D., Hollestelleb, M. L., Zeegers, M. P., Borne, B., & Reubsaeete, A. (2008). To be(come) or not to be(come) an organ donor, that's the question: A meta-analysis of determinant and intervention studies. *Health Psychology Review*, 2, 20–40.
- Organ Procurement and Transplantation Network. (2014). Retrieved from: <http://optn.transplant.hrsa.gov/>
- Quick, B., Harrison, T. R., King, A. J., & Bosch, D. (2013). It's up to you: A multi-message, phased driver facility campaign to increase organ donation registration rates in Illinois. *Clinical Transplantation*, 27(5), E546–E553.
- Resnicow, K., Andrews, A. M., Zhang, N., Chapman, R., Beach, D. K., Langford, A. T., & Magee, J. C. (2011). Development of a scale to measure African American attitudes toward organ donation. *Journal of Health Psychology*, 17, 389–398.
- Roth, D., Mwase, I., Holt, C., Clark, E., Lukwago, S., & Kreuter, M. (2012). Religious involvement measurement model in a national sample of African Americans. *Journal of Religion and Health*, 51, 567–578.
- Uskun, E., & Ozturk, M. (2013). Attitudes of Islamic religious officials toward organ transplant and donation. *Clinical Transplantation*, 27, E37–E41. doi:10.1111/ctr.12058.

Copyright of Journal of Religion & Health is the property of Springer Science & Business Media B.V. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.