Religiosity and its Relationship to Organ Donation Acceptability

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The purpose of this study was to examine if religiosity is a significant predictor of organ donation acceptability. Specifically, to examine if religiosity is negatively correlated with organ donation acceptability. Furthermore it was predicted that this correlation would be stronger for men compared to women. The participants of this study included 18 males and 22 females for a total of 40 undergraduate students from The University of Western Ontario. Participants were given two surveys which measured religiosity and organ donation acceptability. As predicted, findings from this study demonstrated that religiosity was negatively related to organ donation acceptability. In addition, sex moderated the relationship between religiosity and organ donation acceptability. Specifically the negative relation occurred for men but not for women. In conclusion, the hypotheses for this study were supported. The results of the study support the need to educate religious communities on organ donation with the hopes of maximizing underrepresented demographics in organ donor pools.

Organ donation has revolutionized the health care field and has allowed many people to survive life-threatening illnesses and accidents. However, many obstacles still remain in the fight to gain donors. Previous research has shown that those who maintain religious views are less likely to become organ donors than those who do not (Lam & McCullough, 2000). The present study extended this line of research by examining the relationship between acceptability of organ donation and strength of religious views when religiosity is treated as a spectrum in which people vary. Furthermore, this paper also examined whether or not there were gender differences present in this relationship. This topic is of importance because national organ donor laws are highly specified and thus many willing candidates are eliminated through a rigorous screening process. With many willing people being disqualified, it is of the utmost importance to maximize donor pools, such as underrepresented minority donors, as their demand is remarkably disproportionate to their availability (Salim, Schulman, Ley, Berry, Navarro & Chan, 2010). Determining the underlying motivations for becoming, or more importantly not becoming a donor, is the first step in reaching these demographics to help prevent many unnecessary deaths.

Canada’s vast multiculturalism is not proportionately reflected in its donor pools. Certain ethnicities are underrepresented thus lowering the chance of finding a suitable match for someone in need (Salim et al., 2010). Previous research has looked at how specific ethnic groups feel towards organ donation. Lam and McCullough (2000) looked specifically at Chinese-American religious groups and concluded that this minority was reluctant to donate their organs, with only 23% of participants willing to donate their organs, and out of these individuals, just 4.9% currently carrying organ donor cards. Furthermore, they found that people are more flexible in their donation views if they are donating to family members (95.9% said yes) versus to strangers (45.9% said yes), showing that there is some flexibility to people’s beliefs about organ donation. Furthermore, this study found a general trend with religious beliefs correlating with reluctance to donate organs. However, reluctance was specifically related to the strong Confucian beliefs held by the participants. Confucianism is a system of ethics and philosophy that is based on the teaching of the

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Chinese philosopher Confucius. One belief of Confucianism is that upon death returning one’s body in its original state is an important sign of respect to your ancestors. This view was cited as one of the strongest deterrents from organ donation by this ethnic minority (Lam & McCullough 2000). However, gender differences were not examined in this study so no predictions about gender can be made from this data.

Similar beliefs are found in Hispanic Americans, another minority in the United States. Through random voluntary telephone interviews, Salin et al. (2010) found that the major concerns this population had regarding organ donation were: lack of knowledge, language barriers, religious conflicts, and misconceptions about organ allocation. Furthermore, these researchers found that those who named religious concerns as a reason for not becoming an organ donor were least likely of all participants to donate their organs. This suggests that religious views have a strong influence on people’s willingness to donate their organs. However it is important to note that in this study the sample only consisted of those who were of low socioeconomic status (SES). Low SES is often correlated with less education. Individuals with less education may rely more heavily on their religious beliefs to guide their decisions. Thus, the authors suggested it is not religion itself per se that cautions people against organ donation, but that their perception of their belief system to include a belief against organ donation, when in reality, no well-established religion openly condemns organ donations. Thus the authors argued that these wrongly held beliefs can be corrected by improving education. This area could be further examined by determining if strength of religious views affects their decisions as well, because as Lam and McCullough (2000) found, there is a broad range of opinions when it comes to the acceptability of donating organs and religiosity.

One third of America’s population is estimated to be Hispanic by the end of the century. This population has increased in their representation on the organ donor waiting list by 260% in the last ten years (Salim et al. 2010).

This level of rapid growth demands that more research be compiled to maximize the donor pool for minority groups. Because education interventions are relatively cost-effective, and Hispanic-American’s concerns regarding organ donation are very broad, it is important to tackle the concerns that can be easily surmounted by education, such as by informing people about the realities of organ donation surgery, including accommodation for burial and ritual services.

To continue, both views on organ donation in general and the relationship between religion and organ donation may not be similar across genders. It is important to understand whether or not there are gender differences in order to effectively target individuals who may benefit from educational intervention. An article written by a group of practicing physicians in the United Kingdom provides some insight into possible gender differences. Oliver, Woywodt, Ahmed and Saif (2011) examined the modern formal views on organ donation of individuals from multiple religions. This inquiry was inspired by a female patient who was up for annual review on the renal transplant waiting list. She was of Muslim faith and, although she could have received a kidney from one of the members of her family, she was on the waiting list because the family refused believing that organ donation is not condoned by Islam. She herself was comfortable with organ donation but was ignorant of Islam’s formal view on the subject. These authors found that no religion specifically prohibits organ donation; in fact, many of them see it as an act of great value. Furthermore, the physicians specifically state that in 1996 a religious ruling was passed by the UK Muslim Law Council that “organ transplantation is entirely in keeping with Islam.” (Oliver et al., 2011 p.438). However, 21% of doctors in Turkey listed patient’s religious concerns as a reason for why they weren’t more proactive about organ donation with their patients. This is consistent with previous research (e.g., Lam & McCullough, 2000) which has found that religious beliefs can act as a deterrent when it comes to organ donation. Although it was concluded that donation is acceptable in Islam, this case study
reflects how both differential interpretation of religious scripts and gender may influence people’s beliefs on the subject. It should be noted that the members of the young woman’s family were not identified by gender or name and therefore the role of gender in organ donation beliefs cannot be determined.

In another study concerning Muslim views on organ donation, Gatrad (1994) examined the specific burial and peri-mortem requirements for those of the Muslim faith, and how organ donation may make burial more difficult for them as opposed to a non-Muslim individual. Primarily, Muslims prefer to die in their own homes, which immediately conflicts with donor interests because after death organs need to be harvested as soon as possible (Gatrad, 1994). Furthermore, in the Muslim faith, the human body is believed to have never belonged to the individual in the first place. The body is sacred and belongs to God himself, so post-mortem examinations are not allowed unless required by a national law. Also, it is a religious requirement that the burial takes place as soon as possible after death. Finally, as a mark of respect, immediate family members may not eat until after the funeral has taken place (Gatrad, 1994). There are also many protocols when it comes to preparing the body for burial and rituals after death, all of which people might fear would be compromised by organ harvesting procedures. Furthermore, it is important to note that all of these practices are open to a reasonable amount of interpretation. Nonetheless, a similar ruling passed by the Islamic School of Jurisprudence in Egypt also stated that organ donation is condoned by Islam, however only if all the following conditions are met: the only treatment option left is an organ transplant, chance of transplant success is high, the consent of the donor has been given or once death is overseen by a reputable Muslim doctor consent has been given by next of kin, organs accepted from a non-Muslim are only used when a Muslim’s organs are not available, and that the recipient is informed of all potential risks associated with receiving an organ transplant (Gatrad, 1994). The Islamic School of Jurisprudence ruled that if something was for the benefit of mankind then “necessity allows what is prohibited” (Ebrahim & Haffejee, 1989). This review of Muslim customs specifically shows how “death” can lead to many complications in a religious community, and that something as new as organ donation may be difficult to integrate into religious communities that have been guided by scriptures that were written long before organ donation was even a concept, let alone an option. Thus, with a better understanding of the influence religion has on organ donation decisions, the medical community will be better positioned to discuss this topic with patients.

As discussed, religious beliefs have been found to be correlated with donation views; however, the strength of this relationship has not been examined with religiosity and donation beliefs placed on a continuum. Furthermore, whether this relationship can be moderated by gender has not been examined. It is important to note that independent studies have found negative correlations between holding religious beliefs and willingness to donate organs across a wide range of cultures (e.g., Oliver et al. 2011). That is, although each ethnicity has a different belief system, they all show a negative correlation, which suggests that there is something innate about religion which cautions people against organ donation. Thus the present study hypothesizes a negative correlation between religiosity and organ donation acceptability. Religiosity was defined as strength of religious views and commitment to religious practices. The second hypothesis states that the strength of this relationship will be greater for men than women. The predictor variables are religiosity and sex, whereas the criterion variable is organ donation acceptability. The explanation behind our hypothesis is that as religiosity increases people are more likely to hold more weight on the minor aspects of scriptures that deal with body preservation and post mortem integrity. Subsequently these views will be believed to be less flexible, leading to greater apprehensions about organ donation.
RELIGIOSITY AND ORGAN DONATION VIEWS

Method

Participants
The participants for this study consisted of 18 males and 22 females for a total of 40 participants, with an age range of 18 to 29 years old. Mean age was found to be $M = 21.15, SD = 2.24$. All participants used were undergraduate university students from King’s University College. There were no restrictions on religious affiliation or background for the purpose of this study.

Materials
Two surveys were created for the purpose of this study: the first asks questions about a person’s comfort level with organ donation, the second asks questions specifically about strength of spiritual beliefs and importance of religious practices. To create the questionnaire on organ donation acceptability six questions were taken from the “Examination of organ-donation comfort level from the social distance perspective” and “Religious and spiritual objections to organ donation” questionnaire by Lam and McCullough (2000). Questions from Lam and McCullough are 1, 4, 5, 8, 10 and 11. The remainder (2, 3, 6, 7 and 9) were created specifically for this study by the researcher based on previous research. To measure the strength of spiritual beliefs and importance of religious practices, all questions were taken from the Brief Multidimensional Measure of Religiousness/Spirituality (Masters, Carey, Maisto, Caldwell, Wolfe & Hackney, 2009). A copy of the two part survey can be found in the Appendix. Participants responded to the survey using a 5-point scale with some items reverse coded.

Procedure
Participants were approached in the library or cafeteria and asked to complete the survey. Participants who agreed were provided with information about the survey and signed the consent form. There was an unlimited amount of time given to complete the survey. Surveys were given out to approximately equal numbers of men and women. Upon completion of the survey, participants were thanked for their participation and debriefed.

Results
A regression analysis was conducted with religiosity as the predictor variable and organ donation acceptability as the criterion variable. Religiosity ($\beta = - .34$, $p = .032$) was a significant predictor of organ donation acceptability. In other words, greater religiosity predicted less favorable attitudes toward organ donation.

A second regression analysis was conducted with sex as the predictor variable and organ donation acceptability as the criterion variable. Sex ($\beta = .38$, $p = .016$) was a significant predictor of organ donation acceptability. Specifically, females held more favorable attitudes toward organ donation compared to men.

A third regression analysis was conducted with both religiosity and sex as predictor variables and organ donation acceptability as the criterion variable. Both religiosity ($\beta = - .40$, $p = .007$) and sex ($\beta = .43$, $p = .003$) were significant predictors of organ donation acceptability. In other words, both are independent predictors of organ donation acceptability.

To test for moderation an interaction term was created by multiplying religiosity and sex. A regression analysis was conducted with religiosity, sex, and the interaction term as predictor variables and organ donation acceptability as the criterion variable. The beta for the interaction term was significant ($\beta = 1.90$, $p = .007$) which indicates that sex moderated the relation between religiosity and organ donation acceptability. To examine this moderation, two further regressions were conducted.

Using the sample of men, a regression was conducted with religiosity as the predictor variable and organ donation acceptability as the criterion variable. Religiosity ($\beta = - .67$, $p = .002$) was a significant predictor of organ donation acceptability. A similar regression analysis was conducted with the female participants, which revealed that religiosity ($\beta = - .33$, $p = .136$) was
not a significant predictor of organ donation acceptability. Therefore, it can be assumed that for the initial regression analysis which used all of the participants, the significance of the regression can be accounted for by the male participants.

Discussion

The first hypothesis of the present study was that religiosity would significantly predict people’s organ donation views. The second hypothesis was that this relationship would be stronger for men than for women. Both hypotheses were supported. A person’s level of religiosity was found to be negatively correlated to their views on organ donation acceptability. Furthermore as predicted, men were affected more by this relationship than women. In fact, there was no significant relationship between religiosity and organ donation views with the female participants. A potential reason behind the lack of relationship in women could be explained by women’s natural maternal instincts. Since their bodies at some point (if they have children) will in a way belong to someone else for nine months, after death they may be more comfortable with donating their organs to someone else. Also in religious cultures that are patriarchal, it may be that men hold themselves to a more rigorous interpretation of scriptures, specifically those that apply to complete body integrity after death (Stopler, 2008). Both of these explanations are plausible because both sex and religiosity independently predicted organ donation acceptability.

In light of the medical ‘miracle’ of organ donation, the UK Organ Donation Taskforce conducted a study involving one-on-one interviews with faith leaders from the United Kingdom in order to better understand how a modern concept can meld with religious beliefs. David Katz, Board of Deputies of British Jews, stated that for Judaism “There is no particular Jewish position on receiving organs” (Randhawa, Brocklehurst, Pateman, Kinsella & Parry, 2010 p. 142). The Hindu faith leader who was interviewed however had a very straightforward response. Dr. Raj Pandit Sharma of the Hindu Priest Association (UK) and Hindu Council (UK) stated that donation (also interpreted as selfless giving) is third on the list of virtuous acts in sacred Hindu scripture, and that organ donation is strongly supported by his community (Randhawa et al. 2010). The general view for Christianity and Catholicism is that organ donation is acceptable. However it is ambiguously neither condemned nor openly supported. Furthermore, Christian and Catholic leaders task it upon the individual to come to their own conclusions about the subject. The findings of the present study are in line with this. Specifically, how degree of religiosity predicts people’s perception of organ donation acceptability. That is, highly religious individuals may interpret scriptures in a stricter manner, thus increasing their caution about organ donation.

Similarly, differences in the interpretation of religious texts could account for the gender differences found in the present study, because although men and women subscribe to the same religions there are significant differences in their views on organ donation. Specifically, men and women may place differential value on ideals. Furthermore, because there are no direct references to organ donation in original religious texts, it is hard to take one leader’s opinion and extrapolate it to an entire religious community. With this in mind, it is important to educate individuals who view themselves as religious on differential meanings of scriptures.

Furthermore, research has shown that concerns about post mortem body integrity cause serious apprehension towards organ donation in religious individuals. This follows closely with the proposed theory that those who are higher in religiosity are more likely to hold strongly to all aspects of scripture, specifically those related to death and care of the body. However, the finding that religiosity is not a significant predictor of organ donation acceptability for women requires further exploration.

Another complication that exists in the realm of organ donations is the definition of death, or the point at which an individual is
considered dead. Death can be defined as a lack of neural activity or irregular or no heartbeat, and the advancements of modern medicine only exacerbate the issues of what death is defined as. As previously examined, many different cultures like Islam have specific guidelines surrounding death (Gatrad, 1994). A legitimate concern is that many organs could be left unusable while waiting for what is termed whole brain, and unambiguous death.

A final study worth mentioning explored the concept of organ donation in Malaysia, a multicultural society. Malaysia has serious problems with illegal organ trafficking as the need for organ donation surpasses the supply. Organ transplant surgeries have only been performed actively in Malaysia since 1997 (Zurani, Robson, Razack & Dublin, 2010). Therefore there is a particularly high call for education about many of the logistics involved in organ donation in Malaysia. Current issues facing people of areas like Malaysia are: who will get priority, can you allocate your organs, and will people be able to purchase organs from others. We think many of these issues have been resolved in areas like Canada because we have long standing medical communities. However, research suggests that despite established medical communities in developed countries, such as the United States and Canada, many similar issues remain (Salim et al., 2010).

The practical implications of these findings, along with previous research, show that with the right compassionate education many donor demographics can be capitalized on to increase the chances of someone in need finding the most appropriate match.

A few limitations of the present study warrant attention. Participants were not asked to identify which religion they subscribe to or whether or not both of their parents are of the same religion in this study. Therefore, specific religious influences could not be examined. A second limitation is the correlational nature of the study which precludes making inferences about a causal relationship as temporal precedence has not been established. Furthermore this study was conducted solely on undergraduate students and therefore the sample is not representative of a larger community. Thus future research should examine views on organ donation acceptability within different religions, while controlling for religious influences such as parents, communities and location.

In conclusion, it was found that religiosity is a significant predictor of organ donation acceptability and that this relationship could be moderated by gender, with women being less affected by this correlation than men.
References


## RELIGIOSITY AND ORGAN DONATION VIEWS

### Appendix

<table>
<thead>
<tr>
<th>Participant Survey</th>
<th>Male</th>
<th>Female</th>
<th>Age________</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the following questions please rate how strongly you agree or disagree for each question (1-strongly disagree and 5-strongly agree)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If a distant relative of mine, such as my great aunt needed an organ transplant to live, I would have my organs donated after my death if I knew they would go to her.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I have no problem donating my organs after death regardless of who they go to</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I don’t support organ donation, many of the people who need organs have made choices that have led them to need transplants</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I would donate my organs to a stranger only if their life depended on it</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>If an immediate family member of mine, such as my brother, needed an organ transplant to live I would have my organs donated after death if I knew they would go to him</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I support organ donation but don’t believe it is the right choice for me</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I’m only comfortable donating my organs if they are going to someone I know</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Taking organs from a person who has just died will still cause him great pain and disturb his dying process before he is born again</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Organ donation is a wonderful thing that one human being can do for another human being</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I would donate my organs after my death if I knew they would go to someone from my home country whose life depended on it</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>It is wrong to donate the organs of a person who has just died because the person will be incomplete at death</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
RELIGIOSITY AND ORGAN DONATION VIEWS

Participant Survey

Male    Female    Age_______

For the following survey please rate how strongly you agree or disagree for each question (1- strongly disagree/never and 5- strongly agree/ frequently)

Within your religious or spiritual beliefs how often do you meditate/pray? 1 2 3 4 5

I try hard to carry my religious beliefs over into all my other dealings in life 1 2 3 4 5

I try to make sense of the situation and decide what to do without relying on God 1 2 3 4 5

I desire to be closer to or in union with God 1 2 3 4 5

How often do you read sacred religious texts (e.g. Bible, Torah, Koran etc.) 1 2 3 4 5

I feel God’s love for me, directly or through others 1 2 3 4 5

Besides religious services, how often do you take part in other activities of a religious nature? 1 2 3 4 5

I feel a deep sense of responsibility for reducing the pain and suffering in the world 1 2 3 4 5

Because of my religious or spiritual beliefs I have forgiven those who hurt me 1 2 3 4 5

How often are prayers or grace said before or after meals in your home? 1 2 3 4 5

I look to God for strength, support and guidance 1 2 3 4 5

I wonder whether God has abandoned me 1 2 3 4 5