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IMPRESSIONISTIC REPORTING

Altruism and Religion: A New Paradigm for Organ Donation

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Abstract Activity of NGO's supporting living donor kidney donations can affect the shortage of kidneys. Matnat Chaim is a Jewish orthodox organization active in Israel since 2009. This is a voluntary organization with aims to shorten and eliminate the waiting list for kidneys. Since the beginning of its activity, it has said to play a key role in 379 kidney transplantations. In 2015, out of 174 live donor kidney transplantations that took place in Israel, Matnat Chaim had a key role in 88 of them (50.6%). We found some ethical issues concerning the organization's activity. The donor can restrict his or her donation to specific characteristics of recipient which can result in organs transplanted in a homogeneous group of the population. Another issue is the question of whether nudging people to kidney donation takes place and whether it is valid to do so. We found that Matnat Chaim does a great deal for promotion and intermediation of kidney donations in Israel. This form of promotion can be implemented by other organizations and countries.

Keywords Kidney transplantation · Motivating living kidney donation · Religious-based non-government organization

Background

The increase in the worldwide prevalence of end-stage renal disease (ESRD) has created a shortage in kidneys available for transplantation. About 27,000 living donor kidney transplantations (LDKT) occur worldwide each year (Horvat et al. 2009). LDKT is preferred over deceased donor kidney transplantation and dialysis because of better recipient outcomes and cost-effectiveness to the health-care system (Purnell et al. 2013; Matas et al.

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2014; Branco et al. 2013). The highest number of living kidney donations takes place in the USA (Rodrigue et al. 2013). A total of 5626 living donor transplants were performed in the USA in 2015. However, the annual number of living kidney donations in the USA is well below the peak of 6647 transplants in 2004, resulting in a 15.3% decline from 2004 to 2015 (Hart et al. 2017). Still, LDKT accounts for almost one-third of kidney transplants in the USA (Matas et al. 2014). Because of the shortage and the ever-increasing demand, some countries and organizations take measures in order to increase donations of kidneys both from deceased and living origins. Some countries have enacted laws and adopted benefits programs to encourage LDKT (Et DG et al. 2016).

Saudi Arabia is in the highest worldwide in terms of LDKT per million people (pmp) (Horvat et al. 2009). The increase in LDKT in Saudi Arabia is due to a law passed in 2007. The law entitles the donor to compensation, a medal from the Saudi King and a discount from Saudi Airlines (Sickand et al. 2009). In the seven years since the law was enacted, there has been an increase in LDKT from 299 in 2007 to 514 out of a total of 645 kidney transplantations in 2014 (SCOT Data 2014).

The 'Iranian model' has succeeded at eliminating the waiting list for kidney donations. The Islamic Republic of Iran is the only country, to this date, in which paid donations of kidneys from living donors under regulated conditions are allowed. In most cases, the reward for the donor is given from the recipient or, if poor, from a charitable organization (Ghods and Savaj 2006). This policy puts Iran in third place worldwide in terms of LDKT pmp (Horvat et al. 2009). However, compensated organ donation has many ethical issues and therefore illegal in all other countries.

The importance of a LDKT encouragement program becomes accentuated in countries in which all kidney transplantations reported on in 2006 were from living donors such as Algeria, Dominican Republic, Egypt, Jordan, Morocco and Nicaragua (Horvat et al. 2009).

In order to increase organ reservoirs, some countries have agreements of collaboration. Scandiatransplant is the Nordic organ exchange organization. It includes—Sweden, Norway, Denmark, Finland and Iceland. The organization allows better usage of resources. In 2009, 1103 kidneys were transplanted, 371 of living donor origin. Between the years 1995 and 2009, there has been a positive trend in the number of deceased and living donor organs (Grunnet et al. 2010).

Other programs of kidney exchange programs are also growing. This includes domino paired donation (DPD) and non-simultaneous extended altruistic donor (NEAD) (Gentry et al. 2009; Ashlagi et al. 2011).

With only the limited success of some nations in shortening the waiting list for organs, there has been a rise in non-government organizations (NGO) advocating for LDKT. For example, 'MOHAN Foundation' is an NGO located in India. It has succeeded in facilitating 400 of 1300 deceased organ transplants performed in India in a 14-year period (Shroff 2009). It is said to encourage organ donations through public and physician education, as well as providing support to families (http://organindia.org/wp-content/uploads/2014/11/ORGAN-Research-Report.pdf).

The 'American Transplant Foundation' is a nonprofit NGO active in the USA. It donates money to live kidney donors to cover expenses and losses related to the donation, thereby allowing people not capable financially to become live donors (http://www.americantransplantfoundation.org/).

Situation in Israel

Israel is also struggling with a shortage of organs. In 2015, 215 people were added to the kidney transplantation waiting list (WL) and 843 people were waiting for transplantation. A record number of 294 kidney transplantations were performed in Israel that year. Israel has one of the lowest deceased donation rates in the Western world, ranging at 8.1 pmp (Et DG et al. 2016). The low donation rate can be partially explained because of the refusal of traditional religious groups to recognize brain death as a valid determinant of death. Secular people also often seek advice and comfort from religious leaders and thus the widespread implications of this attitude. Donations from living donors, however, are allowed according to the Jewish religion and are considered as a laudatory act.

In order to short the WL and promote organ donations, the Israeli parliament enacted two laws on March 31, 2008 (2008). The first law, the Brain-Respiratory Death Law, came about as a consensus between a medical committee and the religious authorities. The law accepts both brain-respiratory death and heart-respiratory death. The law also states the conditions to determine a brain-respiratory death.

The second law, the Organ Transplantation Law, defines the ethical, legal and organizational aspects of organ donation in Israel (2008). The law explicitly forbids organ trade and compensation for a donated organ. The law also grants the altruistic living donor compensation to cover expenses that were caused to the donor due to the donation. Another important aspect of law is that it aims to provide non-financial organ donation incentives. The law grants priority for organ donor WL to persons who are registered as potential organ donors and persons whose first-degree relatives previously donated an organ while alive or after death. The law was fully implemented as of April 2012. A significant increase in the average authorization rates of organ donation among next of kin of potential deceased donors from 1998–2010 to 2011–2015 has been described (45.0–55.1%, $p < 0.0001$) (Stoler et al. 2016).

According to the Israeli Ministry of Health, 174 out of 294 kidney transplantations in 2015 were obtained from living donors (http://www.health.gov.il/Subjects/Organ_transplant/transplant/Pages/default.aspx). This positive trend is considered to be, at least partly, the result of the law enacted in 2008 and the promotion following it.

Although Israel is experiencing a positive trend in this area, it is still far away from attaining the goal of eliminating the WL. As in other nations, people in Israel still die while waiting for a kidney.

Matnat Chaim

'Matnat Chaim' (MC) is an Israeli, nonprofit NGO, founded in 2009 with the aim of promoting LDKT. The organization was founded by Rabbi Yeshayahu Hever, himself the receipt of a kidney transplant, who is the chairman and chief administrator of MC. All persons involved with the organization including the board of directors do so on a voluntary basis.

MC conforms to Israeli regulations, and consequently, all donations of kidneys are altruistic in nature. The donor is entitled to compensation according to the Organ Transplantation Law as well as gaining priority on organ donations WL for him/her and their next of kin. The majority of LDKTs intermediated by MC are donations for persons

unrelated to the donor. The donor is entitled to condition his donation to specific characteristics of the patient including religion and religiosity.

MC is a Jewish organization, and all activities of the organization are accordance with Jewish law. The organizations' website presents the opinion of four rabbis, all stating that kidney donation from a live donor is permitted and considered a laudatory act, but is not an obligation. MC has a medical board composed of six physicians: Four of these have active roles in various hospitals in Israel, while the remaining two physicians are from the USA.

MC supplies medical information about the prognosis of a living kidney donor through its website. The information is based on three articles and a Hebrew translation of their abstracts: Ibrahim et al. found that the survival of kidney donors was similar to controls, they did not carry increased risk of ESRD, and most of them had a preserved GFR, normal urinary albumin excretion and an excellent quality of life (Ibrahim et al. 2009). Ibrahim et al. found that post-donation pregnancies are associated with a lower likelihood of full-term deliveries, a higher likelihood of fetal loss and a higher risk of gestational diabetes, gestational hypertension, proteinuria and preeclampsia when compared to published rates in the general population (Ibrahim et al. 2009). Reisæter et al. had a smaller sample of post-donation pregnancies. Still, they have found that compared to controls, preeclampsia was more common in post-donation pregnancies (Reisæter et al. 2009). An English reference is also available on the website to all three articles. Besides scientific information, it also provides a simple interpretation of the Israeli law and a reference to the law itself.

The organization accompanies potential donors through the process of medical examinations, psychological tests and the committee that gives the final approval for the transplantation to be held. All of these are standard procedures in Israel before LDKT. MC provides guidance and support along the way until the transplantation is done. It also matches potential donors with people who are in need of a kidney according to the donor requests, such as donation to a person of specific religion and non-smokers.

Since the beginning of its activity, MC is said to have played a key role in the transplantation of 379 LDKTs which are a significant proportion of the total LDKTs occurring during this time in Israel. While most of the LDKTs intermediated by MC took place in Israel, some took place abroad. The MC website presents information regarding the number of LDKTs it has intermediated in the years 2013–2016. On 2015, a total of 294 kidney transplantations took place in Israel, 174 of them were from a living donor. In total, 88 LDKTs in 2015 were intermediated by MC, and this accounts for 50.6% out of all LDKTs and 29.9% out of the total kidneys transplanted.

Ethical Considerations

Although MC is successful in promoting LDKT, there are a number of ethical considerations that should be taken into account:

The Israeli law entitles the donor to restrict his donation to a specific recipient. The common use of restriction is donation to a specific person such as a family member or friend. However, the donor can also restrict the donation to a certain group of people. Restriction can be specified to religion, religiosity or personal behavior. As a result of this donor restriction, and because the majority of donors through MC are part of the same religious stream, kidneys may go to one homogeneous group of people and not according the order of the WL. Nevertheless, MC does not restrict the identity of the donor and will receive applications from anyone. Another advantage of the program is that even people

who are less likely to receive a kidney through MC will benefit from the donation because of shortening of the WL and their progression to the top of the line.

The vast majority of donors through MC are orthodox Jews. This religious stream tends to value highly religious leaders' suggestions. MC is using the opinions of rabbis for promotion of their agenda; thus, orthodox persons might follow advice and donate a kidney not just out of pure altruism but in addition also as a secondary gain according to their belief. A question could be asked: can this form of promotion by MC be regarded as 'nudging' persons for kidney donation? Nudging is used by policymakers in order to create healthier environments through cessation of smoking, eating healthy, etc. (Marteau et al. 2011). Is nudging persons for kidney donations also a valid way to promote a healthier population? We are concerned that there might be an element of coercion involved in the activity of MC.

Some donors are coming from small communities and towns. In a small community, an act of a kidney donation might be regarded as fashionable. Some persons living in a small community where a few persons have already donated a kidney might feel peer pressure to likewise donate.

We found that this ethical issue might risk the autonomy of donors because of nudging and peer pressure. Another concern is for equity that might be at risk because of the option of direct donation which is entitled by law in Israel.

Although some ethical objections should be taken into account, we feel that MC is doing a great deal for the promotion of LDKT. The numbers of kidney transplantations intermediated by them are impressive and increasing each year. We believe that this form of organization promoting LDKT can be implemented in other countries as well.

The authors of this manuscript don't have any affiliations with MC.

Compliance with Ethical Standards

Conflict of interest The authors have no conflicts of interest.

Ethical Approval This article does not contain any studies with human participants performed by any of the authors.

References

American Transplant Foundation. http://www.americantransplantfoundation.org/.

A study of the deceased organ donation environment in Delhi/NCR. http://organindia.org/wp-content/uploads/2014/11/ORGAN-Research-Report.pdf.

Ashlagi, I., Gilchrist, D. S., Roth, A. E., & Rees, M. A. (2011). Nonsimultaneous chains and dominos in kidney- paired donation-revisited. *American Journal of Transplantation, 11*(5), 984–994. doi:10.1111/j.1600-6143.2011.03481.x.

Branco, F., Cavadas, V., Rocha, A., et al. (2013). Living versus cadaveric-donor renal transplant recipients: A comparison on sexual function. *Transplantation Proceedings, 45*(3), 1066–1069. doi:10.1016/j.transproceed.2013.03.011.

Et DG, Et DG, Ricci A, et al. (2016). *Newsletter transplant international figures on donation and transplantation produced by the council of EUROPE EUROPEAN committee*, vol 21. https://www.edqm.eu/sites/default/files/newsletter_transplant_2015.pdf.

Gentry, S. E., Montgomery, R. A., Swihart, B. J., & Segev, D. L. (2009). The roles of dominos and nonsimultaneous chains in kidney paired donation. *American Journal of Transplantation, 9*(6), 1330–1336. doi:10.1111/j.1600-6143.2009.02622.x.

Ghods, A. J., & Savaj, S. (2006). Iranian model of paid and regulated living-unrelated kidney donation. *Clinical Journal of the American Society of Nephrology, 1*(6), 1136–1145. doi:10.2215/CJN.00700206.

Grunnet, N., Bödvarsson, M., Jakobsen, A., et al. (2010). Scandiatransplant report 2009. *Transplantation Proceedings, 42*(10), 4429–4431. doi:10.1016/j.transproceed.2010.09.111.

Hart, A., Smith, J. M., Skeans, M. A., et al. (2017). OPTN/SRTR 2015 Annual data report: kidney. *American Journal of Transplantation, 17*(S1), 21–116. doi:10.1111/ajt.14124.

Horvat, L. D., Shariff, S. Z., & Garg, A. X. (2009). Global trends in the rates of living kidney donation. *Kidney International, 75*(10), 1088–1098. doi:10.1038/ki.2009.20.

Ibrahim, H. N., Akkina, S. K., Leister, E., et al. (2009a). Pregnancy outcomes after kidney donation. *American Journal of Transplantation, 9*(4), 825–834. doi:10.1111/j.1600-6143.2009.02548.x.

Ibrahim, H. N., Foley, R., Tan, L., et al. (2009b). Long-term consequences of kidney donation. *New England Journal of Medicine, 360*(5), 459–469. doi:10.1056/NEJMoa0804883.

Israel ministry of health–organ transplant. http://www.health.gov.il/Subjects/Organ_transplant/transplant/Pages/default.aspx.

Marteau, T. M., Ogilvie, D., Roland, M., Suhrcke, M., & Kelly, M. P. (2011). Judging nudging: can nudging improve population health? *BMJ, 342,* d228.

Matas, A. J., Smith, J. M., Skeans, M. A., et al. (2014). OPTN/SRTR 2012 Annual Data Report: Kidney. *American Journal of Transplantation, 14*(SUPPL. 1), 11–44. doi:10.1111/ajt.12579.

Purnell, T. S., Auguste, P., Crews, D. C., et al. (2013). Comparison of life participation activities among adults treated by hemodialysis, peritoneal dialysis, and kidney transplantation: A systematic review. *American Journal of Kidney Diseases, 62*(5), 953–973. doi:10.1053/j.ajkd.2013.03.022.

Reisæter, A. V., Røislien, J., Henriksen, T., Irgens, L. M., & Hartmann, A. (2009). Pregnancy and birth after kidney donation: The norwegian experience. *American Journal of Transplantation, 9*(4), 820–824. doi:10.1111/j.1600-6143.2008.02427.x.

Rodrigue, J. R., Schold, J. D., & Mandelbrot, D. A. (2013). The decline in living kidney donation in the United States: random variation or cause for concern? *Transplantation, 96*(9), 767–773. doi:10.1097/TP.0b013e318298fa61.

SCOT Data. (2014). Dialysis in the Kingdom of Saudi Arabia. *Saudi J Kidney Dis Transpl, 25*(4), 918–926.

Shroff, S. (2009). Legal and ethical aspects of organ donation and transplantation. *Indian Journal of Urology, 25*(3), 348–355. doi:10.4103/0970-1591.56203.

Sickand, M., Cuerden, M. S., Klarenbach, S. W., et al. (2009). Reimbursing live organ donors for incurred non-medical expenses: A global perspective on policies and programs. *American Journal of Transplantation, 9*(12), 2825–2836. doi:10.1111/j.1600-6143.2009.02829.x.

Stoler, A., Kessler, J. B., Ashkenazi, T., Roth, A. E., & Lavee, J. (2016). Incentivizing authorization for deceased organ donation with organ allocation priority: The first 5 years. *American Journal of Transplantation, 7,* 1–7. doi:10.1111/ajt.13802.

The Israeli organ transplantation law, english translation. http://www.declarationofistanbul.org/index.php?option=com_content&view=article&id=267:israel-transplantlaw-organ-transplant-act-2008&catid=83:legislation&Itemid=130. Published 2008.