

INVITED COMMENTARY

Can disparity in access to living-donor kidney transplants between ethnic groups be mitigated?

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In their article [1], based on a single-centre retrospective cohort study at the Toronto General Hospital (Canada), Vedadi *et al.* present two main findings. In a detailed and thorough statistical analysis, they demonstrate that kidney patients who have been well-prepared during their treatment at the (pre)dialysis facility, and have had the information and opportunity to consider the option of a living-donor kidney transplant, are more likely to pursue and achieve such transplant after referral to a transplant centre. In contrast, kidney patients who have not considered a living-donor kidney transplant before, or have not been able to successfully identify a potential living donor at the time of the first assessment at the transplant centre, have a significantly reduced likelihood of achieving a living-donor transplant once they enter the waiting list. Interestingly, this disadvantage remained present throughout the following years, and the probability to receive a living-donor transplant did not significantly improve over a period of 8 years.

The second main focus of this study was on the influence of the ethnic background of the kidney patient. The 1617 patients included in the study were identified as Caucasian (51%), African Canadian (12%), East Asian (12%) and South Asian (12%). Asked whether they had considered a living-donor transplant and had identified a potential living donor, at the first pretransplant assessment at the transplant centre, it was found that just over

half (57%) of all patients had taken steps to pursue this option. However, it was shown that a marked disparity existed between the ethnic groups: 66% of the Caucasian patients had considered a living-donor transplant and had identified a potential donor prior to the first pre-transplant assessment, whereas in the other groups, this ranged from 55% to 41%. And within 8 years of referral and placement on the wait list, 29% (465) of all patients actually received a living-donor transplant, while 28% (407) got a deceased-donor transplant. Not surprisingly, Caucasian patients were the most likely to receive a living-donor transplant.

This finding of a disparity between ethnic groups in their access to transplant care is consistent with similar studies, performed in the United States and the UK. On the European continent, the influence of ethnic background has not been studied in much detail (in many countries, ethnic origin of patients is not officially recorded), but there is general evidence that ethnic minority groups are indeed disadvantaged in their access to transplant care.

The authors assume that a failure in some kidney patients to consider the option of living-donor transplant, and in identifying potential living donors at an early stage, can be attributed to a range of factors that act as barriers: socio-economic status, education level, health literacy, religion and ethnic background/culture.

However, this study was not designed to study these factors and the way they act as barriers, and suggest ways to modify them. But in their discussion of the main findings, they suggest that it is important to better understand these barriers and develop what they call ‘culturally competent education’. By this they mean: education that is targeted at specific ethnic groups and is focused on improving the readiness to pursue living-donor transplantation.

For me, this is the most useful outcome of the study, and the issue that we should work on more closely. There are different aspects and levels of education that need to be considered, when we want to promote the option of living-donor kidney transplants, and overcome culturally/ethnic-based resistance. First of all, it should be the responsibility of the transplant profession (nephrologists, dialysis nurses) to inform kidney patients early on about the full range of options for end-stage renal replacement: living-donor transplant should be presented as the (medically seen) best option, and risks and consequences for the donor discussed realistically. And in spite of the evidence, there is still hesitation or reluctance in medical professionals in some countries to acknowledge the superior outcome and benefits of living-donor transplants. This education is best provided at the dialysis centre or predialysis clinic, to foster the possibility of a pre-emptive transplant. Today in many countries (as already mentioned by the authors), this information is only provided after referral to the transplant centre and may come as a surprise to patients/families. Secondly, we need to consider information campaigns on a wider (regional or national) scale to target a lack of awareness of organ donation and transplantation, including the option of living-donor transplants, in specific ethnic groups. A good example is the work of Randhawa [2] in the UK, who has been working with community faith leaders to implement public campaigns for increasing awareness of organ donation, and successfully overcoming specific religious/cultural barriers. In the third place, a very important aspect is the way individual patients and their family (and wider

social circle) are informed about the options available to the patient, and their consequences. For instance, in Sweden nephrologist, Fehrman-Ekholm *et al.* [3] have reported extensively on the way patients are informed and supported in approaching potential living donors in the family or wider social circle, with an active role for the medical/nursing professionals. In the United States, the work of Rodrigue *et al.* [4], involving house calls at the home of kidney patients and their families, has shown that targeted education can relieve misconceptions about living-donor transplants and convince family members to step forward as potential living donors. This approach was followed and elaborated in the Netherlands by the team at the Erasmus Medical Centre in Rotterdam, who created a mobile education team (Nierteam aan Huis), to provide information on kidney transplant options for a specific patient, in his home situation and with a specially selected wide audience of family and friends (Ismail, Massey) [5]. It was shown that this approach results in a greater awareness of living-donor transplants among the social network of the patient, and led to a fivefold increase in the number of potential donors and fourfold increase in the number of actual transplants. And what is more: this programme proved to be very successful among patients/families from ethnic minority groups. Today, based on the results of this (controlled) pilot study, the mobile education team programme is rolled out in four regions in the Netherlands and is planned to be implemented nationally in the coming years.

It seems to me that, in the light of the fact that in many countries in Europe (and elsewhere), the number of living-donor transplants is lagging behind, and transplants from deceased donors are not significantly increasing, the above-mentioned approaches should get wider attention and implementation. This might mitigate the ethnic disparity in access to transplantation, as shown by the Canadian study. Finally, if living-donor transplants are better accepted among ethnic minority groups, it will also open up new options, for example being involved in kidney-paired donation.

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