

Peer Review File

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Reviewer A:

The authors performed a retrospective study including living donor kidney transplant recipients who received their first single transplantation between 2005 and 2020. The study aimed to analyze the impact of education disparity on transplant outcomes across different ethnic groups. This is a very interesting subject – however, some issues must be pointed out.

We thank the reviewer A for the kind, succinct summary.

Introduction

1. The sentence “Biological factors, such as human leukocyte antigen (HLA) differences, immune reaction and graft failure.” seems incomplete. I suggest rephrasing.

Reply: We have modified our text as advised (see page 3, line 74). “There are some reasons why a kidney transplant may fail, such as human leukocyte antigen (HLA) differences, immune reaction and graft failure.”

Results

2. In the baseline characteristics, it is essential to show the frequencies of comorbidities such as hypertension, diabetes, and dyslipidemia. Was there a significant difference in these characteristics between the groups?

Reply: In our original study design, we considered the effect of the above variables, but due to the limitations of the database, the variables of whether the patient had a history of hypertension and dyslipidemia were missing, so we did not consider including the above 2 variables, and now we have included the variable of whether the patient had diabetes (see page 6, line 185). “Compared to the lower-education group, the higher-education group more likely to have history of diabetes (72.3% vs. 67.6%).”

3. Is there information regarding the incidence of acute rejection between groups during follow-up?

Reply: We have calculated the incidence of acute rejection in the different educational groups of recipients during the follow-up period (see page 6, line 187). “Compared to the lower-education group, the proportion of acute rejection was lower (6.9% vs. 8.5%) in the higher education group.”

Discussion

4. Besides the impact of economic factors on treatment, it is essential to discuss the possible effect of educational differences on adherence to treatment after transplantation. The difficulty of access to the treatment and the incorrect use of medications could impact outcomes

Reply: In the discussion section we have discussed the differences in compliance and the proper use of medications after transplantation in recipients with different levels of education

(see page 9, line 294-302). “A better educational background can help patients understand basic health information related to their disease, resulting in better adherence to immunosuppressive drugs after kidney transplantation. In the study by Ahad J Ghods et al. It was suggested that one possible mechanism by which lower levels of education may lead to poorer transplant outcomes may be lower adherence to immunosuppressive regimens. In addition, educational background may also influence patients' proper use of therapeutic drugs, with studies finding that compliance with oral anticoagulants was 21% higher in the most educated patients with atrial fibrillation than in the least educated”

Reviewer B

This is the research article authored by Huang et al., addressing the influence of education disparity on living donor kidney transplant outcomes across diverse populations. The paper exhibits commendable written quality and effectively highlights the consequential implications of education disparity on living kidney transplant outcomes.

We thank the reviewer B for the kind, succinct summary.

Minor comments.

It would be great if the author could discuss the differences or similarities between the living donor and deceased donor kidney transplantation regarding this topic.

Reply: We have modified our text as advised, we observed similar trend in recipients receiving all types of kidney transplants, with significantly better transplant outcomes in higher-education recipients than in those with lower-education recipients (see page 9, line 294-302). “In several studies, we observed a similar trend, with significantly better transplant outcomes for higher-education recipients than for lower- education recipients in the overall population receiving kidney transplants”

Reviewer C

1. Figure 1

Please explain the data in the legend.

Figure 1 The flowchart of study cohort identification. Higher-education group: attended college/technical school, associate/bachelor's degree, post-college. Lower-education group: grade school [0–8], high school [9–12], or GED. GED, General Educational Development. ↵

Reply: We have explained the data in the legend (see page 16-17, line 568-570).

2. Figure 7

Some data are covered, please revise.

Donor-recipient relationship	related	-
	Unrelated	0.97 (0.92-1.04, p=0.414)
Recipient work for income	No	-
	Yes	0.74 (0.69-0.79, p<0.001)
Recipient CPRA	<30%	-
	>30%	1.01 (1.01-1.01, n=0.828)
Donor age	-	1.01 (1.01-1.01, p<0.001)
Donor gender	F	-
	M	0.99 (0.93-1.04, p=0.599)

Reply: We have revised the Figure (see Figure 7-revised and page 20, line 603-604).

3. Table 2-4

Please add the description to the table footnote that how the data are presented in table.

Total			
Higher-education group	87.3 (87.0-87.7)	68.2 (67.6-68.9)	44.7 (43.2-46.4)
Lower-education group	84.5 (84.0-85.0)	62.6 (61.8-63.5)	37.6 (35.9-39.4)
P-value	<0.01	<0.01	<0.01

Reply: We have added the description to the table footnote (see page 23-26, line 667, 670 and 673).

4. Supplementary figures

Please define all abbreviations in the legend.

Reply: We have defined all abbreviations in the legend (see page 20, line 618, 623; page 21, line 628, 633, 638, 643, 648, 653).