Investigating Gender Disparities in Liver Transplant Recipients in the United States

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1 Introduction

- Liver transplantation is a lifesaving therapy for patients suffering from end-stage liver disease.
- Equitable access to liver transplants is of paramount importance.
- Unfortunately, the gender gap, with females receiving fewer liver transplants, has increased further even after the validation of the Model for End-Stage Liver disease (MELD) in the United States in 2002.

2 Aim

This study aims to evaluate the gender gap in liver transplants across different socioeconomic variables.

3 Methods

This is a cross-sectional study using data from the national inpatient sample (NIS) between 2016 and 2019:

- We identified patients who underwent a liver transplant using the International Classification of Disease 10th Procedure Coding System (ICD-10-PCS).
- Multivariate logistic regression was used to evaluate the impact of gender on liver transplantation across different demographic groups.

4 Results

- A total of 29,050 liver transplants were performed over the study period, of which, 10501 (36.1%) were females.
- After adjusting for comorbidities, socioeconomic, and demographic factors, White females were less likely to receive a liver transplant compared to White males (adjusted odds ratio [AOR] 0.74, P < 0.001)
- In contrast, Black and Hispanic females did not have a statistically significant difference in transplant compared to their male counterparts (AOR 1.05, P 0.568 and 0.95, P 0.472; respectively)
- Additionally, females older than 45 also had lower transplant rates than males of the same age group (AOR 0.77, P < 0.001)
- Females with Medicare or private insurance also had lower rates of transplant (AOR 0.76, P < 0.001 and 0.77, P < 0.001; respectively), while those with Medicaid did not (1.01, P = 0.854)
- Across all income quartiles and all geographic distributions, the female gender was independently associated with lower transplant rates.

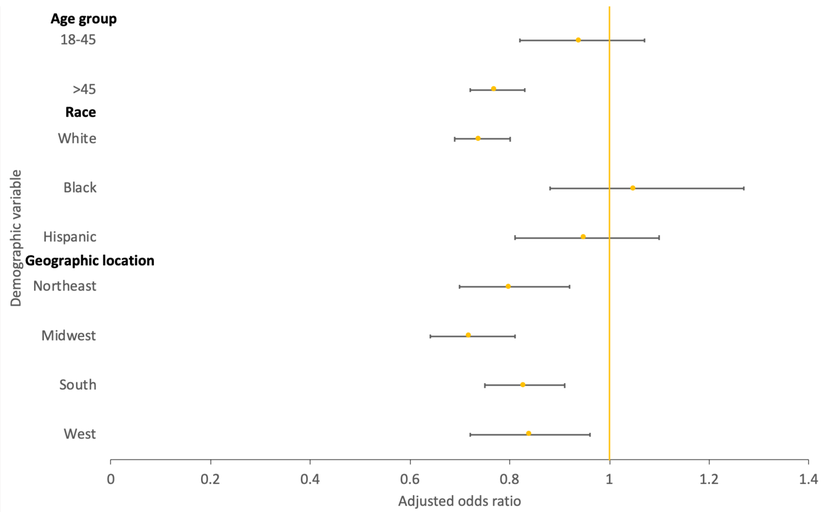

Figure 1: Adjusted odds ratios for receiving a liver transplant in females (vs. males) across different demographic variables

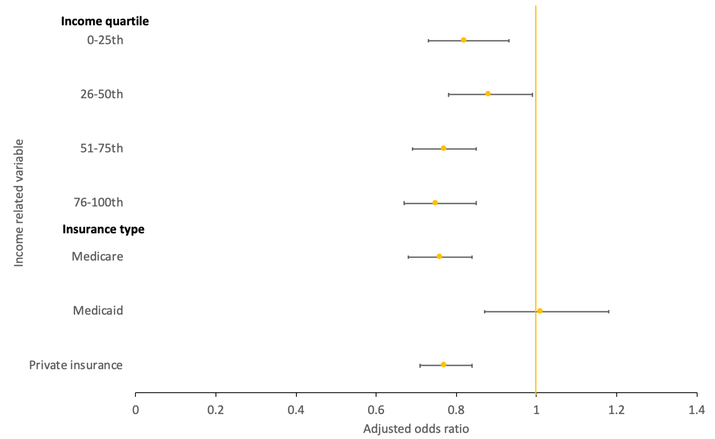

Figure 2: Adjusted odds ratios for receiving a liver transplant in females (vs. males) across different income and insurance related variables

5 Conclusions

- Females who were White, older than 45 years, or had Medicare or Private insurance had lower rates of a liver transplant than their male counterparts.
- Females also had lower transplant rates regardless of their income or geographic distribution.
- This study highlights the complex interactions between gender disparities and different socioeconomic variables.
- Further patient-level research is needed to help understand gender disparities in liver transplant to better advocate for patients suffering from end-stage liver disease.

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