

# Distinguishing Between Sex and Gender Is Critical for Research in Transplantation

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## TO THE EDITOR

It is with great interest that we read the work of McElroy et al,<sup>1</sup> analyzing differences in both the rate of listing and transplantation between men and women at the University of Michigan for alcoholic liver disease. The results showing a significantly lower rate of both listing and transplantation in women when compared with men is concerning and is an important area for study and intervention. However, we do have some concerns regarding the title “Gender Disparities in Patients With Alcoholic Liver Disease Evaluated for Liver Transplantation” for this study, as we feel it may be somewhat misleading.

Differentiating between sex and gender is a key sociological concept, as they are related but separate things. Sex refers to the biological difference between men and women, whereas gender refers to “socially constructed roles, behaviors, expressions and identities of girls, women, boys, men, and gender-diverse people.”<sup>2</sup> Gender can lead to differences in health between masculine-presenting and feminine-presenting individuals because of the differing cultural expectations between the 2 genders.<sup>3</sup> Unfortunately, sex and gender are often incorrectly used, as recently reviewed in this journal,<sup>4</sup> with almost 58% of transplant-based studies incorrectly using gender and sex interchangeably. Given that the data for this manuscript were extracted from medical records, we feel that this study rather shows sex disparities rather than gender and as such feel this manuscript is mistitled.

Both sex and gender are important concepts to consider in transplantation research and is well illustrated by the example of Laprise et al: female sex may lead to increased graft

injury because of factors such as pregnancy and stronger immune responses, whereas there may be a lower risk in feminine transplant patients because of increased adherence to medication.<sup>4</sup> We agree with McElroy et al that further study is required on possible reasons for why women are less likely to be transplanted for both alcoholic liver disease and in general, and we suggest that gender considerations may also be an important factor to consider. The repeated conflation of the concepts of sex and gender is a problem in both medical research and practice.<sup>5</sup> We feel that it is imperative that researchers and journals recognize this key distinction between gender and sex and use proper terminology. An emphasis on better clarifying and understanding both the overlaps and distinctions between the socially constructed gender and the biological sex of individuals can only lead to better research and health outcomes.

## REFERENCES

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