Survey of Medical Student Attitudes Regarding Uterine Transplant for Cisgender and Transgender Women

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Introduction

The first uterine transplant (UTx) in the United States occurred in 2016 at the Cleveland Clinic and has become an effective treatment modality for women with absolute uterine factor infertility (AUFI) to gestate and deliver children. Multiple centers in the US are now offering UTx, and there is evidence that shows that the success rate is comparative with other infertility treatments.[1] Currently there exists the 2013 Montreal Criteria (ethical standard for uterine transplant) that requires recipients to be genetically female.[2] However, there has been animal model research showing that uterine transplant could be possible in the future for transgender women who were assigned male at birth.[3] One study showed that 94% of transgender women said the ability to gestate and deliver would be beneficial in their identity as women, and 88% expected a UTx to improve satisfaction with their gender identity.[4]

With this advent of research there have been concurrent discussions of the ethics of UTx in transgender women.[5] Some concerns have been raised regarding needing robust safety data, maximizing benefit-risk ratios, and ensuring equal access after evidence of clinical viability.[6] Other ethical discussions and concerns have emerged about UTx and its implications, including procreative liberty, the right to gestate, and the expression of feminine identity in both cisgender and transgender women.[7] A recent scoping review of current literature discussing the ethical considerations of UTx in recipients other than cisgender women found 32 published articles, nearly half of which argued that transgender women are women who have the right to gestation. Justice was the most discussed topic, exploring concerns of discrimination in access, the legal definition of parenthood, and insurance coverage.[8] In this study, we surveyed medical students at a single-campus medical school on their thoughts about research, funding, and conscientious objection to uterine transplantation for cisgender and transgender women.

Aims and Objectives

The purpose of this study was to survey medical students at Oakland University William Beaumont School of Medicine (OUWB) and assess their attitudes regarding the legality of, funding for, and conscientious objection to UTx in cisgender and transgender women. The study aimed to survey medical students specifically since they will likely be physicians in the future who may practice when UTx for transgender patients become viable.

Methods

This study was approved by the Institutional Review Board of Oakland University (IRB-FY2024-255). Study subjects were provided a informational page on UTx and completed a brief anonymous online survey. Demographic information was collected including gender, political affiliation, religious affiliation, and medical specialty of interest. Subjects answered paired Likert scale questions regarding their attitudes towards the legality of, funding for, and general and personal conscientious objection to UTx for cisgender and transgender women. After each pair of questions subjects were provided an opportunity to explain their reasoning in free response. Subject responses to paired questions were analyzed using Fisher's Exact Test. Strength of correlation between the paired questions were analyzed with Spearman's Correlation.

Results

96 survey responses were obtained in total. 66 answered at least one of the paired Likert questions (n=66). 19 (29%) self-identified as male and 43 (65%) as female. 9.1% opposed UTx for cisgender women while 25.8% opposed for transgender women. 16.7% agreed with UTx for cisgender women but disagreed with UTx for transgender women. 16.9% disagreed with government funding for UTx research in cisgender women while 27.7% disagreed for transgender women. 10.8% agreed with government funding for UTx in cisgender but not in transgender women. 25.0% opposed clinicians' ability to conscientious objection to UTx in cisgender women while 23.4% opposed for transgender women. One respondent (1.56%) opposed clinicians' ability to conscientiously object to UTx in cisgender but supported for transgender women. 85.7% stated they would not personally conscientiously object to UTx in cisgender women while 76.2% stated they would not do so for UTx in transgender women. 9.5% stated they would not conscientiously object to UTx in cisgender women but that they would in UTx for transgender women. Correlation coefficient (CC) analysis was performed for male and female subjects, and this revealed higher consistency in answers from female subjects (CC average = .939) compared to male subjects (CC average = .558).

Q5: Uterine transplantation should be legal in the United States for: (cisgender: rows, transgender: columns).

Frequency Percent	Strongly Disagree	Disagree	Agree	Strongly Agree	Total
Strongly Disagree	2 3.03	0 0.00	0 0.00	0 0.00	2 3.03
Disagree	0 0.00	4 6.06	0 0.00	0 0.00	4 6.06
Agree	6 9.09	1 1.52	24 36.36	0 0.00	31 46.97
Strongly Agree	1 1.52	3 4.55	3 4.55	22 33.33	29 43.94
Total	9 13.64	8 12.12	27 40.91	22 33.33	66 100.00

Frequency Missing = 0

Q6: If it is legalized, government funding should be used to support research on uterine transplantation for: (cisgender: rows, transgender: columns).

Frequency Percent	Strongly Disagree	Disagree	Agree	Strongly Agree	Total
Strongly Disagree	3 4.62	0 0.00	0 0.00	0 0.00	3 4.62
Disagree	1 1.54	7 10.77	0 0.00	0 0.00	8 12.31
Agree	2 3.08	1 1.54	23 35.38	0 0.00	26 40.00
Strongly Agree	3 4.62	1 1.54	0 0.00	24 36.92	28 43.08
Total	9 13.85	9 13.85	23 35.38	24 36.92	65 100.00

Frequency Missing = 1

Q7: If it is legal and clinically viable, clinician should be able to conscientiously object to providing, or assisting in the provision of, uterine transplantation for: (cisgender: rows, transgender: columns).

Frequency Percent	Strongly Disagree	Disagree	Agree	Strongly Agree	Total
Strongly Disagree	3 4.69	0 0.00	0 0.00	0 0.00	3 4.69
Disagree	0 0.00	12 18.75	1 1.56	0 0.00	13 20.31
Agree	0 0.00	0 0.00	26 40.63	2 3.13	28 43.75
Strongly Agree	0 0.00	0 0.00	0 0.00	20 31.25	20 31.25
Total	3 4.69	12 18.75	27 42.19	22 34.38	64 100.00

Frequency Missing = 2

Q8: If it is legal, clinically viable, and clinicians are permitted to conscientiously object, you would conscientiously object to providing, or assisting in the provision of, uterine transplantation for: (cisgender: rows, transgender: columns).

Frequency Percent	Strongly Disagree	Disagree	Agree	Strongly Agree	Total
Strongly Disagree	28 44.44	0 0.00	0 0.00	1 1.59	29 46.03
Disagree	0 0.00	20 31.75	1 1.59	4 6.35	25 39.68
Agree	0 0.00	0 0.00	5 7.94	0 0.00	5 7.94
Strongly Agree	0 0.00	0 0.00	0 0.00	4 6.35	4 6.35
Total	28 44.44	20 31.75	6 9.52	9 14.29	63 100.00

Frequency Missing = 3

Conclusions

This study shows that most medical students at OUWB share similar opinions about UTx for cisgender and transgender women. A significant minority expressed differing views, essentially indicating a preference for UTx in cisgender women over transgender women on issues of legality, funding, and role for conscientious objection. The difference in opinion could be from concerns about clinical feasibility, political/religious perspectives, or overall attitudes toward organ transplantation. As UTx becomes increasingly likely to be viable for transgender women in the future, there will need to be continued discussions on the ethics of performing the procedure and ensuring equitable access to women, especially in traditionally marginalized populations. Further discussion will also need to evaluate whether a clinician should be able to conscientiously object to UTx differently based on the gender identity of their patient given equal legality and clinical viability. Future research should aim to survey a broader group of medical students across different medical schools and explore their attitudes toward uterus donation from cisgender women or transgender men with elective hysterectomies.

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