

Gender Surgery as Part of a University-Based Multidisciplinary Gender Services Team

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Abstract

Purpose: Gender dysphoria, the incongruence of physical anatomic sex and gender identity, affects 0.3% of the US population. The University of Michigan Health System Comprehensive Gender Services Program (UMHS CGSP) provides coordinated mental health services, primary care, family support services, specialty care including hormone therapy, and the full spectrum of reconstructive procedures while adhering to a protocolled standard of care. Our hypothesis is that a team-oriented, protocol-driven, multidisciplinary approach provides safe and comprehensive care for gender variant individuals.

Methods: A review of patient health history and demographic information at time of enrollment in UMHS CGSP was performed. Surgical cases were identified and operative technique, follow-up time, and enrollment status was determined for all procedures.

Results: The UMHS CGSP standards of care are concordant with the internationally accepted World Professional Association for Transgender Health (WPATH) recommendations. From 1996-2013, 1164 patients enrolled in the UM CGSP and 85 patients underwent surgery. All patients who underwent surgery were actively enrolled in the gender program. Among all patients, 61.7% had medical insurance, 38% were employed, 21% endorsed a history of suicidal ideation, suicide attempt or self-injury, and 13% reported past psychiatric hospitalization. The majority of enrolled patients self-identified as male to female (63%), followed by female to male (28%), and trans (9%). Active employment, non-student or disability status, no history of parole or probation, insurance type, and active relationship with therapist at time of enrollment were correlated with the decision to undergo surgery ($p < 0.05$). Gender surgeries performed included penile inversion vaginoplasty ($n=29$), radial forearm phalloplasty ($n=4$), facial feminization ($n=7$), tracheal shave ($n=9$), breast augmentation ($n=6$), and subcutaneous mastectomy ($n=41$). For all surgical patients, average duration of preoperative hormonal therapy was 2.4 years, age of transition 28 years, number of preoperative clinic visits 2, and follow-up time after surgery 2 years. Postoperative complications included labial divergence (21%) and rectovaginal fistula (3%) following penile inversion vaginoplasty, contour irregularity following gender mastectomies (20%), and urocutaneous fistula or stricture following radial forearm phalloplasty (100%). No patients expressed postoperative regret.

Conclusion: The UM-CGSP experience demonstrates that a multidisciplinary, coordinated team is an optimum structure to provide safe, comprehensive care for gender variant patients.

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Table 1: Transgender surgical experience at the University of Michigan.

	Breast Augmentation	Chest Reconstruction	Penile Inversion Vaginoplasty	Phalloplasty	Facial Feminization	Tracheal Shave
N	6	41	29	4	7	9
Patient age, mean(std)	26. (10.3)	29.4 (8.5)	41.2 (12.1)	38 (7.5)	46.3 (12.4)	38.3 (14.2)
Patient BMI, mean (std)	30.5 (6.3)	31.4 (8.8)	27.4 (5.9)	33.1 (13.2)	28.2 (6.1)	23.3 (3.7)
Preoperative hormonal therapy, mean (std)	2.4 yrs (1.1)	1.5 yrs (1.9)	2.5 yrs (1.5)	5 yrs (5.6)	2 yrs (1.6)	1.3 yrs (0.8)
Number of preoperative clinic visits, mean (std)	2.5 (1.0)	1.7 (0.7)	2.0 (0.8)	3.0 (1.4)	2.7 (0.8)	2.3 (0.7)
Postoperative follow-up time, mean (std)	2.6 yrs (2.6)	1.5 yrs (2.2)	2.4 yrs (1.9)	2.9 yrs (2.3)	1.8 yrs (1.5)	2.3 yrs (2.0)
Reoperative rate	0%	34%	41%	50%	14%	11%