

THE EFFECT OF PREOPERATIVE DIAGNOSIS OF DEPRESSION AND/OR ANXIETY ON PATIENT REPORTED OUTCOMES FOLLOWING CHEST WALL MASCULINIZATION SURGERY

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BACKGROUND

Gender dysphoria can be defined as distress arising from an incongruence between physical appearance and gender identity. This distress may partly explain the disproportionately high rates of depression and anxiety in some transgender individuals compared with the general population. While the benefits of chest-wall masculinization surgery as a gender affirmation surgery on quality of life and postoperative mental-wellbeing have been documented, it is unclear if depression and anxiety negatively affect patient-reported outcomes after chest wall masculinization surgery. In this study, we assess the impact of preoperative anxiety or depression on clinical and patient-reported outcomes (PRO) for patients undergoing chest masculinization surgery

METHODS

All patients undergoing chest masculinization surgery by a single surgeon within our institution from August 2014 to August 2019 were reviewed. Demographics and clinical variables were abstracted from the medical records. PRO were collected postoperatively using Chest-Q and Scar-Q questionnaires from Q Portfolio, a validated PRO instrument designed to measure patient perceptions. Groups were stratified by preoperative anxiety, preoperative depression, both or no history of mental health disorders. Univariate analysis was performed.

	Preoperative Anxiety Only (n=14)	Preoperative Depression Only (n=16)	Both Preoperative Depression and Anxiety (n=28)	No Mental Health Disorder (n=77)	p-value
PREOPERATIVE VARIABLES					
Mean Age ± SD	27.1 ± 5.5	31.4 ± 13.0	25.0 ± 6.4	28.1 ± 9.0	0.14
Race (n, %)					
White	12 (85.7)	13 (81.3)	23 (82.1)	57 (74.0)	0.91
African-American	1 (7.1)	1 (6.3)	1 (3.6)	7 (9.1)	
Other	1 (7.1)	2 (12.5)	4 (14.3)	13 (16.9)	
Body Mass Index (BMI) (n, %)					
Nonobese (BMI ≤ 29.9 kg/m2)	12 (85.7)	10 (62.5)	20 (70.4)	56 (73.7)	0.56
Obese (BMI ≥ 30.0 kg/m2)	2 (14.3)	6 (37.5)	8 (28.6)	21 (27.3)	
Degree of Ptosis (n, %)					
Normal	3 (21.4)	0	4 (14.3)	14 (18.2)	0.23
Grade 1	1 (7.1)	2 (12.5)	1 (3.6)	6 (7.8)	
Grade 2	2 (14.3)	2 (12.5)	4 (14.3)	13 (16.9)	
Grade 3	5 (35.7)	8 (50.0)	18 (64.3)	40 (51.9)	
Other	3 (21.4)	4 (25.0)	1 (3.6)	4 (5.2)	
Preoperative Hormonal Therapy (n, %)					
None	1 (7.1)	4 (25.0)	5 (17.9)	16 (20.8)	0.58
Yes, but unknown duration	0	2 (12.5)	0	3 (3.9)	
Yes, < 1 month	0	0	1 (3.6)	1 (1.3)	
Yes, ≥ 3 but < 6 months	0	0	1 (3.6)	4 (5.2)	
Yes, ≥ 6 months but < 1 year	5 (35.7)	2 (12.5)	5 (17.9)	10 (13.0)	
Yes, ≥ 1 year	8 (57.1)	8 (50.0)	16 (57.1)	43 (55.8)	
POSTOPERATIVE VARIABLES					
Complications (n, %)					
Yes	3 (21.4)	2 (12.5)	5 (17.9)	5 (6.5)	0.213
No	11 (78.6)	14 (87.5)	23 (82.1)	72 (93.5)	
Postoperative Scar Assessment (n, %)					
Non-hypertrophic	8 (57.1)	8 (50.0)	20 (71.4)	47 (61.0)	0.72
Hypertrophic	6 (42.9)	8 (50.0)	8 (28.6)	30 (39.0)	
Keloid	0	0	0	0	
Has Nipple Sensation been Preserved? (n, %)					
Not at All	3 (21.4)	8 (50.0)	8 (28.6)	22 (28.6)	0.31
Yes	11 (78.6)	8 (50.0)	20 (71.4)	55 (71.4)	
Do you Experience Feelings of Anxiety? (n, %)					
A lot	5 (35.7)	5 (31.3)	5 (17.9)	13 (16.9)	0.28
No	9 (64.3)	11 (68.8)	23 (82.1)	64 (83.1)	
Do you Experience Feelings of Depression? (n, %)					
A lot	3 (21.4)	7 (43.8)	7 (25.0)	10 (13.0)	0.04
No	11 (78.6)	9 (56.3)	21 (75.0)	67 (87.0)	
PATIENT SATISFACTION, BODY- Q (median, IQR)					
Satisfaction with chest	41.0 (4)	40.5 (11.25)	43 (4)	43 (3)	0.41
Satisfaction with nipple	20 (5)	18.5 (7)	18 (3)	18 (5)	0.47

Table 1. Patient preoperative characteristics, postoperative outcomes, and self-reported satisfaction scores stratified by mental health disorder diagnosis.

RESULTS

135 patients had complete survey responses. 10.4% had anxiety, 12.0% depression, 20.7% depression and anxiety, and 57.0% had no mental health disorder prior to their procedure. Demographics, preoperative characteristics, and postoperative clinical outcomes were similar among all groups. The presence of preoperative depression was associated with a significantly higher reporting of feelings of “a lot” of depression, per Likert scale, postoperatively compared to the other groups. The presence of preoperative anxiety resulted in about 1/3 of patients reporting “a lot” of feelings of anxiety. Satisfaction with chest and nipples scores were similar among the four groups.

CONCLUSION

A preoperative diagnosis of depression in patients undergoing chest wall masculinization surgery did significantly affect PRO postoperative feelings of depression. Such results indicate that patients with preoperative depression should be counseled by their surgeon on the possible continuation of the diagnosis regardless of surgical intervention. A preoperative mental health disorder diagnosis did not significantly affect overall satisfaction with chest and nipples.