Gender Dysphoria and Eating Disorders: The effects of treating female to male transgender adolescents

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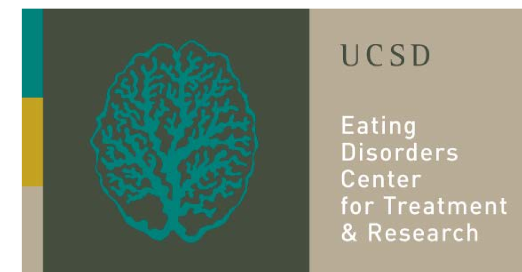


Background & Purpose

Background

- Body dissatisfaction is a primary source of distress reported by many patients suffering from an eating disorder (Fairburn, 2008).
- Similarly, the negative evaluation and distress of one's physical appearance combined with incongruence between the assigned biological sex and gender identity are key criteria in the diagnosis Gender Dysphoria (DSM-5, 2013).
- Current literature supports that body dissatisfaction plays a crucial role in gender dysphoria and ultimately leaves individuals at greater risk for developing an eating disorder (Jones, Haycraft, Murjan, Arcelus, 2016).
- A number of studies have observed the co-occurrence of these two conditions, however, these studies have typically focused on adults who desire to transition from male to female (MtF).

Purpose

- The present study describes four cases of female to male (FtM) transgender adolescents who met the DSM-5 criteria for Anorexia Nervosa (AN-R) in regards to severity of eating pathology and other difficulties that commonly co-occur within eating disorder patients such as emotion dysregulation, symptoms of depression, and interoceptive awareness.

Hypotheses

- We hypothesized that FtM transgender adolescents who met the DSM-5 criteria for AN-R would differ significantly from non-clinical cisgender samples and cisgender adolescents with AN-R on levels of eating disorder pathology, emotion dysregulation, harm avoidance and interoceptive awareness

Method

Participants & Design

- *FtM AN-R patients,* N=4, Age *M*=14.75, *SD*=1.25
- *Cisgender AN-R patients,* N=148, Age *M*=14.75, *SD*=1.76
- Non-Clinical adult female comparison group for BDI, DERS, EDE-Q from Svaldi, Griepenstroh, Tuschen-Caffier, & Ehring (2012).
- Non-Clinical adolescent comparison group for TCI from Rybakowski, Slopien, Zakrzewska, Hornowska, & Rajewski, A. (2004).
- Participants completed questionnaires at time of admission to a partial hospitalization program

Measures

- **Eating Disorder Examination Questionnaire** (Fairburn, 2008; EDE-Q)
  - Subscales: Restraint, Eating Concerns, Shape Concerns, Weight Concerns
- **Temperament and Character Inventory** (Cloninger, Svrakic, & Przybeck, 1993; TCI)
  - Subscales: Persistence, *Novelty-Seeking*, *Harm Avoidance*, Reward Dependence, Cooperativeness, Self-Directedness, Self Transcendence
- **Difficulties in Emotion Regulation Scale** (Gratz & Roemer, 2004; DERS)
  - Subscales: Nonacceptance of Emotional Responses, Difficulties Engaging in Goal-Directed Behavior, Impulse Control Difficulties, Limited Access to Emotion Regulation Strategies, Lack of Emotional Awareness, Lack of Emotional Clarity
- **Multidimensional Assessment of Interoceptive Awareness** (Mehling et al., 2012; MAIA).
  - Subscales: Noticing, Not-Distracting, Not Worrying, Attention Regulation, Emotional Awareness, Self Regulation, Body Listening, Trusting
- **Beck Depression Inventory** (Beck et al., 1988; BDI)

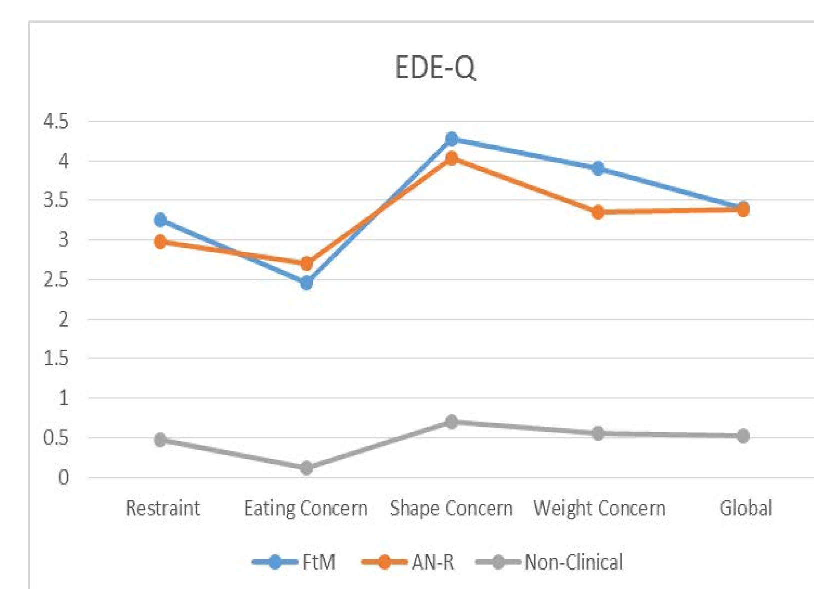
Analyses

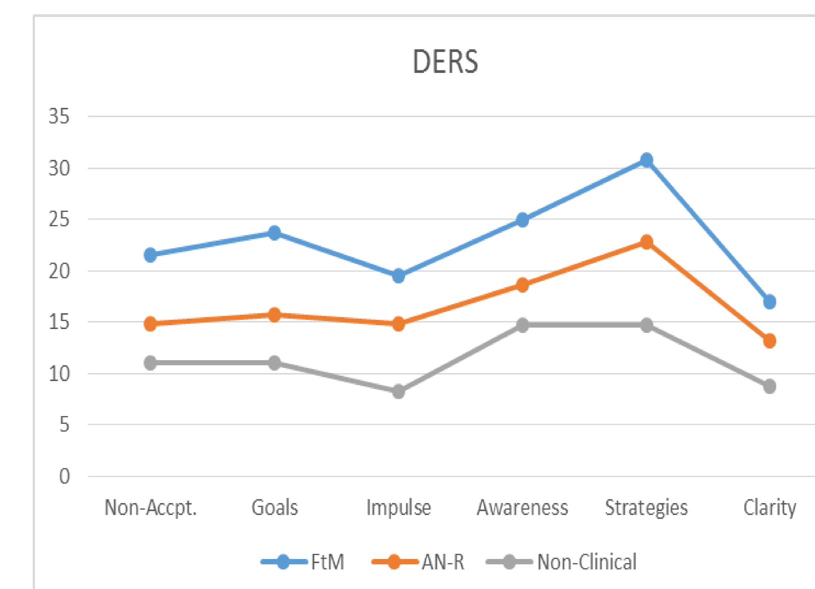
An Independent-Samples T-Test was conducted to compare means between Transgender cases to a sample of Cisgender AN-R patients.
A One-Sample T-Test was conducted to compare means between Transgender cases and published non-clinical Cisgender samples.

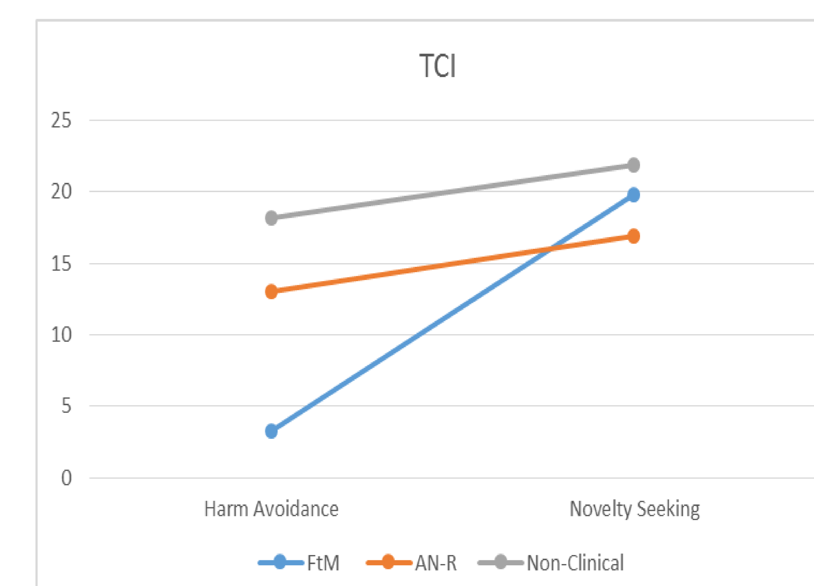
Results

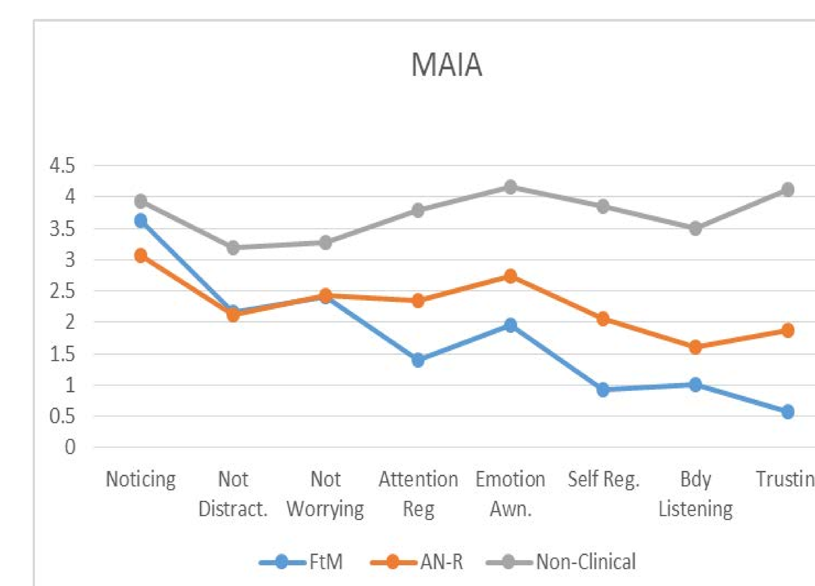
	Non-Clinical		FtM (N=4)		Cisgender AN-R	
Beck Depression Inventory*	**M**	**SD**	**M**	**SD**	**M**	**SD**
Total Score	2.62	2.85	37.50	10.75	25.17	14.29
EDE-Q *	**M**	**SD**	**M**	**SD**	**M**	**SD**
Restraint	.48	.89	3.25	2.70	2.98	1.94
Eating Concerns	.11	.21	2.45	1.59	2.70	1.65
Shape Concern	.71	.76	4.28	2.51	4.03	1.98
Weight Concern	.55	.76	3.90	2.90	3.35	2.07
Global	.52	.59	3.40	2.35	3.38	1.79
DERS*	**M**	**SD**	**M**	**SD**	**M**	**SD**
Non-acceptance	11.00	4.08	21.50	2.38	14.78	6.83
Goals	11.10	4.35	23.75	1.50	15.75	5.66
Impulse	8.31	2.75	19.50	2.64	14.79	6.14
Awareness	14.76	5.86	25.00	1.83	18.59	6.14
Strategies	13.10	4.67	30.75	6.60	22.85	9.47
Clarity	8.88	2.79	17.00	4.00	13.16	4.28
Total	67.15	-	137.50	11.73	99.80	29.83
TCI**	**M**	**SD**	**M**	**SD**	**M**	**SD**
Harm Avoidance	18.20	6.90	3.25	1.50	13.03	7.67
Novelty Seeking	21.90	6.70	19.75	2.22	16.93	6.28
MAIA	**M**	**SD**	**M**	**SD**	**M**	**SD**
Noticing	-	-	3.62	.66	3.07	1.04
Not-Distracting	-	-	2.16	.34	2.13	1.17
Not-Worrying	-	-	2.41	1.20	2.43	1.30
Attention Regulation	-	-	1.39	.62	2.35	1.11
Emotional Awareness	-	-	1.95	1.08	2.75	1.19
Self-Regulation	-	-	.93	1.23	2.05	1.29
Body Listening	-	-	1.01	.55	1.61	1.34
Trusting	-	-	.58	.50	1.88	1.60

*Denotes compared FtM sample to non-clinical adult comparison group in Svaldi et al. (2012)
**Denotes compared statistics from Rybakowski et al. (2004)









Results

Significant differences were found between the FtM AN-R sample and Cisgender ED AN-R sample on:

*DERS**

- **Non-Acceptance** FtM (M=21.50, SD=2.38) vs Cisgender AN-R (14.78, SD=6.84), t(5.12)=-4.93, p<.05
- **Goals** FtM (M=23.75, SD=1.50) vs Cisgender AN-R (M=15.74, SD=5.66), t(6.99)=-8.61, p<.05
- **Awareness** FtM (M=25.00, SD=1.82) vs Cisgender AN-R (M=18.59, SD=6.15), t(6.08)=-5.87, p<.05

*TCI**

- **Harm Avoidance** FtM (M=3.25, SD=1.50) vs Cisgender AN-R (M=13.03, SD=7.67), t(15.36)=8.51, p<.05

Significant differences were found between FtM AN-R sample and Non-Clinical participants on:

*DERS***

- **Goals** FtM (M=23.75, SD=1.50) vs Non-Clinical (M=11.10, SD=4.35), t(3)=16.87, p<.002
- **Awareness** FtM (25.00, SD=1.83) vs Non-Clinical (M=14.76, SD=5.86), t(3)=11.22, p<.002
- **Total** FtM (137.50, SD=11.73) vs Non-Clinical (M=67.50), t(3)=11.99, p<.002

*TCI***

- **Harm Avoidance** FtM (M=3.25, SD=1.50) vs Non-Clinical (M=18.20, SD=6.90), t(3)=-19.93, p<.002

Footnotes:
*Levine's Test Equal Variances Not Assumed were reported for all statistical findings.
**Bonferroni Correction made to all FtM AN-R sample and Non-Clinical participants comparisons. A total of 23 pairwise comparisons were made, therefore p. value of .05 was corrected to p=.002 for statistical significance.

Discussion and Future Considerations

- Results from this pilot study indicate that Transgender FtM adolescent eating disorder patients report higher levels of difficulty in regulation emotion when compared to Cisgender AN-R group and Non-Clinical group, indicating an inability to modulate, understand, or accept emotions (DERS).
- Transgender FtM adolescent eating disorder patients report lower levels of behavioral inhibition system when compared to the Cisgender AN-R group and Non-Clinical group, indicating that FtM patients may have more difficulty in their ability to cope with potentially harmful events and can react to stressful situations with higher levels of fear, anger, anxiety, or depression (TCI).
- This study highlights the heterogeneity of Transgender FtM adolescents with eating disorders and highlights the need for further research to explore these relationships in clinical and non-clinical populations.
- Implications from these results may indicate that Transgender FtM adolescents enter treatment more dysregulated, unsure of their bodies, and having personality traits that are characterized by excessive worrying, pessimism, shyness, fearful, and potentially easily fatigued.
- Results suggest that Transgender FtM adolescent eating disorder patients may present more severe than Cisgender AN-R patients when entering treatment. Outwardly, FtM adolescent eating disorder patients may struggle with making social connections and participating in treatment.
- These comparisons serve as a starting point for theory development on the unique presentation of this population and further exploration is essential in order to appropriately serve this community.

Acknowledgements

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