

Purpose

Issues with existing measures of gender dysphoria/gender distress:

- Do not account for non-binary identities
- Do not differentiate between social vs. embodied aspects of distress
- Non-equivalent questions for sex assigned at birth
- Insensitive to early non-surgical changes such as hormones or puberty blockers
- Complex wording not appropriate for younger teens
- Do not measure positive aspects of gender identity

We developed and tested new gender distress (TYC-GDS) and gender positivity (TYC-GPS) scales for the TransYouthCAN! prospective cohort study of young adolescents (ages 10-15 years) in 10 gender clinics across Canada.

Results-Confirmatory Factory Analysis (TYC-GDS)

TYC-GDS Item	Social Factor			Body Factor		
	Std Est.	SE	p	Std Est.	SE	p
1. I wish I had been born in a different body				0.602	0.055	<.0001
2. I avoid social situation or activities because I can't express myself in my gender	0.303	0.080	0.0002			
3. I feel hurt if someone calls me the wrong gender (using the wrong pronouns/wrong name)	0.736	0.049	<.0001			
5. I feel that society doesn't accept or embrace me in my gender	0.410	0.075	<.0001			
6. I worry that people will always treat me as the wrong gender	0.516	0.067	<.0001			
7. When people treat me like the wrong gender or expect to me behave like a [boy/girl] I feel hurt	0.828	0.042	<.0001			
8. I dislike seeing my naked body				0.756	0.038	<.0001
9. I feel unhappy because I have a [feminine/masculine] body				0.847	0.027	<.0001
10. I worry that I might always have a [feminine/masculine] body				0.627	0.052	<.0001
11. I dislike peeing [sitting down/standing up]				0.556	0.058	<.0001
12. I dislike having [a period/penis or erections] because it makes me feel like I'm not my true gender				0.796	0.033	<.0001
13. I dislike having [breasts/facial hair] because it makes me feel like I'm not my true gender				0.872	0.024	<.0001
14. I feel like I can't trust what my body might do as I get older				0.468	0.066	<.0001
15. I dislike my voice because I feel that it doesn't match my gender				0.537	0.060	<.0001

Fit Index	Value
Chi-square	$\chi^2(76, n=158)=557.31, p<.0001$
AGFI	0.5642
NNFI	0.5604
CFI	0.6328
RMSEA	0.2008, 90%CI [0.1854, 0.2166]
SRMR	0.1441

KEY POINTS

- Among trans and non-binary youth, feelings of gender distress and gender positivity are not poles on a spectrum, but are distinct constructs
- Most youth reported high levels of both gender distress and gender positivity
- Youth can have complex feelings about their gender, social & bodied experiences can vary
- Psychometric evaluations support the conceptualized factor structure of the measures
- Evidence to support the validity of these measures and subscales among trans and gender-diverse younger adolescents in this small clinical sample
- Future research needed to:
 - Examine sensitivity to change in gender distress & gender positivity over time with gender affirming care
 - Validate scales with added groups:
 - Older teens in clinical settings
 - Young adults in clinical settings
 - Community-based trans and non-binary groups across age ranges

About the TransYouthCAN! Cohort

N=161

Age, years	%	Ethnoracial background	%
10-13	31.1	Indigenous	18.9
14-15	68.9	Non-Indigenous visible minority	5.7
		Non-Indigenous white	75.5
		Immigration background	
		1 or more immigrant parent	25.9
		No immigrant parents	74.1
		Living environment	
		City	49.7
		Suburb	34.8
		Rural	15.5
		Province of residence	
		Alberta	16.8
		British Columbia	5.6
		Manitoba	1.9
		Nova Scotia	6.2
		Ontario	57.1
		Prince Edward Island	0.6
		Quebec	11.8
		Gender identity	
		Male or primarily a boy	75.6
		Female or primarily a girl	17.5
		Non-binary	6.9
		Time since first aware of gender issues	
		<1 year	1.2
		1 years	13.7
		2 years	16.8
		3-4 years	36.0
		5+ years	32.3
		Living in their identified gender	
		All the time	86.2
		Some of the time	13.8
		Not at all	0.0

Results-Confirmatory Factory Analysis (TYC-GPS)

TYC-GPS Item	Social Factor			Body Factor		
	Std Est.	SE	p	Std Est.	SE	p
2. I feel a sense of accomplishment and pride being able to express myself as my gender.	0.593	0.064	<.0001			
3. I enjoy going out in public and doing social activities because I can express myself as my gender	0.723	0.054	<.0001			
4. I feel validated when strangers in public treat me like my gender.	0.625	0.061	<.0001			
5. I feel confident trying new and different clothes that express my gender.	0.599	0.063	<.0001			
6. I feel happy that society sees me on the outside for who I am on the inside.	0.551	0.067	<.0001			
7. I am relieved I don't have to work as hard as I used to for people to see me as my gender.	0.494	0.071	<.0001			
8. I feel confident in my body.				0.793	0.034	<.0001
9. I feel attractive				0.720	0.042	<.0001
10. I am comfortable in my body				0.906	0.021	<.0001
11. I feel like my body fits with the real me.				0.880	0.024	<.0001
12. Things about my body that used to bother me don't bother me as much anymore.				0.594	0.055	<.0001

Fit Index	Value
Chi-square	$\chi^2(43, n=161)=174.46, p<.0001$
AGFI	0.7528
NNFI	0.7857
CFI	0.8325
RMSEA	0.1382, 90%CI [0.1172, 0.1599]
SRMR	0.0995

Results-Convergent Validity (TYC-GDS)

Convergent Variable	Gender Distress					
	Total		Social		Body	
	r	p	r	p	r	p
Modified Depression Scale	0.426	<.0001	0.407	<.0001	0.349	<.0001
Kessler 6 Psychological Distress Scale	0.468	<.0001	0.437	<.0001	0.388	<.0001
Gender distress self-rating (1-10)	0.483	<.0001	0.366	<.0001	0.475	<.0001
Desire for any surgery	0.382	0.0002	0.358	0.0017	0.331	0.0013
Using any substance to deal with gender stress	0.324	0.206	0.413	0.053	0.137	0.583
Self-harm last 12 months (non-gendered parts of the body only)	0.197	0.053	0.115	0.253	0.208	0.042
Self-harm last 12 months (gendered parts of body)	0.497	0.0001	0.470	<.0001	0.317	0.031
Suicide attempt last 12 months	0.234	0.104	0.279	0.027	0.125	0.376
Suicidal thoughts last 12 months (related to being trans)	0.498	<.0001	0.488	<.0001	0.349	0.013
Engaged in disordered eating behaviours related to gender in last 30 days	0.396	0.007	0.129	0.321	0.562	<.0001
Number of types of public spaces avoiding to avoid transphobia	0.530	<.0001	0.528	<.0001	0.395	<.0001

Results-Convergent Validity (TYC-GPS)

Convergent Variables	Gender Positivity					
	Total		Social		Body	
	r	p	r	p	r	p
Parental support	0.218	0.0063	0.152	0.059	0.194	0.015
Quality of my life	0.367	<.0001	0.195	0.013	0.368	<.0001
School Connectedness	0.332	<.0001	0.289	0.0002	0.259	0.001
Family Connectedness	0.383	<.0001	0.413	<.0001	0.246	0.0017
Positive feelings re: gender	0.399	<.0001	0.388	<.0001	0.285	0.0001

METHODS

- Based on existing research and youth lived experience, created TYC-GDS (15 items) and TYC-GPS (12 items)
- English & French
- Each had two subscales, Social and Body
- Items: 5-point scale disagreeing/agreeing w statements

Examples:

"I worry that people will always treat me as the wrong gender"
 "I feel unhappy because I have a [feminine/masculine] body"
 "I feel happy that society sees me on the outside for who I am on the inside"
 "I feel like my body fits with the real me"

Validation methods:

- Inter-item polychoric correlations
- Internal consistency reliability
- Confirmatory factor analyses
- Convergent/divergent validation with a number of existing measures such as depressive symptoms, self-harm, quality of life, and parental support;
- Congruence/divergence between the TYC-GDS and TYC-GPS and between body and social subscales

Trans Youth CAN! Team members include:

Margaret Lawson, Bob Couch, Jen Ducharme, Stephen Feder, Shuvo Ghosh, Sandra Gotovac, Natasha Johnson, Dan Metzger, Arati Mokashi, Danièle Pacaud, Mark Palmert, Annie Pullen Sansfaçon, Joe Raiche, Kathy Speechley, Robert Stein, Françoise Susset, Julie Temple-Newhook, John VanderMeulen, Lorraine Gale, Simon Trepel, Nikita Anderson, Brenda Bradley, Shelby Deibert, Ceilidh Harrison, Gabriela Kassel Gomez, Debra Lieberman, Chris MacDonald, Shannon Millar, Lara Penner-Goeke, Catherine Watson

Plus: 19 youth and 9 parent/caregivers who provided feedback on survey items (English and French groups)
 6 youth and 7 parents in our Community Consultation Committees.

ACKNOWLEDGEMENTS

Trans Youth CAN! is funded by the Canadian Institutes of Health Research.



For more info: www.transyouthcan.ca