

Gender Identity and Expression Congruence in Gender Diverse Youth

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**Abstract**

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Transgender and gender diverse youth face disparities in adverse mental health outcomes including depression, anxiety, and suicidality. Little has been researched about the congruence between gender identity and expression (as continuous variables) in relation to mental health outcomes in gender diverse youth. The present study seeks to investigate if congruence, as measured on sliders, is associated with decreased levels of depression and anxiety, and whether the congruence improves over time seen in a multidisciplinary gender clinic. Data was collected from gender diverse patients from the Seattle Children's Gender Clinic. Fixed-effects modeling was used to examine the effect of congruence difference on depression and anxiety scores. Paired t-tests compared the mean congruence differences between baseline and measures at 3 months, 6 months, and 12 months. No effect was demonstrated between congruence and depression/anxiety scores. The mean congruence difference was only significantly lower at 6-month follow-up ( $p=0.02$ ). The findings highlight the need to address limitations of this study and implications for future research to investigate the relationship between gender identity and expression congruence with adverse mental health outcomes for gender diverse youth.

## **Introduction**

### Sex and gender

Gender is a social construct that includes sex assigned at birth, gender identity, and gender expression. Sex assigned at birth is typically based on external genitalia or other biological determinants such as gonads, sex chromosomes, or hormones (typically termed male or female assigned at birth).

Gender identity encompasses a person's intrinsic sense of identity along or outside the gender spectrum (can include identities such as male, female, agender, nonbinary, gender fluid, etc.). Gender diverse is an umbrella term that describes people with gender identities, expressions, and behaviors that are different from those culturally expected from their sex assigned at birth. The term transgender describes a subset of gender diverse people whose gender identity is different from their sex assigned at birth. Transgender females are assigned male at birth; transgender males are assigned female at birth. Cisgender people are those whose gender identity is the same as their sex assigned at birth.<sup>1-5</sup>

Gender expression is the way a person externally expresses their gender through physical appearance, clothes, hair style, behaviors, or voice. Gender expression is commonly described in binary terms such as masculine or feminine, but evidence suggests that gender may actually fall along a spectrum for many people.<sup>6</sup> Sex assigned at birth, gender identity, and gender expression are each separate and distinct from each other such that one is not dependent on the other. For example, one may be assigned female at birth, identify as having a male gender identity, and express their gender as both male and female at different times.

### Gender diversity and health risks

Transgender and gender diverse youth are disproportionately affected by many health outcomes. They are more likely to report substance use, sexual risk behaviors, and adverse mental health outcomes.<sup>7</sup> Most concerning are the disparities found in suicidality. According to the 2017 Youth Risk Behavior Study, 35% of transgender youth attempted suicide in the past 12 months (compared to 5.5% of cisgender males and 9.1% of cisgender females). Further, more than half (53%) reported feeling sad or hopeless which was also significantly higher than their cisgender counterparts.<sup>7</sup> The 2020 National Survey on LBGTQ Youth Mental Health found that more than 75% of transgender and nonbinary youth reported symptoms of generalized anxiety disorder in the past 2 weeks.<sup>8</sup> These findings are consistent with prior research showing increased depression,<sup>9-12</sup> suicidality,<sup>9,10,12-15</sup> and anxiety<sup>10,11,16</sup> for transgender and gender diverse youth.

Studies in adolescents and adults have found several factors that contribute to poor mental health outcomes for transgender and gender diverse people. This population is more likely to experience victimization in various settings including bullying (reported by 35% of transgender youth compared to 15% cisgender males and 21% cisgender females), being forced to have sexual intercourse (24% of transgender youth compared to 4% of cisgender males and 11% of cisgender females), and experience physical dating violence (26% of transgender youth compared to 6% of cisgender males and 9% of cisgender females).<sup>7</sup> Both physical and psychological victimization are associated with depression as well as anxiety.<sup>17-20</sup> Family rejection, parental abuse,<sup>21-23</sup> peer victimization,<sup>24,25</sup> and dating violence<sup>26</sup> contribute to high depression and anxiety rates in transgender and gender diverse youth. Body dissatisfaction,<sup>13</sup> internalized transphobia,<sup>27</sup> and low self-esteem<sup>28</sup> also mediate the relationship between gender diverse identities with depression and anxiety rates.

The threat of violence, in conjunction with the challenges of navigating societal gender expectations and the reactions of others, are important factors that influence a transgender person's decision to come out in various social contexts.<sup>29</sup> Because of historical stigmatization and deeply rooted gender binary expectations, transgender people may choose not to express their gender authentically to protect themselves from social ramifications of observable gender diversity. This is supported by the literature which attests that increased gender nonconformity (e.g., gender expression that does not match expectations of assigned sex at birth) is associated with increased victimization.<sup>30,31</sup>

However, suppressing one's authentic gender expression is also likely to lead to worse mental health outcomes. Gender diverse youth who have socially transitioned (i.e., who are able to present as their affirmed gender with or without medical interventions) report rates of depression that are similar to cisgender peers and have only slightly increased rates of anxiety.<sup>32</sup> Those who undergo medical affirmation (with subsequent gender affirming physical changes) also see improvements in depression and anxiety.<sup>33</sup>

#### Gender identity and expression congruence

In terms of gender, the concept of congruence generally indicates how well someone's gender expression matches their gender identity. Previous research has largely focused on binary measures of gender congruence (i.e., whether or not an aspect of one's appearance is congruent with their gender identity) and how that affects mental health outcomes. For example, the Transgender Congruence Scale is a 12-item assessment validated in adults. The Appearance Congruence subsection includes 9 items scored on a 5-point Likert scale (e.g., "My outward appearance represents my gender identity"). Increased congruence was associated positively with life satisfaction and presence of life meaning while negatively associated with anxiety,

depression, and body dissatisfaction.<sup>34</sup> Similarly, the Gender Congruence and Life Satisfaction Scale is a validated tool used to measure gender congruence as an outcome of gender affirming care also using a 5-point Likert scale for responses related to various aspect of gender expression (e.g., “I have felt satisfied with my chest”).<sup>35</sup> Despite these tools, neither have been studied longitudinally, neither have been studied or validated for gender diverse youth, and neither evaluate congruence between gender identity and gender expression as a continuous construct.

A more nuanced approach to understanding the relationship between gender identity and expression could open the door to a better understanding of the potentially unique needs of youth who are in the process of transitioning (i.e., who are experiencing fluid changes in their expression and potentially identity over time) as well youth who are non-binary.

The present study aims to determine congruence by evaluating the relationship between continuous constructs of gender identity and gender expression reported on sliders scored from 0-100. The relationship between gender identity and expression congruence and mental health outcomes in the first year of gender affirming care will also be investigated. Specifically, we aimed to answer the following research questions:

Aim 1: Is increased congruence between gender identity and gender expression associated with decreased depression and anxiety?

*Hypothesis 1: Increased gender identity and expression congruence is associated with decreased depression and anxiety.*

Aim 2: Does congruence between gender identity and gender expression increase over time followed in a multidisciplinary gender clinic?

*Hypothesis 2: Gender identity and expression congruence increases with longer time followed in a multidisciplinary gender clinic.*

## **Methods**

This study used data derived from an existing larger project initiated by investigators in the Seattle Children's Gender Clinic (SCGC). Chart review and data collection were completed by the original study team. The current study is a secondary data analysis utilizing this data. Caregiver surveys included basic demographic information and satisfaction assessments. In addition, the patient surveys included demographic information, both categorical and slider measures of gender identity, slider measure of gender expression, and a wide range of assessments on varying topics (including depression, anxiety, quality of life, sex and sexuality, substance abuse, etc.). Variables used in the present study are detailed below.

### Variables

#### ***Gender identity and expression.***

Sex assigned at birth was collected at baseline. At all time points (baseline, 3 months, 6 months, and 12 months), gender identity was measured categorically (i.e., transgender male, transgender female, male, female, nonbinary or gender fluid, or other) and from sliders. Gender expression was also measured from sliders. Slider measures were obtained by instructing the participant to "click and drag" the slider along a continuum to set the response. For gender identity, the continuum ranged from "girl" at the leftmost extreme, "genderqueer" in the middle, and "boy" at the rightmost extreme. For gender expression, the continuum ranged from "feminine" at the leftmost extreme, "androgynous" in the middle, and "masculine" at the rightmost extreme. Coding along the sliders ranged from 0 to 100, where 0 is the leftmost extreme and 100 is the rightmost extreme. Given the potential fluidity of gender identity, the categorical gender identity most frequently reported was used to subclassify patients for the analysis.

### ***Congruence.***

Congruence was calculated for each timepoint. Gender identity and gender expression congruence was measured as the difference in scores on the sliders. Since feminine identities and expressions were represented on the leftmost side of the slider (thus coded as <50), congruence differences for transgender females were calculated as the scores for gender expression minus gender identity. This assumes that patients with transgender female identities will indicate feminine identities on the slider (<50). Feminine gender expressions (which are scored lower on the slider) are more congruent and masculine expressions (which are scored higher on the sliders) are less congruent. Smaller differences represent higher congruence.

Alternatively, masculine identities and expressions were represented on the rightmost side of the slider (thus coded as >50). Congruence differences for transgender males were calculated as the scores for gender identity minus gender expression (whereby gender identity is assumed to be represented on the slider and scored >50). Masculine gender expressions (which are scored higher on the slider) are more congruent and feminine expressions (which are scored lower on the sliders) are less congruent. Again, smaller differences represent higher congruence.

For categorically identified nonbinary or gender fluid participants, the absolute difference was calculated between gender identity and expression slider scores. For these identities, it is not assumed that gender identity will be indicated on a specific end of the continuum. Smaller differences represent higher congruence.

For analysis, the congruence difference was re-scaled by dividing by ten to simplify interpretation.

### ***Mental Health.***

The mental health outcomes assessed were depression and anxiety. Depression was measured with the Patient Health Questionnaire 9-question (PHQ-9) assessment. Each question is scored 0, 1, 2, or 3. The total sum from the nine questions provides the score. Increasing scores represent increasing severity of depression (0-4 minimal depression, 5-9 mild depression, 10-14 moderate depression, 15-19 moderately severe depression, and 20-27 severe depression). Anxiety was measured with the Generalized Anxiety Disorder 7-question assessment. Similarly, each question is scored 0, 1, 2, or 3 and the total sum provides the score. Increasing scores represent increasing severity of anxiety (0-4 minimal anxiety, 5-9 mild anxiety, 10-14 moderate anxiety, and 15-21 severe anxiety).

### Statistical Analyses

Stata/IC version 16.1 was used to conduct all analyses. The data was clustered by repeated measures (at each of the four time points) for each participant. Aim 1 focused on within-individual differences whereby the primary predictor was the congruence difference and the primary outcome was PHQ-9 or GAD-7 score. Given the use of clustered data and investigation of within-individual differences, a fixed-effects model using the within regression estimator was most appropriate. The fixed-effects model also adjusts for time-invariant confounders which did not need to be explicitly included in the model.

Analysis included stratification by categorically reported gender identity. Categorical gender identity was recorded at each time point; the most commonly reported gender identity was used for stratification. Stratified results were not reported for categorical nonbinary or genderfluid identities given low sample size in this group.

The results and models were expressed as regression coefficients with corresponding 95% confidence intervals. For aim 1, the main measure was the  $\beta$  coefficient for PHQ-9 and

GAD-7. This slope represented the change in PHQ-9 or GAD-7 score for every 10-point difference in congruence.

Scatterplots were generated to visualize PHQ-9 (or GAD-7) scores at corresponding congruence differences. Line of best fit was added for better visualization of the trend.

For aim 2, paired t-tests were computed to compare the mean congruence difference between baseline and 3-month, 6-month, and 12-month follow-up assessments. Results were stratified by categorically reported gender identity. Again, the most commonly reported gender identity was used for stratification. Stratified data was not reported for categorical nonbinary or genderfluid identities given the low sample size in this group.

### Setting

The study setting for this project was the SCGC. This hospital-based clinic provides gender-affirming medical care for adolescent patients who are under 18 at the time of first visit. The clinic serves a four-state area (Washington, Idaho, Montana, and Oregon). Referrals are accepted from primary care providers or by self-referral. Services offered through the clinic include gender affirming hormones, puberty blockers, menstrual suppression, gender affirming surgery referrals, and/or gender-related support and resources. Timing of medical intervention may vary based on patient goals and clinic requirements. For example, starting gender affirming hormones requires parental consent, baseline laboratory tests, and a readiness questionnaire from a therapist. Once a referral is received, the patient and family complete a phone intake with the clinic's licensed clinical social worker to discuss gender history and goals. If the patient is interested in medical services (hormones, puberty blockers, or menstrual suppression), they are scheduled in clinic. Otherwise, the patient and family are provided with additional resources, but an appointment is not scheduled, and the patient is not followed in the gender clinic.

### Inclusion/Exclusion Criteria

The study attempted to recruit all youth who had an initial visit at the SCGC between August 2017 through June 2018. Patients who completed a phone screening appointment but did not schedule a medical visit were excluded. Although youth of all ages were included in the original study, for the purposes of this analysis we excluded youth under 13 years old as they were administered different, age-appropriate depression and anxiety questionnaires compared with youth 13 years old and older.

### Data collection

We collected longitudinal survey data at four time points. Baseline surveys were obtained within 24 hours of initial appointment. All patients completing a baseline survey were invited to complete follow-up surveys at 3 months, 6 months, and 12 months. For patients under 18 years old, caregivers also completed surveys at each timepoint. Participation in the study (nor completion of surveys at any time point) did not affect typical care provided by the clinic. Ongoing care and prescription of gender affirming hormones or puberty blockers was not contingent on participation (or retention) in the study.

Caregiver surveys were used for baseline demographic information including annual household income and insurance status. Otherwise, data was obtained from the patient surveys.

### Ethics and consent/assent

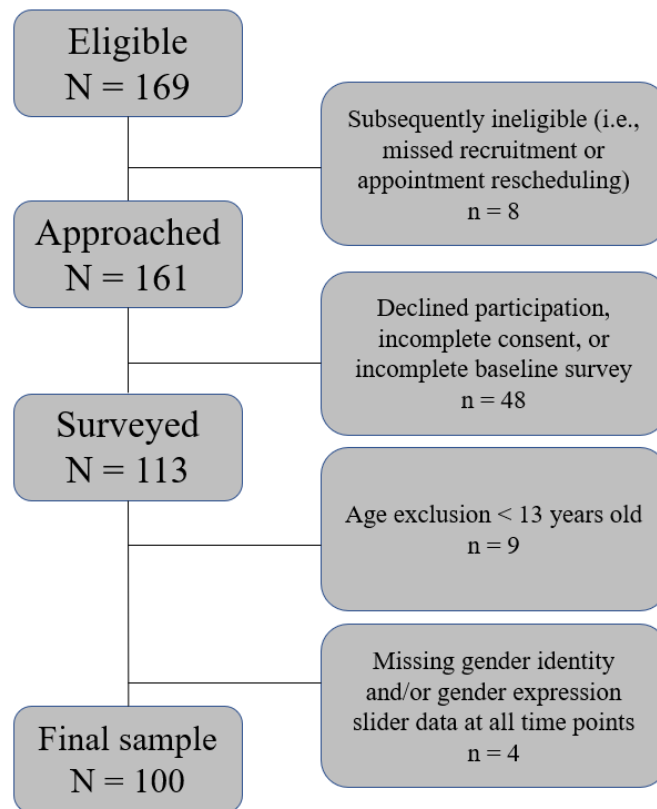
Parental consent and youth assent were obtained for all youth under 18 years old; youth consent was obtained for participants 18 years old and older. Patients younger than 13 years old were excluded due to lack of validation of the PHQ-9 and GAD-7 in children younger than 13 years old.

## **Results**

## Descriptive results

The initial chart review found 169 youth eligible during the study period. Once exclusion criteria were applied, the final sample included 100 participants (Figure 1). Of the final sample, gender identity and gender expression slider data were available for 96% of participants at baseline, 79% at 3 months, 81% at 6 months, and 65% at 12 months.

The baseline demographic characteristics of the participants are presented in Table 1. The majority of the sample categorically identified themselves as transgender male or male (63%), assigned female at birth (68%), white (67%), and insured (92%). The mean age was 15.8 years old at baseline. Most frequent parent-reported household annual income was more than \$100,000 (31%).



**Figure 1.** Flowchart of study samples and exclusions

**Table 1.** Baseline Participant Characteristics

	<b>N</b>	<b>%</b>
<b>Total</b>	100	100
<b>Sex assigned at birth</b>		
Female	68	68
Male	32	32
<b>Gender</b>		
Transgender male or male	63	63
Transgender female or female	28	28
Non-binary or genderfluid	9	9
<b>Race and ethnicity</b>		
Asian	3	3.2
Black	3	3.2
Latino or Latina	5	5.3
Multiracial	20	19.2
Native American	1	1.1
White	64	67.4
<b>Age</b>		
13-14 years	25	25
15-16 years	39	39
17-18 years	30	30
19-20 years	6	6
<b>Annual income</b>		
Less than \$25,000	12	12
\$25,000 - \$50,000	19	19
\$50,000 - \$100,000	18	19
More than \$100,000	31	30
Missing	20	18
<b>Insurance type</b>		
Private	51	51
Medicaid	33	33
Military	3	3
Both private and public	5	5
No insurance	8	8
<b>School type</b>		
Public school	70	70
Private school	5	5
College or university	5	5

	<b>N</b>	<b>%</b>
Other	14	14
I don't go to school	6	6
<b>Ongoing mental health therapy</b>		
Yes	64	64
No	26	26
<b>Depression (PHQ-9)</b>		
0-4 Minimal	13	13.7
5-9 Mild	26	27.4
10-14 Moderate	21	22.1
15-19 Moderately severe	11	11.6
20+ Severe	24	25.3
<b>Anxiety</b>		
0-4 Minimal	18	19
5-9 Mild	28	29.5
10-14 Moderate	18	19
15+ Severe	31	32.6

At baseline, PHQ-9 and GAD-7 scores showed a high proportion of scores consistent with moderate to severe depression and anxiety, respectively. Baseline PHQ-9 scores showed that 59% of participants reported scores of at least 10 which correspond with moderate (n=21; 22.1%), moderately severe (n=11; 11.6%), or severe depression (n=24; 25.3%). Baseline GAD-7 scores showed that 51.6% scored in the moderate or severe range with the largest proportion of participants in the severe range (n=31; 32.6%). Sixty-four participants reported having ongoing mental health therapy at baseline.

### Aim 1

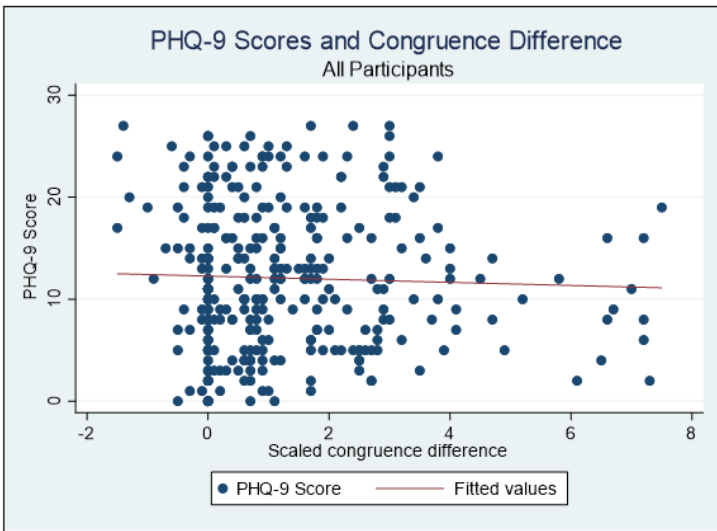
Among all participants, there was not a significant change in PHQ-9 scores associated with congruence difference. The estimated coefficients from the fixed effects model are presented in Table 2. In all participants there was an estimated decrease of 0.12 in PHQ-9 score for every 10-point increase in congruence (95% CI [-0.74, 0.49]). However, the confidence

intervals indicate that the true effect of the congruence change could have ranged from a 0.74 decrease to 0.49 increase in PHQ-9 score. Also, this relationship was not statistically significant ( $p=0.70$ ) indicating that there was not an effect of congruence difference on PHQ-9 scores (Figure 2). Data was stratified to determine coefficient estimates for categorically reported transgender male and transgender female participants (Figures 3 and 4). For both transgender male and transgender female participants, there was an estimated decrease in PHQ-9 score with increase in congruence, but these differences were not significant (transgender male: 95% CI [-1.07, 0.81],  $p=0.79$ ; transgender female: 95% CI [-1.05, 0.63],  $p=0.62$ ).

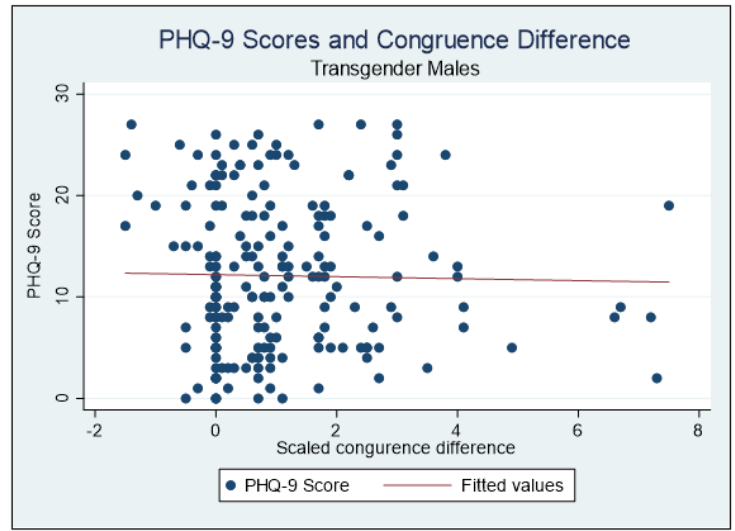
There was not a significant change in GAD-7 scores associated with congruence difference (Figure 5). The direction of the associations was positive (opposite of that with PHQ-9 scores). For all participants, there was an estimated increase of 0.23 in GAD-7 score for every 10-point increase in congruence which was not statistically significant (95% CI [-0.28, 0.74];  $p=0.38$ ). Stratified results showed that both transgender male and transgender female participants had an estimated increase in GAD-7 score with increase in congruence difference which was not statistically significant (transgender male: 95% CI [-0.48, 1.08],  $p=0.45$ ; transgender female: 95% CI [-0.50, 0.74];  $p=0.69$ ) (Figures 6 and 7).

**Table 2.** Association of congruence difference with mental health scores for transgender and gender diverse youth

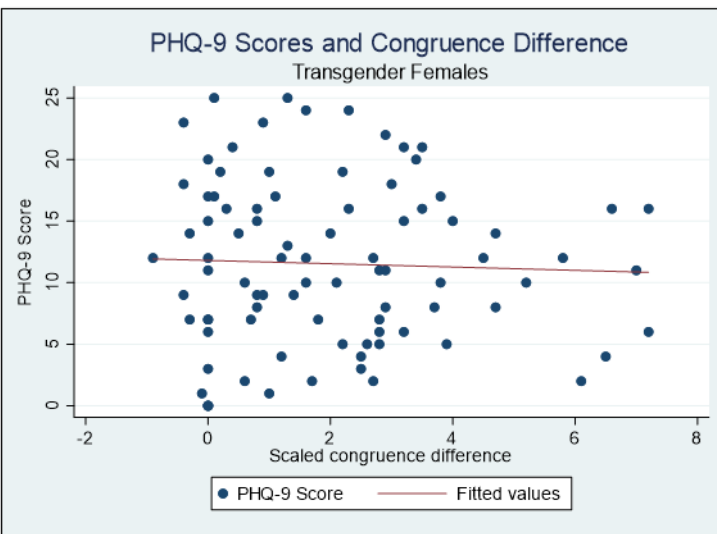
	<u>PHQ-9</u>		
	Estimate	95% CI	p-value
<b>All participants</b>	-0.12	(-0.74, 0.49)	0.70
<b>Transgender male</b>	-0.13	(-1.07, 0.81)	0.79
<b>Transgender female</b>	-0.21	(-1.05, 0.63)	0.62
	<u>GAD-7</u>		
	Estimate	95% CI	p-value
<b>All participants</b>	0.23	(-0.28, 0.74)	0.38
<b>Transgender male</b>	0.30	(-0.48, 1.08)	0.45
<b>Transgender female</b>	0.12	(-0.50, 0.74)	0.69



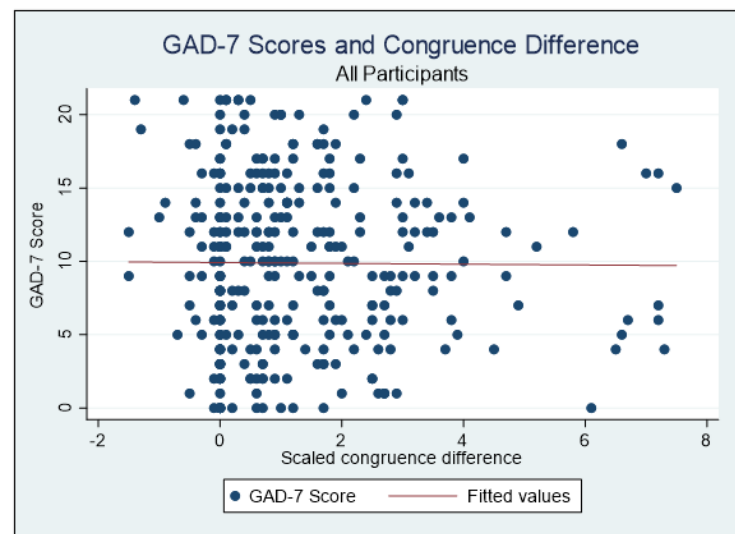
**Figure 2.** PHQ-9 scores and congruence differences for all participants



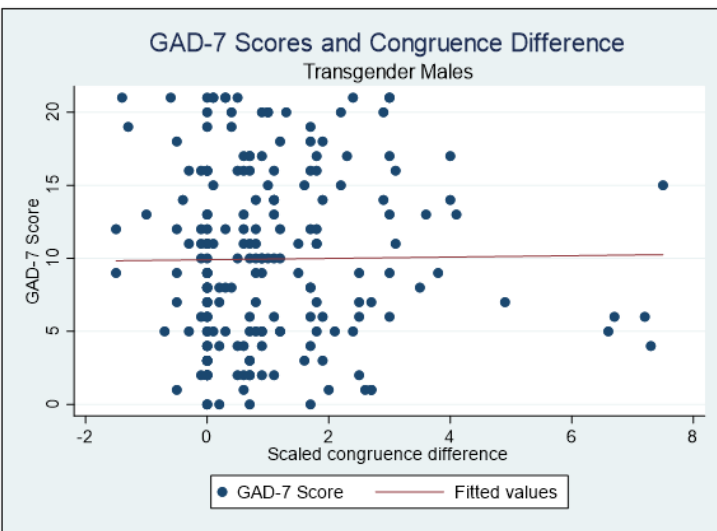
**Figure 3.** PHQ-9 scores and congruence differences for transgender male participants



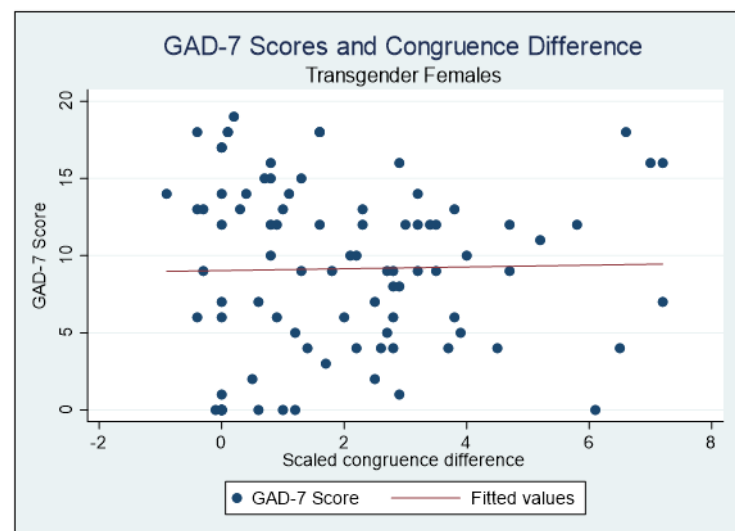
**Figure 4.** PHQ-9 scores and congruence differences for transgender female participants



**Figure 5.** GAD-7 scores and congruence differences for all participants



**Figure 6.** GAD-7 scores and congruence differences for transgender male participants



**Figure 7.** GAD-7 scores and congruence differences for transgender female participants

## Aim 2

The mean congruence difference for all participants was 13.92 (SD=18.03) at baseline, 15.05 (SD=16.54) at 3 months, 11.31 (SD=16.19) at 6 months, and 10.98 (SD=15.71). Paired t-tests were performed to compare mean congruence differences between baseline with follow-up timepoints at 3 months, 6 months, and 12 months. With the baseline mean congruence as reference, only mean congruence difference at 6 months was statistically significantly (p=0.02) lower. Mean congruence difference was also lower at 12 months though this was not significant (p=0.10). Mean congruence difference was higher at 3 months compared to baseline but this was not significant (p=0.77).

Stratified data showed similar results for categorically identified transgender male participants. Baseline mean congruence difference was 11.81 (SD=16.69). There was a significant difference between mean congruence differences between baseline and 6 months (p=0.002). Compared to baseline, mean congruence score was also lower at 12 months but this was not significant (p=0.23). Mean congruence difference was higher (but not significantly different from baseline) at 3 months (p=1.00).

Mean congruence differences were generally higher for transgender female participants. Baseline mean congruence difference in this stratified group was 20.27 (SD=21.87). Mean congruence difference was lower than baseline at 6 months and 12 months but neither were statistically significant (p=0.43 and p=0.38, respectively). Mean congruence difference was higher at 3 months but was also not significant (p=0.88).

Of note, the number of participants compared to the reference was lower at 12 months than all other timepoints for all participants, transgender male, and transgender female participants.

**Table 3:** Mean congruence differences compared to baseline

<u>All participants</u>							
	<b>n</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>Min</b>	<b>Max</b>	<b>p</b>
<b>Baseline</b>	96	13.92	18.03	8.5	-15	73	Ref
<b>3 months</b>	77	15.05	16.54	10	-9	75	0.94
<b>6 months</b>	78	11.31	16.19	7	-10	66	0.02
<b>12 months</b>	62	10.98	15.71	6	-15	70	0.10
<u>Transgender male</u>							
	<b>n</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>Min</b>	<b>Max</b>	<b>p</b>
<b>Baseline</b>	63	11.81	16.69	8	-15	73	Ref
<b>3 months</b>	49	12.65	14.33	9	-1	75	1.00
<b>6 months</b>	50	8.02	14.23	5	-10	66	0.002
<b>12 months</b>	43	9.19	13.94	6	-15	67	0.23
<u>Transgender female</u>							
	<b>n</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>Min</b>	<b>Max</b>	<b>p</b>
<b>Baseline</b>	26	20.27	21.87	16	-4	72	Ref
<b>3 months</b>	22	22.32	20.54	23	-9	72	0.88
<b>6 months</b>	22	18.54	19.14	16.5	-4	58	0.43
<b>12 months</b>	14	18.43	20.81	18	-3	70	0.38

## Discussion

We did not find an effect of gender identity and expression congruence on PHQ-9 or GAD-7 scores. This is inconsistent with prior research in adults (using pragmatically different measuring techniques and definitions of congruence) which show improved mental health outcomes with improved gender identity and expression congruence.<sup>34,35</sup> Additionally, with the exception of the 6-month timepoint for all participants and stratification for transgender males, we did not find significantly lower mean congruence differences compared to baseline. This is counterintuitive to what would be expected in patients actively seeking gender affirming interventions known to change physical appearance.

A few important limitations to the current study may provide insight to these unexpected results. First, there was not an equal distribution of transgender male and transgender female participants. There were more than twice as many transgender male participants studied compared to transgender females. This unequal distribution likely contributed the results found for all participants combined. Additionally, this left small sample sizes with stratification, particularly for transgender female participants. The limited number of nonbinary participants precluded this population from analysis at all, thus limiting the potential to better understand this population.

There was also a high dropout rate with only 65% of participants providing slider data at the final time point. Further, the longitudinal data collection introduced opportunities for missing data at one or more time point. This was especially evident for transgender female participants with only 14 that completed slider data available for analysis at the 12-month time point.

It is also important to note that the study population does not represent a diverse sample (by race, income, or insurance status) and may not be generalizable to populations of differing demographic structures. Future research efforts should prioritize recruitment of participants from diverse cultural and social backgrounds.

Future research in this field may consider addressing the limitations of this study. For example, larger sample sizes and increased numbers of transgender female and nonbinary identities may enrich results. With improvements on these limitations, we may better understand how to use and implement sliders to capture the continuity of gender expression and identity.

Exploring novel approaches to better understand the relationship between gender identity and gender expression remains an important implication for future research. Strengths of this study included using a novel tool to measure gender identity and expression as continuous

variables, use of longitudinal data, and the setting of the SCGC for care-seeking gender diverse youth. The use of sliders has not previously been researched and may still be established as a useful research tool once the limitations of this study are addressed.

In addition to the noted limitations, other factors inherent to the conceptualization of gender may be considered. The role of time is one example. Gender diverse youth experience identity development over the course of years.<sup>36</sup> Although the participants in the present study were seeking care, each may have been at a different point in their identity development which may influence timing of gender expression changes. It has also been shown that mean age at initiation of transition is higher in transgender females compared to transgender males.<sup>37</sup> This may indicate that longer follow-up times (beyond what was investigated in the present study) are especially important for this subpopulation. Future research may also investigate the role of the types of affirming care received with stratification by intervention received (e.g., hormones, gender affirming surgery, puberty blockers, or menstrual suppression).

As researchers continue to advance the understanding of gender as a continuous construct, the importance of investigating and improving how to understand the relationships between identity and expression is becoming increasingly evident. Applying knowledge of this relationship toward efforts to decrease the disquieting mental health disparities for transgender youth is of utmost importance. This work represents one attempt towards this end with implications to build on and improve in future studies.

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