Distress and Symptom Change among Transgender and Gender Non-conforming Racial/ethnic Minorities

Gender and Racial/Ethnic Identities: An Intersectional, Longitudinal Examination of Change in Therapy

Alexis Franklin, William-Michael Stone, Sydney Sorrell, and Tyler Lefevor, PhD.

Rhodes College, Department of Psychology

Introduction

- Although there has been an increase in empirical research surrounding TGNC identity (Moradi et al., 2016), little to no attention has focused on multiple identities that TGNC individuals hold, more specifically TGNC REM.
- Individuals with intersecting minority identities have distinct experiences from those who have only one minority identity (Else-Quest & Hyde, 2016).
- Studies have focused on the differences between racial/ethnic minorities (REM) and White clients' reduction of symptoms in psychotherapy (REM having less reduction, e.g. Cort et al., 2012; Aubuchon-Endsley, Callahan, & Scott 2014); however, contrasting studies have found that REM and White individuals have similar therapy outcomes (Hayes, McAleavey, Castonguay, & Locke 2016); moreover, that REM have a greater reduction of symptoms than their white counterparts (Tang, Li, Rodgers, & Ballou 2016).
- Elder (2016) highlighted common themes that may affect therapy outcomes for transgender individuals including, among others, trans-affirmative and healing experience in therapy, positive changes in the way therapy is conducted, discrimination, and recommendations to both TGNC patients seeking therapy and therapists administering the treatment.
- Studies have indicated due to racial/ethnic discrimination and gender discrimination, TGNC REM may experience clinically significant higher level of depression and anxiety symptoms (Budge, Thai, Tebbe, & Howard, 2016; Sun et al., 2016).
- To our knowledge no research has examined the mental health treatment-seeking habits and therapy outcomes of TGNC REM--including comparing TGNC REM therapy outcomes to cisgender/white therapy outcomes--or therapist attitudes towards TGNC REM. Due to past findings that discrimination is a major barrier for treatment-seeking for TGNC individuals (Hunt, 2014), it can be hypothesized that discrimination creates an even greater barrier for TGNC REM.

Methods

- **Participants:** 41,691 participants from the Center for Collegiate Mental Health 2012-2016 data set were analyzed. 65.9% of the participants identified as female, 32.5% identified as male, 0.5% identified as Transgender, and 1.1% identified as self-identity. 70.4% of participants identified as White and 29.7% identified as REM.
- **Measures:** *Standardized Data Set (SDS).* Clients' gender and racial/ethnic identity were measured through the SDS. *Counseling Center Assessment of Psychological Symptoms-34 (CCAPS).* For this study, the Depression and Generalized Anxiety subscales of *CCAPS* were analyzed
- **Procedure:** Due to limited sample sizes we truncated demographic groups: race/ethnicity (White and REM) and gender identity (cisgender and TGNC). An interaction between gender and racial/ethnic identity groups was created by multiplying our two contrast-coded identity group variables.

Statistical Analysis

- Data were analyzed in R (version 3.4.0; R Development Core Team, 2017) using maximum likelihood estimation with the "nlme" package (Pinheiro, Bates, DebRoy, Sarkar, & R Development Core Team, 2013).
- The models included two levels: Depression and Anxiety within clients (level 1) over time (level 2).
- Level 1: We modeled Depression or Anxiety as a function of session number. In our models, we use session number to evaluate the effect of additional appointments or doses of treatment (Howard, Kopta, Kraus, & Orlinsky, 1986), centering session number on clients' first session.
- Level 2: We modeled clients' gender identity, religious/ethnic identity, and their interaction as predictors of clients' baseline Anxiety or Depression (intercept) and rate of change (slope).
- We constructed a series of models, testing the significance of the addition of each predictor. We used a likelihood-ratio test (LRT) to compare models with additional predictors to previous models in order to evaluate model fit (Bolker et al., 2009).

Major Research Questions:

1. **How distressed do TGNC clients present to treatment and how do they fare in therapy compared to cisgender clients?**
2. **How distressed do REM clients present for treatment and how do they fare in therapy compared to White clients?**
3. **Is there any interaction between gender and racial/ethnic identities in initial severity and rates of change in therapy?**

Figure 1: Initial Depression by Gender and Racial/ethnic Identity

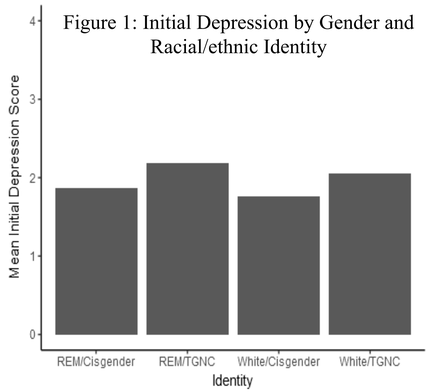

Figure 2: Predicted Depression Score by Number of Appointments

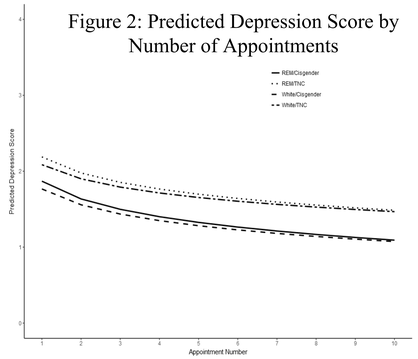

Figure 3: Initial Anxiety by Gender and Racial/ethnic Identity

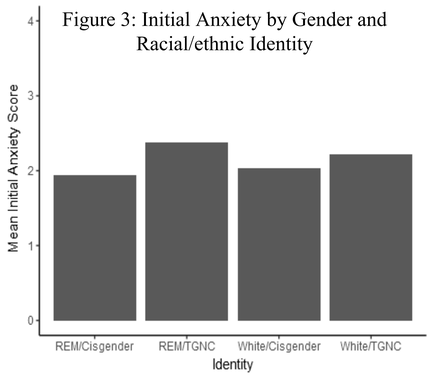

Table 1:Results of the Five Hierarchical Linear Models Predicting Initial Depression Score and Rate of Change

	Parameter estimates (SE)				
	Model 1	Model 2	Model 3	Model 4	Model 5
Fixed effects					
Intercept	1.41*** (.00)	1.80*** (.00)	1.80*** (.01)	1.77*** (.01)	1.77*** (.01)
Session		-0.31*** (.00)	-0.31*** (.00)	-.03*** (.00)	-.03*** (.00)
Gender identity			0.32*** (.04)	0.32*** (.04)	0.32*** (.04)
Gender identity X session			0.03* (.02)	0.03* (.02)	0.03* (.02)
Race/Ethnicity				0.10*** (.00)	0.10*** (.01)
Race/Ethnicity X session				-0.04*** (.00)	-0.04*** (.00)
Gender identity X race/ethnicity					0.05 (.09)
Gender identity X race/ethnicity X session					-.01 (.04)
Random effects					
Residual	0.369	0.231	0.231	0.231	0.231
Level 1- Intercept	0.592	0.854	0.852	0.850	0.850
Level 1- Session		0.099	0.099	0.099	0.099
Goodness of fit					
-2LL	-264428	-236392	-236325	-236276	-236276
AIC	528863	472796	472666	472572	472576

Note. Model 1 is unconditional means model. Model 2 is unconditional growth model. Model 3 adds the effect of gender identity on intercept and slope. Model 4 adds the effect of race/ethnicity on intercept and slope. Model 5 adds the effect of an interaction between gender identity and race/ethnicity on the intercept and slope. *** $p < .001$; * $p < .05$

Table 2: Results of the Six Hierarchical Linear Models Predicting Initial Anxiety Score and Rate of Change

	Parameter estimates (SE)					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Fixed components						
Intercept	1.70*** (.00)	2.03*** (.00)	2.03*** (.00)	2.05** (.01)	2.05** (.01)	2.05** (.01)
Session		-0.26*** (.00)	-0.26*** (.00)	-0.26*** (.00)	-0.26*** (.00)	-0.26*** (.00)
Gender identity			0.26*** (.04)	0.29*** (.03)	0.25*** (.04)	0.29*** (.03)
Gender identity X session			0.02 (.01)	- -	- -	- -
Race/Ethnicity				-0.09*** (.01)	-0.09*** (.01)	-.09*** (.00)
Race/Ethnicity X session				-0.00 (.00)	- -	- -
Gender identity X race/ethnicity					0.14 (.07)	- -
Random components						
Residual	0.308	0.202	0.202	0.202	0.202	0.202
Level 1- Intercept	0.644	0.813	0.812	0.810	0.810	0.810
Level 1- Session		0.085	0.085	0.085	0.085	0.085
Goodness of fit						
-2LL	-248039	-223716	-223675	-223628	-223626	-223628
AIC	496083	447444	447366	447273	447270	447271

Note. Model 1 is unconditional means model. Model 2 is unconditional growth model. Model 3 adds the effect of gender identity on intercept and slope. Model 4 adds the effect of racial/ethnic identity on intercept and slope, retaining the effect of gender identity on intercept. Model 5 adds the effect of an interaction between sexual identity and religion on the intercept and slope, retaining the effect of racial/ethnic identity on intercept. Model 6 includes the unconditional means and growth models as well as effects of gender and racial/ethnic identity on intercept. *** $p < .001$; ** $p < .01$

Discussion

- **REM client therapy outcomes**: Findings are consistent with Hayes et al. (2011) that suggests that REM clients presented with lower baseline anxiety, but higher baseline depression. REM clients demonstrated faster rates of change of depression, but no differences in rates of change of anxiety compared to White clients. Furthermore, REM clients had an accelerated rate of change of depression scores relative to White clients; however, this difference didn't happen in anxiety when the baselines were more similar.
- **TGNC client therapy outcomes:** Results indicate higher baseline anxiety and depression among TGNC clients and significant but minimally slower rates of change of depression symptoms compared to cisgender clients. Additionally, TGNC clients had longer treatment times compared to cisgender clients. Like previous research, these findings may suggests that few therapists have the knowledge and experience of working with TGNC clients (Dispenza & O'Hara, 2016) and support the finding that TGNC individuals have higher rates of anxiety compared to cisgender individuals (Bowman, Davey, Meyer, Witcomb, Arcelus, 2016).
- **TGNC REM client therapy outcomes:** Results indicate no significant interaction effects between TGNC and REM identities, but main effects held such that TGNC REM clients experienced more distress than any other group, showing that the effects of being TGNC are greater for REM than for White clients.

Limitations and Future Directions

- **Limitations:** The sample consisted of emerging adults who received treatment at college counseling centers. Although our sample is large and the participants are multinational, it is not a representative sample. Interpretation of these findings may be limited to the experiences of clients at college counseling centers, as significant differences in initial distress and rates of change may be more or less sizeable in different contexts. Furthermore, due to the dichotomization of variables, our study does not account for distinction between categories.
- **Future Directions:** More research with better-defined study variables is needed to understand the nuanced experiences of clients at the intersection of gender and racial/ethnic identity.

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